

UNIVERSITY OF CINCINNATI **COURSE DESCRIPTIONS**

REPORT TO
THE HIGHER LEARNING COMMISSION
OF THE NORTH CENTRAL ASSOCIATION
OF COLLEGES AND SCHOOLS

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Please note: Comprehensive college-specific bulletins can be found on the University of Cincinnati Web site (<http://www.uc.edu/bulletins/>).

COLLEGE OF ALLIED HEALTH SCIENCES

COURSE DESCRIPTIONS

(35) College of Allied Health Sciences

2008 - 2009

College of Allied Health Sciences 1

Advanced Medical Imaging Technology

35AMIT301

Pathophysiology for Diagnostic Medical Imaging

The goal of this course is to familiarize students with normal human physiology, and to learn how alterations in function lead to disease. Emphasis will be placed upon pathologies altering diagnostic medical images. BoK: NA. Credit Level: U. Credit Hrs: 4.00

35AMIT401

Human Sectional Anatomy

A regional survey of human anatomy in all sectional planes. It is primarily intended for Advanced Medical Imaging Technology students but may be taken by other College students to satisfy requirements or electives. BoK: NS., QR. Credit Level: U. Credit Hrs: 4.00

35AMIT402

Sonography Seminar I

The first in a seminar series on professional development, clinical correlation, student presentations, current issues, and other miscellaneous topics in sonography. Case study presentations will be an integral part of this course. Guest speakers may be utilized on an occasional basis to enhance the presentation. BoK: NA. Credit Level: U. Credit Hrs: 1.00

35AMIT403

Introduction to Diagnostic Medical Sonography

An introductory course to the health care field of sonography. History of ultrasound, medical terminology and professional organizations specific to the discipline, and introduction to the ultrasound system will be covered. BoK: NA. Credit Level: U. Credit Hrs: 2.00

35AMIT404

Sonography Seminar II

The second course in a seminar series on professional development, clinical correlation, student presentations, current issues and other miscellaneous topics in sonography. Case study presentations will be an integral part of this course. Guest speakers may be utilized on an occasional basis to enhance the presentations. BoK: NA. Credit Level: U. Credit Hrs: 1.00

35AMIT405

Sonography Seminar III

The third course in a seminar series on professional development, clinical correlation, student presentations, current issues, and other miscellaneous topics in sonography. Case study presentations will be an integral part of this course. Guest speakers may be utilized on an occasional basis to enhance the presentations. BoK: NA. Credit Level: U. Credit Hrs: 1.00

35AMIT411

Gynecological Sonography

The study and the uses of transabdominal and transvaginal medical sonography and its application in the diagnosis of diseases of the female pelvis. The sonographic appearance of the female reproductive organs, surrounding anatomy, and gynecological pathology will be covered. BoK: NA. Credit Level: U. Credit Hrs: 3.00

35AMIT412

Obstetrical Sonography I

An extensive study of the anatomy, physiology, pathology, and sonographic appearance of the developing fetus. Clinical presentation and maternal complications associated with pregnancy are also covered. BoK: NA. Credit Level: U. Credit Hrs: 3.00

35AMIT413

Obstetrical Sonography II

An extensive study of the anatomy, physiology, pathology, and sonographic appearance of the developing fetus. Clinical presentation and maternal complications associated with pregnancy are also covered. This course will also thoroughly discuss malformations and

Advanced Medical Imaging Technology

35AMIT413

Obstetrical Sonography II

congenital anomalies. BoK: NA. Credit Level: U. Credit Hrs: 2.00

35AMIT421

Abdominal Sonography I

The study and uses of diagnostic medical sonography and its application in the diagnosis of diseases of the abdomen. General principles of medical sonography scanning procedures and ultrasonic characteristics of the various abdominal organs and pathology will be covered. BoK: NA. Credit Level: U. Credit Hrs: 3.00

35AMIT422

Abdominal Sonography II

This course is a continuation of Abdominal Sonography I and continues the study and uses of diagnostic medical sonography and its application in the diagnosis of diseases of the abdomen. General principles of medical sonography scanning procedures and ultrasound characteristics of the various abdominal organs and pathology will be covered. BoK: NA. Credit Level: U. Credit Hrs: 3.00

35AMIT423

Abdominal Sonography III

The study and uses of diagnostic medical sonography and its application in the diagnosis of diseases of the abdomen and small parts. General principles of medical sonography scanning procedures and ultrasonic characteristics of the various abdominal organs, small parts (breast, thyroid, scrotum, etc.), and pathology will be covered. BoK: NA. Credit Level: U. Credit Hrs: 2.00

35AMIT431

Sonographic Physics and Instrumentation I

The first course in sonographic principles covering basic principles of medical sonography. The basics of the ultrasound system instruments and controls, basic mathematical concepts, Doppler, and the basics of sound waves will be discussed. BoK: NA. Credit Level: U. Credit Hrs: 1.00

35AMIT432

Sonography Physics and Instrumentation II

The second course in sonographic principles covering basic principles of medical sonography. Acoustic variables, the interaction of sound with tissue, transducers, and instrumentation of machine controls will be discussed. BoK: NA. Credit Level: U. Credit Hrs: 3.00

35AMIT433

Sonographic Physics and Instrumentation III

The final course in sonographic principles covering basic principles of medical sonography. Pulsed echo instrumentation, displays and storage of images, Doppler, hemodynamics, artifacts, and quality assurance of ultrasound will be discussed. BoK: NA. Credit Level: U. Credit Hrs: 2.00

35AMIT441

Magnetic Resonance Imaging Directed Practice I

This is the first in a sequence of four classes that will stress practical laboratory experience, seminars, and case studies in magnetic resonance imaging technology. Students are provided the specialized instruction and experience to accomplish procedures normally performed in magnetic resonance imaging facilities. Students are expected to demonstrate the skill, knowledge, and experience to proficiently perform routine magnetic resonance imaging procedures. BoK: NS. Credit Level: U. Credit Hrs: 2.00

35AMIT442

MAGNETIC RESONANCE IMAGING DIRECTED PRACTICE II

This is the second in a sequence of four courses that will stress practical laboratory experience, seminars, and case studies in magnetic resonance imaging. Students are provided the specialized instruction

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Advanced Medical Imaging Technology**35AMIT442****MAGNETIC RESONANCE IMAGING DIRECTED PRACTICE II**

and experience to accomplish procedures normally performed in MRI facilities. BoK: NS. Credit Level: U. Credit Hrs: 5.00

35AMIT443**Magnetic Resonance Directed Practice III**

This is the third in a sequence of four courses that will stress practical laboratory experience, seminars, and case studies in magnetic resonance imaging. Students are provided the specialized instruction and experience to accomplish procedures normally performed in MRI facilities. Prereq: 35AMIT442. BoK: NS, SE. Credit Level: U. Credit Hrs: 6.00

35AMIT444**Magnetic Resonance Technical Evaluation**

Clinical training associated with learning the practice of magnetic resonance imaging. BoK: NS., SE. Credit Level: U. Credit Hrs: 6.00

35AMIT446**Sonographic Directed Practice I**

The study and the uses of transabdominal and transvaginal medical sonography and its application in the diagnosis of diseases of the female pelvis. The sonographic appearance of the female reproductive organs, surrounding anatomy, and gynecological pathology will be covered. BoK: NA. Credit Level: U. Credit Hrs: 3.00

35AMIT447**Sonography Directed Practice II**

The study and the uses of transabdominal and transvaginal medical sonography and its application in the diagnosis of diseases of the female pelvis. The sonographic appearance of the female reproductive organs, surrounding anatomy, and gynecological pathology will be covered. BoK: NA. Credit Level: U. Credit Hrs: 5.00

35AMIT448**Sonographic Directed Practice III**

This is the third in a sequence of four classes that will stress practical laboratory experience, seminars, and case studies in sonography. Students are provided the specialized instruction and experience to accomplish procedures normally performed in sonography facilities. Prereq: 35AMIT442. BoK: NS, SE. Credit Level: U. Credit Hrs: 6.00

35AMIT449**Sonographic Directed Practice IV**

This is a final in a series of clinical experiences for sonography students. Students will apply learned techniques in the clinical setting under close supervision of clinical instructors at the designated clinical sites. BoK: NA. Credit Level: U. Credit Hrs: 6.00

35AMIT451**Medical Imaging Physics & Instrumentation**

Explores the physics & instrumentation that underpins magnetic resonance scanning. BoK: NS., QR. Credit Level: U. Credit Hrs: 3.00

35AMIT452**Magnetic Resonance Physics & Instrumentation II**

Discussion on MRI scanning principles, manipulation of MRI instrumentation, causes of image contrast and noise, principles of RF pulses, rapid scan techniques, fat and water signal separation methods, safety issues, and spectroscopy techniques. Prereq: 35AMIT451. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

35AMIT453**Magnetic Resonance Imaging Physics & Instrumentation III**

Physics that underpin the operation of the Magnetic Resonance Imaging scanner. Prereq: 35NMT452. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

35AMIT457**Sonography Physics and Instrumentation II**

This course deals with the fundamental principles of sonographic physics. Topics such as the nature of waves, wave properties, interactions of ultrasound with tissue, Ultrasonic beam parameters and

Advanced Medical Imaging Technology**35AMIT457****Sonography Physics and Instrumentation II**

basic Doppler principles are covered. Prereq: 35AMIT431. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

35AMIT458**Sonography Physics and Instrumentation III**

This course deals with the fundamental principles of sonographic physics. Topics such as the nature of waves, wave properties, interactions of ultrasound with tissue, ultrasonic beam parameters and basic Doppler principles are covered. BoK: NS., QR. Credit Level: U. Credit Hrs: 3.00

35AMIT461**Basic Elements of Magnetic Resonance Imaging Technology**

An introductory course that presents basic concepts of the health care system and an introduction to magnetic resonance imaging procedures, applied magnetic resonance safety, anatomy, and magnetic resonance imaging systems. Course involves didactic and laboratory experiences. BoK: NS., QR. Credit Level: U. Credit Hrs: 6.00

35AMIT462**Medical Imaging Anatomy, Physiology, & Pathology I**

Human anatomy & pathology as it appears on MRI images. BoK: NS., SE. Credit Level: U. Credit Hrs: 3.00

35AMIT463**Magnetic Resonance Anatomy, Physiology & Pathology II**

Anatomy, Physiology and Pathology as it relates to MRI identification. Prereq: 35AMIT462. BoK: NS, SE. Credit Level: U. Credit Hrs: 4.00

35AMIT464**Magnetic Resonance Anatomy Physiology & Pathology III**

Anatomy, physiology & pathology in MRI. Joints & extremities of the human body with associated pathological conditions. Prereq: 35NMT463. BoK: NS, SE. Credit Level: U. Credit Hrs: 4.00

35AMIT466**Basic Elements of Sonography**

An introductory course that presents basic concept of the healthcare system and an introduction to sonography procedures, anatomy and physiology relevant to sonography and sonography safety concerns. BoK: NA. Credit Level: U. Credit Hrs: 6.00

35AMIT468**Sonography Anatomy, Physiology, and Pathology II**

This course will familiarize the student with anatomical and physiological irregularities and common pathologies found in sonography imaging. The course sequence will be inclusive of all commonly imaged body systems and areas. Case studies and images of the pathologies will use. Prereq: 35AMIT402. BoK: NS, SE. Credit Level: U. Credit Hrs: 4.00

35AMIT469**Sonography Anatomy Physiology & Pathology III**

This course will familiarize the student with anatomical and physiological irregularities and common pathologies found in sonography imaging. The course sequence will be inclusive of all commonly imaged body systems and areas. Case studies and images of the pathologies will be used to reinforce the lectures. BoK: NS., SE. Credit Level: U. Credit Hrs: 4.00

35AMIT471**Nuclear Medicine Technology Directed Practice I**

This is the first sequence of four classes that will stress practical laboratory experience, seminars, and case studies in nuclear medicine technology. Students are provided the specialized instruction and experience to accomplish procedures normally performed in nuclear medicine imaging facilities. Students are expected to demonstrate the skill, knowledge, and experience to proficiently perform routine nuclear medicine procedures. BoK: NS. Credit Level: U. Credit Hrs: 2.00

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Advanced Medical Imaging Technology**35AMIT472****Nuclear Medicine Technology Directed Practice II**

This is the second in a sequence of four classes that will stress practical laboratory experience, seminars, and case studies in nuclear medicine technology. (The first class of four has already been approved for delivery during autumn quarter. Students are provided the specialized instruction and experience to accomplish procedures normally performed in nuclear medicine imaging facilities. Students are expected to demonstrate the skill, knowledge, and experience to proficiently perform routine nuclear medicine procedures BoK: NS. Credit Level: U. Credit Hrs: 5.00

35AMIT473**Nuclear Medicine Technology Directed Practice III**

This is the third in a sequence of four classes that will stress practical laboratory experience, seminars, and case studies in nuclear medicine technology. Students are provided the specialized instruction and experience to accomplish procedures normally performed in nuclear medicine imaging facilities. Students are expected to demonstrate the skill, knowledge, and experience to proficiently perform routine nuclear medicine procedures Prereq: 35AMIT472. BoK: NS, SE. Credit Level: U. Credit Hrs: 6.00

35AMIT474**Technical Evaluation of Nuclear Medicine Procedures**

This course stresses practical laboratory experience and case study presentation in nuclear medicine technology. Students are provided the specialized instruction and experience to accomplish procedures normally performed in nuclear medicine imaging facilities. Students are expected to demonstrate the skill, knowledge, and experience to proficiently perform routine nuclear medicine procedures and to present the results of their performance to supervising technologists, residents, and staff physicians. Prereq: 35NMT471, 35NMT472, 35NMT473. BoK: NS, SE. Credit Level: U. Credit Hrs: 6.00

35AMIT481**Nuclear Medicine Physics & Instrumentation**

This course will cover the fundamental principles of physics, mathematics, and instrumentation as applied to nuclear medicine. Topics include principles of radiation detection, radiation measuring instruments, atomic and nuclear structure, radioactive decay, interaction of radiation with matter, and the detection and registering of radiation events. BoK: NS., QR. Credit Level: U. Credit Hrs: 3.00

35AMIT482**Nuclear Medicine Physics & Instrumentation II**

This course will cover the fundamental principles of physics, mathematics, and instrumentation as applied to nuclear medicine. Topics include principles of radiation detection, radiation measuring instruments, atomic and nuclear structure, radioactive decay, interaction of radiation with matter, and the detection and registering of radiation events. Prereq: 35AMIT481. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

35AMIT483**Nuclear Medicine Physics and Instrumentation**

This course will cover the fundamental principles of physics, mathematics, and instrumentation as applied to nuclear medicine. Topics include principles of radiation detection, radiation measuring instruments, atomic and nuclear structure, radioactive decay, interaction of radiation with matter, and the detection and registering of radiation events. Prereq: 35NMT482. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

35AMIT490**Sonography Technical Assessment and Review**

Students will demonstrate technical proficiency in performing abdomen, small parts, obstetrical, and gynecological procedures. Students will complete and pass comprehensive examinations in these areas as well as in Sonographic physics and instrumentation. Strategies for passing nationally administered board examinations will be discussed. BoK: NA. Credit Level: U. Credit Hrs: 5.00

Advanced Medical Imaging Technology**35AMIT491****Basic Elements of Nuclear Medicine Technology**

An introductory course that presents basic concepts of the health care system and an introduction to radiopharmacy, applied radiation safety, physiology, nuclear medicine imaging systems, and nuclear medicine procedures. Course involves didactic and laboratory experiences. BoK: NS., QR. Credit Level: U. Credit Hrs: 6.00

35AMIT492**Nuclear Medicine Anatomy, Physiology & Pathology**

Didactic and laboratory instruction on the structure, function, and pathologies of the human body as they apply to the field of nuclear medicine. Ethics, patient care and management, response to emergency procedures, and imaging principles and procedures are included. BoK: NS., SE. Credit Level: U. Credit Hrs: 3.00

35AMIT493**Nuclear Medicine Anatomy, Physiology, & Pathology**

Didactic instruction on the structure, function, and pathologies of the human body as they apply to the field of nuclear medicine. Patient care and management with respect to nuclear medicine procedures, response to emergency procedures, and imaging principles and procedures are included. BoK: NS., SE. Credit Level: U. Credit Hrs: 4.00

35AMIT494**Nuclear Medicine Anatomy, Physiology & Pathology III**

Didactic instruction on the structure, function, and pathologies of the human body as they apply to the field of nuclear medicine. Patient care and management with respect to nuclear medicine procedures, response to emergency procedures, and imaging principles and procedures are included. BoK: NS., SE. Credit Level: U. Credit Hrs: 4.00

35AMIT495**Medical Imaging Research Methodologies I**

Introduction to research methodologies, specifically qualitative, in the field of medical imaging. BoK: QR., SE. Credit Level: U. Credit Hrs: 3.00

35AMIT496**Quantitative Analysis in Medical Imaging**

This course provides students with the basic competencies in the understanding, design, analysis, interpretation, and evaluation of quantitative research used in the medical imaging sciences. BoK: QR., SE. Credit Level: U. Credit Hrs: 3.00

35AMIT497**Medical Imaging Capstone**

A course in which students interact as both participants and presenters in a series of seminars in a state-of-the-art medical imaging, radiation biology and radiation safety and health care ethics. Students also engage in a brief research assignment. Prereq: 35AMIT495, 35AMIT496. BoK: NA. Credit Level: U. Credit Hrs: 3.00

35AMIT498**Advanced Medical Imaging Technology Review**

This course provides students with a comprehensive review of the basic competencies in advanced medical imaging modalities. It is the intent of this course to prepare students for national certification in multiple medical imaging modalities. BoK: NA. Credit Level: U. Credit Hrs: 2.00

35AMIT499**Radiopharmacy & Radiochemistry Laboratory**

Through direct, hands-on experience supervised by faculty, the student will perform quality control of radioactive materials and radiation measuring and monitoring devices, prepare, transport, administer and control the disposition of radioactive materials used in nuclear medicine practice, correctly document procedures for state and radiation. BoK: NS., QR. Credit Level: U. Credit Hrs: 4.00

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Advanced Medical Imaging Technology**35AMIT501****Advanced Medical Imaging Practicum**

This course is designed to incorporate service learning with the required AMIT curriculum. In this course, students will travel to a poverty ridden area and perform studies for patients who otherwise have no access to health care. BoK: NS., DC. Credit Level: U. Credit Hrs: 2.00

35AMIT588**Radiobiology and Radiation Protection**

Safe handling of radioactive materials, units of radiation, exposure and dose, dose calculations, radiation protection guides, radiation protection instrumentation BoK: NS., QR. Credit Level: U. Credit Hrs: 3.00

Blood Transfusion Medicine**35BTM801****Foundations for Blood Transfusion Medicine I**

Instruction on pretransfusion testing, serological methods, immunohematology, cellular therapies, transplantation immunology, blood groups, donor selection, infectious disease testing, blood component blood administration, apheresis, hazards of transfusion, clinical indications for blood trans. Credit Level: G. Credit Hrs: 3.00

35BTM802**Foundations for Blood Transfusion Medicine II**

Instruction on pretransfusion testing, serological methods, immunohematology, cellular therapies, transplantations immunology, blood groups, blood collection, infectious disease testing, blood component manufacturing and storage, blood administrations apheresis, hazards and clinical indications of transfusion Credit Level: G. Credit Hrs: 3.00

35BTM803**Foundations for Blood Transfusion Medicine III**

Instruction on pretransfusion testing, serological methods, immunohematology, cellular therapies, transplantations immunology, blood groups, donor selection, infectious disease testing, blood component storage, administrations, apheresis, hazards of transfusions, clinical indications for blood trans Credit Level: G. Credit Hrs: 3.00

35BTM804**Transfusion Medicine Seminar I**

Literature review, written paper and oral presentation of blood transfusion medicine topic. Credit Level: G. Credit Hrs: 2.00

35BTM805**Transfusion Medicine Seminar II**

literature review, written paper and oral presentation of blood transfusion medicine topic. Credit Level: G. Credit Hrs: 2.00

35BTM806**Transfusion Medicine Seminar III**

Literature review, written paper and oral presentation of blood transfusion medicine topic. Credit Level: G. Credit Hrs: 2.00

35BTM811**Laboratory/Clinical Practicum I**

Practical training in the laboratories, donor collection services, blood manufacturing, product management, supervision, administration, education and quality assurance. Credit Level: G. Credit Hrs: 4.00

35BTM812**Laboratory/Clinical Practicum II**

Practical training in the laboratories, donor collection services, blood manufacturing, product management, supervision, administration, education and quality assurance. Credit Level: G. Credit Hrs: 4.00

35BTM813**Laboratory/Clinical Practicum III**

Practical training in the laboratories, donor collection services, blood manufacturing, product management, supervision, administration, education and quality assurance. Credit Level: G. Credit Hrs: 4.00

Blood Transfusion Medicine**35BTM814****Laboratory/Clinical Practicum IV**

Practical training in the laboratories, donor collection services, blood manufacturing, product management, supervision, administration, education and quality assurance. Credit Level: G. Credit Hrs: 4.00

35BTM821**Masters Thesis Research I**

Preparation of written research proposal to include a literature review, research plan, materials and methods, data analysis, budget and bibliography. Investigative research in laboratory or clinical setting. Credit Level: G. Credit Hrs: 6.00-12.00

35BTM822**Masters Thesis Research II**

Investigative research in a laboratory or clinical setting. Credit Level: G. Credit Hrs: 6.00-12.00

35BTM823**Masters Thesis Research III**

Investigative research in a laboratory or clinical setting. Preparation of written thesis. Perm of Instructor. Credit Level: G. Credit Hrs: 6.00-12.00

35BTM831**Research Project**

Introduction to research to include literature review, research plan, laboratory investigation data collection and statistical analysis. Credit Level: G. Credit Hrs: 3.00

35BTM841**Teaching Practicum in Transfusion Medicine**

Curriculum development, preparation of laboratory specimens, preparation and presentation of didactic lectures, and test construction. Perm of Instructor. Credit Level: G. Credit Hrs: 3.00

35BTM851**Scientific Writing and Presentation**

Research findings summarized and submitted for regional or national presentation. Submission of research findings to peer review journal. Perm of Instructor. Credit Level: G. Credit Hrs: 3.00

35BTM901**Human Blood Groups**

Introduction to donor selection and blood collection; blood component manufacturing and storage; pretransfusion testing and blood administration; apheresis and transplantation; hazards of blood transfusion and disease transmission. Problem cases and research. Credit Level: G. Credit Hrs: 6.00

35BTM902**Human Blood Groups**

See 35BTM901. Credit Level: G. Credit Hrs: 6.00

35BTM903**Human Blood Groups**

See 35BTM901. Credit Level: G. Credit Hrs: 6.00

35BTM904**Immunohematology**

Biochemistry, genetics, immunology and serology of blood group antigens and antibodies. Literature review, written paper, oral presentation. Credit Level: G. Credit Hrs: 6.00

35BTM905**Immunohematology**

See 35BTM904. Credit Level: G. Credit Hrs: 6.00

35BTM906**Immunohematology**

See 35BTM904. Credit Level: G. Credit Hrs: 6.00

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Blood Transfusion Medicine**35BTM907****Seminar -- Blood Group Serology**

Introduction to research to include literature review, research plan, data collection techniques, and statistical analysis. Credit Level: G. Credit Hrs: 2.00

35BTM908**Seminar -- Blood Group Serology**

See 35BTM907. Credit Level: G. Credit Hrs: 2.00

35BTM909**Seminar -- Blood Group Serology**

See 35BTM907. Credit Level: G. Credit Hrs: 2.00

35BTM911**Laboratory I**

Practical training relating to courses 901,2,3 and 904,5,6. Credit Level: G. Credit Hrs: 3.00

35BTM912**Laboratory II**

See 35BTM911. Credit Level: G. Credit Hrs: 3.00

35BTM913**Laboratory III**

See 35BTM911. Credit Level: G. Credit Hrs: 3.00

35BTM921**Thesis Laboratory I**

Investigative research in partial fulfillment of requirements for the Master of Science degree. Credit Level: G. Credit Hrs: 6.00

35BTM922**Thesis Laboratory II**

See 35BTM921. Credit Level: G. Credit Hrs: 6.00

35BTM923**Thesis Laboratory III**

See 35BTM921. Credit Level: G. Credit Hrs: 6.00

35BTM961**Research I**

Preparation of written research proposal to include a literature review, research plan, materials and methods, data analysis, budget and bibliography. Credit Level: G. Credit Hrs: 3.00

35BTM962**Research II**

Preliminary presentation of investigative research findings. Credit Level: G. Credit Hrs: 3.00

35BTM963**Research III**

See 35BTM962. Credit Level: G. Credit Hrs: 3.00

35BTM972**Advances in Immunohematology**

Introduction to research to include literature review, research plan, data collection techniques, and statistical analysis. Credit Level: G. Credit Hrs: 2.00

35BTM973**Advances in Immunohematology**

Research findings summarized and submitted for regional or national presentation. Submission of research findings to peer review journal. Credit Level: G. Credit Hrs: 2.00

35BTM974**Advances in Immunohematology**

See 35BTM973. Credit Level: G. Credit Hrs: 2.00

Blood Transfusion Medicine**35BTM975****Advanced Techniques in Immunohematology**

Advanced laboratory and didactic instruction in serological methods and pretransfusion testing. Case studies. Credit Level: G. Credit Hrs: 2.00

35BTM976**Advanced Techniques in Immunohematology**

See 35BTM975. Credit Level: G. Credit Hrs: 2.00

35BTM981**Thesis Dissertation Research**

Final presentation and defense of thesis research. Credit Level: G. Credit Hrs: 3.00

Clinical Laboratory Science**35CLSC201****Survey of Clinical Lab**

An overview of routine clinical laboratory tests as they relate to human health and disease. Included are discussions describing the major areas of the laboratory, followed by demonstrations and hands-on experience in the student laboratory. Open to non-Medical Technology majors. BoK: NA. Credit Level: U. Credit Hrs: 1.00

35CLSC301**Introduction To Forensic Science**

This course is a survey in the medical laboratory aspects of forensic science. Each week a different discipline will be presented, with the focus on scientific techniques which constitute a crime solving tool. Experts will be used to impart understanding of the wide scope of Forensic Science. BoK: NS. Credit Level: U. Credit Hrs: 2.00

35CLSC305**Introduction to Biomedical Laboratory Science**

Introductory course in Biomedical Laboratory Science covering general topics related to the biomedical research laboratory. Emphasis will be placed upon the role of a research laboratory associate in a research setting. BoK: NA. Credit Level: U. Credit Hrs: 3.00

35CLSC340**Principles of Clinical Laboratory Practice**

This course will provide the students with an introduction to the practice of clinical laboratory science. Topics include professionalism, professional ethics, laboratory organization and safety. Students will learn and perform fundamental laboratory techniques. Students will be introduced to the various departments of the clinical laboratory and will learn the use of basic laboratory equipment. BoK: NA. Credit Level: U. Credit Hrs: 10.00

35CLSC350**Special Topics in CLS**

An objective look at the field of Clinical Laboratory Medicine from its inception, and leading up to current and future technologies with an emphasis on specialized and advanced technologies and the issues surrounding those. Topics will include microscopy, staining technologies, forensic medicine, gene therapy, and cytogenetics. BoK: HP., NS. Credit Level: U. Credit Hrs: 3.00

35CLSC351**Laboratory Operations: Management, QA/QC, and Continuing Education**

A study of the basic principles of clinical laboratory management, including theory and practice. Topics will include personnel and financial management, regulation and accreditation, information management, quality assurance and quality control, and continuing education. BoK: QR., DC. Credit Level: U. Credit Hrs: 4.00

35CLSC352**Introductory Medical Biochemistry**

The basic principles of the structure and function of organic compounds in the human system including amino acids, enzymes, lipids, carbohydrates, and nucleic acids. BoK: NS., QR. Credit Level: U. Credit Hrs: 4.00

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Clinical Laboratory Science**35CLSC353****Clinical Chemistry and Body Fluids**

A study of serum and fluid chemistry in normal and pathological states. Topics will include the basic principles of the structure and function of organic compounds in the human system. Discussions emphasize the relationship between normal and abnormal laboratory results and organ system function. The study of body fluids is included, as well as a review of urinalysis and renal function. BoK: NS., QR. Credit Level: U. Credit Hrs: 10.00

35CLSC354**Statistics and Research in Clinical Laboratory Science**

The statistics units will focus on the statistical principles that are pertinent to health care, and to the clinical laboratory. The research and methods units will focus on current research topics in laboratory medicine, and the development and verification of laboratory protocols. BoK: NA. Credit Level: U. Credit Hrs: 4.00

35CLSC355**Ecology and Environmental Toxicology**

The basic principles of ecology including ecosystem structure and function, and conservation biology. The environmental toxicology units will focus on the nature and the detection of toxic substances in the environment and their effects on humans. BoK: NA. Credit Level: U. Credit Hrs: 3.00

35CLSC356**Clinical Hematology and Hemostasis**

An advanced study of blood and blood cells in normal and pathological states. Discussions on normal and abnormal hematopoiesis are included. The hemostasis unit is a comprehensive study of the blood clotting system in normal and pathological states. Included are discussions regarding the correlation of the test results with disease states and therapies. BoK: NS., QR. Credit Level: U. Credit Hrs: 10.00

35CLSC357**Clinical Microbiology**

Advanced study of microorganisms associated with human infectious processes. Discussions include the characteristics, isolation, identification, antimicrobial techniques, and clinical infections associated with pathogenic bacteria. BoK: NS. Credit Level: U. Credit Hrs: 10.00

35CLSC358**Clinical Immunohematology**

A study of the theory, principles and procedures associated with transfusion medicine. Discussions cover routine and specialized procedures, blood donors, components, regulations, and quality assurance. BoK: NA. Credit Level: U. Credit Hrs: 10.00

35CLSC359**Human Genetics and Molecular Diagnostic Techniques**

Overview of nucleic acid structure, gene expression and genetic disease. Principle of DNA and RNA isolation, cloning, amplification, hybridization, sequencing and analysis. Applications in microbiology, hematology and oncology, thrombosis risk testing, genetics disease, anthropology and forensic medicine. BoK: NA. Credit Level: U. Credit Hrs: 5.00

35CLSC360**Clinical Mycology and Virology**

The study of clinically relevant fungi and viruses and the laboratory diagnosis of the organisms involved. BoK: NA. Credit Level: U. Credit Hrs: 5.00

35CLSC361**Advanced Clinical Practice I**

A clinical practicum experience that will focus on advanced, applied clinical laboratory techniques and concepts. The practicum experience will be individually designed for each student. The student will participate in choosing the the practicum site. BoK: NS., QR. Credit Level: U. Credit Hrs: 1.00-10.00

Clinical Laboratory Science**35CLSC362****Clinical Parasitology**

The study of clinically relevant parasites and the laboratory diagnosis of the organisms involved. BoK: NS., QR. Credit Level: U. Credit Hrs: 3.00

35CLSC363**Advanced Clinical Applications**

The second of two clinical practicum courses. This course will focus on the project based study of advanced, applied clinical laboratory techniques and concepts BoK: NA. Credit Level: U. Credit Hrs: 3.00

35CLSC364**Clinical Laboratory Science Distance Learning Seminar**

This seminar course will focus on building critical thinking and problem solving skills during clinical case study discussions. The course will include a comprehensive review of the major clinical laboratory science disciplines. Students will take a comprehensive examination at the end of the course. BoK: NS., QR. Credit Level: U. Credit Hrs: 4.00

35CLSC365**Clinical Laboratory Science Distance Learning Capstone**

A course in which students participate in a series of seminars culminating in the development and presentation of a fundamental research project involving an aspect of state-of-the-art clinical laboratory science practice. Under the direction of faculty, students prepare a written report and publicly present their findings. BoK: QR., SE. Credit Level: U. Credit Hrs: 3.00

35CLSC366**Immunology**

This course is a focused study of clinical immunology concentrating on immune system functions, the response of the immune system to infection and disease, and current diagnostic methodologies and molecular applications. BoK: NA. Credit Level: U. Credit Hrs: 3.00

35CLSC400**Introduction to Clinical Laboratory Science**

Introduction and orientation to the field of Clinical Laboratory Science. Includes discussions on professionalism, basic laboratory concepts and techniques, and phlebotomy. Microscopy and phlebotomy techniques are practiced in the student laboratory. BoK: NS., HP. Credit Level: U. Credit Hrs: 3.00

35CLSC401**Basic Lab Skills**

Introduction and orientation to the field of Medical Technology. Includes discussions on professionalism, basic laboratory concepts and techniques, and phlebotomy. Microscopy and phlebotomy techniques are practiced in the student laboratory. BoK: NS., SS. Credit Level: U. Credit Hrs: 4.00

35CLSC402**Clinical Hematology I**

The study of blood and blood cells in a normal state. Discussions on normal and abnormal hematopoiesis are included. Routine hematology procedures are performed in the student laboratory, with an emphasis on the microscopic evaluation of normal blood cell morphology and evaluation of complete blood count data. BoK: NA. Credit Level: U. Credit Hrs: 4.00

35CLSC403**Coagulation**

A comprehensive study of the blood clotting system in normal and pathological states. Included are discussions regarding the correlation of test results with disease states and therapies. Semi-automated and manual techniques are performed in student laboratory exercises. BoK: NA. Credit Level: U. Credit Hrs: 2.00

35CLSC404**Clinical Immunology**

A study of the structure and function of the immune system in health and disease as pertinent to the clinical laboratory. Includes discussions on autoimmune diseases, immuno-deficiency, and immunodiagnostic techniques. BoK: NS., QR. Credit Level: U. Credit Hrs: 3.00

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Clinical Laboratory Science**35CLSC404****Clinical Immunology**

A study of the structure and function of the immune system in health and disease as pertinent to the clinical laboratory. Includes discussions on autoimmune diseases, immuno-deficiency, and immunodiagnostic techniques. BoK: NS., QR. Credit Level: U. Credit Hrs: 3.00

35CLSC405**Immunohematology**

A study of the theory, principles, and procedures associated with transfusion medicine. Discussions and laboratory exercises cover routine and specialized procedures, blood donors, components, regulations, and quality assurance. BoK: NS., QR. Credit Level: U. Credit Hrs: 6.00

35CLSC406**Urinalysis and Body Fluids**

A study of urinalysis procedures, renal function, and body fluid examination. Manual and semi-automated laboratory procedures are performed in the student laboratory. BoK: NS., QR. Credit Level: U. Credit Hrs: 3.00

35CLSC407**Computer Applications**

Overview of computer applications relevant to laboratory work. Discussions of Laboratory Information Systems are included. BoK: NA. Credit Level: U. Credit Hrs: 1.00

35CLSC408**Issues in Medical Technology**

Discussions of current and timely issues affecting the Medical Technology professional. BoK: NA. Credit Level: U. Credit Hrs: 2.00

35CLSC409**Clinical Virology**

Introduction to the study of clinical virology. Laboratory exercises and demonstrations illustrate culture and serologic techniques. BoK: NA. Credit Level: U. Credit Hrs: 2.00

35CLSC410**Clinical Chemistry**

A study of serum and fluid chemistry in the normal and pathological states. Discussions emphasize the relationship between normal and abnormal laboratory results and organ system function. Manual and automated procedures are performed in the student laboratory. BoK: NS., QR. Credit Level: U. Credit Hrs: 7.00

35CLSC411**Clinical Parasitology**

The study of human parasitic diseases and the organisms involved. Lectures and laboratory exercises emphasize the detection and identification of diagnostic forms. BoK: NA. Credit Level: U. Credit Hrs: 2.00

35CLSC412**Clinical Mycology**

The study of clinically relevant fungi, with emphasis on diagnostic forms. Isolation and culture techniques are practiced in the laboratory. BoK: NA. Credit Level: U. Credit Hrs: 2.00

35CLSC413**Survey of Management**

A study of the basic principles of management theory and practice. Current clinical issues including daily operation, regulations, and accreditation are discussed. Basic educational theory and concepts are discussed in the education component. BoK: QR. Credit Level: U. Credit Hrs: 3.00

35CLSC414**Clinical Microbiology**

A study of the microorganisms associated with human infectious processes. Discussion include the characteristics, isolation, identification, and antimicrobial techniques associated with pathogenic bacteria. Manual techniques used in diagnostic microbiology are

Clinical Laboratory Science**35CLSC414****Clinical Microbiology**

practiced in the student laboratory. BoK: NS., QR. Credit Level: U. Credit Hrs: 8.00

35CLSC416**Clinical Toxicology**

A study of the principles and techniques of toxicology relating to therapeutic drug monitoring, overdose, poisoning, and unknown substance analysis. BoK: NS. Credit Level: U. Credit Hrs: 3.00

35CLSC417**Senior Seminar**

A capstone experience including assessment of laboratory knowledge through guided & independent review and other activities related to certification. Additional research experience is provided through senior research projects that lead to poster presentations in the college PRaise Conference. BoK: NA. Credit Level: U. Credit Hrs: 1.00

35CLSC418**Clinical Laboratory Science Elective**

Opportunity for students to gain practical experience in a specialized clinical or research laboratory. Students participate in site selection for this experience. BoK: NA. Credit Level: U. Credit Hrs: 1.00

35CLSC422**Clinical Experience III**

Supervised clinical hospital laboratory experience in Chemistry, Urinalysis and Body Fluids. BoK: NS., QR. Credit Level: U. Credit Hrs: 4.00

35CLSC423**Clinical Experience IV**

Supervised clinical hospital laboratory experience in Immunohematology. BoK: NS., QR. Credit Level: U. Credit Hrs: 3.00

35CLSC424**Diagnostic Molecular Techniques**

Introduction to molecular biology techniques and their application to laboratory diagnosis of disease. BoK: NS., QR. Credit Level: U. Credit Hrs: 3.00

35CLSC425**Independent Study in Medical Technology**

A course designed to allow students to pursue an individualized learning project with approval of an advisor under the supervision of a faculty member. BoK: NS., QR. Credit Level: U. Credit Hrs: 1.00-8.00

35CLSC430**Clinical Practicum I**

This is the first of two courses that will stress practical laboratory experience, professional and performance and mastery of skills in Clinical Laboratory Sciences. Students are provided the specialized instruction and experience needed to accomplish procedures normally performed in a hospital laboratory. BoK: DC., SE. Credit Level: U. Credit Hrs: 6.00

35CLSC431**Clinical Practicum II**

This is the second in a series of two courses that will stress practical laboratory experience, professional performance and case studies in Clinical Laboratory Sciences. Students are provided specialized instruction and experience to accomplish procedures normally performed in a Hosp/Diag. Lab. BoK: NA. Credit Level: U. Credit Hrs: 8.00

35CLSC432**Clinical Hematology II**

The study of the blood and blood cells in an abnormal or malignant state. Discussions on Red Blood Cells and White Blood Cell Disorders are included. Specialized hematology procedures are performed in the student laboratory, with an emphasis on the microscopic evaluation of abnormal blood cell morphology, evaluation of complete blood count data along with cytochemical and molecular testing. BoK: NA. Credit

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Clinical Laboratory Science**35CLSC432****Clinical Hematology II**

Level: U. Credit Hrs: 4.00

35CLSC433**Senior Seminar**

This course is designed to give senior students an introduction to scientific research. The purpose of this course is to provide students time to conduct research projects and present them at the PRAISE conference. Perm of Instructor. BoK: NA. Credit Level: U. Credit Hrs: 2.00

35CLSC434**Senior Seminar II**

The course will serve to bring together all concepts covered throughout the clinical year via case studies and structured review. Its purpose is to prepare graduating CLS students for the final comprehensive exam and the national certifying exam. BoK: NA. Credit Level: U. Credit Hrs: 2.00

35CLSC435**Clinical Microbiology I**

The study of microorganisms associated with human infections process. Discussions include the characteristics, isolation, identification and antimicrobials associated with pathogenic organisms. Techniques are practiced in the teaching laboratory BoK: NS., QR. Credit Level: U. Credit Hrs: 5.00

35CLSC436**Clinical Microbiology II**

This course covers advanced topics in microbiology including antibiotics and antimicrobial susceptibility testing, mycobacteriology, anaerobic bacteriology, virology, and clinical aspects of microbiology. The lecture and laboratory portions of the course train students to be well-prepared BoK: NA. Credit Level: U. Credit Hrs: 3.00

35CLSC440**Clinical Laboratory Science Capstone**

A course in which students participate in a series of seminars culminating in the development and presentation of a fundamental research project involving an aspect of state of the art clinical laboratory science practice. Under direction of faculty, students prepare a written report and publically present their findings. BoK: QR., SE. Credit Level: U. Credit Hrs: 3.00

35CLSC500**Independent Studies in Clinical Laboratory Sciences**

Independent study in area if focus based upon the student's interest or need. BoK: NA. Credit Level: U. Credit Hrs: 1.00-10.00

35CLSC501**Independent Studies in Clinical Laboratory Sciences**

Independent study in area if focus based upon the student's interest or need. BoK: NA. Credit Level: U. Credit Hrs: 1.00-10.00

35CLSC502**Independent Studies in Clinical Laboratory Sciences**

Independent study in area if focus based upon the student's interest or need. BoK: NA. Credit Level: U. Credit Hrs: 1.00-10.00

Communication Sciences and Disorders**35CSD171****Communication Disorders in the Media and Lit**

An exploration of various communication disorders and how they are portrayed by the media and in literature. BoK: NA. Credit Level: U. Credit Hrs: 3.00

35CSD212**Survey of Communication Disorders**

A survey of the field of communication disorders: descriptions of speech, language and voice disorders. Prereq: 35CSD171 Prereq: 35CSD171. BoK: SE, DC. Credit Level: U. Credit Hrs: 3.00

Communication Sciences and Disorders**35CSD309****Anatomy and Physiology of Speech and Vocal Mechanisms for Speech-Language Pathology**

This course is an introduction to the anatomy and physiology of the speech/voice/language mechanisms. The course will include learning unit on the anatomical systems of respiration, phonation, articulation and swallowing. We will also include an introduction to brain anatomy as it pertains to systems of speech, language and swallowing mechanisms. None of these human systems exist in isolation. We will learn how the systems interact to produce speech and language. BoK: NA. Credit Level: U. Credit Hrs: 5.00

35CSD310**Anatomy & Physiology of Voice and Speech Production**

Anatomy and physiology of the systems of respiration, phonation, articulation, and neurology for voice, speech and swallowing. Prereq: 35CSD171, 35CSD212. Prereq: 35CSD171, 35CSD212. BoK: NS. Credit Level: U. Credit Hrs: 4.00

35CSD311**SPEECH AND LANGUAGE DEVELOPMENT**

Principles of normal speech and language development in children. Prereqs: 35CSD212, 35CSD371, 35CSD372 Prereq: 35CSD212, 35CSD371, 35CSD372. BoK: SS. Credit Level: U. Credit Hrs: 4.00

35CSD371**Phonetics**

Introduction to general phonetics. Analysis of speech patterns. Mastering of International Phonetic Alphabet. Relationship between sound feature patterns of English and linguistic rules of English. 1 hr. lab/wk. to be arranged. Prereq: 35CSD171, 35CSD212. Prereq: 35CSD171, 35CSD212. BoK: HU. Credit Level: U. Credit Hrs: 3.00

35CSD372**Syntax for Language Assessment**

This course provides prospective SLP students with the basics of syntax that they can apply to language samples analysis and intervention. Prereq: 35CSD171, 35CSD212. Prereq: 35CSD171, 35CSD212. BoK: NA. Credit Level: U. Credit Hrs: 2.00

35CSD512**Neurological Foundations of Communication**

Basic neuroanatomy and physiology of human communication and swallowing. Prereqs: 310, 521. Prereq: 35CSD310, 35CSD521. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

35CSD520**Speech Science**

Critical analysis of speech acoustics and the intersection of speech perception and production. Prereq: 35CSD310, 35CSD371. Prereq: 35CSD310, 35CSD371. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

35CSD521**Clinical Process I: Professional Issues**

Professional issues in speech-language pathology and audiology including observation of children and adults with communication disorders. Prereqs: 35CSD171, 35CSD212, 35CSD310, 35CSD311, 35CSD371 or permission of instructor. Prereq: 35CSD212, 35CSD311, 35CSD371, 35CSD310, 35CSD171. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-3.00

35CSD522**Clinical Process II: Assessment**

Methods for assessment and evaluation of communication disorders in children and adults. Prereq: 35CSD212, 35CSD311, 35CSD371, 35CSD520, 35CSD521. Prereq: 35CSD212, 35CSD311, 35CSD371, 35CSD520, 35CSD521. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

35CSD523**Clinical Process III: Intervention**

Methods for management of communication disorders in children and adults. Prereqs: 35CSD212, 35CSD311, 35CSD371, 35CSD520, 35CSD521, 35CSD522 Prereq: 35CSD311, 35CSD371, 35CSD520, 35CSD521, 35CSD522. Coreq.: BoK: NA. Credit Level: U, G. Credit

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Communication Sciences and Disorders**35CSD523****Clinical Process III: Intervention**

Hrs: 3.00

35CSD524**Clinical Processes in CSD**

Overview of professional issues and clinical processes used in assessment and intervention for speech-language disorders. Prereqs: 35CSD309, 35CSD371. Prereq: 35CSD309, 35CSD371. BoK: NA. Credit Level: U, G. Credit Hrs: 5.00

35CSD559**Anatomy of the Auditory and Vestibular Systems**

Brief review of techniques for describing sound; study of the anatomy and physiology of the peripheral auditory and vestibular system; brief reference to central auditory nervous system; study of common diseases or pathologies of the auditory and vestibular system that effect children and adults. BoK: NS. Credit Level: U, G. Credit Hrs: 5.00

35CSD560**Basic Audiological Assessment**

In depth introduction to basic audiological assessment techniques for both pediatric and adult populations. Specific emphasis on skills necessary to complete basic pure tone testing; interpretation of basic pure tone, speech, and immittance tests; and development of hearing screening program. Overview of more advanced audiological test procedures. Prereq: 35CSD559. Prereq: 35CSD559. BoK: NA. Credit Level: U, G. Credit Hrs: 5.00

35CSD561**Audiology I**

Anatomy, physiology, and pathology of the auditory systems; psychophysical procedures. Prereqs: 35CSD212, 35CSD310. Prereq: 35CSD212, 35CSD310, 35CSD371. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

35CSD562**Audiology II**

Hearing tests and testing instruments, case finding and referral, interpretation of hearing test results, organization of hearing conservation programs. Prereqs: 35CSD212, 35CSD310, 35CSD371, 35CSD561. Prereq: 35CSD212, 35CSD310, 35CSD371, 35CSD561. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

35CSD563**Audiology III**

Introduction to rehabilitation of children and adults with hearing loss. Prereqs: 35CSD212, 35CSD310, 35CSD371, 35CSD561, 35CSD562. Prereq: 35CSD212, 35CSD310, 35CSD371, 35CSD561, 35CSD562. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

35CSD568H**Hearing and Sound Production Through the Ages: Jurassic Acoustics**

This course is designed to familiarize students with the bioacoustics of human and animal communication and hearing including comparative terrestrial/marine mammal vocal anatomy, physiology and neuroanatomy, sound production mechanisms and acoustic behavior. The course documents the evolution of the hearing and vocal systems of humans and their relationship to animals. Prereq: Honor students only. BoK: HP., NS. Credit Level: U, G. Credit Hrs: 3.00

35CSD593**Individual Work in Speech Language & Hearing**

Guided study in communication sciences and disorders. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-9.00

35CSD594**Honors Work in Speech Language & Hearing**

Honor's projects in Communication Sciences & Disorders. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-9.00

Communication Sciences and Disorders**35CSD595****Capstone Experience**

The Capstone Experience will allow the students to demonstrate proficiency in the four Baccalaureate Competencies of the General Education Program as well as in the content of the B.S. Degree in CSD. BoK: NA. Credit Level: U. Credit Hrs: 1.00-3.00

35CSD619**Physical Bases of Audiology**

Basic concepts in acoustics, electricity and electronics necessary for audiology. BoK: NA. Credit Level: G, U. Credit Hrs: 4.00

35CSD620**Biological Bases of Audiology**

Biological foundation for future courses in auditory neurosciences, development, pathophysiology and clinical assessment of sensory systems. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

35CSD622**Biology of the Cochlea**

Structure and function of the peripheral auditory system. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

35CSD623**Introductory Audiology Practicum I**

First year clinical hands-on experience performing basic diagnostic testing and habilitative intervention in the on-campus clinic or at an off-campus site. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-3.00

35CSD624**Introductory Audiology Practicum II**

First year clinical hands on experience performing basic diagnostic testing and habilitative intervention in the on-campus clinic or at an off-campus site. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-3.00

35CSD625**Introductory Audiology Practicum III**

First year clinical hands-on experience performing basic diagnostic testing and habilitative intervention in the on-campus clinic or at an off-campus site. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-3.00

35CSD626**Audiology Clerkship I**

Practicum following the first academic year with placement in the on-campus clinic or an off-campus site such as a medical setting, school, private practice, or non-profit organization. Credit Level: G. Credit Hrs: 1.00-15.00

35CSD650**Autism Spectrum Disorders: Assessment & Intervention**

This course will provide information for assessment and development of communication intervention for individuals with Autism Spectrum Disorders. BoK: NA. Credit Level: G, U. Credit Hrs: 3.00

35CSD700**Counseling in Communication Disorders**

Overview of the personal and family emotional toll and life impact of communication disorders. Examination and role playing will center on building healthy patient/professional dynamics to facilitate rehabilitation. Credit Level: G. Credit Hrs: 3.00

35CSD702**Special Topics in Communication Disorders**

Specialized information about current issues and techniques. Perm of Instructor. Credit Level: G. Credit Hrs: 1.00-6.00

35CSD706**Diagnostic Audiology I**

Assessment of auditory function, emphasis on pure tone, speech and immittance measurements, interpretation of test results. Prereq: 35CSD562. Credit Level: G. Credit Hrs: 4.00

35CSD708**Management of the Hard of Hearing Child**

Assessment and management of children with hearing loss in

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Communication Sciences and Disorders**35CSD708****Management of the Hard of Hearing Child**

educational settings. Prereq: 35CSD563. Credit Level: G. Credit Hrs: 3.00

35CSD709**Cochlear Implantation: Theory and Practice**

Overview of Cochlear Implantation. Cochlear implant technology and function. Patient criteria and determination. Pre and post-implant counseling, testing and mapping/coding strategies. Medical and surgical perspectives in cochlear implantation. Aural habilitation for the CI user. Understanding other professional roles in the CI process. Credit Level: G. Credit Hrs: 3.00

35CSD710**Speech Sound Disorders**

Assessment and intervention for speech sound disorders in children. Credit Level: G. Credit Hrs: 3.00-5.00

35CSD711**Language Disorders in Early Childhood**

Contemporary strategies for assessment and intervention for preschool and early school age children with language disorders. Prereq: 35CSD710. Credit Level: G. Credit Hrs: 3.00-5.00

35CSD712**Language Disorders in Later Childhood**

Contemporary strategies for assessment and intervention for school age children with language disorders. Prereq: 35CSD711. Credit Level: G. Credit Hrs: 3.00-5.00

35CSD716**Pathophysiology of Audition**

Overview of the biological bases of auditory dysfunction; anatomical and physiological studies associated with different categories of cochlear insult (eg. ototoxicity, acoustic trauma, presbycusis) and central auditory nervous system (eg. auditory neuropathy). Credit Level: G. Credit Hrs: 3.00

35CSD717**Diseases of the Ear**

Survey of pathologies, medical and surgical management of diseases of the auditory system. Credit Level: G. Credit Hrs: 1.00-3.00

35CSD718**Pediatric Audiology:Assessment**

Identification and evaluation of infants and children with hearing loss. Credit Level: G. Credit Hrs: 4.00

35CSD719**Amplification Systems I**

Introduction to amplification systems for the hearing impaired. Topics: types of aids and their components, electroacoustic characteristics of hearing aids, coupler measurements, output limitation and earmolds. Credit Level: G. Credit Hrs: 1.00-3.00

35CSD720**Amplification Systems II**

Selection and fitting of amplification for the hearing impaired. Topics include: hearing aid evaluation, prescription of electroacoustic characteristics, fitting procedures, and post-fitting counseling. Credit Level: G. Credit Hrs: 5.00

35CSD723**Graduate Audiologist I**

Second year, first clinical practicum placement in the on-campus clinic or an off-campus site such as a medical setting, school, private practice, or non-profit organization. Credit Level: G. Credit Hrs: 1.00-15.00

35CSD724**Graduate Audiologist II**

Second year, second clinical practicum placement in the on-campus clinic or an off-campus site such as a medical setting, school, private practice, or non-profit organization. Credit Level: G. Credit Hrs: 1.00-

Communication Sciences and Disorders**35CSD724****Graduate Audiologist II**

15.00

35CSD725**Graduate Audiologist III**

Second year, third clinical practicum placement in the on-campus clinic or an off-campus site such as a medical setting, school, private practice, or non-profit organization. Credit Level: G. Credit Hrs: 1.00-15.00

35CSD726**Audiology Clerkship II**

Practicum following the second academic year with placement in and off-campus site such as a medical setting, school, private practice, or non-profit organization. Credit Level: G. Credit Hrs: 1.00-15.00

35CSD727**Diagnostic Audiology II**

Description, definition, and basic instrumentation of otoacoustic emissions and ECoCh and ABR in the assessment of hearing-impaired people. Credit Level: G. Credit Hrs: 3.00

35CSD728**Seminar in Auditory Processing Disorders**

Contemporary techniques used by audiologists for assessment management of central auditory processing disorders. Credit Level: G. Credit Hrs: 3.00

35CSD731**Neuro Bases of CD**

Neurophysiology for evaluation and treatment of neurogenic speech and language disorders in children and adults. Prereq.: 35CSD210 Prereq: 35CSD210. Credit Level: G. Credit Hrs: 3.00-5.00

35CSD732**Neurogenic Language Disorders**

Evaluation and treatment of aphasia and the communication aspect of other language, cognitive and neurobehavioral disorders in children and adults. Credit Level: G. Credit Hrs: 3.00-5.00

35CSD733**Neurogenic Cognitive Disorders**

Evaluation and treatment of the communicative aspects of cognitive and neurobehavioral disorders in children and adults. Credit Level: G. Credit Hrs: 3.00

35CSD734**Neurogenic Speech Disorders**

Neurophysiology, evaluation, and treatment of neurogenic speech disorders in children and adults. Credit Level: G. Credit Hrs: 3.00

35CSD743**Research Design in Communication**

Planning and analysis, application to individual research. Prereqs: MATH 146 or 147 or a stats course Prereq: 15MATH146. Credit Level: G. Credit Hrs: 3.00

35CSD745**Psychoacoustics**

Thresholds, scaling of judgements, signal detection, lab demonstrations. Credit Level: G. Credit Hrs: 3.00

35CSD748**Advanced Speech and Hearing Science**

Advanced understanding of normal and disordered speech production and perception. Credit Level: G. Credit Hrs: 3.00

35CSD761**Speech Communication for the Hearing Impaired**

Principles from speech and hearing science, normal development, phonetics as applied to development and/or modification of speech in deaf children and adults. Credit Level: G. Credit Hrs: 1.00-3.00

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Communication Sciences and Disorders**35CSD762****Speech Communication for the Hearing Impaired**

Study of speech, voice and informal auditory evaluation procedures for students with impaired hearing. Case study development and reporting emphasized. Credit Level: G. Credit Hrs: 1.00-3.00

35CSD763**Speech Communication for the Hearing Impaired**

Principles of assessment and modification of speech in deaf children and adolescents. Credit Level: G. Credit Hrs: 3.00

35CSD773**Reading and Literacy for SLP's**

This course provides in depth information concerning evidence based practice in all aspects of reading and literacy as it pertains to the knowledge needed by SLP's to provide state of the art services to children. Credit Level: G. Credit Hrs: 3.00

35CSD774**Emergent Literacy for Speech-Language Pathologists**

The course provides a connection between theory and practice in emergent literacy for speech- language. Credit Level: G. Credit Hrs: 3.00

35CSD777**Seminar in School Issues**

Organization, management and administration of a school speech-language pathology and audiology program. Credit Level: G. Credit Hrs: 3.00

35CSD783**Collaborative Literacy Seminar I : Language and Literacy**

Development of an understanding of issues related to language and literacy. Credit Level: G. Credit Hrs: 2.00

35CSD784**Collaborative Literacy Seminar II: Collaboration**

A survey of the collaborative process in language and literacy intervention. Credit Level: G. Credit Hrs: 2.00

35CSD785**Collaborative Literacy Seminar III: Curriculum**

The implementation of curriculum in language and literacy intervention. Credit Level: G. Credit Hrs: 2.00

35CSD786**Collaborative Literacy Seminar IV: Capstone Project**

Synthesis and application of language and literacy modules to Providers, Activities, Contexts model. Credit Level: G. Credit Hrs: 2.00

35CSD811**Voice Disorders**

Function and disorders of the larynx; evaluation and management. Credit Level: G. Credit Hrs: 3.00-5.00

35CSD812**Craniofacial Anomalies**

Cleft palate and associated orofacial anomalies. Evaluation and management. Credit Level: G. Credit Hrs: 3.00

35CSD813**Seminar in Stuttering**

Theories of stuttering; therapeutic approaches. Taught concurrently with intensive therapy program. Credit Level: G. Credit Hrs: 1.00-5.00

35CSD816**Noise and Hearing**

Concepts in hearing risk, personnel protection, noise measurement. Credit Level: G. Credit Hrs: 2.00

35CSD818**Audiologic Rehabilitation of the Adult**

Discussion and study of the principles and methods of aural rehabilitation of the adult. Credit Level: G. Credit Hrs: 3.00

Communication Sciences and Disorders**35CSD819****Pediatric Audiology: Intervention and Management**

Principles of hearing habilitation and hearing managements counseling for families and their young children with mild to profound hearing loss. Credit Level: G. Credit Hrs: 5.00

35CSD822**Vestibular Assessment and Rehabilitation**

Theory and practice in electrophysiologic assessment of normal and disordered vestibular systems. Credit Level: G. Credit Hrs: 3.00

35CSD823**Internship in Audiology I**

Third year, first clinical practicum placement in an off-campus site such as a medical setting, school, private practice, or non-profit organization. Credit Level: G. Credit Hrs: 1.00-15.00

35CSD824**INTERNSHIP IN AUDIOLOGY II**

Third year, second clinical practicum placement in an off-campus site such as a medical setting, school, private practice, or non-profit organization. Credit Level: G. Credit Hrs: 1.00-15.00

35CSD825**INTERNSHIP IN AUDIOLOGY III**

Third year, third clinical practicum placement in an off-campus site such as a medical setting, school, private practice, or non-profit organization. Credit Level: G. Credit Hrs: 1.00-15.00

35CSD826**Audiology Clerkship III**

Practicum following the third academic year with placement in an off-campus site such as a medical setting, school, private practice, or non-profit organization. Credit Level: G. Credit Hrs: 1.00-15.00

35CSD827**Vestibular Assessment and Rehabilitation II**

Pedagogy and practical training in the advanced assessment of vestibular disorders, including advanced diagnostic procedures that include rotary chair, sway platform posturography, vestibular evoked myogenic potentials, electrocochleography, canalith repositioning. Prereq: 35CSD822. Credit Level: G. Credit Hrs: 3.00

35CSD830**Dysphagia**

In depth instruction regarding anatomy and physiology of normal and disordered swallowing, assessment, treatment and research. Perm of Instructor. Credit Level: G. Credit Hrs: 3.00-5.00

35CSD831**Augmentative and Alternative Communication**

Selection of communication systems for non- speaking clients and strategies for assessment intervention using augmentative/alternative systems. Prereq.: 18SPED714 Prereq: 18SPED714. Credit Level: G. Credit Hrs: 3.00-5.00

35CSD832**Early Intervention for Children with Communication Disorders**

The speech language pathologists role in providing transdisciplinary services to infants and toddlers. Credit Level: G. Credit Hrs: 3.00

35CSD834**Advanced Dysphagia**

To provide students with an in-depth understanding of the assessment and treatment of abnormal swallowing in medically complex children and adults. Included will be a review of pathophysiology, etiological correlates, evaluation and management techniques, and current research on swallowing disorders involving complex pulmonary, airway, systemic, or neurogenic disorders. This course assumes a prior knowledge of basic head and neck anatomy, physiology, neuroanatomy, normal and abnormal swallowing, clinical and instrumental assessment and basic treatment planning. Prereq: 35CSD830, 35CSD731, 35CSD310. Credit Level: G. Credit Hrs: 3.00

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Communication Sciences and Disorders**35CSD835****Pediatric Dysphagia**

This course will provide students with knowledge and resources necessary to effectively evaluate and treat feeding and swallowing disorders in medically complex infants and children in medical, school, and home settings. Normal and abnormal anatomy, changes in swallowing physiology from infancy to childhood, evaluation and management techniques, and pertinent research will be covered in the course. Knowledge of head and neck anatomy and physiology as well as basic neuroanatomy is assumed. This course is available to graduate students, doctoral students, and community speech language pathologists. Prereq: 35CSD830 Prereq: 35CSD830. Credit Level: G. Credit Hrs: 2.00

35CSD840**Seminar in Auditory Evoked Potentials (AEP)**

Basic outcomes and effects of communication disorders on the late auditory evoked potentials and discussion, description of the use of AEP's for both research and applied purposes. Credit Level: G. Credit Hrs: 3.00

35CSD841**Practice Management in Communication Disorders**

Overview of business principles including planning, financing, operations and marketing. Credit Level: G. Credit Hrs: 3.00

35CSD842**Seminar in AEP II**

This course covers the latest information on electrophysiology of the auditory system and the clinical application of auditory evoked potentials. Prereq: 35CSD840. Credit Level: G. Credit Hrs: 3.00

35CSD863**Directed Problems in Speech/Language Pathology**

Projects are designed and supervised by the faculty. Offered ea. qtr. Credit Level: G. Credit Hrs: 1.00-15.00

35CSD864**Directed Problems in Audiology**

Projects are designed and supervised by the faculty. Credit Level: G. Credit Hrs: 1.00-15.00

35CSD865**Directed Problems in Speech and Hearing Science**

Projects are designed and supervised by the faculty. Credit Level: G. Credit Hrs: 1.00-15.00

35CSD908**Special Topics in Clinical Practice in Audiology**

Interactive clinical seminar designed to cover applications of specific theoretical audiological information to everyday clinical practice Credit Level: G. Credit Hrs: 2.00

35CSD911**Clinical Practicum in Speech/Language Pathology**

Diagnostic, therapeutic participation in speech/language pathology. Credit Level: G. Credit Hrs: 1.00-15.00

35CSD913**Internship in Speech/Language Pathology**

Off-campus experience in speech/language pathology. Credit Level: G. Credit Hrs: 1.00-15.00

35CSD914**School Practicum in Audiology**

Supervised experience in educational audiology in a school setting. Credit Level: G. Credit Hrs: 1.00-15.00

35CSD915**School Practicum in Speech-Language Pathology**

Supervised experience in providing speech-language services to children in a school setting. Credit Level: G. Credit Hrs: 1.00-15.00

Communication Sciences and Disorders**35CSD916****Advanced Clinical Methods in Communication Science**

This course is directed toward graduate students in speech/language pathology who have had experience in practicum with persons with communication disorders. Students will review assessment and intervention processes to prepare their portfolios. Credit Level: G. Credit Hrs: 3.00

35CSD920**Clinical Externship in Speech-Language Path II**

Full or part-time clinical practicum experience at an off campus site such as a medical setting, school, private practice or non-profit organization. Credit Level: G. Credit Hrs: 1.00-15.00

35CSD921**Clinical Externship in Speech-Language Path III**

Full or part-time clinical practicum experience at an off campus site such as a medical setting, school, private practice or non-profit organization. Credit Level: G. Credit Hrs: 1.00-15.00

35CSD923**Clinical Externship in Audiology I**

Full-time clinical practicum experience at an off-campus site such as medical setting, school, private practice or non-profit organization. Credit Level: G. Credit Hrs: 1.00-15.00

35CSD924**Clinical Externship in Audiology II**

Full-time clinical practicum experience at an off-campus site such as medical setting, school, private practice or non-profit organization. Credit Level: G. Credit Hrs: 1.00-15.00

35CSD925**Clinical Externship in Audiology III**

Full-time clinical practicum experience at an off-campus site such as medical setting, school, private practice or non-profit organization. Credit Level: G. Credit Hrs: 1.00-15.00

35CSD940**Graduate Seminar in Speech Pathology and Audiology**

Presentation of graduate student projects, publishable papers, theses or dissertation designs in seminar mode. Credit Level: G. Credit Hrs: 1.00-3.00

35CSD943**Graduate Research Project Communication Disorders I**

Research project in Communication Disorders I. Completion of research proposal for thesis or publishable paper. Credit Level: G. Credit Hrs: 1.00-3.00

35CSD944**Graduate Research Project Communication Disorders II**

Research Project in Communication Disorders II. Completion of data collection for thesis or publishable paper. Prereq: 35CSD943. Credit Level: G. Credit Hrs: 1.00-3.00

35CSD945**Graduate Research Project Communication Disorders III**

Research project in Communication Disorders III. Completion of written document and oral defense of thesis or publishable paper. Prereq: CSD 943, 944. Credit Level: G. Credit Hrs: 1.00-3.00

35CSD946**Research Methods in Communication Disorders**

Research project and lectures focus on application of design, analysis and short research report. Review MA thesis and published articles. Credit Level: G. Credit Hrs: 3.00

35CSD983**Doctoral Seminar Research in Communication Disorders I**

Pre-dissertation research evaluation, planning and experience. Credit Level: G. Credit Hrs: 3.00-6.00

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Communication Sciences and Disorders**35CSD984****Doctoral Seminar in Research in Communication Disorders II**

Pre-dissertation research evaluation planning and experience. Prereq: 35CSD983. Credit Level: G. Credit Hrs: 3.00-6.00

35CSD985**Doctoral Seminar in Research in Communication Disorders III**

Pre-dissertation research evaluation, planning and experience; professional writing emphasized. Prereq: 35CSD984. Credit Level: G. Credit Hrs: 3.00-6.00

35CSD986**Doctoral Seminar in Communication Disorders: Pedagogy**

Discussion of issues related to teaching at the college level and guided experience in teaching. Credit Level: G. Credit Hrs: 3.00

35CSD987**Doctoral Seminar in Communication Disorders: Supervision**

Discussion of issues related to supervision and guiding experience on supervision of student practicum in Communication Disorders. Credit Level: G. Credit Hrs: 3.00

35CSD988**Doctoral Seminar in Communication Disorders: Grant Writing**

Review of granting agencies, funding sources, grants and guided experience on grant writing. Credit Level: G. Credit Hrs: 3.00

35CSD989**Topics in Language, Speech and Hearing Disorders**

This is a research seminar in which students present, defend and critique recent research articles on Hot Topics in Speech-Language Pathology and Audiology. Topics vary according to student interest. Credit Level: G. Credit Hrs: 1.00

35CSD991**Doctoral Dissertation Research**

Degree candidates only. Credit Level: G. Credit Hrs: 1.00-15.00

35CSD992**Doctoral Dissertation Research**

Degree candidates only. Credit Level: G. Credit Hrs: 1.00-15.00

35CSD993**Doctoral Dissertation Research**

Degree candidates only. Credit Level: G. Credit Hrs: 1.00-15.00

Cellular Therapies**35CT831****Foundations for Cellular Therapies I**

Instruction on stem cell biology, stem cell collection and storage, positive and negative selection, genetic manipulation, clinical cell transplantation, blood groups, infectious disease testing, hazards of transplantations, regulatory issue and quality management. Credit Level: G. Credit Hrs: 2.00

35CT832**Foundations for Cellular Therapies II**

Instruction on stem cell biology, stem cell collection and storage, positive and negative selection, genetic manipulation, clinical cell transplantation, blood groups, infectious disease testing, hazards of transplantations, regulatory issue and quality management. Credit Level: G. Credit Hrs: 2.00

35CT833**Foundations for Cellular Therapies III**

Instruction on stem cell biology, stem cell collection and storage, positive and negative selection, genetic manipulation, clinical cell transplantation, blood groups, infectious disease testing, hazards of transplantations, regulatory issue and quality management. Perm of Instructor. Credit Level: G. Credit Hrs: 2.00

Cellular Therapies**35CT841****Cellular Therapies Seminar I**

Literature review, written paper and oral presentation of cellular therapies topic. Credit Level: G. Credit Hrs: 2.00

35CT842**Cellular Therapies Seminar II**

Literature review, written paper and oral presentation of cellular therapies topic. Credit Level: G. Credit Hrs: 2.00

35CT843**Cellular Therapies Seminar III**

Literature review, written paper and oral presentation of cellular therapies topic. Perm of Instructor. Credit Level: G. Credit Hrs: 2.00

35CT851**Cellular Therapies Laboratory/Clinical Prac I**

This course provides the practical training and experience in cell processing including Plasma reduction, Red cell reduction, Buffy coat preparation, Controlled rate freezing, T cell depletion, CD34 selection and analysis, Donor Lymphocyte infusion, processing of stem cells for cryopreservation, thawing frozen stem cells for infusion, cell counts using automated and manual equipment, record keeping systems for stem cell products and laboratory management training. Credit Level: G. Credit Hrs: 3.00

35CT852**Cellular Therapies Laboratory/Clinical Prac II**

This course provides the practical training and experience in cell processing including Plasma reduction, Red cell reduction, Buffy coat preparation, Controlled rate freezing, T cell depletion, CD34 selection and analysis, Donor Lymphocyte infusion, processing of stem cells for cryopreservation, thawing frozen stem cells for infusion, cell counts using automated and manual equipment, record keeping systems for stem cell products and laboratory management training. Credit Level: G. Credit Hrs: 3.00

35CT853**Cellular Therapies Laboratory/Clinical Prac III**

This course provides the practical training and experience in cell processing including Plasma reduction, Red cell reduction, Buffy coat preparation, Controlled rate freezing, T cell depletion, CD34 selection and analysis, Donor Lymphocyte infusion, processing of stem cells for cryopreservation, thawing frozen stem cells for infusion, cell counts using automated and manual equipment, record keeping systems for stem cell products and laboratory management training. Perm of Instructor. Credit Level: G. Credit Hrs: 3.00

35CT861**Cellular Therapies Thesis Research I**

Preparation of written research proposal to include a literature review, research plan, materials and methods, data analysis, budget and bibliography. Investigative research in a laboratory or clinical setting. Final written thesis. Perm of Instructor. Credit Level: G. Credit Hrs: 4.00-12.00

35CT862**Cellular Therapies Thesis Research II**

Preparation of written research proposal to include a literature review, research plan, materials and methods, data analysis, budget and bibliography. Investigative research in a laboratory or clinical setting. Final written thesis. Credit Level: G. Credit Hrs: 4.00-12.00

35CT863**Cellular Therapies Thesis Research III**

Preparation of written research proposal to include a literature review, research plan, materials and methods, data analysis, budget and bibliography. Investigative research in a laboratory or clinical setting. Final written thesis. Credit Level: G. Credit Hrs: 4.00-12.00

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Genetic Counseling**35GC600****Topics in Personalized Medicine Online**

An asynchronous online only course focused on the science and applications of personalized medicine in health care. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00

35GC828**Emerging Topics in Clinical Genomics**

A series of invited speakers present lectures on diverse topics related to the spectrum of clinical genetics, genetic counseling, molecular & biochemical testing, treatment of genetic conditions and other areas. BoK: SE. Credit Level: G, U. Credit Hrs: 1.00-2.00

35GC829**Emerging Topics in Clinical Genomics**

A series of invited speakers present lectures on diverse topics related to the spectrum of clinical genetics, genetic counseling, molecular & biochemical testing, treatment of genetic conditions and other areas. BoK: SE. Credit Level: G, U. Credit Hrs: 1.00-2.00

35GC830**Emerging Topics in Clinical Genomics**

A series of invited speakers present lectures on diverse topics related to the spectrum of clinical genetics, genetic counseling, molecular & biochemical testing, treatment of genetic conditions and other areas. BoK: SE. Credit Level: G, U. Credit Hrs: 1.00-2.00

35GC606**Legal and Ethical Issues in Human Genetics**

Issues and conflicts in the field of genetics are examined and discussed in the context of a systematic framework, employing principles and concepts of ethics with consideration of legal implications. Credit Level: G. Credit Hrs: 2.00

35GC700**Providing Culturally Competent Care**

Use case studies, journaling & other methods of self-reflection, discourse with instructor and peers through a discussion board, readings taken from lay & professional literature, videos and other electronic instructional materials, and group work. Credit Level: G. Credit Hrs: 2.00

35GC701**Introduction to Public Health Genomics**

An introduction to the role of genomics in public health. This course will explore the growing impact of the genomic revolution in relation to health and disease in populations. Credit Level: G. Credit Hrs: 2.00

35GC734**Introduction to Genetic Counseling**

Practical genetic counseling approaches and methods taught by means of hands-on activities, peer instruction, guest lectures, and role playing. Credit Level: G. Credit Hrs: 3.00

35GC735**Introduction to Genetic Counseling**

See 35-962-734. Credit Level: G. Credit Hrs: 3.00

35GC736**Introduction to Genetic Counseling**

See 35-962-734. Credit Level: G. Credit Hrs: 3.00

35GC740**Clinical Practicum I**

This course provides students with the opportunity to gain practical experience working with patients who are referred for genetic counseling. Credit Level: G. Credit Hrs: 1.00

35GC741**Clinical Practicum II**

This course provides students with the opportunity to gain practical experience working with patients who are referred for genetic counseling. Credit Level: G. Credit Hrs: 1.00

Genetic Counseling**35GC742****Clinical Practicum III**

This course provides students with the opportunity to gain practical experience working with patients who are referred for genetic counseling. Credit Level: G. Credit Hrs: 1.00

35GC743**Clinical Practicum Summer Internship**

This course provides students with the opportunity to gain practical experience working with patients who are referred for genetic counseling. Credit Level: G. Credit Hrs: 1.00-3.00

35GC750**Genetic Counseling Professional Development Series**

Topics related to professional development in the field of genetic counseling are addressed. Credit Level: G. Credit Hrs: 1.00

35GC751**Clinical Genetics I**

In-depth description of clinical aspects and genetic counseling issues of common genetic diseases. For first year GC students only. Credit Level: G. Credit Hrs: 1.00

35GC752**Clinical Genetics II**

In-depth description of clinical aspects and genetic counseling issues of common genetic disorders. For first year GC students only. Credit Level: G. Credit Hrs: 1.00

35GC753**Clinical Genetics III**

In-depth description of clinical aspects and genetic counseling issues of common genetic diseases. Geared for first year GC students only. Credit Level: G. Credit Hrs: 1.00

35GC754**Clinical Genetics IV**

In depth description of clinical aspects and genetic counseling issues of common genetic disorders. Credit Level: G. Credit Hrs: 1.00

35GC755**Clinical Genetics V**

In depth description of genetic aspects and genetic counseling issues of common genetic disorders. Credit Level: G. Credit Hrs: 1.00

35GC766**Independent Study in Genetic Counseling**

Independent study at the graduate level in genetic counseling, under the direction of G.C. Program faculty. Subject varies with student interests. Perm of Instructor. Credit Level: G. Credit Hrs: 1.00-6.00

35GC767**Independent Study in Genetic Counseling**

See 35-962-766. Credit Level: G. Credit Hrs: 1.00-6.00

35GC768**Independent Study in Genetic Counseling**

See 35-962-766. Credit Level: G. Credit Hrs: 1.00-6.00

35GC777**Advanced Genetic Counseling Issues**

Advanced clinical practice and professional issues in genetic counseling. Perm of Instructor. Credit Level: G. Credit Hrs: 1.00-3.00

35GC778**Advanced Genetic Counseling Issues**

See 35-962-777. Credit Level: G. Credit Hrs: 1.00-3.00

35GC779**Advanced Genetic Counseling Issues**

See 35-962-777. Credit Level: G. Credit Hrs: 1.00-3.00

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Genetic Counseling**35GC781****Human Genetics Journal Club**

Molecular and clinical genetics papers are reviewed, presented and discussed. Credit Level: G. Credit Hrs: 1.00

35GC785**Research Design**

This course provides genetic counseling students the skills and resources to develop their masters thesis research proposal and a protocol for submission to the IRB. Credit Level: G. Credit Hrs: 3.00

35GC791**Master's Thesis Research**

Independent research towards master's degree. Credit Level: G. Credit Hrs: 1.00-15.00

35GC800**Community Education Experience**

To develop educational interventions that accomplish the goals and meet the specific needs of the audience. Topics include: educational theory and pedagogy. Credit Level: G. Credit Hrs: 1.00-3.00

35GC825**Emerging Topics in Clinical Genomics**

Series of invited speakers present lectures on diverse topics related to the spectrum of clinical genetics, genetic counseling, molecular and biochemical testing, treatment of genetic conditions and other areas. Credit Level: G. Credit Hrs: 1.00-2.00

35GC826**Emerging Topics in Clinical Genomics**

A series of invited speakers will present lectures on diverse topics related to the spectrum of clinical genetics, genetic counseling, molecular and biochemical testing, treatment of genetic conditions and other areas. Credit Level: G. Credit Hrs: 1.00-2.00

35GC827**Emerging Topics in Clinical Genomics**

Series of invited speakers present lectures on diverse topics related to the spectrum of clinical genetics, genetic counseling, molecular and biochemical testing, treatment of genetic conditions and other areas. Credit Level: G. Credit Hrs: 1.00-2.00

35GC840**Clinical Practicum IV**

This course provides students with the opportunity to gain practical experience working with patients who are referred for genetic counseling. Credit Level: G. Credit Hrs: 1.00-3.00

35GC841**Clinical Practicum V**

This course provides students with the opportunity to gain practical experience working with patients who are referred for genetic counseling. Credit Level: G. Credit Hrs: 1.00-3.00

35GC842**Clinical Practicum VI**

This course provides students with the opportunity to gain practical experience working with patients who are referred for genetic counseling. Credit Level: G. Credit Hrs: 1.00-3.00

35GC853**Genetic Counseling Case Conference**

Review and discussion of cases seen for genetic counseling and medical genetic evaluation. Credit Level: G. Credit Hrs: 1.00

35GC854**Genetic Counseling Case Conference**

See 35-962-853. Credit Level: G. Credit Hrs: 1.00

35GC855**Genetic Counseling Case Conference**

See 35-962-853. Credit Level: G. Credit Hrs: 1.00

Genetic Counseling**35GC860****Teratology**

Basic principles of teratology will be discussed. Topics include drug testing, pharmacokinetics, retinoids, thalidomide, environmental chemicals, anticonvulsants, diabetes, behavioral teratology, fetal alcohol syndrome, therapeutic drugs, infectious diseases, radiation, and hormones. Credit Level: G. Credit Hrs: 3.00

35GC881**Human Genetics**

Introduction to basic human genetics including mitosis, meiosis, chromosome structure and mechanisms of rearrangement, inheritance, modes / mechanisms, mutational mechanism, population / quantitative genetics and biochemical genetics (polymorphisms). Credit Level: G. Credit Hrs: 3.00

35GC888**Cancer Genomics and Genetic Counseling**

Study of genetic, environmental and epigenetic causes of cancer, syndromes and the related genetic counseling issues. Credit Level: G. Credit Hrs: 3.00

35GC900**Clinical Embryology**

A course designed for understanding the process of usual human development in order to appreciate the timing and mechanisms underlying birth defects, chromosomal abnormalities and genetic syndromes. Credit Level: G. Credit Hrs: 3.00

Health Information Management**35HIM504****Issues in Healthcare Delivery**

This course provides an overview of US health care systems and their many components including organizational structures, mechanisms for health care delivery, health services financing, health policy, quality of health care and health information management. BoK: NA. Credit Level: U. Credit Hrs: 5.00

35HIM506**Health Data Management**

This course will provide the methods and technique to manage health care data, to develop documentation guidelines and understand compliance regulations and standards of AHIMA. BoK: NA. Credit Level: U. Credit Hrs: 5.00

35HIM508**Clinical Data Management**

This course will focus on evaluating and analyzing clinical data. The course will address clinical classifications, terminologies, and future initiatives in coding. BoK: NA. Credit Level: U. Credit Hrs: 5.00

35HIM510**Applied Reimbursement Methods**

This course will focus on analysis of reimbursement methods and the role of HIM professionals in revenue cycle management. BoK: NA. Credit Level: U. Credit Hrs: 5.00

35HIM512**Computer Systems in Healthcare**

Comprehensive study of computers in healthcare. BoK: NA. Credit Level: U. Credit Hrs: 5.00

35HIM514**Professional Computer Practicum**

Supervised computer practicum in a healthcare facility. Emphasis on evaluation of computer applications and utilizing software applications. BoK: NA. Credit Level: U. Credit Hrs: 5.00

35HIM516**Legal and Ethical Issues in Healthcare**

Study of legal and ethical issues in healthcare with a focus on practical applications in health information management. BoK: NA. Credit Level: U. Credit Hrs: 5.00

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Health Information Management**35HIM520****Human Resource Management**

Applications in managing health information management (HIM) departments in healthcare facilities. Students will apply theories and utilize best practices to the management of human resources. BoK: NA. Credit Level: U. Credit Hrs: 5.00

35HIM522**Professionalism and Leadership**

Study of the management of change, team building, and leadership development related to practice in healthcare. Students will learn skills and outline effective strategies for communication. BoK: NA. Credit Level: U. Credit Hrs: 5.00

35HIM525**Clinical Terminologies and Classification Systems**

Analysis of standard clinical terminologies including SNOMED, ICD-10-PCS, medical linguistics, medical vocabulary standards, natural language processing and the role of the healthcare vocabularies and clinical terminologies in the electronic health record. BoK: NA. Credit Level: U. Credit Hrs: 5.00

35HIM526**Financial and Resource Management**

Financial aspects of healthcare and accounting principles BoK: NA. Credit Level: U. Credit Hrs: 5.00

35HIM528**Strategic Planning and Organizational Development**

Course will focus on strategic and operational plans in healthcare. BoK: NA. Credit Level: U. Credit Hrs: 5.00

35HIM530**Project and Operations Management**

Application of project management techniques and implementing process engineering BoK: NA. Credit Level: U. Credit Hrs: 5.00

35HIM532**Statistics and Research Methods**

Analysis and presentation of data and introduction to research methods. BoK: NA. Credit Level: U. Credit Hrs: 5.00

35HIM534**Quality Management and Performance Improvement**

Advanced study of the application of QI tools, evaluation of documentation standards, quality improvement, utilization and risk management, and credentialing. BoK: NA. Credit Level: U. Credit Hrs: 5.00

35HIM536**Capstone: Contemporary Issues in HIM**

Discussion of emerging issues and trends in the health information management (HIM) field. Integrate studies and apply knowledge to problems and issues facing the HIM profession. BoK: NA. Credit Level: U. Credit Hrs: 5.00

35HIM538**Professional HIM Practicum**

Professional practice course provides the student with the opportunity to integrate knowledge, behaviors, and professional attributes acquired throughout the curriculum that are necessary to the practice of HIM. The student will be involved in developing insight and skill in HIM management. BoK: NA. Credit Level: U. Credit Hrs: 5.00

Health Sciences**35HLSC172****Musculoskeletal Anatomy**

This course is designed to provide the student with a foundation in basic surface anatomy. In order to allow the student to develop a sound working knowledge of surface musculature and bony landmarks, laboratory experience will be utilized throughout the course. Prereq: 15BIOL201. BoK: NS. Credit Level: U. Credit Hrs: 3.00

Health Sciences**35HLSC211****Medical Terminology**

This course will cover medical terminology for health or allied health majors or anyone interested in learning medical terminology. The course will be formatted for on-line. Students will learn root words, combining forms, and application of learning via worksheets. BoK: NA. Credit Level: U. Credit Hrs: 3.00

35HLSC294**Human Behavior in Health & Sickness for Health Related Programs**

This course will discuss the various aspects of human behavior in response to illness. Emphasis will be on understanding normal versus abnormal reactions to illness, and therefore being able to apply the most effective therapy regimen. The course will consist of lectures, case studies, and observation of psychiatric evaluations. This course is available to all majors. BoK: SS. Credit Level: U. Credit Hrs: 3.00

35HLSC330**Introduction to Biomechanics**

This course will introduce students to the basic terminology in biomechanics. The forces that act on the body during static and dynamic activities will be emphasized. Information mastered will be applied to whole body function. Prereq: 35HLSC172, 15PHYS103, 35HLSC172. BoK: NA. Credit Level: U. Credit Hrs: 3.00

35HLSC333**Computers and Equipment in Biomechanics**

This course will introduce students to the equipment and procedures used to measure movement and force. This lab-based class emphasizes techniques used in research and testing in health care settings, including manual and mechanical measurement of force, joint movement, 2D and 3D motion analysis, friction and gravity. BoK: NA. Credit Level: U. Credit Hrs: 4.00

35HLSC345**Physical Conditioning and Testing**

This course covers the guidelines and accepted methods for exercise testing, strength and conditioning established by the American College of Sports Medicine and the National Strength and Conditioning Association. Students will apply knowledge from previous coursework in anatomy and physiology, exercise physiology, biomechanics, and kinesiology. Students will develop exercise protocols / prescriptions using accepted methods of exercise testing and apply knowledge of methods of strength and conditioning training. Prereq: 35HLSC351, 35HLSC412. Coreq: 35HLSC352, 35HLSC413. BoK: NA. Credit Level: U. Credit Hrs: 4.00

35HLSC351**Kinesiology I**

This course is designed to provide the student with a basic understanding of human movement. Included in this course is an examination of the anatomy of the musculoskeletal system, the structure and function of muscles and associated connective tissue, the structure and function of joints and the application of basic mechanical laws. This course is designed to contribute to the skills sets described by the ACSM and the NSCA as necessary components for entry level certifications. Prereq: 35HLSC330. Coreq: 35HLSC331. BoK: NA. Credit Level: U. Credit Hrs: 3.00

35HLSC352**Kinesiology II**

A continuation of Kinesiology I, this course is designed to provide the student with a basic understanding of human movement. Included in this course is an examination of the anatomy of the musculoskeletal system, the structure and function of muscles and associated connective tissue, the structure and function of joints, and the application of basic mechanical laws. This course is designed to contribute to the skills sets described by the ACSM and the NSCA as necessary components for entry level certifications. Prereq: 35HLSC351. BoK: NA. Credit Level: U. Credit Hrs: 3.00

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Health Sciences**35HLSC373****Health Care Ethics**

This interdisciplinary course considers ethical theories and principles applicable to the allied health professions. Using scholarly inquiry, students will analyze ethical dilemmas that may occur in their professional roles. Students will address ethical issues across the lifespan in diverse socioeconomic and cultural situations. BoK: NA. Credit Level: U. Credit Hrs: 2.00

35HLSC401**Recreation Across the Lifespan I**

This course combines classroom study with service learning. Classroom study involves didactic information on aging and the effects of aging on physical activity. The service learning component provides students with weekly first-hand experience in implementing exercise programs for older adults. Students will utilize knowledge from previous coursework in anatomy, physiology, biomechanics, kinesiology, exercise testing, and strength and conditioning, and apply the principles to exercise and activity to the elderly population. This course is designed to contribute to the skills sets described by the ACSM and the NSCA as necessary components for entry level certifications. Prereq: 35HLSC345, 35HLSC340, 35HLSC360, 35HLSC332. Coreq: . BoK: NA. Credit Level: U. Credit Hrs: 3.00

35HLSC402**Recreation Across the Lifespan II**

This course is designed to provide the student with the opportunity to apply previous course knowledge in a practical setting working with an adult population. The course will combine classroom activities with independent study and community engagement experiences. The students will apply the principles of exercise testing and prescription, kinesiology, biomechanics, and strength and conditioning in order to provide members of the community with guidance in matters of health and fitness. Prereq: 35HLSC401. BoK: NA. Credit Level: U. Credit Hrs: 3.00

35HLSC403**Recreation Across the Lifespan III**

Combines on-line independent study with service learning. The on-line independent study portion of the course gives students the opportunity to design exercise programs for individuals of varying fitness levels. The service learning component provides students with weekly first hand experience in implementing exercise programs to members of the community who are between the ages of 5 and 20 years. Students will utilize knowledge from previous coursework in anatomy, physiology, biomechanics, kinesiology, exercise testing & strength & conditioning to the principles in the pediatric population. Prereq: 35HLSC402. BoK: NA. Credit Level: U. Credit Hrs: 3.00

35HLSC411**Physiology of Exercise I**

Physiology of Exercise is the study of the human body's short term responses and its long term adaptations to exercise. This is the first course in a sequence of three that will investigate the human body's bio energy systems, the utilization during exercise and the application of these systems towards performance enhancement. Prereq: 15CHEM103, 15BIOL103, 15BIOL203. BoK: NA. Credit Level: U. Credit Hrs: 3.00

35HLSC412**Physiology of Exercise II**

This course is an extension of Physiology of Exercise I. Cardiovascular physiology as it relates to exercise and ECG interpretation will be a major focus. In addition, special populations, environments, and supplemental aids will be addressed. Prereq: 35HLSC411. BoK: NS. Credit Level: U. Credit Hrs: 3.00

35HLSC413**Physiology of Exercise III**

This course is an extension of Physiology of Exercise II. The student will write an exercise prescription using work calculations and ECG data from a cardiorespiratory stress test and other fitness information. A lab

Health Sciences**35HLSC413****Physiology of Exercise III**

component will be a major part of this course. Prereq: 35HLSC412. BoK: NS. Credit Level: U. Credit Hrs: 3.00

35HLSC421**Biomechanics of Sport I**

This course is designed to provide the student with an understanding of the biomechanics of movement and sport activities. This includes terminology, an examination of concepts and principles, and performing the observations, analyses and calculations necessary to examine mechanical and performance characteristics of human movements. This course is designed to meet the skill sets described by the ACSM and the NSCA as necessary components for entry level certifications. There is a lecture and a laboratory component to the course. Prereq: 35HLSC352. BoK: NA. Credit Level: U. Credit Hrs: 3.00

35HLSC422**Biomechanics of Sport II**

This course is designed to provide the student with an increased understanding of human movement as it relates to dynamic activities. Included in this course is an examination of the anatomy of the musculoskeletal system, the structure and function of joints and the application of basic mechanical laws. This course is designed to contribute to the skill sets described by the ACSM and the NSCA as necessary components for entry level certifications. Prereq: 35HLSC421. BoK: NA. Credit Level: U. Credit Hrs: 3.00

35HLSC423**Special Topics in Sports and Sports Science**

To cover topics related to sports biomechanics and exercise science that is not directly related to biomechanics but can effect the athlete or participant Prereq: 35HLSC422. BoK: NA. Credit Level: U. Credit Hrs: 3.00

35HLSC499**Behavior and Fitness**

This course is designed to provide students with the foundation and skills to facilitate behavior changes and conduct health promotion in the community and corporate setting. Prereq: 35HLSC330, 35HLSC351. Coreq: 35HLSC411, 35HLSC412. BoK: NA. Credit Level: U. Credit Hrs: 3.00

35HLSC510**Research Methods**

The purpose of this course is to introduce the student to basic research methods and concepts with special emphasis on research for healthcare professionals. Specific method and concepts that will be introduced include basic epidemiological terms, study design, reliability and validity, statistics, and determination of causality. A goal of this course is to help the student interpret scientific literature. Prereq: 15MATH146, 15MATH147. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

35HLSC520**Senior Project I**

Independent study course is a required course for students in the final year of the HLSC program. The course allows each student to work on his/her capstone experience which all health science students must complete prior to graduation. Prereq: 35HLSC510, 35HLSC345. BoK: NA. Credit Level: U. Credit Hrs: 2.00

35HLSC521**Senior Project II**

Independent study course is a required course for students in the final year of the HLSC program. The course allows each student to work on his/her capstone experience which all Health Science students must complete prior to graduation. Prereq: 35HLSC520. BoK: NA. Credit Level: U. Credit Hrs: 3.00

35HLSC522**Senior Project III**

Independent study course is a required course for students in the final

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Health Sciences**35HLSC522****Senior Project III**

year of the HLSC program. The course allows each student to work on his/her capstone experience which all Health Science students must complete prior to graduation. Prereq: 35HLSC521. BoK: NA. Credit Level: U. Credit Hrs: 3.00

35HLSC523**Elective: Gait Analysis**

Students will study the kinematic and kinetic aspects of normal and abnormal gait. Emphasis will be on the clinical analysis of gait and the development and completion of a project related to the biomechanics of walking and running. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

35HLSC567**Motor Learning for Performance**

Online course with lectures, independent study, and guided lab activities that will focus on individual differences and information processing in the principles of motor control. The process of skill learning from preparation to feedback will be discussed. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

35HLSC570**Rational & Irrational Use of Drugs of Abuse**

Course will provide a basic understanding of how drugs that act on the brain produce their effects. The pharmacological, medical & social aspects of these drugs will be discussed. Emphasis will be placed on understanding how drugs act to produce desirable effects & undesirable or toxic effects. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

35HLSC600**Independent Study**

Independent study into an area of interest (health sciences, biomechanics or rehabilitation sciences) to the student Perm of Instructor. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-4.00

Interdisciplinary Health Education**35HLTH101****Success in Allied Health I**

A continuation of Freshman Orientation. Subjects to be covered include but are not limited to academic survival skills, interpersonal relationships, campus life outside the classroom and career decisions. BoK: HU. Credit Level: U. Credit Hrs: 2.00

35HLTH102**Success in Allied Health II**

This course provides an overview and understanding of career development for CAHS students emphasizing academic preparation, career options, success and commitment to a career choice. BoK: HU. Credit Level: U. Credit Hrs: 1.00

35HLTH103**Success in Allied Health III**

This course provides first-year students with hands-on experience in areas of career choice through service learning activities to further define their career goals. BoK: HU. Credit Level: U. Credit Hrs: 1.00

35HLTH373**Health Care Ethics**

This interdisciplinary course considers ethical theories and principles applicable to nursing, pharmacology, and the allied health professions. Using scholarly inquiry, students will analyze ethical dilemmas that may occur in their professional roles. Students will address ethical issues across the lifespan in diverse socioeconomic and cultural situations. BoK: NA. Credit Level: U. Credit Hrs: 2.00

35HLTH506**Health Data Management**

This course will provide the methods and techniques to manage health care data, to develop documentation guidelines and understand compliance regulations and standards of AHIMA (accreditation organization). BoK: NA. Credit Level: U. Credit Hrs: 5.00

Interdisciplinary Health Education**35HLTH508****Clinical Data Management**

This course will focus on evaluating and analyzing clinical data. The course will address clinical classifications, terminologies and future initiatives in coding. BoK: NA. Credit Level: U. Credit Hrs: 5.00

35HLTH510**Applied Reimbursement Methods**

This course will focus on analysis of reimbursement methods and the role of HIM professionals in revenue cycle management. BoK: NA. Credit Level: U. Credit Hrs: 5.00

35HLTH570**Integrative Therapies for Health Sciences**

An interdisciplinary course introducing health science students to complimentary and alternative therapies. BoK: DC. Credit Level: U, G. Credit Hrs: 3.00

35HLTH650**Case Studies in Interdisciplinary Health Care**

An interdisciplinary course designed to provide hands-on experience in the concepts and rationale of interdisciplinary care. Emphasis is placed on the essential need for interdisciplinary care and effective communication among the disciplines. BoK: DC., SE. Credit Level: U, G. Credit Hrs: 3.00

35HLTH660**Health Care Delivery Systems**

This course is a broad overview of the U.S. health care system and its many components including organizational structures, mechanisms for health care delivery, health services financing, determinants of health and health status, health policy, and quality of health care. BoK: HU. Credit Level: U, G. Credit Hrs: 2.00-5.00

35HLTH680**Legal Aspects of Health Care**

This course explores the legal and regulatory environment within which health care providers and professional must operate. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

35HLTH673**Health Care Ethics**

This interdisciplinary course considers ethical theories and principles applicable to nursing, pharmacology, and the allied health professions. Using scholarly inquiry, students will analyze ethical dilemmas that may occur in their professional roles. Students will address ethical issues across the lifespan in diverse socioeconomic situations. Credit Level: G. Credit Hrs: 2.00

Nutrition Sciences**35NUTR176****Food Science I**

Basic culinary techniques, and menu planning; introduction to the study of the physical and chemical properties and sensory evaluation of food. Lecture and lab. BoK: NA. Credit Level: U. Credit Hrs: 4.00

35NUTR240**Personal Nutrition**

This course is designed for majors and non-majors. The course will provide an overview of nutrient metabolism and review important functions of nutrients on life processes and the role of nutrients on health and disease. Tools to evaluate and analyze personal nutrition will be discussed. BoK: NS. Credit Level: U. Credit Hrs: 3.00

35NUTR241**Principles of Nutrition**

This course will review the scientific principles of nutrition with an emphasis on macronutrient and micronutrient metabolism and functions. The course includes an introduction to the basic methods of nutritional assessment. Prereq: 35NUTR240. BoK: NS. Credit Level: U. Credit Hrs: 3.00

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Nutrition Sciences**35NUTR252****Lifecycle Nutrition**

Nutritional needs to support growth and development from conception through adulthood and aging. Prereq: 35NUTR240. BoK: NS. Credit Level: U. Credit Hrs: 3.00

35NUTR282**Explore Dietetics & Nutrition**

Introduction to the field of Dietetics and Nutrition in relation to its history and practices in the health care system. An overview of policies, procedures and curricula in the Department of Nutritional Sciences will be provided. BoK: NA. Credit Level: U. Credit Hrs: 1.00

35NUTR376**Food Science II**

The study of the chemical and physical properties of food; the effects of processing on nutritive value; and sensory evaluation of foods. Prereq: 35NUTR176. BoK: QR. Credit Level: U. Credit Hrs: 4.00

35NUTR381**Communication Skills in Nutrition**

Basic techniques of oral and written communication skills used in the field of nutrition. Includes oral presentations, interviewing and counseling techniques; development of lesson plans. Prereq: 35NUTR240. BoK: HU. Credit Level: U. Credit Hrs: 3.00

35NUTR382**Nutritional Assessment Methods**

This course will provide students with an in-depth look at the major assessment techniques including dietary, anthropometric, physical and biochemical methods for assessing nutritional status. Students gain practical experience in applying specific assessment techniques to various disease states, including cardiovascular disease, diabetes gastrointestinal disease and renal disease. Prereq: 35NUTR252, 35NUTR603. BoK: NA. Credit Level: U. Credit Hrs: 3.00

35NUTR476**Quantity Foods**

Planning of institutional menus, including purchasing, preparation, and service of food. Lec. and lab. Prereq: 35NUTR376. BoK: QR. Credit Level: U. Credit Hrs: 4.00

35NUTR482**Professional Seminar**

Discussion of goal setting, portfolio development, resume preparation, interviewing skills, and other topics related to professional development. Assist students in portfolio preparation to fulfill requirement for capstone experience for Dietetics and Food and Nutrition majors. BoK: NA. Credit Level: U. Credit Hrs: 2.00

35NUTR572**Projects and Problems in Nutrition**

A course designed to allow students to pursue an individualized learning project with approval of and under supervision of a faculty member. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

35NUTR575**Community Nutrition**

Nutrition programs in the community and fundamentals of nutrition care delivery. Includes nutrition assessment, nutrition education and design of programs. Prereq: 35NUTR240. BoK: SS. Credit Level: U, G. Credit Hrs: 3.00

35NUTR578**Institutional Management**

Principles of management in institutional food service settings. Includes resource management, quality assurance, accounting and marketing. BoK: QR. Credit Level: U, G. Credit Hrs: 4.00

35NUTR580**Nutrition Practicum**

Field experiences in areas of Nutrition, Nutrition and Business, Food Service, Management, or Nutrition and Exercise. Must be pre-arranged with instructor one quarter prior to enrollment. Senior standing. Majors

Nutrition Sciences**35NUTR580****Nutrition Practicum**

only. BoK: NA. Credit Level: U, G. Credit Hrs: 2.00

35NUTR582**Internship Seminar**

Discussion of the dietetic internship application process, including a review of internship requirements, introduction to specific internship alternatives, and assistance with completion of application requirements. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00

35NUTR600**Advanced Nutrition I**

In-depth study of the biochemical and physiological functions of energy, protein, fat and carbohydrates. Prereq: 28CHEM206, 15BIOL203. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

35NUTR601**Advanced Nutrition II**

In-depth study of the biochemical and physiological functions of vitamins. Prereq: 35NUTR600. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

35NUTR602**Advanced Nutrition III**

In-depth study of the biochemical and physiological functions of minerals. Review of role of phytochemicals in nutrition and health. Prereq: 35NUTR601. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

35NUTR603**Medical Nutrition Therapy I**

Nutrition therapy and diet modifications for pathological conditions. Includes nutrition care planning and medical record documentation. Prereq: 35NUTR600, 15BIOL203. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

35NUTR604**Medical Nutrition Therapy II**

Nutrition therapy and diet modifications for pathological conditions. Includes nutrition care planning for cardiovascular disease, diabetes, hypertension and chronic obstructive pulmonary disease. Prereq: 35NUTR603. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

35NUTR605**Medical Nutrition Therapy III**

Nutritional therapy and diet modifications for pathological conditions. Includes nutrition care planning for gastrointestinal diseases, diseases of the liver and kidney and cancer therapeutics. Prereq: 35NUTR604. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

35NUTR650**Nutrition and Exercise**

Study of interactions between nutrition and exercise with emphasis on health promotion and fitness. Prereq: 35NUTR240. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

35NUTR685**Nutrition Research Methods**

Methodologies and practicum experience related to conducting nutrition research. Prereq: 35NUTR602, 15MATH146. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

35NUTR691**Supervised Practice Experience I**

Individually assigned site rotations that enable the student to demonstrate entry-level dietitian competence by attaining all of the Commission on Accreditation for Dietitians Education Core Competencies. Students work with, and are evaluated by, a number of site preceptors. Participation is required in weekly programs designed to enhance the supervised practice experience. BoK: NA. Credit Level: U, G. Credit Hrs: 6.00

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Nutrition Sciences**35NUTR692****Supervised Practice Experience II**

Individually assigned site rotation that enable the student to demonstrate entry-level dietitian competence by attaining all of the Commission on Accreditation for Dietitians Education Core Competencies. Students work with, and are evaluated by a number of site preceptors. Participation is required in weekly programs designed to enhance the supervised practice experience. Prereq: 35NUTR691. BoK: NA. Credit Level: U, G. Credit Hrs: 15.00

35NUTR693**Supervised Practice Experience III**

Individually assigned site rotations that enable the student to demonstrate entry-level dietitian competence by attaining all of the Commission on Accreditation for Dietitians Education Core Competencies. Students work with, and are evaluated by, a number of site preceptors. Participation is required in weekly programs designed to enhance the supervised practice experience. Prereq: 35NUTR692. BoK: NA. Credit Level: U, G. Credit Hrs: 15.00

35NUTR694**Supervised Practice Experience IV**

Individually assigned site rotations that enable the student to demonstrate entry-level dietitian competence by attaining all of the Commission on Accreditation for Dietitians Education Core Competencies. Students work with, and are evaluated by, a number of site preceptors. Participation is required in weekly programs designed to enhance the supervised practice experience. Prereq: 35NUTR693. BoK: NA. Credit Level: U, G. Credit Hrs: 15.00

35NUTR782**Nutrition Strategies for Behavior Change**

Understanding and application of theoretical frame works from the behavioral sciences to design nutrition intervention programs to various groups and to facilitate the adoption of healthful behaviors. Prereq: 35NUTR240. Credit Level: G. Credit Hrs: 3.00

35NUTR783**Macronutrients**

An in-depth examination of energy and macronutrient metabolism. Prereq: 28CHEM206. Credit Level: G. Credit Hrs: 3.00

35NUTR784**Vitamin Nutrition**

For each vitamin, consideration will be given to structure, sources, digestion, absorption, transport, functions and mechanisms of action, metabolism and excretion, recommended dietary allowance or dietary reference intake, deficiency, toxicity, and assessment of nutriture. Prereq: 28CHEM206. Credit Level: G. Credit Hrs: 3.00

35NUTR785**Mineral Nutrition**

A course that will allow students to demonstrate a gain in knowledge related to the biochemical and physiological aspects of mineral nutrition. A discussion of current research related to mineral nutrition. Prereq: 28CHEM206. Credit Level: G. Credit Hrs: 3.00

35NUTR786**Advanced Clinical Nutrition**

This course is based on a knowledge of macro-nutrient metabolism, physiology & biochemistry. Chronic and acute diseases that involve diet therapy will be examined from the standpoint of understanding the disease state and the current nutritional approaches to preventing and/or managing the disease. Prereq: 35NUTR783, 29NURS820. Credit Level: G. Credit Hrs: 3.00

35NUTR787**Topics in Nutrition Research**

Students will learn the skills required to critically evaluate current nutrition research through reading research articles, interpreting results and conclusions, and searching for relevant literature. Prereq: 35NUTR240. Credit Level: G. Credit Hrs: 3.00

Nutrition Sciences**35NUTR788****Methods in Nutritional Assessment**

The aims of this course are to provide the skills for understanding and evaluating the dietary, clinical, and biochemical components in the assessment of nutritional status of individuals and communities. Prereq: 35NUTR783, 35NUTR784. Coreq: 35NUTR785. Credit Level: G. Credit Hrs: 3.00

35NUTR871**Individual Study in Food and Nutrition**

Individual research on a problem in the area of food and nutrition. Credit Level: G. Credit Hrs: 1.00-9.00

35NUTR872**Readings in Food and Nutrition**

A selected program of readings regarding major research contributions in the area of food and nutrition when there is no opportunity in a regularly scheduled class to pursue such an investigation. Credit Level: G. Credit Hrs: 1.00-9.00

35NUTR874**Masters Thesis Guidance**

A research investigation. Credit Level: G. Credit Hrs: 1.00-6.00

Physical Therapy**35PT500****Sports Medicine Seminar I**

Lecture/Seminar/ Journal Club Series to bring new techniques, research and protocols to discussion in the sports medicine field. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00

35PT501**Sports Medicine Seminar II**

Seminar Course geared toward active discussion following formal presentations and journal article review 2X a quarter. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00

35PT831**Physiology, Pathology and Pharmacology I**

Part I focuses on the basic principles of cell physiology and histology, homeostasis, and general introduction to the physiology of musculoskeletal system. In addition, pathologies of inflammation, cell and tissue injury and healing, immunopathology, general principles of pharmacology are also included. Emphasis will be on understanding and application of information of the respective topics. Credit Level: G. Credit Hrs: 3.00

35PT832**Physiology, Pathology and Pharmacology II**

Part II emphasis is on an in-depth study of physiology, pathophysiology, and pharmacology of the musculoskeletal and endocrine systems, and cancer. Credit Level: G. Credit Hrs: 3.00

35PT833**Physiology, Pathology & Pharmacology III**

This course emphasizes the physiology, pathophysiology and pharmacology of the cardiopulmonary systems, blood, and digestive system. Credit Level: G. Credit Hrs: 3.00

35PT834**Physiology, Pathology and Pharmacology IV**

This course emphasizes the physiology, pathology, and pharmacology of the nervous and renal systems and the skin. Credit Level: G. Credit Hrs: 3.00

35PT835**Physiology, Pathology and Pharmacology V**

This section discusses selective topics and case studies of various medical conditions. Emphasis on recognizing and management of medical emergencies will be discussed thoroughly. Credit Level: G. Credit Hrs: 2.00

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Physical Therapy**35PT841****Movement Science I**

This course will introduce students to the concepts of motor learning and progress to the analysis of static and dynamic activities in the upper quarter. Students will use biomechanical principles to study joint motion and the forces involved in activities of the cervical spine and upper extremity. Credit Level: G. Credit Hrs: 2.00

35PT842**Movement Science II**

Students will use biomechanical principles to study joint motion and the forces involved in activities of the thoracic and lumbar spine and lower extremity. The components of gait and posture, including deviations will be covered. Credit Level: G. Credit Hrs: 3.00

35PT843**Movement Science III**

Theories and principles of motor control and motor learning, concepts related to recovery of function and plasticity, models of disablement will be covered. Conceptual frameworks for clinical practice, normal aging and abnormal postural control and balance, and an introduction of constraints on motor control in general neurological impairments will be covered. Applied neuroscience will be the focus of laboratory activities related to motor control and learning. Credit Level: G. Credit Hrs: 3.00

35PT844**Movement Science IV**

This course will focus on motor development from conception through old age. The impact of age related changes, including social, psychological and physiological on functional movement will be discussed. Students will be introduced to some common abnormalities and pathologies. The material will be presented primarily in a lecture format although several laboratory sessions, primarily observation, such as observing typical infant development, will be included. Videos and computer assisted learning will also be utilized. Credit Level: G. Credit Hrs: 4.00

35PT845**Movement Science V**

This course will focus on development from conception through old age. The impact of age related changes, including social, psychologic and physiologic, on functional movement will be discussed. Students will be introduced to some common abnormalities and pathologies, with an emphasis on the pediatric and geriatric populations, as well as appropriate PT intervention. The material will be presented primarily in a lecture format with one laboratory session on infant/child development. Videos and computer assisted learning will also be utilized. Credit Level: G. Credit Hrs: 2.00

35PT846**Patient Management I: Musculoskeletal Conditions**

This course will focus on physical therapy evaluation and differential diagnosis in relationship to orthopedic problems of the upper extremity joints. Emphasis will be placed on differential diagnosis, imaging, conservative management and post surgical management of the shoulder, elbow and wrist/hand. Credit Level: G. Credit Hrs: 4.00

35PT847**Patient Management II: Musculoskeletal Conditions**

This course will focus on physical therapy evaluation and differential diagnosis in relationship to orthopedic problems of the lower extremity joints. Emphasis will be placed on differential diagnosis, imaging, conservative management and post surgical management of the hip, knee, and ankle. Credit Level: G. Credit Hrs: 3.00

35PT848**Patient Management III: Musculoskeletal Conditions**

This course will focus on the physical therapy examination, evaluation, diagnosis, prognosis, intervention, reexamination, outcomes, and criteria for discharge in patients with spinal and TMJ dysfunctions. Emphasis will be placed on differential diagnosis, imaging, common conservative/postoperative management and interventions of lumbosacral, sacroiliac, thoracic, cervical and temporomandibular

Physical Therapy**35PT848****Patient Management III: Musculoskeletal Conditions**

disorders. Spinal joint mobilization will be mastered. Primary prevention/risk factor reduction strategies for the specific patient/client diagnostic groups will also be covered. Credit Level: G. Credit Hrs: 3.00

35PT856**Patient Management I: Neuromuscular Conditions**

Techniques of examination (history, systems review, and tests and measures) and evaluation of patients and clients with impaired motor function and sensory integrity associated with congenital, acquired, and progressive disorders of the central nervous system throughout the life span will be covered. The theoretical and research basis for treatment approaches of the above patient/client problems will also be covered. The identification of problems and their possible solutions, the implementation of the solutions, and alternative treatments will be emphasized. Credit Level: G. Credit Hrs: 4.00

35PT857**Patient Management II: Neuromuscular Conditions**

A continuation of Neuromuscular Conditions I. Topics covered will include rehabilitation concepts and the special needs of the patient, evaluation, utilization of imaging, and treatment planning of patients with neuromuscular disorders, including TIA, CVA, TBI, Parkinsons Disease, MS, ALS as well as acute or chronic polyneuropathies including Guillian-Barre syndrome and post-polio syndrome. Credit Level: G. Credit Hrs: 5.00

35PT858**Patient Management III: Neuromuscular Conditions**

A continuation of Neuromuscular Conditions II. Topics covered will include rehabilitation concepts and the special needs of the patient, evaluation, utilization of imaging, and treatment planning of adults and children with neuromuscular disorders, including SCI, myelodysplasia and cerebral palsy. Additionally, wheelchair prescription and adaptations utilized with clients with neuromuscular dysfunction will be covered. Credit Level: G. Credit Hrs: 5.00

35PT860**Introduction to Applied Anatomy**

This course is a two and one half week session designed as a prelude to the subsequent two quarters of Applied Anatomy. The student will be given an introduction to concepts fundamental to human anatomy including anatomical terminology, cross sectional anatomy, radiology and dissection skills. Student conducted cadaver dissections and prosections will be used to facilitate the student's understanding of structure, location and function of organs, muscles and other anatomic structures. The course will be taught using a regional approach. The regions to be covered in this session are the back, pectoral region and an introduction to the upper extremity. Case studies relating anatomy to clinical findings will be considered on a regular basis during student led discussions. Credit Level: G. Credit Hrs: 2.00

35PT861**Applied Anatomy I**

During this course, the student will be given an introduction to concepts fundamental to human gross anatomy including anatomical terminology, cross sectional anatomy, radiology and dissection skills. Student-conducted cadaver dissections, prosections & anatomical models will be used to facilitate the student's understanding of structure, location & function of muscles, blood vessels, nerves & other anatomic structures. The course will be taught using a regional approach. The regions to be covered are vertebral column, upper extremity and thorax. Credit Level: G. Credit Hrs: 3.00

35PT862**Applied Anatomy II**

This course follows Applied Anatomy I and continues an in-depth investigation into normal human anatomy. Student-conducted cadaver dissections, prosections and anatomical models will be used to facilitate the student's understanding of structure, location & function of muscles, blood vessels, nerves, organs & other anatomic structures. The regions

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Physical Therapy**35PT862****Applied Anatomy II**

to be covered in this session are the abdomen, pelvis/perineum & the lower extremity. Case studies relating anatomy to clinical findings will be considered on a regular basis during student-led discussions. Credit Level: G. Credit Hrs: 4.00

35PT863**Applied Anatomy III**

This course will cover the basic functional anatomy of the human nervous system. Emphasis will be placed on the structure and function of the major components of the central, autonomic & peripheral nervous system diseases & dysfunctions. Student-conducted cadaver dissections, prosections, brain sections & anatomical models will be used to facilitate the student's understanding of structure, location & function of organs, muscles & other anatomic structures. Credit Level: G. Credit Hrs: 4.00

35PT865**Patient Management I: Medical Conditions (Integumentary)**

Topics covered will include rehabilitation concepts and the special needs of the patient with integumentary problems, including evaluation, documentation, and treatment planning of patients with wounds and burns. Peripheral Vascular disease examination and intervention will also be covered. Credit Level: G. Credit Hrs: 4.00

35PT866**Patient Management II: Medical Conditions (Acute Care)**

This course will cover the examination, evaluation, diagnosis, prognosis, and intervention of patients with acute medical conditions, co-morbidities, and other conditions, including the normal and abnormal function of the cardio-pulmonary system. Elements of patient management within the acute care setting will be addressed including elements of patient management with primary and secondary diagnosis involving the cardiopulmonary system. Credit Level: G. Credit Hrs: 4.00

35PT867**Patient Management III: Medical Conditions (Rehabilitation)**

Topics covered will include rehabilitation concepts and the special needs of the patient with amputation, including evaluation, documentation, and treatment planning of this type of patient. Prosthetic management will also be covered. Credit Level: G. Credit Hrs: 3.00

35PT869**Special Considerations in Clinical Management**

This course will cover the physical therapy management of patients: in unique clinical settings, such as the educational setting; with selected diagnoses, such as genitourinary dysfunction and other women's health issues; and affected by specific cultural, legal and health care system issues, such as end of life issues, related to patient care. Credit Level: G. Credit Hrs: 3.00

35PT871**Professional Roles I**

This course introduces students to the profession of physical therapy. Concepts of professionalism, communication, applicable laws, ethics, and the scope of practice are discussed. Students begin the process of learning to assess themselves in and develop a plan for professional development. Credit Level: G. Credit Hrs: 2.00

35PT872**Professional Roles II**

The student will examine & apply communication theories & theories/components of intentional change & learning styles. The dynamics of inter-personal communication will be explored as the student practices active listening, interviewing & negotiation skills with a variety of health care system stakeholders. The student will continue to reflect on & respond to the concept of "cultural competence & patient centered care." Organizational structure & behavior, public & health policies will be examined as the student discovers the role of the "PT as Consultant." Credit Level: G. Credit Hrs: 2.00

Physical Therapy**35PT873****Professional Roles III**

This course will study administrative structures, procedures, and methods of management and leadership found in various health care settings. Managerial responsibilities of budget, billing and reimbursement, evaluation, procedure manual, program development, and outcome designs will be integrated with participation in a design project. Credit Level: G. Credit Hrs: 2.00

35PT876**Evidence Based Physical Therapy I**

The purpose of this course is to introduce the student to research methods and concepts with special emphasis on critically analyzing evidence. The course will focus on various aspects of clinical or epidemiological research in the field of physical therapy. Students in this course will be expected to: 1) critically analyze evidence, both current cumulative evidence and individual published articles; and 2) apply this evidence to clinical cases. Specific methods and concepts that will be introduced include epidemiological terms and concepts, study design, reliability and validity, and statistics (descriptive, analytical, parametric, and nonparametric). Credit Level: G. Credit Hrs: 3.00

35PT877**Evidence Based Physical Therapy II**

This course will focus on various aspects of clinical or epidemiological research in the field of physical therapy. This class applies topics learned in EBPT I and integrates them into clinical decision making. The emphasis in EBPT II will be on interventions, tests and measures learned or are being currently learned during the Patient Management series (Neuromuscular, Acute and Integumentary). Throughout this class, you may find it useful to review the notes and textbooks you used during these classes. The goals of this class are 1) to critically analyze evidence, both current cumulative evidence and individual published articles; and 2) apply this evidence to clinical cases. Credit Level: G. Credit Hrs: 2.00

35PT878**Evidence Based Physical Therapy III**

The goal of this class is for you to critically analyze evidence from published articles and apply it to clinical case studies. The course will focus on various aspects of clinical or epidemiological research in the field of physical therapy. Emphasis will be on diagnosis, prognosis, interventions, and tests and measures learned in previous coursework. Credit Level: G. Credit Hrs: 2.00

35PT881**Examination I**

This course introduces students to imaging and the examination process. Students assimilate the language of health care, demonstrating appropriate documentation skills, as they begin the review of the medical record, the interview process and the review of systems. PT related imaging techniques are introduced along with the objective measurements of range of motion and manual muscle testing. Adaptation of these skills to differing populations is included. Credit Level: G. Credit Hrs: 3.00

35PT882**Examination II**

This course expands on the examination and evaluation skills of the upper quarter. Students continue to progress interviewing skills through the collection of pertinent medical history, the viewing of applicable imaging, & the gathering of subjective information. As part of the management of patients with upper quarter symptoms, students continue to conduct appropriate systems reviews & administer appropriate tests & measures. Implications for upper quarter evaluation, diagnosis & prognosis are included. Credit Level: G. Credit Hrs: 4.00

35PT883**Examination III**

This course expands on the examination & evaluation skills of the lower quarter. Students continue to progress interviewing skills through the

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Physical Therapy**35PT883****Examination III**

collection of pertinent medical history, the viewing of applicable imaging, and the gathering of subjective information. As part of the management of patients with lower quarter symptoms, students continue to conduct appropriate systems reviews and administer appropriate tests and measures. Implications for lower quarter evaluation, diagnosis and prognosis are included. Credit Level: G. Credit Hrs: 4.00

35PT884**Examination IV**

This course expands on the examination and evaluation skills. Emphasis is placed on patients with musculoskeletal systems involving the trunk. Students will also integrate basic examination skills related to posture, gait, spasticity, reflexes and development. Variations within populations will be presented. Credit Level: G. Credit Hrs: 4.00

35PT885**Imaging I**

This course covers basic principles and interpretation of diagnostic imaging modalities as they apply to physical therapy. The emphasis is on plain film radiography, including the basic physics of imaging techniques, viewing, interpreting films, radiographic anatomy and clinical correlation with orthopedic patient cases. Other types of imaging, including contrast studies, MRI and CT will be examined. Credit Level: G. Credit Hrs: 1.00

35PT886**Imaging II**

This course covers basic principles and interpretation of diagnostic imaging modalities as they apply to physical therapy. The emphasis is on the basic physics of imaging techniques, viewing, interpreting films, radiographic anatomy and clinical correlation with patient cases on the chest, abdomen, genitourinary system, and the brain. Other types of imaging including contrast studies, MRI, and CT will be studied. Credit Level: G. Credit Hrs: 1.00

35PT887**Interventions I**

An introduction to the basic skills required for physical therapists to begin progressive mobility training. Patient problems, lecture and lab will guide students through the development of good body mechanics, the spectrum of mobility training, wheelchair skills, transfers, assistive devices, positioning, draping, and active and passive ROM. Credit Level: G. Credit Hrs: 3.00

35PT888**Interventions II**

This course will introduce students to physical therapy interventions. Patient problems, lecture & lab will guide students through the development of appropriate positioning, draping & infection control techniques needed for physical agents. Emphasis will be on the physical principles, biophysical effects & clinical indications & procedures associated with the implementation of electrical current, electromagnetic heat, cold, light & acoustic energy & massage in the prevention & treatment of dysfunction. Credit Level: G. Credit Hrs: 4.00

35PT889**Interventions III**

Students will master the principles of exercise, strengthening, stretching, and advanced therapeutic exercise techniques. The use of basic evaluation techniques to select appropriate exercises will be covered as well as the physiological response to exercise. Theories, advantages, and indications of several approaches will be discussed. Patient problems will be utilized for students to develop exercise programs and become familiar with functional progression. Students will utilize evaluation findings and literature to justify exercises in treatment plan. Credit Level: G. Credit Hrs: 3.00

Physical Therapy**35PT900****Introduction to Clinical Education**

Clinical education in the University of Cincinnati's Physical Therapy program makes up 42 weeks of the PT student's preparation for becoming an entry-level physical therapist. This course will prepare the student for their full-time clinical rotations through active learning experiences designed to increase the student's knowledge base in understanding the clinical expectations from the clinical instructor's viewpoint, reviewing case scenarios, successfully completing the APTA certification quiz for the PT CPTI Web, and presenting cases that will enable the student to establish a decision-making framework for clinical issues. Credit Level: G. Credit Hrs: 1.00

35PT901**Physical Therapy Practice I**

This course will consist of a four-week full-time clinical affiliation experience. The experience is specifically designed to assist the student to begin achieving the competency necessary to work as an entry-level physical therapist; however, the focus of the clinical experience is on the application of evidence and research in the clinical setting. The affiliation will take place in facilities specifically selected by the program to allow the students orientation to evidence based practice. Credit Level: G. Credit Hrs: 4.00

35PT902**Physical Therapy Practice II**

This experience is designed to assist the student in achieving the competency necessary to work as an entry-level PT. This course will consist of a ten-week full-time clinical affiliation experience in inpatient or outpatient facilities. Students will work under the supervision of an experienced PT, evaluating patients, giving input to the interpretation of evaluation findings, making progress toward the setting of appropriate functional goals, implementing an appropriate treatment plan and participating in the modification of the treatment plan through the evaluation of its effectiveness. Credit Level: G. Credit Hrs: 10.00

35PT903**Physical Therapy Practice III**

This experience is designed to assist the student in achieving the competency necessary to work as an entry-level PT. This course will consist of a ten-week full-time clinical affiliation experience in inpatient or outpatient facilities. Specialty areas may include, but not be limited to, skilled nursing facilities, extended care facilities, home health, sports medicine clinics, pediatric settings, or freestanding rehab facilities. Students will be supervised by an experienced PT who will facilitate their skills in patient/client evaluation, interpretation of evaluation/assessment findings, problem identification and prioritization, functional goal setting, implementation of appropriate treatment plans and modification of treatment plan/intervention via evaluation of effectiveness through ability to monitor outcomes. The student is expected to be much more comprehensive in his/her practice. The PT Practice III experience will offer an opportunity for greater integration of classroom activity with clinical practice. Credit Level: G. Credit Hrs: 10.00

35PT904**Physical Therapy Practice IV**

This experience will be designed to assist the student in achieving the competency necessary to work as an entry-level PT. This course will consist of a nine-week full-time clinical affiliation experience in inpatient or outpatient facilities. Specialty areas may include, but not limited to, skilled nursing facilities, extended care facilities, home health, sports medicine clinics, pediatric settings or free-standing rehab facilities. Students will be supervised by an experienced PT who will facilitate their skills in patient/client evaluation, interpretation of evaluation/assessment findings, problem identification and prioritization, functional goal setting, implementation of appropriate treatment plans, and modification of treatment plan/ intervention via evaluation of effectiveness through ability to monitor outcomes. PT Practice IV will serve as a capstone experiences. Students should be comprehensive in their practice and largely entry-level in all areas. Credit Level: G. Credit

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Physical Therapy**35PT904****Physical Therapy Practice IV**

Hrs: 9.00

35PT905**Physical Therapy Practice V**

This experience will be designed to assist the student in the achievement of entry-level competence in his/her practice of all aspects of PT. This course will consist of a ten-week full-time clinical affiliation experience in inpatient or outpatient facilities. Specialty areas may include, but not be limited to, skilled nursing facilities, extended care facilities, home health, sports medicine clinics, pediatric settings, or freestanding rehab facilities. Students will be supervised by an experienced PT who will facilitate their skills in patient/client evaluation, interpretation of evaluation/assessment findings, problem identification and prioritization, functional goal setting, implementation of appropriate treatment plans, and modification of treatment plan/intervention via evaluation of effectiveness through ability to monitor outcomes. The PT Practice V is the final capstone experience the student will have in the program. The student should be at entry-level competence in the practice of physical therapy. Credit Level: G. Credit Hrs: 10.00

35PT910**Research I**

This course will provide an understanding of the skills required in conducting research in health related sciences with emphasis on the PT field. Students will be introduced to the basics of research: thinking processes, design approaches & statistical analysis of findings. They will also be familiarized with the rules & regulations for conducting basic & clinical research. In addition, students will be introduced to guidelines for writing research protocols. Finally, they will acquire skills necessary to conduct and present their findings for publications or presentations. Credit Level: G. Credit Hrs: 3.00

35PT911**Clinical Research I**

The goal of this class is to prepare students to conduct their research capstone project. The majority of students will conduct a case study as their capstone project. This course will review research methodology with the focus of conducting a clinical case study. Students will be introduced to scientific writing techniques. In order to prepare the students for the research capstone project, they will be assigned a simulated clinical patient (written) and be asked to design a case study for that patient including conducting a literature search. Finally, during this quarter students will be assigned a faculty advisor and begin to identify a possible capstone project. The faculty advisor will be the instructor through the Clinical Research II-V. The culmination of the Clinical Research series will be a research capstone project that the students will present (either poster or oral) at the annual College of Allied Health Sciences research day, PRAISE. In addition, the faculty advisor may request that the student submit the case study for future dissemination in a peer reviewed journal or at a conference. Credit Level: G. Credit Hrs: 1.00-3.00

35PT912**Clinical Research II**

The goal is to guide the student's progress toward completion of the research capstone project. The faculty advisor is the instructor for the series of Clinical Research II-V. Students have the option of choosing to complete a case study or making a contribution to the American Physical Therapy "Hooked on Evidence" site. The capstone project is the culmination of the Clinical Research course series. Completion of the capstone will require students to search the literature in a specific area of physical therapy practice, analyze and critically evaluate the literature, and apply the knowledge gained from the literature in a scientific manner to the appropriate population. Results of the capstone project will be presented in a poster or oral format at the College of Allied Health Sciences annual student PRAISE conference. In addition, the faculty advisor may request that the student submit the capstone project for future dissemination in a peer reviewed journal or at a

Physical Therapy**35PT912****Clinical Research II**

conference. Assignment of the faculty advisor and identification of a capstone project occurs during Clinical Research I. Credit Level: G. Credit Hrs: 1.00-3.00

35PT913**Clinical Research III**

The goal is to guide the student's progress toward completion of the research capstone project. The faculty advisor is the instructor for the series of Clinical Research II-V. Students have the option of choosing to complete a case study or making a contribution to the American Physical Therapy "Hooked on Evidence" site. The capstone project is the culmination of the Clinical Research course series. Completion of the capstone will require students to search the literature in a specific area of physical therapy practice, analyze and critically evaluate the literature, and apply the knowledge gained from the literature in a scientific manner to the appropriate population. Results of the capstone project will be presented in a poster or oral format at the College of Allied Health Sciences annual student PRAISE conference. In addition, the faculty advisor may request that the student submit the capstone project for future dissemination in a peer reviewed journal or at a conference. Assignment of the faculty advisor and identification of a capstone project occurs during Clinical Research I. Credit Level: G. Credit Hrs: 1.00-3.00

35PT914**Clinical Research IV**

The goal is to guide the student's progress toward completion of the research capstone project. The faculty advisor is the instructor for the series of Clinical Research II-V. Students have the option of choosing to complete a case study or making a contribution to the American Physical Therapy "Hooked on Evidence" site. The capstone project is the culmination of the Clinical Research course series. Completion of the capstone will require students to search the literature in a specific area of physical therapy practice, analyze and critically evaluate the literature, and apply the knowledge gained from the literature in a scientific manner to the appropriate population. Results of the capstone project will be presented in a poster or oral format at the College of Allied Health Sciences annual student PRAISE conference. In addition, the faculty advisor may request that the student submit the capstone project for future dissemination in a peer reviewed journal or at a conference. Assignment of the faculty advisor and identification of a capstone project occurs during Clinical Research I. Credit Level: G. Credit Hrs: 1.00-3.00

35PT915**Clinical Research V**

The goal is to guide the student's progress toward completion of the research capstone project. The faculty advisor is the instructor for the series of Clinical Research II-V. Students have the option of choosing to complete a case study or making a contribution to the American Physical Therapy "Hooked on Evidence" site. The capstone project is the culmination of the Clinical Research course series. Completion of the capstone will require students to search the literature in a specific area of physical therapy practice, analyze and critically evaluate the literature, and apply the knowledge gained from the literature in a scientific manner to the appropriate population. Results of the capstone project will be presented in a poster or oral format at the College of Allied Health Sciences annual student PRAISE conference. In addition, the faculty advisor may request that the student submit the capstone project for future dissemination in a peer reviewed journal or at a conference. Assignment of the faculty advisor and identification of a capstone project occurs during Clinical Research I. Credit Level: G. Credit Hrs: 1.00-3.00

Physical Therapy Technology**35PTTN204****Physical Therapist Assisting Assessments**

The student will learn how to measure joint range of motion and how to

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Physical Therapy Technology**35PTTN204****Physical Therapist Assisting Assessments**

perform manual muscle testing. Normal range of motion and kinesiology are emphasized. Prereq: C or better in 35-PTTN-2 03 BoK: NS. Credit Level: U. Credit Hrs: 6.00

35PTTN205**Therapeutic Exercise**

In-depth study of therapeutic exercise with emphasis on anatomy, kinesiology, and neurological principles. Prereq: C or better in 35-PTTN-204. Prereq: 35PTTN204. BoK: NS. Credit Level: U. Credit Hrs: 6.00

35PTTN211**Physical Therapist Assisting Sports Medicine Seminar**

This course will cover treatment, care, rehabilitation and prevention of sports and common orthopedic injuries. These concepts will be presented through the use of lecture, discussion, demonstration, laboratory and visual media. Prereq: C or better in all previous Technical Core coursework. BoK: NA. Credit Level: U. Credit Hrs: 1.00

35PTTN212**Physical Therapist Assisting Pediatric/Geriatric Seminar**

A study of the special needs of the pediatric patient, the permanently disabled, and the geriatric patient with emphasis on functions related to activities of daily living. Prereq: 35PTTN211 & C or better in all previous Technical Core coursework. Prereq: 35PTTN211. BoK: NA. Credit Level: U. Credit Hrs: 3.00

35PTTN213**Physical Therapy Seminar III**

Course occurs during the Spring quarter of the technical core year I. Review of content in preparation for the licensing exam occurs and information on preparing for employment is reviewed. Prereq: 35-PTTN 212 & C or better in all previous Technical Core coursework. BoK: NA. Credit Level: U. Credit Hrs: 1.00

35PTTN273**Physical Therapist Assisting Functional Anatomy**

In-depth study of human anatomy with emphasis on muscles, ligaments, the peripheral neurological and vascular systems, and joint movement. Important kinesiological concepts are covered and correlated to the respective anatomy. Prereq: C or better in all previous Technical Core coursework. BoK: NS. Credit Level: U. Credit Hrs: 3.00

35PTTN274**Applied Neuroanatomy**

This course will cover the basic functional anatomy of the human nervous system. Emphasis will be placed on the structure and function of the major components of the central and peripheral nervous systems. This information will enable the student to explain and understand the basis of several nervous system diseases and dysfunctions. Additionally, treatment techniques for the neurologically involved client will be reviewed and discussed. Prereq: C or better in all previous Technical Core coursework. Prereq: 35 PTTN 273 & C or better in all previous Technical Core coursework. BoK: NS. Credit Level: U. Credit Hrs: 3.00

35PTTN277**Physical Therapist Assisting Problems-Applications**

Students will perform various exercise and rehabilitative programs in a clinical setting under the supervision of a PT. Students must have a current CPR certification in order to take this course. Prereq: C or better in all Technical Core Winter courses. BoK: NA. Credit Level: U. Credit Hrs: 3.00

35PTTN281**Physical Therapist Assisting-Modalities**

Student will apply simple and complex modality treatments in a clinical setting under the supervision of a PT. Students must have a current CPR certification in order to take this course. Prereq: C or better in all Technical Core Winter courses. BoK: NA. Credit Level: U. Credit Hrs:

Physical Therapy Technology**35PTTN281****Physical Therapist Assisting-Modalities**

3.00

35PTTN283**Physical Therapist Asst Problems-Therapeutic Exercise**

Student will develop and carry out exercise programs for patients in a clinical setting under the supervision of a PT. Students must have a current CPR certification in order to take this course. Prereq: C or better in all Technical Core Winter courses. BoK: NA. Credit Level: U. Credit Hrs: 3.00

35PTTN285**Cardiopulmonary Function**

Study of the relationship among the heart, lungs, and circulatory systems. Disease processes, cardiac rehabilitation, physical fitness, exercise, and wellness are studied. Prereq: C or better in all previous Technical Core coursework. BoK: NS. Credit Level: U. Credit Hrs: 3.00

35PTTN287**Physical Rehabilitation**

This course will cover rehabilitation concepts and the special needs of the rehabilitation patient. Collaboration with other health care professionals using a team approach is emphasized. The rehabilitation of patients with stroke, brain injury, spinal cord injury, amputations, and total joint replacement will be included. Specific treatment approaches will be offered. Lab time and patient interaction will be provided. Prereq: C or better in all previous Technical Core coursework. BoK: NS. Credit Level: U. Credit Hrs: 3.00

35PTTN289**Clinical Integration**

This course combines knowledge of the various aspects of muscle physiology and the mechanical principles of human movement with a study of human kinesiology and those injuries and diseases which limit normal function and movement. The course will be disease oriented. BoK: NS. Credit Level: U. Credit Hrs: 3.00

35PTTN294**Human Behavior in Health & Sickness for Health Related Programs**

This course will discuss the various aspects of human behavior in response to illness. Emphasis will be on understanding normal versus abnormal reactions to illness, and therefore being able to apply the most effective therapy regimen. The course will consist of lectures, case studies, and observation of psychiatric evaluations. This course is available to all majors. BoK: SS. Credit Level: U. Credit Hrs: 3.00

35PTTN298**Clinical Internship**

Student will prepare and perform PT treatments in a physical therapy facility under the supervision of a licensed physical therapist. Students must have a current CPR certification in order to take this course. Prereq: C or better in all Technical Core Winter courses. BoK: NA. Credit Level: U. Credit Hrs: 6.00

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COLLEGE OF APPLIED SCIENCE

COURSE DESCRIPTIONS

(32) College of Applied Science

2008 - 2009

College of Applied Science 1

Accounting

32ACCT091

Fundamentals of Bookkeeping-Accountancy I

An introduction to the theory and principles of basic bookkeeping and contemporary accountancy. Students will learn how to collect, record, and present basic financial data. Candidates with 5 or more years of bookkeeping accountancy experience may petition to waive this course through an online examination. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32ACCT092

Fundamentals of Bookkeeping-Accounting II

An examination of advanced transactions in bookkeeping accountancy. Students will explore bookkeeping-accountancy standards for assets, liabilities and equities. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32ACCT093

Fundamentals of Bookkeeping-Accountancy III

An examination of specialized transactions in bookkeeping-accountancy. Students will explore the corporate accounts and fundamentals of statement preparation. Prereq.: Fund of Bkpg Acct II (32ACCT092). BoK: NA. Credit Level: U. Credit Hrs: 3.00

32ACCT094

Fundamentals of Managerial Accounting

An examination of introductory topics in Managerial Accounting. Coverage will include contemporary issues in the application of bookkeeping-accountancy to the use and interpretation of data for managerial efficiency. Prereq.: Fund of Bkpg-Acctg III (32ACCT093). BoK: NA. Credit Level: U. Credit Hrs: 3.00

32ACCT095

Fundamentals of Financial Statement Analysis

An introduction to basis financial statement analysis. Students will prepare a formal analysis of a company using contemporary analytical standards. Prereq.: Fund of Bkpg-Acctg III (32ACCT093). BoK: NA. Credit Level: U. Credit Hrs: 3.00

32ACCT096

Fundamentals of Desktop Computer Accounting

The use of contemporary accounting software designed for desktop computers. Student will complete all transactions of the bookkeeping accountancy cycle with proprietary bookkeeping-accountancy programs. Prereq.: Fund Bkpg Accts III (32ACCT093). BoK: NA. Credit Level: U. Credit Hrs: 3.00

32ACCT100

Seminar in Accounting Information Systems

The purpose of this course is to help students bridge the gap between the academic application of concepts learned in the Accounting Information Systems Program and its pragmatic utilization. As a result of the internship, students should develop greater appreciation for the efficacy of classroom learning and the importance of academic preparation. BoK: NA. Credit Level: U. Credit Hrs: 1.00

32ACCT101

Principles of Accounting I

The economic environment of accounting. The accounting cycle. Measurement and reporting. BoK: QR. Credit Level: U. Credit Hrs: 3.00

32ACCT102

Principles of Accounting II

Asset, equity, and revenue measurement. Compound interest and present value, partnership accounting. BoK: QR. Credit Level: U. Credit Hrs: 3.00

32ACCT103

Principles of Accounting III

Stockholders' equity. Analysis of financial statements. Accounting for price level changes. BoK: QR. Credit Level: U. Credit Hrs: 3.00

Accounting

32ACCT150

Internship in Accounting Information Systems

The purpose of this course is to help students bridge the gap between the academic application of concepts learned in the Accounting Information Systems Program and its pragmatic utilization. As a result of the internship, students should develop greater appreciation for the efficacy of classroom learning and the importance of academic preparation. Perm of Instructor. BoK: SE. Credit Level: U. Credit Hrs: 3.00

32ACCT171

Principles of Accounting

Basic concepts and procedures of the accounting cycle. BoK: QR. Credit Level: U. Credit Hrs: 3.00

32ACCT215

Directed Study - Accounting

This course is designed for students who require individualized instruction in Accounting. Perm of Instructor. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32ACCT241

Managerial Accounting I

The use of accounting data in planning and control. Introduction to cost accounting, budgetary planning and quantitative techniques. BoK: QR. Credit Level: U. Credit Hrs: 3.00

32ACCT242

Managerial Accounting II

The use of accounting data in capital budgeting, pricing and production decisions, and the control of decentralized operations. BoK: QR. Credit Level: U. Credit Hrs: 3.00

32ACCT245

Accounting Concepts I

This course will cover the accounting cycle, accounting for merchandising operations, asset and equity measurement, receivables, long term long term assets, payables and inventory. Prereq: 32MATH174. BoK: QR. Credit Level: U. Credit Hrs: 3.00

32ACCT246

Accounting Concepts II

This course will cover long term liabilities, corporate transactions, stock transactions, statement of cash flow and analysis of financial statements using ratios. Prereq: 32ACCT245. BoK: QR. Credit Level: U. Credit Hrs: 3.00

32ACCT270

Computer Accounting Applications

The integration of accounting principles and procedures and spreadsheets through ten tutorials covering recording business transactions to capital budgeting. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32ACCT271

Accounting for Decision Making

This course will cover cost-volume-profit analysis, budgeting, variable costing, just in time inventory methods, present value, capital budgeting, net present value, payback, and rate of return. Prereq: 32ACCT246. BoK: QR. Credit Level: U. Credit Hrs: 3.00

32ACCT341

Managerial Accounting I

Managerial use of accounting data in the analysis of financial statements, cost controls for labor, materials and overhead, cost variances, budget, risks, etc. Prereq: 32ACCT171. BoK: QR. Credit Level: U. Credit Hrs: 3.00

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Accounting**32ACCT342****Managerial Accounting II**

A continuation of Managerial Accounting I. Prereq: 32ACCT341. BoK: QR. Credit Level: U. Credit Hrs: 3.00

Architectural Technology**32ARTN121****Construction Drawing I**

Introduction to graphics as construction communications media, sketching, construction details, beginning drafting, developing traditional and computer-aided drafting (CAD) skills. BoK: NA. Credit Level: U. Credit Hrs: 2.00-4.00

32ARTN122**Construction Drawing II**

A continuation of Construction Drawing I, developing a set of light construction working drawings. Prereq: 32ARTN121. BoK: NA. Credit Level: U. Credit Hrs: 2.00-3.00

32ARTN183**Architectural History**

Study of the architectural past to determine why certain styles developed, how they served the needs of the people, and how they have influenced contemporary design and construction. BoK: FA., HP. Credit Level: U. Credit Hrs: 3.00

32ARTN241**Architectural Design I**

Design principles as they apply to architecture in two- and three-dimensional forms. Sketching isometric and perspective drawings using pencil and ink techniques; studies and field exercises. Prereq: 32ARTN122. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32ARTN242**Architectural Design II**

Continuation of Arch Design I (32ARTN241) with emphasis on design principles using modeling and a variety of rendering techniques. Prereq: 32ARTN241. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32ARTN242H**Architectural Design II (Honors)**

Reading, seminars, final exam/papers topics in Architectural Design Theory. BoK: FA. Credit Level: U. Credit Hrs: 3.00

32ARTN289**Construction Estimating**

Procedures for surveying quantities of materials and projecting labor costs, contingencies, overhead and profit; bid strategies. Introduction to computerized estimating methods. Prereq: 32ARTN122, 32IET121, 32CVTN242. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32ARTN318**Problems in Architecture I**

Study of residential planning and design including programming, schematics, design development and detailing. Projects include single family, multi-family, and special needs housing. Lectures on design principles. Studio course. Prereq: 32ARTN242. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32ARTN319**Problems in Architecture II**

Industrial design. A study of manufacturing, laboratories, clean rooms, treatment plants, etc., including research into systems, robotics, design, and detailing. Studio course. Prereq: 32ARTN318. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32ARTN372**Electrical Systems**

Power generation and transmission, equipment comparison and analysis. Design and installation of an electrical systems for a commercial building. Prereq: 32ARTN122, 32MATH244, 32PHYS183, 32PHYS188. BoK: NA. Credit Level: U. Credit Hrs: 3.00

Architectural Technology**32ARTN373****Water Supplies and Waste Disposal Systems**

Study of water supply and waste disposal systems for commercial and industrial buildings. Topics include water chemistry, water quality and treatment, water supply and distribution, sewage treatment and solid waste disposal. Students will design a water supply and waste disposal system for a multi-story building. Prereq: 32CVTN251. BoK: NS, QR. Credit Level: U. Credit Hrs: 4.00

32ARTN420**Problems in Architecture III**

Public buildings; research, programming, schematics and detailing of a bank, library, museum or other building of frequent public access. Studio course. Prereq: 32ARTN242. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32ARTN421**Problems in Architecture IV**

Major land use projects; research, programming and planning for a shopping center, urban complex, transportation terminal or amusement/sports park. Team project. Studio course. Prereq: 32ARTN420. BoK: NA. Credit Level: U. Credit Hrs: 2.00

32ARTN476**Building Code**

The course introduces the student to building code applications to various projects. Ohio Building Code will be discussed for design and construction projects. Prereq: 32ARTN122. BoK: NA. Credit Level: U. Credit Hrs: 1.00

32ARTN522**Senior Architectural Project I**

Research, programming and schematic design of major senior project: mid-rise, multi-use complex to be carried to construction document stage in Senior Architectural Project II. Prereq: 32ARTN319, 32ARTN421. BoK: NA. Credit Level: U. Credit Hrs: 4.00

32ARTN523**Senior Architectural Project II**

Preparation of contract documents for building design in Senior Architectural Project I; use of computer aided drafting and various systems techniques. Prereq: 32ARTN522. BoK: NA. Credit Level: U. Credit Hrs: 5.00

32ARTN524**Senior Architectural Project III**

Electrical, piping and heating/cooling designs are computer generated for the building design earlier in the sequence. Prereq: 32ARTN523. BoK: NA. Credit Level: U. Credit Hrs: 5.00

32ARTN561**Photographics**

Uses of photographic methods in the design and study of buildings. Darkroom practice in black and white. Enlarging, mounting, exhibiting. Prereq: 32ARTN242. BoK: FA. Credit Level: U. Credit Hrs: 3.00

32ARTN571**Global Experience In Construction Science**

A faculty guided, three-week study abroad experience in which students will be exposed to several facets of international construction. BoK: DC. Credit Level: U. Credit Hrs: 3.00

32ARTN573**Mechanical Systems**

Study of environmental control equipment for buildings. Topics covered include steam, hydronic, and forced air heating systems. Study of direct expansion and chilled water cooling systems; variable air volume distribution systems; and other types of air handling equipment. Prereq: 32ARTN373. BoK: NA. Credit Level: U. Credit Hrs: 4.00

32ARTN581**3 Dimension Computer Graphics**

Develop graphic skills required to construct 3-dimensional computer models and understand concepts in 3-D modeling in architecture. BoK:

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Architectural Technology**32ARTN581****3 Dimension Computer Graphics**

NA. Credit Level: U. Credit Hrs: 3.00

32ARTN582**3D COMPUTER RENDERING**

Students will develop those graphic skills required to construct and render 3-Dimensional computer models using 3D Studio Viz R2. Students will also develop an understanding of 3-Dimensional principles and techniques utilized in solid rendering and surface mapping processes. 3-Dimensional modeling experience using Autocad software is required. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32ARTN583**Applied 3D Graphics & Rendering**

Apply skills acquired in 3D Computer Rendering in a workplace scenario. Students will construct a complete model showing interior and exterior renderings as well as rendered cross sections. Prereq: 32ARTN582. BoK: NA. Credit Level: U. Credit Hrs: 3.00

Business Administration**32BA171****Introduction to Business**

A functional overview of business which includes major issues in business today and business career opportunities. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32BA215**Directed Study - Business Administration**

This course is designed for students who require individualized instruction in Business Administration. Perm of Instructor. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32BA271**Introduction to Business: Study Abroad**

A study abroad course comparing American and foreign management, marketing, finance, human resources and production practices. Cultural differences affecting business practices will also be analyzed. Perm of Instructor. BoK: DC. Credit Level: U. Credit Hrs: 3.00

Biological Sciences**32BIOL144****Principles of Cell Biology I**

An introduction to the principles and laboratory techniques associated with contemporary cell biology. This course will examine the major biological, chemical, and structural components of eukaryotic cells. BoK: NS. Credit Level: U. Credit Hrs: 3.00

32BIOL145**Principles of Cell Biology II**

A continuation of Principles of Cell Biology I. Prereq: 32BIOL144. BoK: NS. Credit Level: U. Credit Hrs: 3.00

32BIOL154**Principles of Cell Biology I Laboratory**

Laboratory experiments, designed to complement lecture material in Prin of Cell Biology I. Coreq: 32BIOL144. BoK: NA. Credit Level: U. Credit Hrs: 1.00

32BIOL155**Principles of Cell Biology II Laboratory**

Laboratory experiments - design to complement lecture materials in Prin of Cell Biology II. Prereq: 32BIOL154. Coreq: 32BIOL145. BoK: NA. Credit Level: U. Credit Hrs: 1.00

Business Law**32BLAW215****Directed Study - Business Law**

This course is designed for students who require individualized instruction in Business Law. Perm of Instructor. BoK: NA. Credit Level: U. Credit Hrs: 3.00

Business Law**32BLAW271****Business Law I**

A study of the legal environment of business, including the principles of dispute resolution, tort, consumer protection, antitrust and employment law. BoK: SS., SE. Credit Level: U. Credit Hrs: 3.00

32BLAW272**Business Law II**

Contract and property law. The law of negotiated obligations, with emphasis on economic and social reasons for contract rules. Introduction to the Uniform Commercial Code. Survey of the law of real and personal property. BoK: SS., SE. Credit Level: U. Credit Hrs: 3.00

Building Trades Technology**32BLTN001****Blueprint Reading for Building Trades**

Introductory course in reading building drawings to understand the several branches of work and their relation to each other; examination of contracts, documents, calculations. Knowledge of basic arithmetic required. BoK: NA. Credit Level: U. Credit Hrs: 2.00

32BLTN010**Occupational Safety & Health Standards for the Construction Industry**

This course covers OSHA policies, procedures and standards, as well as construction safety and health principles. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32BLTN015**Trainer Course for the Construction Industry Standard**

This course is designed for the students in the private sector who are interested in teaching the 10- and 30-hour construction safety and health outreach program to their employees and other interested groups. Special emphasis is on those topics that are required in the 10- and 30-hour program and the most hazardous, using OSHA standards as a guide. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32BLTN107**Construction Materials**

Investigation and laboratory experimentation with a wide range of materials and methods. Emphasis on soils, masonry, concrete, and light framing with steel and wood. Group lab projects, films, guest speakers, and field trips. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32BLTN310**Construction Equipment**

Horizontal and vertical materials handling. Earthmoving, excavation, cranes. Comparative economics of equipment; depreciation. Concrete forming and placement. Prereq: 32BLTN107, 32ARTN289, 32CVTN242, 32IET121. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32BLTN318**Construction Methods**

Investigation of perimeter enclosure systems and interior finishes. Building code review and applications. Group lab projects, film, guest speakers, and field trips. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32BLTN531**Building Systems I**

Analysis and design of advanced mechanical systems for buildings, Passive and Active Solar heating systems, Solar powered cooling systems. Direct heating and cooling systems. District heating and cooling systems, Ice storage systems, Cogeneration systems. Prereq: 32ARTN572. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

32BLTN532**Building Systems II**

Analysis and design of advanced electrical systems for buildings, Electrical distribution systems, busduct and raceway systems. Indoor transformer selection and metering. Solid state and programmable switches. Microprocessor and direct digital control systems. Advanced lighting and telecommunication systems, Intelligent Buildings. Prereq: 32BLTN531. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

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Building Trades Technology**32BLTN533****Building Systems III**

Cost estimation and economic evaluation of building systems. Estimation of seasonal energy consumption. Life cycle costing. An analysis of the factors effecting the selection of Mechanical, Electrical and Plumbing systems for buildings. Prereq: 32BLTN532. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

Cabinet and Furniture Making**32CBMK001****Cabinet/Furniture Construction IA**

Introduction to basic construction techniques and woodworking tools, applying this knowledge to construct a Shaker side stand table measuring 18"x18"x27". The student then constructs another table project from the Pembroke, coffee or occasional category learning leg and frame construction and edging techniques. BoK: NA. Credit Level: U. Credit Hrs: 2.00

32CBMK002**Cabinet/Furniture Construction IB**

Continuation of Furniture Construction I. Prereq: 32CBMK001. BoK: NA. Credit Level: U. Credit Hrs: 2.00

32CBMK003**Cabinet/Furniture Construction IC**

Continuation of Furniture Construction I. Prereq: 32CBMK002. BoK: NA. Credit Level: U. Credit Hrs: 2.00

32CBMK004**Cabinet/Furniture Construction IIA**

The student constructs two projects from the following furniture categories: bookcases, display and corner cabinets, and sideboard cabinets, learning joint and door construction techniques. Students must repeat this course for a total of 12 cr. hrs. before registering for Cabinet/Furniture Construction III. Prereq: 32CBMK003. BoK: NA. Credit Level: U. Credit Hrs: 2.00-4.00

32CBMK005**Cabinet/Furniture Construction IIB**

Continuation of Furniture Construction II. Prereq: 32CBMK004. BoK: NA. Credit Level: U. Credit Hrs: 2.00-4.00

32CBMK006**Cabinet/Furniture Construction IIC**

Continuation of Furniture Construction II. Prereq: 32CBMK005. BoK: NA. Credit Level: U. Credit Hrs: 2.00-4.00

32CBMK007**Cabinet/Furniture Construction IIIA**

The student constructs two projects from the following furniture categories: chest of drawers and desk, office, writing and lectern, learning drawer construction and hardware installation. This series must be repeated for a total of 18 cr. hrs. before registering for Cabinet/Furniture Construction IV. Prereq: 32CBMK006. BoK: NA. Credit Level: U. Credit Hrs: 2.00-6.00

32CBMK008**Cabinet/Furniture Construction IIIB**

Continuation of Furniture Construction III-A. Prereq: 32CBMK007. BoK: NA. Credit Level: U. Credit Hrs: 2.00-6.00

32CBMK009**Cabinet/Furniture Construction IIIC**

Continuation of Furniture Construction III-A. Prereq: 32CBMK008. BoK: NA. Credit Level: U. Credit Hrs: 2.00-6.00

32CBMK010**Cabinet/Furniture Construction Drawing I**

Beginning drawing (use of drafting tools, orthographic projection, sections, dimensioning, and lettering), construction details and embellishments, joinery considerations, furniture proportions, laying out patterns (actual patterns to be made in wood shop), complete furniture drawing. BoK: NA. Credit Level: U. Credit Hrs: 2.00

Cabinet and Furniture Making**32CBMK011****Cabinet/Furniture Construction Drawing I**

Continuation of Furniture Construction Drawing I. Prereq: 32CBMK010. BoK: NA. Credit Level: U. Credit Hrs: 2.00

32CBMK012**Cabinet/Furniture Construction Drawing I**

Continuation of Furniture Construction Drawing. Prereq: 32CBMK011. BoK: NA. Credit Level: U. Credit Hrs: 2.00

32CBMK021**Cabinet/Furniture Construction IVA**

The student constructs two projects from the following furniture categories: blanket chest, pedestal tables and pencil post beds, learning dovetail and box joint construction and lathe turning. This series must be repeated for a total of 18 cr. hrs. Prereq: 32CBMK009. BoK: NA. Credit Level: U. Credit Hrs: 2.00-6.00

32CBMK022**Cabinet/Furniture Construction IVB**

Continuation of Furniture Construction IV. Prereq: 32CBMK021. BoK: NA. Credit Level: U. Credit Hrs: 2.00-6.00

32CBMK023**Cabinet/Furniture Construction IVC**

A continuation of Cabinet/Furniture Construction IV-A & B. The student constructs two project from the following furniture categories: blanket chest, pedestal tables and pencil post beds, learning dovetail and box joint construction and lathe turning. Prereq: 32CBMK022. BoK: NA. Credit Level: U. Credit Hrs: 2.00-6.00

32CBMK030**Wood Working for Crafters I**

This course is for beginners and experienced woodworkers. Building projects for personal use, gifts or to sell. The first class project, a set of shaker boxes. BoK: NA. Credit Level: U. Credit Hrs: 2.00

32CBMK031**Woodworking for Crafters II**

Continuation of Woodworking for Crafters I. Prereq: 32CBMK030. BoK: NA. Credit Level: U. Credit Hrs: 2.00

32CBMK032**Woodworking for Crafters III**

Continuation of Woodworking for Crafters II. Prereq: 32CBMK031. BoK: NA. Credit Level: U. Credit Hrs: 2.00

32CBMK040**Windsor Chair Construction I**

This course is devoted to building one project, a family heirloom, the Windsor Chair. Intermediate skill level required. BoK: NA. Credit Level: U. Credit Hrs: 2.00

32CBMK041**Windsor Chair Construction II**

Continuation to Windsor Chair I. Prereq: 32CBMK040. BoK: NA. Credit Level: U. Credit Hrs: 2.00

32CBMK042**Windsor Chair Construction III**

Continuation of Windsor Chair II. Prereq: 32CBMK041. BoK: NA. Credit Level: U. Credit Hrs: 2.00

32CBMK070**Wood Technology: Understanding Wood**

Wood anatomy (also basic forestry and tree framing), wood species and uses, lumbering (self and industrial), drying (self and industrial), lumber grading and wood products, glues, wood coloration and color shifts, joinery theory, shop safety (dust collection, toxic woods, hearing protection), fasteners and hardware. BoK: NA. Credit Level: U. Credit Hrs: 2.00

32CBMK071**Woodworking Techniques**

Machinery alignment and adjustment, sharpening, clamping and

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Cabinet and Furniture Making**32CBMK071****Woodworking Techniques**

clamping jigs, wood bending, veneering and lamination, lathe turning basics, shaping and molding, blades, cutters, and bits. BoK: NA. Credit Level: U. Credit Hrs: 2.00

32CBMK072**Wood Finishing**

Surface preparation (sanding and scraping), staining (oil, alcohol, water, gel, dye chemicals), wipe-on finishes, brush-on finishes, spray-on finishes, waxes, and finish care. BoK: NA. Credit Level: U. Credit Hrs: 2.00

32CBMK073**Wood Turning**

This class is for the beginner interested in wood turning. The student will be introduced to the basics with a discussion of lathes, tools and tool sharpening. Then learning techniques needed by the furniture maker to produce table legs and chair parts and art wood turning such as bowls. The student will make a small project incorporating the skills and knowledge learned. BoK: NA. Credit Level: U. Credit Hrs: 2.00

32CBMK074**Wood Turning I-B**

Continuation of Wood Turning I (32CBMK073). BoK: NA. Credit Level: U. Credit Hrs: 2.00

32CBMK075**Wood Carving I**

A complete overview of wood carving. Student will learn everything from sharpening techniques, use and function of carving tools, proper layout of projects, to physically carving projects in relief and in the round. BoK: NA. Credit Level: U. Credit Hrs: 2.00

32CBMK076**Wood Carving II**

Continuation of Wood Carving I. Prereq: 32CBMK075. BoK: NA. Credit Level: U. Credit Hrs: 2.00

32CBMK077**Wood Carving III**

A continuation of Woodcarving I, II. A complete overview of wood carving. Student will learn everything from sharpening techniques, use and function of carving tools, proper layout of projects to physically carving projects in relief and in the round. Prereq: 32CBMK076. BoK: NA. Credit Level: U. Credit Hrs: 2.00

32CBMK078**Wood Turning 1-C**

Continuation of Wood Turning I-A (32CBMK073). BoK: NA. Credit Level: U. Credit Hrs: 2.00

Civil Engineering**32CE121****Surveying I**

Introduction to surveying. Determining distances, elevations, bearing and azimuths; systematic and random errors in measurements. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32CE122**Surveying II**

Continuation of 30CE121. Concept of traverse and related calculations. Adjustment of traverses by compass rule and method of least squares. Area calculations. Introduction to the theory and practical applications of the State Plane Coordinate systems. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32CE223**Surveying III**

Methods and computations of route surveys; topographic surveys; circular, spiral and vertical curves. BoK: NA. Credit Level: U. Credit Hrs: 3.00

Civil Engineering**32CE304****Environmental Engineering I**

Analysis of precipitation data and stream flow records for water supply purposes and storm sewer design. Application of principles of hydraulics, hydrology, chemistry, biology, and engineering to the designing of water supply and waste-water disposal systems. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32CE305**Environmental Engineering II**

Continuation of 30CE304. Offered every third year An introductory water quality modeling course is given. It begins with material related to the student's gained knowledge from Environmental Engineering I. An introduction to air quality, and solid waste management is also provided. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32CE306**Environmental Engineering III**

Continuation of 30CE305. After gaining the basic concepts of water quality modeling in Environmental Engineering II, the main goal of this course is to understand and design processes for the treatment of water and waste water. This course provides the student with a clear understanding of the three processes involved, namely physical treatment methods, chemical treatment methods, and biological treatment methods. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32CE311**Construction Materials and Soils I**

General characteristics, physical properties, methods of manufacturing and mixing, and uses of construction materials. Concepts of soils as they apply to engineering problems. Subsurface investigations, classifications, permeability, consolidation, and shearing strength. BoK: NS., QR. Credit Level: U. Credit Hrs: 3.00

32CE312**Construction Materials and Soils II**

Continuation of 30CE311. Concepts of soils as they apply to engineering problems. Subsurface investigations, classifications, permeability, consolidation and shearing strength. BoK: NS., QR. Credit Level: U. Credit Hrs: 3.00

32CE313**Construction Materials and Soils III**

Continuation of 30CE312. Soil structure and clay minerals, soil hydraulics, lateral earth pressures, bearing capacity and slope stability, design of retaining walls and footings. BoK: NS., QR. Credit Level: U. Credit Hrs: 3.00

32CE341**Applied Strength of Materials I**

Applied theory of beams, columns, plates and structural elements. Critical loads and stress concentration. Failure theories. BoK: NS., QR. Credit Level: U. Credit Hrs: 3.00

32CE342**Applied Strength of Materials II**

Continuation of 30CE341. Laboratory tests of metals, timber, plastics, ceramics, and other structural materials. Measurement and experimental techniques. BoK: NS., QR. Credit Level: U. Credit Hrs: 3.00

32CE343**Hydraulic Engineering I**

Applications of fluid mechanics. Fluid force and velocity measurement. Design and operation of closed conduit systems. Pumps and turbomachinery. BoK: NS., QR. Credit Level: U. Credit Hrs: 3.00

32CE344**Hydraulic Engineering II**

Continuation of 30CE343. Open channel hydraulics. General theory and practical applications of uniform and gradually varied flow. Selected unsteady flow problems. Laboratory demonstration of open channel flow. Discussion of principles of turbomachinery. BoK: NS., QR. Credit Level: U. Credit Hrs: 3.00

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Civil Engineering**32CE344****Hydraulic Engineering II**

Continuation of 30CE343. Open channel hydraulics. General theory and practical applications of uniform and gradually varied flow. Selected unsteady flow problems. Laboratory demonstration of open channel flow. Discussion of principles of turbomachinery. BoK: NS., QR. Credit Level: U. Credit Hrs: 3.00

32CE414**Introduction to Transportation Engineering**

Planning, building, and operating a transportation system that best serves the community. What community leaders and planners need to know about traffic and transportation to make good decisions. Transportation financing. Environmental considerations. BoK: NS., QR. Credit Level: U. Credit Hrs: 3.00

32CE415**Highway Transportation**

Traffic engineering operations, safety, laws and ordinances. Proper design of roads and streets for safety and capacity. Managing a transportation system. Parking and terminal concerns. The role of mass transportation in the community. BoK: NS., QR. Credit Level: U. Credit Hrs: 3.00

32CE416**Building Transportation Facilities**

Property acquisition and relocation. Cost-effective designs, construction techniques and standards. Also, other forms of transportation -- rail, air and water -- and their contribution to the total transportation system. BoK: NS., QR. Credit Level: U. Credit Hrs: 3.00

32CE420**Structural Design I**

(Formerly 30CE471.) Design of metal structures. Tension and compression members, beams, trusses, connections. Plastic design of steel structures. Timber design. BoK: NS., QR. Credit Level: U. Credit Hrs: 3.00

32CE421**Structural Design II**

Continuation of 30CE420. Design of metal structures. Combined bending and axial load. Lateral and local buckling. Plastic design of steel structures. Timber design. BoK: NS., QR. Credit Level: U. Credit Hrs: 3.00

32CE422**Structural Design III**

Reinforced concrete design-ultimate strength. Flexure and axial loads. Shear and torsion. Development of reinforcement. BoK: NS., QR. Credit Level: U. Credit Hrs: 3.00

32CE423**Structural Design IV**

Continuation of 30CE422. Working stress design of reinforced concrete structures. Slab Systems. Prestressed concrete. Composite concrete flexural members. BoK: NS., QR. Credit Level: U. Credit Hrs: 3.00

32CE441**Structural Analysis I**

Statically determinate beams, frames, cables and arches, influence lines. Deflection analysis. Energy methods. Computational techniques. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32CE442**Structural Analysis II**

Continuation of 30CE441. Indeterminate structures. Slope-deflection analysis. Moment distribution analysis. Castigliano theorem and related analysis techniques. Computer methods. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32CE499**Independent Study in Civil Engineering**

Please complete and submit an Independent Application Form available from the college office. BoK: NA. Credit Level: U. Credit Hrs: 1.00-12.00

Computer Engineering Technology**32CET102****Elements of CET**

This course provides essential background information for the study of computer engineering technology, introduces methodologies of structured problem solving, and introduces basic programming concepts. Teamwork is integral to the course. BoK: QR. Credit Level: U. Credit Hrs: 3.00

32CET131**Computer Engineering Technology I**

This course integrates laboratory experiments with lecture focusing on embedded systems applications to teach the basics of computer programming beginning with procedural techniques using the structural programming language C. This course introduces the tools used by EETs and CETs in industry. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32CET132**Computer Engineering Technology II**

This course continues to use the computer language C to teach data structures, and then, near the end of the course, switches to C++ to introduce objects and object-oriented programming. Data structures and the structured programming techniques associated with them are the foundation for well-designed, maintainable, embedded-system applications. This course integrates laboratory experiments with lecture. Prereq: 32CET131. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32CET133**Computer Engineering Technology III**

This course completes the study of object-oriented programming with the computer language C++ by thoroughly covering encapsulation, abstraction, inheritance, and polymorphism. This course integrates real-world laboratory experiments with lecture. Prereq: 32CET132. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32CET204**Computer Interfacing**

An examination of computer interfacing techniques for real-world applications. Topics include computer bus interfacing to temperature, and displacement sensors, and displays. Prereq: 32ELTN242. BoK: NS. Credit Level: U. Credit Hrs: 3.00

32CET214**Computer Interfacing Laboratory**

Interfacing and sensor projects to illustrate lecture concepts. Prereq: 32ELTN242. BoK: NA. Credit Level: U. Credit Hrs: 1.00

32CET400**TOPICS OF PROGRAMMABLE LOGIC DEVICES**

The study and application of programmable logic devices. Specifically the use of PALs, PLDs, and FDGAs. Prereq: 32ELTN242. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

32CET402**Computer Security**

An introduction to computer and network security. Topics include: kinds of security attacks, methods of defense, encryption and decryption, program, operating system and network security. BoK: NS., QR. Credit Level: U. Credit Hrs: 3.00

32CET410**TOPICS OF PROGRAMMABLE LOGIC DEVICES LABORATORY**

Design and implementation projects to demonstrate lecture concepts. Prereq: 32CET400. BoK: NA. Credit Level: U. Credit Hrs: 1.00

32CET412**Computer Security Laboratory**

Exercises and projects to illustrate lecture concepts. Coreq: 32CET402. BoK: NA. Credit Level: U. Credit Hrs: 1.00

32CET440**TOPICS OF IP ROUTERS**

An introduction to the management of IP networks using routers. Specific topics: basic network design, selecting equipment, routing protocol selection, configuration and security. BoK: QR. Credit Level: U.

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Computer Engineering Technology**32CET440****TOPICS OF IP ROUTERS**

Credit Hrs: 3.00

32CET441**TOPICS OF WEB-BASED CONTROL**

An introduction to real-time control via the world wide web. Explore the use of web-based applications to control devices across a network.

BoK: QR. Credit Level: U. Credit Hrs: 3.00

32CET445**COMPUTER NETWORK ADMINISTRATION**

Examination of network administration tasks in mixed system environment. Topics include design, performance/optimization, security and mixed protocol environments. BoK: NS. Credit Level: U. Credit Hrs: 3.00

32CET450**TOPICS OF IP ROUTERS LABORATORY**

Design and implementation projects to demonstrate lecture concepts utilizing a popular commercial router. BoK: NA. Credit Level: U. Credit Hrs: 1.00

32CET451**TOPICS OF WEB-BASED CONTROL LABORATORY**

Design and implementation projects to demonstrate lecture concepts. BoK: NA. Credit Level: U. Credit Hrs: 1.00

32CET455**COMPUTER NETWORK ADMINISTRATION LAB**

Exercises and projects to illustrate lecture concepts. BoK: NA. Credit Level: U. Credit Hrs: 1.00

Chemistry**32CHEM021****Introduction to Chemistry I**

Introduction to the principles of chemistry, with applications and laboratory activities. BoK: NA. Credit Level: U. Credit Hrs: 3.00-4.00

32CHEM022**Introduction to Chemistry II**

The periodic table, chemical bonding, chemical equations, stoichiometry, thermochemistry. Prereq: 32CHEM021. BoK: NA. Credit Level: U. Credit Hrs: 3.00-4.00

32CHEM131**Chemical Technology I**

Elementary principles of chemical analysis including use and handling of chemical glassware, beginning qualitative and quantitative analysis, data handling, laboratory notebook development, report writing. Coreq: 32CHEM171. BoK: NS, QR. Credit Level: U. Credit Hrs: 5.00-6.00

32CHEM132**Chemical Technology II**

Continuation of 32-035-131 concentrating on gravimetric and volumetric analysis, use of the analytical balance and the pH meter. Additional exercises in developing notebook and report writing skills. Prereq: 32CHEM131. Transfer Module. BoK: NS, QR. Credit Level: U. Credit Hrs: 5.00-6.00

32CHEM133**Chemical Technology III**

Continuation of 32-035-132 concentrating on gravimetric and volumetric analysis and introductory instrumental analysis including computer applications in data analysis. Prereq: 32CHEM132. BoK: NS, QR. Credit Level: U. Credit Hrs: 5.00-6.00

32CHEM161**Life Science I**

This is the first of two courses in the life sciences. It is an introduction to human anatomy and physiology. It is designed to support later studies in biochemistry and bioanalytical chemistry, and to help prepare students for co-op and work assignments in biomedical and pharmaceutical industry laboratories. BoK: NS. Credit Level: U. Credit

Chemistry**32CHEM161****Life Science I**

Hrs: 2.00

32CHEM162**Life Science II**

This is the second of two courses in the life sciences. It is an introduction to human cellular biology. It is designed to support later studies in biochemistry and bioanalytical chemistry, and to help prepare students for co-op and work assignments in biomedical and pharmaceutical industry laboratories. Prereq: 32CHEM161. BoK: NS. Credit Level: U. Credit Hrs: 2.00

32CHEM171**Chemical Technology Orientation I**

An orientation to the chemical technology profession and introduction to necessary academic and technical skills. BoK: NA. Credit Level: U. Credit Hrs: 2.00

32CHEM172**Chemical Technology Seminar I**

This course consists of a collection of seminars designed to introduce freshman students to the chemistry-based industry, career opportunities, lectures by practitioners and several faculty. Prereq: 32CHEM131, 32CHEM171. BoK: NA. Credit Level: U. Credit Hrs: 1.00

32CHEM174**Fundamentals of Chemistry**

A study of chemical reactions, stoichiometry with emphasis upon inorganic reactions and thermodynamics. Transfer Module. BoK: NS. Credit Level: U. Credit Hrs: 4.00

32CHEM204**Chemical Technology Seminar II**

This course consists of a collection of seminars designed to encourage second year chemical technology majors to gain more exposure to the chemistry-based industry, career opportunities, lectures by practitioners and faculty. Students are also expected to continue to work on their e-portfolios used by the college. BoK: NA. Credit Level: U. Credit Hrs: 1.00

32CHEM231**Preparation and Analysis of Organic Compounds I**

An introduction to the preparation and analysis of organic compounds concentrating on basic skills needed to synthesize and characterize simple organic compounds. Prereq: 32CHEM133. Coreq: 32CHEM241. BoK: NS. Credit Level: U. Credit Hrs: 5.00

32CHEM232**Preparation and Analysis of Organic Compounds II**

Continuation of 32-035-231 with emphasis on classes of organic reactions and use of chemical instrumentation to analyze compounds produced. Prereq: 32CHEM231. Coreq: 32CHEM241. BoK: NS. Credit Level: U. Credit Hrs: 5.00

32CHEM233**Preparation and Analysis of Organic Compounds III**

Continuation of 32-035-232 emphasizing contemporary methods of preparation of organic compounds and more rigorous use of chemical instrumentation for characterization. Prereq: 32CHEM232. BoK: NS. Credit Level: U. Credit Hrs: 5.00

32CHEM241**Chemical Technology IV**

Continuation of 32CHEM133 concentrating on instrumental analysis including UV-Vis-IR spectrophotometry, chromatography, and additional computer applications. Prereq: 32CHEM133. BoK: NS. Credit Level: U. Credit Hrs: 4.00

32CHEM250**Nuclear Magnetic Resonance, Principles and Applications I**

Nuclear magnetic resonance (NMR) is the premier investigative tool for structure determination in chemistry, biology (biochemistry) and medicine. This course is designed for the student early in their study of

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Chemistry**32CHEM250****Nuclear Magnetic Resonance, Principles and Applications I**

chemistry at the college level. It will build on principles presented in a first course in chemistry and will augment the study of organic chemistry. The course will address the major concepts associated with the use of NMR for chemical analysis: nuclear spin, spin resonance and the chemical shift, coupling of neighboring nuclei, and signal integration. BoK: NS. Credit Level: U. Credit Hrs: 3.00

32CHEM271**Environmental Chemistry**

Examination of the chemical cycles and life support systems of the planet, and the influence of human-driven chemistry on these systems. Exploration of the molecular basis of current environmental issues and trends, including acid rain, environmental toxins, global warming, green chemistry, and stratospheric ozone depletion. Prereq: 32CHEM133. Coreq: 32CHEM231. BoK: NS. Credit Level: U. Credit Hrs: 4.00

32CHEM276**Chemical and Biological Warfare Agents**

This course provides information on the nature of chemical and biological warfare agents, including structure and function relationships, signs and symptoms of exposure, decontamination, and prophylactic measures for protection. In addition, the course examines the potential for genetically modified biological weapons and agents based upon knowledge from cancer research, which are currently under development. BoK: NS. Credit Level: U. Credit Hrs: 3.00

32CHEM285**Introduction To Molecular Modeling**

An Introduction some of the ways in which molecular modeling is used to verify information about structure and reactivity already known for many compounds, to probe for explanations for reactivity not fully understood, or to predict the properties of compounds not yet prepared or isolated from natural materials. Students will use a molecular modeling software system to carry out otherwise complex mathematical computations for a variety of chemical structures. Prereq: 32CHEM231. BoK: NS. Credit Level: U. Credit Hrs: 3.00

32CHEM305**Green Chemistry**

Building on students' prior laboratory experiences this course will explore strategies and methods for carrying out chemical reactions using reagents and reaction conditions that have a more benign impact than traditional methods on toxic waste generation and exposing workers to health hazards. Course reading and discussion will include topics such as energy, waste, atom efficiency, finding benign solvents, and the impact of 'green' processes on industry. Laboratory work will illustrate selected examples of traditional and 'green' reactions for both organic and inorganic synthesis. Students will gain a broader perspective of various approaches being used to contribute to environmentally responsible solutions to a topic of increasing global concern. Perm of Instructor. BoK: NS. Credit Level: U. Credit Hrs: 3.00

32CHEM306**Chemistry of Hazardous Materials**

The United Nations has created the Globally Harmonized Systems (GHS) for classification of chemicals in an attempt to have better communication of chemical hazards at the global level. Most of the industrialized world has either switched to the GHS program or, as in the process of doing so. The United States is attempting to modify its hazard communication program in order to comply with the new GHS system. This course will introduce the student to the above topic and will cover the chemistry of physical, health, and environmental hazards of categories of chemical identified by the GHS. Prereq: 32CHEM133. BoK: NS. Credit Level: U. Credit Hrs: 3.00

32CHEM311**Biochemical Technology I**

Concentrates on contemporary biochemical laboratory skills and techniques as applied to proteins. Prereq: 32CHEM233. BoK: NS. Credit Level: U. Credit Hrs: 5.00

Chemistry**32CHEM312****Biochemical Technology II**

Continuation of 32-035-311 emphasizing laboratory skills and techniques as applied to genetic material. Prereq: 32CHEM311. BoK: NS. Credit Level: U. Credit Hrs: 5.00

32CHEM313**Biochemical Technology III**

Continuation of 32-035-312 emphasizing laboratory skills and techniques as applied to metabolic cycles. Prereq: 32CHEM312. BoK: NS. Credit Level: U. Credit Hrs: 5.00

32CHEM315**Biochemistry of Physiologically Active Compounds**

This course will apply biochemical principles and technology to the study of physiologically active indigenous and exogenous compounds, including foods, drugs, medicinals, environmental factors and metabolites. Students will study the structure, function, metabolism and physiological effects of compounds. BoK: NS. Credit Level: U. Credit Hrs: 3.00

32CHEM321**Chemical Instrumentation I**

Concentrates on the construction of chemical instrumentation examining mechanical, optical, and electronic components. Prereq: 32CHEM242. BoK: NS. Credit Level: U. Credit Hrs: 5.00

32CHEM322**Chemical Instrumentation II**

Continuation of 32-035-321 concentrating on detailed development of methods for instrumental analysis. Prereq: 32CHEM321. BoK: NS. Credit Level: U. Credit Hrs: 5.00

32CHEM323**Chemical Instrumentation III**

Continuation of 32-035-322 concentrating on instrument operation. Prereq: 32CHEM322. BoK: NS. Credit Level: U. Credit Hrs: 5.00

32CHEM330**Fundamentals Of Food Science**

This is an introductory course in basic chemistry to develop understandings on nomenclature, and physical and chemical processes related to foods and food preparation. It includes an overview of topics such as: atomic and molecular structure, pH, concentration units, bonding and the chemical structures of carbohydrates, fats, proteins, and water. BoK: NS. Credit Level: U. Credit Hrs: 4.00

32CHEM331**Fundamentals of Food Chemistry I**

An introductory course in carbohydrates and lipids, including an understanding of ingredient functionalities in food preparation and on final product characteristics. Prereq: 32CHEM330. BoK: NS. Credit Level: U. Credit Hrs: 4.00

32CHEM332**Fundamentals of Food Chemistry II**

A continuation of Fundamentals of Food Chemistry I with emphasis upon proteins and food additives. Prereq: 32CHEM331. BoK: NS. Credit Level: U. Credit Hrs: 4.00

32CHEM333**Fundamentals of Food Chemistry III**

This course is a continuation of the study of foods, their composition, properties and behavior, and the changes that occur as they are prepared, processed and stored. The student will continue to build their understanding of functional ingredients and food additives. Laboratory work emphasized good instrumental and analytical techniques in examining food properties and reactions. Prereq: 32CHEM332. BoK: NS. Credit Level: U. Credit Hrs: 4.00

32CHEM335**Biochemistry for Food Science**

Introduction to biochemistry and bio-organic chemistry, including the structure and properties of organic compounds and biomolecules that

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Chemistry**32CHEM335****Biochemistry for Food Science**

are of particular relevance in food science. This course is designed for Culinary Arts & Sciences majors. Prereq: 32CHEM330. BoK: NS. Credit Level: U. Credit Hrs: 4.00

32CHEM340**Food Safety and Preservation**

An introduction to food safety issues, including chemical and microbial factors, and the control of food safety. This course will also look at fundamental food preservation techniques and the standards that regulate the industry. Prereq: 32CHEM332. BoK: NA. Credit Level: U. Credit Hrs: 4.00

32CHEM345**Food Microbiology**

This is an introductory level course in microbiology. This course is designed to give students an understanding of the fundamentals of microbiology and specifically, the importance of microbiology and its applications in the food science industry. Prereq: 32CHEM331, 32CHEM335. BoK: NS. Credit Level: U. Credit Hrs: 4.00

32CHEM350**Chemistry and Technology of Flavors**

This is an introductory level course in the chemistry of flavor compounds. This course will also include information about flavoring materials and techniques of analysis of flavor compounds. The course will also address the impact of processing and storage on the performance of flavors and the importance of flavor in the today's food science industry. Prereq: 32CHEM331, 32CHEM335. BoK: NS. Credit Level: U. Credit Hrs: 3.00

32CHEM355**Methods of Analysis of Food Components**

This is an introductory level course in analytical chemistry specifically for culinary science students. The course will introduce students to analytical methods and techniques as they apply to the analysis of food and food products. Students will be expected to do hands-on laboratory work. Prereq: 32CHEM333. BoK: NS. Credit Level: U. Credit Hrs: 4.00

32CHEM360**BASIC TOXICOLOGY**

An introductory course in toxicology that examines the factors that affect the toxicity of chemicals, including the long- and short-term effects of exposure, mutagenesis, carcinogenesis, and reproductive toxicity. BoK: NS. Credit Level: U. Credit Hrs: 3.00

32CHEM361**Sensory Evaluation and Testing**

An introduction to the principles of sensory evaluation. Emphasis is on the sensory perception of foods and the types of sensory testing procedures used as part of product analysis. Prereq: 32CHEM333. BoK: NS. Credit Level: U. Credit Hrs: 3.00

32CHEM372**Demonstration of Comprehensive Laboratory Proficiency**

Requires the demonstration of proficiencies in use of essential chemical technology laboratory techniques, equipment, protocols, data reduction, health and safety standards and Good Laboratory Practice. BoK: NA. Credit Level: U. Credit Hrs: 1.00

32CHEM373**Methods of Sample Preparations**

An introduction to methods of sample preparation including classical wet chemical and physical methods as well as contemporary methods including super critical fluid extraction. BoK: NA. Credit Level: U. Credit Hrs: 5.00

32CHEM374**Applications of Molecular Spectroscopy**

Applications of molecular spectroscopy with respect to UV-VIS, fluorescence, IR and FTIR spectroscopy including theory, sampling methods and spectral interpretation. BoK: NS. Credit Level: U. Credit Hrs: 3.00-5.00

Chemistry**32CHEM374****Applications of Molecular Spectroscopy**

Applications of molecular spectroscopy with respect to UV-VIS, fluorescence, IR and FTIR spectroscopy including theory, sampling methods and spectral interpretation. BoK: NS. Credit Level: U. Credit Hrs: 3.00-5.00

32CHEM375**Applications of Surfactants and Lipids**

The course offers an inclusive survey of surfactants and lipids. It provides the fundamentals of the solution, colloidal and interfacial properties of surfactant and lipid systems. It also provides a detailed description of analytical and structural characterization techniques. Prereq: 32CHEM233. BoK: NS. Credit Level: U. Credit Hrs: 3.00

32CHEM376**Modern Industrial Microscopy**

This class will review a wide range of microscopy techniques and their applications to modern industrial chemistry; the impact to industries such as pharmaceuticals, forensics, microbiology, computer manufacturing, consumer products, and polymer research will be addressed. The advances in digital images acquisition and analysis that have made microscopy increasingly quantitative and more broadly applicable will be a major focal point. Consisting of lecture and lab exercises, with an emphasis on light microscopy, the course will provide both comprehensive insight and hands-on experience. The content will be flexible to accommodate students interests, especially in cases of reviewing/preparing for cooperative experiences. Prereq: 32CHEM242. BoK: NS. Credit Level: U. Credit Hrs: 3.00

32CHEM377**POLYMER CHEMISTRY**

The methods of polymer synthesis and characterization will be studied in three lecture hours and three laboratory hours per week. Prereq: 32CHEM233. BoK: NS. Credit Level: U. Credit Hrs: 4.00

32CHEM378**INTERMEDIATE PREPARATION AND ANALYSIS OF ORGANIC COMPOUNDS**

The course will include the study of the preparation, analysis and nomenclature of the following types of compounds: amines, heterocyclics, polynuclear aromatics, and phenolics. BoK: NS. Credit Level: U. Credit Hrs: 3.00

32CHEM379**Food Chemistry: Structure And Reactions**

This is a course about the chemistry behind food and cooking. In this course we will study the structure, properties, and reactions of food and its components. We will examine the four fundamental food molecules, following them through classes of foods including dairy products, fruits and vegetables, meats, bread, and sweets. We will explore the molecular basis of the development of flavor during cooking. We will also explore the chemical reactions in food driven by bacteria and yeasts. This course requires that you have passed Prep & Analysis of Organic Compounds III. BoK: NS. Credit Level: U. Credit Hrs: 3.00

32CHEM390**Professional Ethics in Technology**

Exploration and research of ethical issues in applications of technology. Various points of view are examined to analyze their assumptions, impact and implications. BoK: SE. Credit Level: U. Credit Hrs: 3.00

32CHEM399H**From Dr. Seuss to Wall Street: Interdisciplinary Look at the Environment**

This course is an examination of the cycles and life support systems of the environment, and the influence of human activity on these systems. The course will consider specific environmental issues connected to energy, air, water and living things from multiple points of view with an interdisciplinary perspective. BoK: NS., HP. Credit Level: U. Credit Hrs: 3.00

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Chemistry**32CHEM401****SENIOR PROJECT I**

Identification and solution of a defined problem from the field of chemical technology. Culminates with production of a formal report. BoK: NA. Credit Level: U. Credit Hrs: 2.00

32CHEM402**SENIOR PROJECT II**

A Continuation of Senior Project I (32CHEM401). BoK: NA. Credit Level: U. Credit Hrs: 3.00

32CHEM403**Senior Project III**

A continuation of Senior Project II. Prereq: 32CHEM402. BoK: NA. Credit Level: U. Credit Hrs: 4.00

32CHEM411**BIOCHEMISTRY I**

Concentrates on contemporary biochemical laboratory skills and techniques as applied to proteins. BoK: NS. Credit Level: U. Credit Hrs: 5.00

32CHEM412**BIOCHEMISTRY II**

A continuation of Biochemistry I (32CHEM411) emphasizing laboratory skills and techniques as applied to genetic material. Prereq: 32CHEM411. BoK: NS. Credit Level: U. Credit Hrs: 5.00

32CHEM413**BIOCHEMISTRY III**

A continuation of Biochemistry II (32CHEM412) emphasizing laboratory skills and techniques as applied to metabolic cycles BoK: NS. Credit Level: U. Credit Hrs: 5.00

32CHEM414**The Biochemical Basis of Nutrition**

A study of the biochemical basis of nutrition, including the molecular structure-function relationships of -energy½ metabolism, food nutrients including carbohydrates, fats and proteins, health and disease states. This is a course for Chemical Technology majors or those with a chemistry background including organic chemistry. Prereq: 32CHEM232. BoK: NS. Credit Level: U. Credit Hrs: 3.00

32CHEM420**Food Processing Technologies**

An overview of food production systems and scale up, principles of food processing and packaging technologies. Prereq: 32CHEM333. BoK: NS. Credit Level: U. Credit Hrs: 4.00

32CHEM421**Food Formulation & Ingredient Functionality**

An overview of food formulation practices and principles from gold standard to prototype to finished product. Including cuisine knowledge, ingredient usage, cooking techniques, food safety, and manufacturing issues. Other areas covered include how new product ideas are derived from a food trend, consumer learning, and market analysis. Prereq: 32CHEM420. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32CHEM422**Senior Project I**

A capstone experience requiring students to define a problem or creative need in the food industry, to develop a Project Plan to solve the problem or meet the creative need, and to present the Project Plan in writing and through an oral presentation, including both theoretical and practical/hands-on applications. BoK: NS. Credit Level: U. Credit Hrs: 3.00

32CHEM423**Culinary Senior Project II**

A continuation of Senior Project I. Students will execute their project plans, and provide a written final report and oral presentation of results. BoK: NA. Credit Level: U. Credit Hrs: 3.00

Chemistry**32CHEM424****NUTRITIONAL BIOCHEMISTRY**

Introduction to the biomolecular basis of nutrition, including micro and macronutrients, energy metabolism, digestion and absorption, diet, and health and disease rates. This course is designed for Culinary Arts and Science majors. Prereq: 32CHEM333. BoK: NS. Credit Level: U. Credit Hrs: 3.00

32CHEM430**Instrumental Analysis**

This course will introduce the student to the basic concepts of instrumental methods of chemical analysis. This project-based course will provide the student with an opportunity to build on good laboratory techniques, and apply the theory of chemical instrumentation, and quantitative problem skills to solve typical real-life problems in the laboratory. The content will be flexible to accommodate a broad range of student interests, including the areas of environmental and biotechnology applications. BoK: NS. Credit Level: U. Credit Hrs: 5.00

32CHEM470**Environmental Laws and Regulations**

The course is a comprehensive review of the major federal laws and regulations. The laws and regulations covered include: SARA Title III and Emergency Planning and Community Right-to-Know Act (EPCRA); Toxic Substances Control Act (TSCA); Clean Air Act; OSHA Law and Regulations; National Environmental Policy Act (NEPA); Hazardous Wastes/RCRA; Underground Storage Tanks; and Comprehensive Environmental Response Compensation and Liability Act/Superfund. In addition, the course will cover Potential Environmental Liabilities, Handling Inspection and Environmental Auditing. BoK: SE. Credit Level: U. Credit Hrs: 4.00

32CHEM471**The Chemical Process Industry**

A review of the major manufacturing processes in the chemical process industry. Prereq: 32CHEM470. BoK: NS. Credit Level: U. Credit Hrs: 3.00

32CHEM472**Environmental Laws and Regulations II**

A continuation of Environmental Laws and Regulations I. Prereq: 32CHEM470. BoK: SE. Credit Level: U. Credit Hrs: 4.00

32CHEM499**Special Topics in Chemical Technology**

Current topics of interest in chemical technology. Topics selected from surface, polymer, and inorganic chemistry, statistical and computer applications, and other timely areas of interest. Perm of Instructor. BoK: NA. Credit Level: U. Credit Hrs: 1.00-5.00

Chemical Engineering**32CHTN224****Chemical Engineering Technology I**

(Lab. 234.) Process variables, steady-state material balances, gas laws, single and multiple systems, basic thermodynamics and energy balances. Laboratory experiments cover gas laws, vapor pressure, liquid-liquid extraction, chemical equilibrium, and boiling point elevation. Coreq: 32CHTN234. BoK: NA. Credit Level: U. Credit Hrs: 3.00-4.00

32CHTN225**Chemical Engineering Technology II**

(Lab. 235.) Fluid flow, heat transfer, distillation, absorption, extraction and drying. Laboratory experiments cover phase diagrams, heat of reaction, binary liquid-vapor equilibrium, statistical process control, distillation, fluid flow and flow measurements, heat transfer and heat exchangers. Prereq: 32CHTN224. Coreq: 32CHTN235. BoK: NA. Credit Level: U. Credit Hrs: 3.00-4.00

32CHTN234**Chemical Engineering Technology I Laboratory**

Laboratory experiments involving heat transfer, fluid flow, filtration, etc. Designed to complement lecture material in Chemical Engr Tech. I.

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Chemical Engineering**32CHTN234****Chemical Engineering Technology I Laboratory**

BoK: NA. Credit Level: U. Credit Hrs: 1.00

32CHTN235**Chemical Engineering Technology II Laboratory**

Laboratory experiments involving the use and calibration of industrial measuring equipment. Design to complement lecture material in Chemical Engr Tech II. Prereq: 32CHTN225. BoK: NA. Credit Level: U. Credit Hrs: 1.00

32CHTN271**CHEMICAL ENGINEERING AND PROCESS FUNDAMENTALS**

Introduction to basic concepts of chemical engineering principles needed to solve chemical process problems, including engineering principles understanding of engineering problem-solving styles and approaches to produce optimum results, and specific industrial examples of chemical processes and phenomena and their relationships to chemical engineering principles. Prereq: 32CHEM133, 32MATH179. BoK: NA. Credit Level: U. Credit Hrs: 4.00

Construction Management**32CM101****Construction Seminar I**

Seminars to introduce freshman students to career opportunities in design, construction and facilities management; lectures by practitioners and several faculty members, student papers. BoK: NA. Credit Level: U. Credit Hrs: 1.00

32CM102**Construction Seminar II**

Continuation of Construction Seminar I. Prereq: 32CM101. BoK: NA. Credit Level: U. Credit Hrs: 1.00

32CM272**Construction Documents and Quality Control**

Relationship of design to construction; specifications to field procedures; testing, inspections, quality management; legal requirements. Prereq: 32CM402. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32CM276**Construction Safety Management**

Safety in industry and construction, methods of conducting operations in close proximity to potential hazards, legal and insurance factors, accident case studies. Job site illustrated discussions. Prereq: 32BLTN108. BoK: SE. Credit Level: U. Credit Hrs: 3.00

32CM301**Construction Management I**

Overview of the Construction Management sequence, interrelationships of the parties involved in various types of construction contracts, office procedures, personnel, business strategies, payments, affidavits, liens, etc. Prereq: 32BLTN107, 32ENGL103, 32MATH244. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32CM301H**Leadership and Teamwork From Within**

The objective of the course is to examine the integration of humanities, leadership and teamwork to build on management concepts. Leadership in organization can be established in many different ways. A leadership that focuses on needs of individuals within organization for the benefit of the team has a lasting impact that promotes the organization well beyond other leadership styles. The course examines methods for promoting personal growth of individuals while enhancing teamwork to achieve organization objectives. BoK: HU., SS. Credit Level: U. Credit Hrs: 3.00

32CM401**Construction Management I**

Overview of the Construction Management sequence, interrelationships of the parties involved in various types of construction contracts, office procedures, personnel, business strategies, payments, affidavits, liens,

Construction Management**32CM401****Construction Management I**

etc. Prereq: 32ENGL103, 32BLTN107, 32MATH244. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32CM402**Construction Management II**

On-site operations, role of the superintendent, productivity, methods improvement, equipment scheduling, materials handling, computer modeling, time lapse and video photography. Prereq: 32CM401, 32ARTN289. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32CM473**Special Construction Management Projects**

Variable cr. Independent study of subjects chosen by the student with the approval of Department Head. BoK: NA. Credit Level: U. Credit Hrs: 1.00-9.00

32CM473H**Honors Special Topic Management Project**

The course is the Honors version of Special Topic Management Project offered to our CM students in the Honors Program. BoK: NA. Credit Level: U. Credit Hrs: 1.00-9.00

32CM503**Construction Management III**

Comparative building system analysis. Product selection, fabrication and erection methods. Student project evaluates systems. Evaluation. Lab will study decision support systems for construction projects. Prereq: 32CM402, 32MATH371. BoK: NA. Credit Level: U. Credit Hrs: 3.00-4.00

32CM504**Construction Management IV**

Industrial construction, particular problems of building in a manufacturing or processing environment. Student project addresses design, scheduling and economic requirements for a particular site. Prereq: 32CM503, 32CM581. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32CM505**Leadership and Decision Making**

Leadership traits and skills and their application to facilities management. Prereq: 32PD132. BoK: SS, SE. Credit Level: U. Credit Hrs: 3.00

32CM511**Scheduling I**

Flow of labor and material toward specified goal, weather, trade characteristics, material availability considered in designing bar charts, graphs and CPM schedules. Prereq: 32ARTN289, 32CM402, 32BLTN310, 32IET321. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32CM512**Scheduling II**

Computerized scheduling of more complex PERT and critical path problems. Prereq: 32CM511. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32CM555**Sustainable Construction and LEED**

The course discusses how LEED project certification influences the overall construction project. Topics will include LEED certification techniques for sustainable sites, water efficiency energy & atmosphere, materials & resources, indoor environmental quality, and innovation and techniques and design. Prereq: 32ARTN372, 32ARTN373, 32ARTN573. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32CM571**Construction Law**

Contract documents -- legal aspects, formation of contracts and interpretations; subcontractor and agency relationship -- legal pitfalls; forfeiture -- determination and frustration; legal remedies and remedies in equity; damages and restitution; arbitration, liens, bonds, indemnities case studies in the above described areas of construction law. Prereq:

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Construction Management**32CM571****Construction Law**

32CM402. BoK: SE. Credit Level: U. Credit Hrs: 3.00

32CM572**Construction Documents and Quality Control**

Relationship of design to construction; specifications to field procedures; testing, inspections, quality management; legal requirements. Prereq: 32CM402. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32CM575**Senior Special Project**

Each student is required to design in detail a plan of contract execution from project generation to owner's use of the building, estimating, scheduling, project costing, etc. Prereq: 32CM504, 32CM512. BoK: NA. Credit Level: U. Credit Hrs: 5.00

32CM576**Senior Special Project II**

Continuation of 32CM575 with emphasis on resource management, pre-construction services and post construction (facilities). Prereq: 32CM575. BoK: NA. Credit Level: U. Credit Hrs: 5.00

32CM581**Construction Financing & Strategy Planning**

Time value of money. Economic analysis of investment in various projects. ROE, discounted cash flow, depreciation, financial analysis of construction firms. Trend analysis and financial management decisions. Capital budgeting and cash forecasting. Equipment financing and management. Bidding strategy. Prereq: 32ACCT342, 32IET321. BoK: QR. Credit Level: U. Credit Hrs: 3.00

32CM582**Project Costing**

Advanced estimating procedures, time value of money, life-cycle costing; cash flow and controls, billing systems, holdbacks, incentive and penalties, short-term financing. Estimating/costing project for a building. Prereq: 32CM511, 32CM581, 32ARTN289. BoK: QR. Credit Level: U. Credit Hrs: 3.00

Communication**32COMM172****Fundamentals of Speech Communications**

An introduction to speech composition, delivery, audience analysis, and handling of audiovisual equipment. BoK: HU. Credit Level: U. Credit Hrs: 3.00

32COMM192**Speeches That Changed History: Words From Politicians, Warmongers and Peacemakers.**

Reading speeches by Lincoln, Twain, Gandhi, Churchill, et. al. Student will discover the power of language and rhetoric to change history. BoK: HU. Credit Level: U. Credit Hrs: 3.00

32COMM341**Managerial Communications**

A study of process of communication focusing on the purpose of communicating and the best strategy for accomplishing that purpose in national and international settings. BoK: HU. Credit Level: U. Credit Hrs: 3.00

32COMM371**Technical and Professional Presentations**

Oral presentation of technical information supplemented by analysis of interpersonal and group communication. Prereq: 32COMM172. BoK: HU. Credit Level: U. Credit Hrs: 3.00

32COMM382**Graphics I**

An intensive, comprehensive course in computer graphics: it encompasses the conceptual, technical and historical aspects of graphics design and visual presentation in the digital domain. We will

Communication**32COMM382****Graphics I**

learn the principles of design integration of images, graphics and text through reading, discussion, critique and practice. Prereq: 32ENGL103. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

32COMM383**Communication in the Modern World**

Examines the technical, theoretical and cultural constructs that define contemporary communication media. Students explore predominant content-areas and genres of cyberspace media, study the foundations of media theory, and learn to apply a critical lens to the representation of identity and diversity in media. BoK: HU. Credit Level: U. Credit Hrs: 3.00

32COMM384**Graphics II**

Building on topics covered in Graphics I, students will extend their knowledge and practice of creating professional level graphic images and typography in multi-page compositions. Emphasis will be placed on type as images, types as experiment and on the use of photographic images and stock graphics two creative innovative, eye-catching brochures, booklets and professional materials for technology industries and businesses. Students will build a portfolio of professional print media while acquiring skills in Adobe Photo-Shop and InDesign. Prereq: 32COMM382. BoK: HU. Credit Level: U. Credit Hrs: 3.00

32COMM385**Intercultural Business Communication**

This course examines the characteristics of cultural differences that alter communication symbols and meaning for international business activities. Prereq: 32ENGL101, 32ENGL102, 32ENGL103. BoK: SS, DC. Credit Level: U. Credit Hrs: 3.00

32COMM388**Communication Studies in New Media**

An overview of the theoretical and cultural constructs that define new communication media, interactive moving images, and simple algorithm-based computer graphics. We will learn how these media inform, reproduce, or displace cultural categories that permeate our world. During this course, students will 1) examine the cross-cultural categories that production and use of the visual image of new media, 2) explore montage, the figuration of multiple image fragments and sequences to create movement and cinematic perception, and 3) create, analyze and critique graphical elements using an algorithm-based language. Prereq: 32ENGL103. BoK: DC, HU. Credit Level: U. Credit Hrs: 3.00

32COMM480**Science and Technology in the Popular Media**

Examines the representation of science and technology in media and popular culture, including print, film and cyberspace. Students will explore through readings the dominant cybernetic and neo-Darwinian discourses that shape popular visions of technology and will consider their critical alternatives. Prereq: 32ENGL103. BoK: SE. Credit Level: U. Credit Hrs: 3.00

32COMM484**Trends in Global Communications**

The emergence of a "geoeconomy" and the pursuit of global culture based on technology and commercial discourse are having mixed results on the local scale, including adaptation of resistance. Global communications is approached from three comprehensive perspectives: 1) media communication and international regulation of info flow, 2) the cultural politics of language, and 3) postcolonial responses to globalization of commodities. BoK: HU., DC. Credit Level: U. Credit Hrs: 3.00

32COMM485**E-Portfolio Production & Information Graphics**

Course participants produce functional, engaging, stylish, and self-reflective e-portfolios of their undergraduate work as part of the broader study of interactive Web design. The course overviews the deep and

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Communication**32COMM485****E-Portfolio Production & Information Graphics**

complex data structures of new media objects, discusses possible navigational control structures in Web and CD media as appropriate for specific content. As a secondary focus, participants will also study alternative visual formats for the delivery of various types of data and information. Prereq: 32ENGL103. BoK: FA. Credit Level: U. Credit Hrs: 3.00

32COMM498**Special Topics In Communications**

This course permits special topics instruction to be offered in the Humanities area of Communication. BoK: NA. Credit Level: U. Credit Hrs: 1.00-3.00

32COMM499**Independent Study in Communication**

This course permits independent study instruction to be offered in the humanities area of Communications. BoK: NA. Credit Level: U. Credit Hrs: 1.00-3.00

Construction Administration**32CONA800****Construction Personnel Management**

Examination of personnel management and analysis of strategic personnel planning in construction firms. Credit Level: G. Credit Hrs: 3.00

32CONA815**Planning and Control of Construction Firms**

A focused study of strategic planning in construction firms as distinct from operational planning. Prereq: 32CM511, 32CM512, 32CM582. Credit Level: G. Credit Hrs: 3.00

32CONA820**Facilities Planning and Value Analysis**

Planning and managing the design of facilities and value analysis of projects. Prereq: 32CM511, 32CM581, 32ECON386. Credit Level: G. Credit Hrs: 3.00

32CONA825**Advanced Construction Costing**

Costing strategies and its impact on planning, acquisition and control of construction resources. Prereq: 32CM512, 32CM582, 32ACCT341. Credit Level: G. Credit Hrs: 3.00

32CONA830**International Construction**

Examination of international construction and impact of global economy on construction firms. Credit Level: G. Credit Hrs: 3.00

32CONA835**Analysis of Legal Issues in Construction**

Exploration of legal and regulatory environment and its impact in the construction process. Credit Level: G. Credit Hrs: 3.00

32CONA840**Construction Method and System**

Investigation of construction materials and processes and its impact in the design/construct/maintain continuum. A systematic evaluation of construction materials in constructability is also presented. Credit Level: G. Credit Hrs: 3.00

32CONA860**Seminar in Construction Management**

In-depth examination of problems in construction and their implication. Innovation in construction is discussed with cases. Credit Level: G. Credit Hrs: 3.00

32CONA870**Research in Construction Management**

Independent study. Credit Level: G. Credit Hrs: 3.00-9.00

Cooperative Education**32COOP332H****Professional Practice Honors Project**

Course for students enrolled in the University Honors and Scholars Program in the College of Applied Science. Course to follow student's cooperative education quarter (Professional Practice Registration). A student proposal must be approved by Professional Practice Advisor, Departmental Advisor and Employer prior to beginning project. Project culminates with written technical report. BoK: NA. Credit Level: U. Credit Hrs: 1.00-3.00

Computer Science Technology**32CSTN101****Computer Literacy**

This is meant as a first course for computer users. It covers an introduction to computer concepts, networking, and telecommunication issues. It includes a hands-on introduction to E-Mail and the Internet. The course also includes practical applications in word processing, electronic spreadsheets, presentation graphics and database software. BoK: NS. Credit Level: U. Credit Hrs: 3.00

32CSTN111**Problem Solving and Logic in Programming**

The art and science of writing computer algorithms is introduced without reference to any specific computer language. Course relates logical and mathematical concepts such as truth tables and set theory to computer algorithm construction. Algorithmic paradigm used in this course is procedural. Design and development of algorithms with the aid of structure charts, IPO charts, flowcharts and pseudo-codes will be emphasized. BoK: QR., NS. Credit Level: U. Credit Hrs: 3.00

32CSTN112**Problem Solving and Logic in Programming II**

This course builds on concepts introduced in Problem Solving and Logic I by introducing the object oriented and event-driven paradigms. Course thus introduces object oriented and event-driven computer algorithm construction as alternatives to the procedural thinking process discussed in Problem Solving and Logic I. BoK: NS., QR. Credit Level: U. Credit Hrs: 3.00

32CSTN141**Introduction to Computer Programming I**

This is the first programming course for students with no prior programming experience. It intends to provide an introduction to the fundamental concepts of composing and running a program using the programming language Visual C++. BoK: NS., QR. Credit Level: U. Credit Hrs: 3.00

32CSTN142**Introduction to Computer Programming II**

This course is a continuation of Introduction to Computer Programming I. Students will learn to write user defined functions, work with arrays and structures, read and write files to and from disk. In addition, class construct and object oriented design will be introduced. BoK: NS., QR. Credit Level: U. Credit Hrs: 3.00

32CSTN143**Introduction to Computer Programming III**

This course is a continuation of Introduction to Computer Programming II. Students will learn to work with pointers and implement abstract data types. Container classes of vector, queue, and stack will be discussed. Other object oriented programming concepts such as function/operator overload, inheritance, polymorphism and templates will be introduced. BoK: NS., QR. Credit Level: U. Credit Hrs: 3.00

32CSTN146**Visual Programming I**

This course introduces the fundamental elements of object oriented programming under the Windows environment. Visual Basic is the programming language used in this course. Students will learn to write highly visual event driven program by supplying codes to the events and setting properties of the various controls supplied by Visual Basic. BoK: NS., QR. Credit Level: U. Credit Hrs: 3.00

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Computer Science Technology**32CSTN147****Visual Programming II**

This course is a continuation of Visual Programming I. Students will learn to display graphics, access databases, and communicate with other Windows applications, design objects and ActiveX controls using Visual Basic. BoK: NS., QR. Credit Level: U. Credit Hrs: 3.00

32CSTN181**Introduction to Operating Systems**

Course introduces the objectives and functions of a computer operating system. Microsoft Windows, UNIX, and LINUX are studied and compared. BoK: NS. Credit Level: U. Credit Hrs: 3.00

32CSTN183**Desktop Publishing**

Course is designed to introduce students to the electronic publishing process including writing, assembly, and design as applied to business documents. The technical and creative aspects of electronic publishing are examined. Microcomputer desktop publishing software such as Adobe In Design is used to illustrate concepts. BoK: NS. Credit Level: U. Credit Hrs: 3.00

32CSTN215**Directed Study - Computer Science**

This course is designed for students who require individualized instruction in Computer Science. Perm of Instructor. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32CSTN216**Directed Study - Computer Science**

This course is designed for students who require individualized instruction in Computer Science. Perm of Instructor. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32CSTN221**Object Oriented Programming with Java I**

This course will introduce object-oriented design and programming using Java. Students will learn all aspects of the object-oriented design methodology including Inheritance, Encapsulation and Polymorphism and apply them to typical business systems using Java applications. Students will learn to create GUI applications as well as Console-based applications and learn inner classes, graphics and image processing. BoK: NS., QR. Credit Level: U. Credit Hrs: 3.00

32CSTN222**Object Oriented Programming with Java II**

This course is a continuation of Object Oriented Programming with Java I. Students will learn to write applets using Java's AWT and Swing UI Toolkit. Event handling, Exception handling, and Multithreading will be studied. Students will also learn JDBC, Servlet programming, animation Remote Method Invocation and Networking. BoK: NS., QR. Credit Level: U. Credit Hrs: 3.00

32CSTN223**Advanced Java Programming**

To educate the student about the full web development environment available through the Java 2 Enterprise Edition (J2EE) and introduce the student to the various components of the platform. The course will cover Java Server Pages, Java Transaction Service and API, concepts of the Java mobile programming. BoK: NS., QR. Credit Level: U. Credit Hrs: 3.00

32CSTN246**Visual Programming I**

This course introduces the fundamental elements of object oriented programming under the Windows environment. Visual Basic is the programming language used in this course. Students will learn to write highly visual event driven program by supplying codes to the events and setting properties of the various controls supplied by Visual Basic. BoK: QR., NS. Credit Level: U. Credit Hrs: 3.00

Computer Science Technology**32CSTN247****Visual Programming II**

This course is a continuation of Visual Programming I. Students will learn to display graphics, access databases, and communicate with other Windows applications, design objects and ActiveX controls using Visual Basic. BoK: QR., NS. Credit Level: U. Credit Hrs: 3.00

32CSTN251**PC Support**

This course is designed to provide basic competence in supporting microcomputers. Topics of discussion include, but are not limited to, installation, configuration and upgrading, diagnosing and troubleshooting, preventive maintenance, motherboards, processors, and memory; RAM, printers, basic networking, and operating systems. BoK: NS. Credit Level: U. Credit Hrs: 3.00

32CSTN261**Novell Administration**

In this course the students learn basic administration of a Netware Network. This includes designing a NDS tree, managing users, and implementing security. A student successfully completing this course will be on track to take the Novell Certified Network Administrator Exam. BoK: NS. Credit Level: U. Credit Hrs: 3.00

32CSTN262**Microsoft Network Operating Systems I**

This course is an introduction to Microsoft NT administration. It includes installation, configuration and domain setup. Students successfully completing this course will have covered many topics required by two of the four NT 2000 core certification exams; therefore, the course material can be used to prepare for such exams. BoK: NS. Credit Level: U. Credit Hrs: 3.00

32CSTN263**Microsoft Network Operating System II (Directory Services)**

This is a continuation of the course Microsoft Network Operating System I (17-CSTN-262) course line. The focus of this course is on Microsoft Directory Services. This course will also go deeper into Windows 2000 networking. Students completed the courses sequence are well-suited to pursue the network certification examination. BoK: NS. Credit Level: U. Credit Hrs: 3.00

32CSTN264**Network Security**

The course will focus on three stages: "Why network security?", the securing of data, and managing network traffic. The last two stages utilize cryptography, and as such, a good deal of time will be spent on cryptography. After addressing each of these three stages, the class will look at the implementation of real-world scenarios and how they apply to our studies. BoK: NS. Credit Level: U. Credit Hrs: 3.00

32CSTN275**Web Publishing**

This service learning course covers basic Web Technology and Web site Design. HTML, Cascading Style Sheets, and Web site Design are covered in depth. Students will complete a personal homepage on the UC OZ network and a major Web site design project for a local not-for-profit organization. BoK: NS. Credit Level: U. Credit Hrs: 3.00

32CSTN276**Web Programming**

This course will cover Server and Client-side programming including Dynamic HTML, Active Server Pages, JavaScript, Common Gateway Interface programming, database back-ends, and other web programming technologies and paradigms. BoK: NS., QR. Credit Level: U. Credit Hrs: 3.00

32CSTN277**Web Administration**

This course will cover setup, maintenance, and management of web servers. Issues addressed will include user management, security, and Web site automation. Focus will be on the Internet Information server and Apache Web server software with some coverage of Java-based

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Computer Science Technology**32CSTN277****Web Administration**

servers. BoK: NS. Credit Level: U. Credit Hrs: 3.00

32CSTN278**Dynamic Web Pages With ASP Net**

To learn the elements of dynamic web programming using the .NET Platform. The JavaScript or VB.NET language will be used for server-side programming. The student will be taught how to develop a web database construction using the .NET platform. Students will learn how to do session management and basic application deployment. Students will relate the client-side programming to the back-end server-side technology. BoK: NS., QR. Credit Level: U. Credit Hrs: 3.00

32CSTN279**Dynamic Web Pages With XML and Web Services**

To learn the elements of dynamic Web pages using XML and Web Services. The student will be taught how to develop a Web database construction using XML. Students will learn the essentials of the various Web Services. They also get a basic introduction to Mobile programming. Students will use the .NET platform to create a simple Web Service and deploy it. BoK: NS., QR. Credit Level: U. Credit Hrs: 3.00

32CSTN281**Spreadsheet Design and Programming**

This course explores intermediate and advanced capabilities of the Excel spreadsheet program. It provides students an environment in which to expand their skills in layout, design, formula construction, and documentation, plus @ function, macro, and VBA programming techniques. BoK: QR., NS. Credit Level: U. Credit Hrs: 3.00

32CSTN282**Database Design and Programming**

Relational database management model is introduced and critically compared to other data management systems. Microsoft access is used as a relational database management system (RDBMS). Microsoft Access API is studied. BoK: QR., NS. Credit Level: U. Credit Hrs: 3.00

32CSTN283**Database Administration**

This course is designed to give students a firm foundation in basic Oracle8 database administrative tasks. Students will gain the necessary knowledge and skills to set up, maintain, and troubleshoot an Oracle8 database. BoK: NS. Credit Level: U. Credit Hrs: 3.00

32CSTN298**Implication of Computer Technology on Our Society**

This course focuses on the impact brought upon our society by computer and its related technologies. Issues related to privacy, ethics, law, encryption, copyright, computer crimes, etc., will be critically examined. BoK: SE. Credit Level: U. Credit Hrs: 3.00

32CSTN299**Special Topics in Computer Technology**

Presents relevant topics in Computer Science and its related technologies that reflect the direction and development of the computer industry. BoK: NS., QR. Credit Level: U. Credit Hrs: 3.00

Culinary Arts**32CUL320****History of Restaurants in the United States**

From the birth of restaurant dining as recreation in the 1800s to current dining lifestyle trends, History of Restaurants in the U.S. will explore the early motivations of the restaurant industry, how technologies have affected the growth of the industry, and in turn how those technologies have shaped the modern American experience. BoK: HP. Credit Level: U. Credit Hrs: 3.00

32CUL330**Advanced Asian Cookery**

Students will learn to prepare authentic Asian foods and understand the cultures, history, traditions and symbolisms behind the cooking.

Culinary Arts**32CUL330****Advanced Asian Cookery**

The course consists of lectures, demonstrations and hands-on production of foods. The student will learn traditional techniques and handles an array of Asian ingredients and spices. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32CUL331**Setting The Stage - Banquet & Catering**

Students will conduct in-depth analyses pertaining to on-premise banquet operation, off-premise catering, and an overview of global event planning. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32CUL332**Classical French Cookery**

Following the path of the Grand Chefs of France such as Careme, Escoffier, and Bocuse, the student will study and practice the regional cuisines of France. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32CUL333**Computer Use in Food Management**

Utilizing desktop publishing fundamentals, the student will focus on ways to produce brochures, banners, menus, and documents that include the use of digital photography for the restaurant industry. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32CUL334**American Ethnic Cuisines**

Following the historical immigration of the new Americans, the course will explore the evolution of American Regional Cooking. The student will research the fundamentals of American regional cooking including Cajun, Creole, South Western, Texmex, California Spa Cuisine, New England, and San Francisco Asiatic Cooking. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32CUL335**Advanced Cake & Pastry**

Using the skills the student has learned this course will give a more in-depth look into the art of pastry, including plated desserts, decorating cakes, pastry for retail and buffet production. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32CUL337**Advanced Cake, Pastry and Bakeshop**

Using the skills the student has learned, this course will give a more in-depth look into the art of pastry, including plated desserts, decorating cakes, pastry for retail and buffet production. The student will also hone their basic bakeshop skills to produce advanced artisan breads, cookies, breakfast pastries, event and novelty cake items. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32CUL338**Marketing and Merchandising Food and Food Products**

An introduction to the principles of food product development, and the elements involved from product conception to the marketplace. Topics include strategic product development, consumer research, marketing and product launch, distribution channels, evaluation and regulations affecting the processes. Prereq: 32CUL333. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32CUL404**Creating Foods**

The focus of this course is on the integration of culinary skills, training in food chemistry, and the innovative use of flavors and ingredients to prepare original foods. This course emphasizes quality, creativity and functionality in the food production. Prereq: 32CHEM332. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32CUL406**Discovering Wine**

This course is a comprehensive overview of the many aspects of wine, winemaking, wine history, and wine enjoyment. We examine the gastronomic principles involved with storing, handling, serving, and pairing wine with foods, and wine will be tasted during each class.

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Culinary Arts**32CUL406****Discovering Wine**

Special attention is paid to winemaking, grape growing and the history and terroir of the world's important wine producing regions. Students will need to purchase a set of wine tasting glasses. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32CUL420**Culinary Presentation**

The course will focus on recipe and press release writing skills, professionalism within the industry and media presentations. Within the course, students will be required to present a 30-minute culinary lecture and demonstration to their peers. BoK: NA. Credit Level: U. Credit Hrs: 3.00

Civil and Construction Engineering Technology**32CVTN212****Structures II**

(Lab. 222) Strength of materials. Study of the mechanical properties of structural elements. Relationships between external forces and internal forces. Relationships between forces, stresses, and deformations. Lecture and lab must be taken concurrently. Prereq: 32CVTN213, 32MATH244. Coreq: 32CVTN222. BoK: NS, QR. Credit Level: U. Credit Hrs: 2.00-3.00

32CVTN213**Mechanics of Rigid Bodies**

Statics, equilibrants and resultants of two-dimensional force systems, centroids, and moments of area. Prereq: 32MATH244, 32BLTN107. Coreq: 32CVTN223. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

32CVTN222**Structures II Lab**

Laboratory instructions for Structures II (32CVTN212) Prereq: 32CVTN212. BoK: NA. Credit Level: U. Credit Hrs: 1.00

32CVTN223**Applied Structural Mechanics**

Studio course which explores the use of graphics and computer technology for problem solving. Student presentations are required. Coreq: 32CVTN213. BoK: NA. Credit Level: U. Credit Hrs: 1.00

32CVTN242**Surveying**

Traversing, site plan, state plane coordinates, control survey, construction survey, circular curves and parabolic curves, earthwork. Complete five projects. Prereq: 32MATH244. BoK: NA. Credit Level: U. Credit Hrs: 4.00

32CVTN251**Fluid Mechanics**

(Lab. 261.) Fluid statics and dynamics. A study of the principles of conservation of mass and energy applied to fluid flow systems. Characteristics of flow in enclosed conduits and open channels. Prereq: 32CVTN213, 32MATH244. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

32CVTN261**Fluid Mechanics Laboratory**

Laboratory instructions for Fluid Mechanics (32-257-251). BoK: NA. Credit Level: U. Credit Hrs: 1.00

32CVTN313**Structures III**

(Lab. 323.) Design of structural steel members and connections based on LRFD Specifications. Practical problem solving and detailing of solutions. Lecture and lab must be taken concurrently. Prereq: 32CVTN212. BoK: NS, QR. Credit Level: U. Credit Hrs: 2.00-3.00

32CVTN314**Structures IV**

(Lab. 324.) Design of structural concrete members such as beams, slabs, spread footing and columns. Lecture and lab must be taken

Civil and Construction Engineering Technology**32CVTN314****Structures IV**

concurrently. Prereq: 32CVTN313. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

32CVTN323**Structures III Laboratory**

Laboratory Instructions for Structures III (32-257-313). Prereq: 32CVTN313. BoK: NA. Credit Level: U. Credit Hrs: 1.00

32CVTN324**Structures IV Laboratory**

Laboratory instructions for Structures IV (32-257-314). Coreq: 32CVTN314. BoK: NA. Credit Level: U. Credit Hrs: 1.00

32CVTN378**Soil Mechanics**

(Lab. 388.) Types and classification of soils, characteristics, properties and behavior. Soil surveys include engineering sampling and procedures and compacted fill tests. Prereq: 32CVTN212, 32CVTN251, 32MATH244. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

32CVTN388**Soil Mechanics Laboratory**

Laboratory instructions for Soil Mechanics (32-257-378). Coreq: 32CVTN378. BoK: NA. Credit Level: U. Credit Hrs: 1.00

32CVTN390**Heavy/Highway Estimating**

A structured estimating process; work breakdown, cost elements, resources, labor material, equipment subcontractors and bid pricing. Prereq: 32ARTN122, 32ARTN289, 32BLTN107, 32CVTN242. BoK: QR, NS. Credit Level: U. Credit Hrs: 3.00

32CVTN401**Structural Systems I**

(Lab. 411.) Building code requirements that affect the selection of systems for light construction. Lateral bracing systems for one-story construction. Shallow and deep foundation systems. Prereq: 32CVTN314. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

32CVTN411**Structural Systems I Laboratory**

Laboratory instructions for Structural Systems I (32-257-411). Coreq: 32CVTN401. BoK: NA. Credit Level: U. Credit Hrs: 1.00

32CVTN571**Structural Systems II**

Lateral bracing systems for tall buildings. Case studies. Prereq: 32CVTN401. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

Electrical and Computer Engr and Computer Sci**32ECES321****Network Analysis I**

Fundamental laws, basic network variables, formulation of network equations, transient analysis. BoK: QR. Credit Level: U. Credit Hrs: 4.00

32ECES322**Network Analysis II**

Sinusoidal steady state analysis of electric networks with applications, analog networks, four terminal networks. BoK: QR. Credit Level: U. Credit Hrs: 4.00

32ECES323**Network Analysis III**

Fourier series introduction to Fourier transforms, Laplace transforms with applications. BoK: QR. Credit Level: U. Credit Hrs: 4.00

32ECES351**Electric and Magnetic Fields I**

Review of electricity and magnetism. Fundamental concepts. Introduction to field theory. BoK: QR. Credit Level: U. Credit Hrs: 4.00

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Electrical and Computer Engr and Computer Sci**32ECES352****Electric and Magnetic Fields II**

Continuation of 30ECES351. Engineering applications of electric and magnetic phenomena. Analysis and computation techniques. BoK: QR. Credit Level: U. Credit Hrs: 4.00

32ECES421**Electromagnetic Devices I**

Electromagnetic field theory essential to transformer theory equivalent circuits; applications. BoK: QR. Credit Level: U. Credit Hrs: 4.00

32ECES422**Electromagnetic Devices II**

Mechanical forces, torques, and induced voltages associated with magnetic fields. Analysis of rotating electrical machines. Offered alt. yrs. BoK: QR. Credit Level: U. Credit Hrs: 4.00

32ECES423**Electromagnetic Devices III**

Continuation of 30ECES422. Motors, generators, relays, actuators. Engineering applications. Design and analysis techniques. Efficiency and loss analyses. Offered alt. yrs. BoK: QR. Credit Level: U. Credit Hrs: 4.00

32ECES431**Electronics I**

Review of electrical and magnetic principles. Resistors, circuits, voltage and current dividers. Meters and measuring devices. Offered alt. yrs. BoK: QR. Credit Level: U. Credit Hrs: 4.00

32ECES432**Electronics II**

Continuation of 30ECES431. Kirchoff laws. Network theorems. Conductors and insulators. Batteries. Magnets. Inductance and inductive circuits. Offered alt. yrs. BoK: QR. Credit Level: U. Credit Hrs: 4.00

32ECES433**Electronics III**

Continuation of 30ECES432. Capacitance and capacitive circuits. Alternating current circuits Network Analysis. Filters, amplifiers, transistors. Digital circuits. Offered alt. yrs. BoK: QR. Credit Level: U. Credit Hrs: 4.00

32ECES486**Feedback Control**

Automatic control theory. Transient and steady-state response. Transfer functions and stability criteria. Offered alt. yrs. BoK: QR. Credit Level: U. Credit Hrs: 4.00

32ECES499**Independent Study in Electrical Engineering**

Please complete and submit an Independent Application form available from the college office. BoK: NA. Credit Level: U. Credit Hrs: 1.00-12.00

32ECES541**Communication Circuit Design I**

Senior level circuit design course using techniques and information gained in Electronics, Feedback Control and Electromagnetic fields courses. Emphasis on component search techniques. Prereq: 32ECES352, 32ECES433, 30ECES486. BoK: QR. Credit Level: U. Credit Hrs: 3.00

32ECES542**Communication Circuit Design II**

Senior level circuit design; continuation of 30ECES541. Prereq: 30ECES541. BoK: QR. Credit Level: U. Credit Hrs: 3.00

32ECES571**Engineering Design**

Topics important to the designer including product liability, specifications, patents, decision theory, reliability, optimization and computer-aided design. BoK: QR. Credit Level: U. Credit Hrs: 4.00

Economics**32ECON141****Principles of Economics: Micro**

Introduction to our economic system; supply and demand; pricing under competitive and noncompetitive market structures. BoK: SS. Credit Level: U. Credit Hrs: 3.00

32ECON142**Principles of Economics: Macro**

Introduction to national product and national income, and to monetary and fiscal policies for stability and growth. BoK: SS. Credit Level: U. Credit Hrs: 3.00

32ECON286**Survey of Economics**

Study of the production, distribution, and consumption of goods and services. Relations between the economy, society and government. Transfer Module. BoK: SS. Credit Level: U. Credit Hrs: 3.00

32ECON371**Economics of Sport**

Economics growth of the sport industry over the last century. This course will apply basic economic tools to questions and problems in professional and intercollegiate sports as well as the operation of stadiums and arenas. Prereq: 32ECON142. BoK: SS. Credit Level: U. Credit Hrs: 3.00

32ECON386**Economic Analysis**

Asset valuation, depreciation and depletion, investment and operating costs, taxes, inflation, production economics, break-even analysis, value analysis, economic service life. Relations between economy and society. Prereq: 32ECON286. Transfer Module. BoK: SS. Credit Level: U. Credit Hrs: 3.00

32ECON481**Globalization and International Trade**

Globalization and Theory of International Trade including balance of payments, tariffs, quotas, exchange rates; international monetary problems; foreign transactions and domestic economy; regional trade agreements. BoK: SS., DC. Credit Level: U. Credit Hrs: 3.00

Electrical Technology**32EETN004****Electrical Equipment and Maintenance**

Basic theory of operation of electrical equipment including: magnetic circuits, transformers, motors and instrumentation. Also preventative and routine maintenance procedures pertaining to electrical equipment. Prereq: 32EETN018. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32EETN005**Electrical Equipment and Maintenance**

A continuation of Electrical Equipment and Maintenance (See 32-170-004). Prereq: 32EETN004. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32EETN006**Electrical Equipment and Maintenance**

Continuation of Electrical Equipment and Maintenance (See 32-170-004) Prereq: 32EETN005. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32EETN016**Fundamentals of Electricity**

A study of basic electrical principles including static and dynamic electricity, electromagnetism, DC and AC circuits, and an introduction to solid-state electronics. Review of applied mathematics is coordinated with related electrical formulas and calculations. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32EETN017**Fundamentals of Electricity**

A continuation of Fundamentals of Electricity (See 32EETN016). Prereq: 32EETN016. BoK: NA. Credit Level: U. Credit Hrs: 3.00

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Electrical Technology**32EETN018****Fundamentals of Electricity**

Continuation of Fundamentals of Electricity (See 32EETN016). Prereq: 32EETN017. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32EETN019**Electrical Wiring**

Wiring terminology, devices and circuits. Utilization of national electrical code and local utility requirements. Residential, commercial, and industrial installations. Prereq: 32EETN018. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32EETN020**Electrical Wiring**

A continuation of Electrical Wiring (See 32-170-019). Prereq: 32EETN019. BoK: NA. Credit Level: U. Credit Hrs: 3.00-4.00

32EETN021**Electrical Wiring**

A continuation of Electrical Wiring (See 32-170-019). Prereq: 32EETN020. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32EETN025**Industrial Control Circuits**

Machine electrical control devices required for use with manual, semiautomatic, and complex automatic circuits. Development of ladder diagrams showing sequence of machine operations with interlocking, safety, timing, displacement, and thermal limiting circuits. Solid-state electronic control devices and applications. Digital circuit analysis leading to a working knowledge of the programmable controllers and basic control circuit programming. Prereq: 32EETN018. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32EETN026**Industrial Control Circuits**

A continuation of Industrial Control Circuits (See 32-170-025). Prereq: 32EETN025. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32EETN027**Industrial Control Circuits**

A continuation of Industrial Control Circuits (See 32-170-025). Prereq: 32EETN026. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32EETN050**Computer Proficiency, Repair, and Maintenance**

Students will be provided with the basic information on installing, troubleshooting and using microcomputer communication and local area network hardware and software. They will learn how to use IBM compatible personal computers for personal and professional applications. They will also learn how to connect and troubleshoot peer-to-peer and other basic local area network (LAN) systems. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32EETN055**Computer Hardware and Software Upgrade**

Students will learn the operation of PC computer architecture, microprocessors, systems memory, video types, hard drives, mice, cabling, and printers as they relate to the running of current application programs. They will learn how to build upgrade and troubleshoot personal computer system specific to user requirements. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32EETN060**Fundamentals of Electricity**

Students will learn the basic of DC and AC electrical circuit theory. They will learn how to use algebra and trigonometry mathematics to solve electric equations and calculate current and voltage. They will also be introduced to basic solid state electronic devices such as diodes, transistors, SCR, Triac and their applications. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32EETN065**Electric Power Distribution**

Students will learn the concept of three-phase and single-phase power

Electrical Technology**32EETN065****Electric Power Distribution**

distribution systems and their appropriate use in industry. They will learn why and where step-up, step-down and isolation transformers should be utilized for electric power distribution. They will also learn how to calculate and use appropriate electrical devices for correcting power factor and harmonic pollutions in the electric system. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32EETN070**Electric Motors and their Maintenance**

Student will learn the operating characteristics of transformers and electrical motors including DC motors, three-phase and single-phase induction motors. They will also learn routine maintenance procedures for electrical motors, NEMA standard ratings and their control apparatus. Prereq: 32EETN060. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32EETN075**Electric Motor and Generator Operation**

Students will learn the concept of three-phase voltage generation and connection to a three-phase load. They will learn transformers types and connections, and characteristic of synchronous motors and generators. They will also learn how power electronic devices operate and are utilized. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32EETN080**Electric Wiring and Instrumentation**

Students will learn how to select sensors and instruments for industrial and plants commercial buildings. Basic theory and selection procedure of electronic and digital sensors and instruments will be covered. Students will also learn to select type and size of electric wires and conduits for electrical device, sensors and instruments. Prereq: 32EETN060. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32EETN085**Commercial Building Wiring**

Student will learn to select and install fuse classes/circuit breakers, service entrance transformers/conductors/over-current protection, motor short circuit, and fault protection for air conditioning and refrigeration units. They will also learn how to select and wire communication circuits, fire alarm systems and telephone systems in commercial and residential buildings. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32EETN090**Programmable Logic Controllers**

Student will learn the procedures for PLC selection, port connections, and ladder logic programming rules. They will use individual PLC simulation software and PLC trainers to write ladder logic programs for process and industrial control systems. They will also learn when to utilize relay logic instead of PLC in process or industrial control systems. Prereq: 32EETN060. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32EETN095**National Electric Codes (NEC)**

Students will learn how to comply with the national electrical code (NEC) and local utility requirements. They will learn to comply with NEC codes when wiring residential and commercial buildings. They will also learn how to calculate lighting loads, electric motor loads, and fire alarms and building communication signal loads. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32EETN099**Electrical Professional Engineering (PE/EE) Review Course**

This course is a review of electrical engineering topics to prepare students for the Electrical Engineering Professional Exam. Topics include AC/DC circuits analysis, single phase and three phase power, transformers, rotating machines, electronic devices, op-amp circuits, combinational and sequential logic, communication and control systems. BoK: NA. Credit Level: U. Credit Hrs: 3.00

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Electronic Technology**32ELTN099****Electrical PE Review**

This course is a review of electrical engineering topics to prepare students for the Electrical Engineering Professional Exam. Topics include AC/DC circuits analysis, single phase and three phase power, transformers, rotating machines, electronic devices, op-amp circuits, combinational and sequential logic, communication and control systems. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32ELTN101**Electronics**

Semiconductor concepts, device characterization and operation of on junctions, bipolar transistors JFET's and MOSFET's, four-layer devices and LED's Bias design and single-stage amplifier circuit implementations. Prereq: 32ELTN142. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

32ELTN102**Elements of Electrical & Computer Engineering Technology**

Survey of electrical and computer engineering technology. An introduction to circuit theory, computer simulation and computer systems concepts. BoK: QR. Credit Level: U. Credit Hrs: 3.00

32ELTN111**Electronics Laboratory**

Investigation of electronic devices and their operation in active circuits. Introduction to electronic circuit design. BoK: NA. Credit Level: U. Credit Hrs: 1.00

32ELTN112**Elements of Electrical & Computer Engineering Lab**

Laboratory exercises emphasizing the practical aspects of CAD; Computer simulation and laboratory testing of simple DC circuits. Coreq: 32ELTN102. BoK: NA. Credit Level: U. Credit Hrs: 1.00

32ELTN141**Digital Systems I**

Number systems, Boolean algebra, logic concepts, and characterization of TTL and CMOS logic families. Investigation of gates, latches, decoders, and bistables and their interconnection into combinational logic subsystems. Prereq: 32ELTN101. Coreq: 32ELTN151. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

32ELTN142**Circuit Analysis I**

Investigation of electric circuits and problems solutions using Ohm's Law. Kirchhoff's voltage and current laws, mesh and nodal analysis methods, superposition and Thevenin's and Norton's theorems. Electric and magnetic field concepts. Prereq: 32MATH178, 32ELTN102. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

32ELTN143**Circuit Analysis II**

Investigation of circuits containing real and reactive components with sinusoidal forcing functions. Problem solution employing phasor analysis, superposition, RC, RL, and RLC parallel circuits including resonance and transient phenomena. Prereq: 32ELTN142. Coreq: 32ELTN153. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

32ELTN144**Circuit Analysis III**

Advanced circuit analysis techniques including mesh and nodal analysis, AC bridges, filters, and pulsed circuits. Prereq: 32ELTN143. Coreq: 32ELTN154. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

32ELTN151**Digital Systems I Laboratory**

Experimentation with logic gates, and their interfacing requirements, bistables, and latches, decoders and monostables, TTL, CMOS, and ECL logic families. Coreq: 32ELTN141. BoK: NA. Credit Level: U. Credit Hrs: 1.00

Electronic Technology**32ELTN152****Circuit Analysis I Laboratory**

Utilization of electrical measurement instrumentation in the verification and proofing the concepts, methods, and laws of DC Circuit Analysis. Coreq: 32ELTN142. BoK: NA. Credit Level: U. Credit Hrs: 1.00

32ELTN153**Circuit Analysis II Laboratory**

Experiments are performed to verify and study AC applications of RC parallel circuits and resonance transient phenomena, and time-domain analysis. Prereq: 32ELTN142. Coreq: 32ELTN143. BoK: NA. Credit Level: U. Credit Hrs: 1.00

32ELTN154**Circuit Analysis III Laboratory**

Mesh and nodal analysis, AC bridges, filters, pulsed circuits. Prereq: 32ELTN143. Coreq: 32ELTN144. BoK: NA. Credit Level: U. Credit Hrs: 1.00

32ELTN203**Linear Electronics**

Topics of higher power nature, power supplies and voltage regulators, OP Amps and AC power control. Prereq: 32ELTN101. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

32ELTN207**Large Signal Electronics**

Multistates amplifiers, JFETS, frequency response considerations. Prereq: 32ELTN101. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

32ELTN209**Telecommunications I**

Basic concepts of telecommunications systems, emphasizing the present telephone system. Prereq: 32ELTN143. Coreq: 32ELTN219. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32ELTN210**Telecommunications II**

Study of computer communications networks and the problems encountered when sending data over them. Prereq: 32ELTN209, 32ELTN219. Coreq: 32ELTN220. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32ELTN211**Telecommunications III**

Study of new and emerging telecommunications techniques, including cable and satellite systems. Prereq: 32ELTN210, 32ELTN220. Coreq: 32ELTN221. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32ELTN213**Linear Electronics Laboratory**

Laboratory experiments in support of the lecture (32ELTN203). BoK: NA. Credit Level: U. Credit Hrs: 1.00

32ELTN218**Large Signal Electronics Lab**

Laboratory experiments in support of the lecture (32ELTN207). BoK: NA. Credit Level: U. Credit Hrs: 1.00

32ELTN219**Telecommunications I Laboratory**

Experiments and studies in support of the lecture. Prereq: 32ELTN143, 32ELTN153. Coreq: 32ELTN209. BoK: NA. Credit Level: U. Credit Hrs: 1.00

32ELTN220**Telecommunications II Laboratory**

Experiments and studies in support of the lecture. Prereq: 32ELTN209, 32ELTN219. Coreq: 32ELTN210. BoK: NA. Credit Level: U. Credit Hrs: 1.00

32ELTN221**Telecommunications III Laboratory**

Experiments and studies of advanced telecommunications techniques. Prereq: 32ELTN210, 32ELTN220. Coreq: 32ELTN211. BoK: NA. Credit

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Electronic Technology**32ELTN221****Telecommunications III Laboratory**

Level: U. Credit Hrs: 1.00

32ELTN242**Digital Systems II**

Study of MSI and LSI digital registers, half-adders, static and dynamic memories, and their interconnection to form computer circuits from the electronic device timing, and signal perspectives. Introduction to microcomputers circuits with the Intel SDK-85 trainer. Prereq: 32ELTN141. Coreq: 32ELTN252. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

32ELTN243**Assembly Language and Microprocessors**

Organization of combinational logic and memory into computer systems. Arithmetic and logic units, memory and control, and input-output devices. Prereq: 32ELTN242. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

32ELTN247**Electronic Communications**

Introduction to communications signals and spectra, analog modulation and demodulation including AM, FM, and FSK. Study of RF, video, and tuned circuits. Time and frequency domain concepts, and noise. Prereq: 32ELTN203. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

32ELTN252**Digital Systems II Laboratory**

Experimentation with digital complex function devices including interfacing requirements. Half-adders, decoders, multiplexers, registers, and associated functions and their interconnection into subsystems are evaluated. Coreq: 32ELTN242. BoK: NA. Credit Level: U. Credit Hrs: 1.00

32ELTN253**Assembly Language and Microprocessors Lab**

Computer concepts are illustrated by manipulation of architectural features in an existing system. Prereq: 32ELTN242, 32ELTN252. Coreq: 32ELTN243. BoK: NA. Credit Level: U. Credit Hrs: 1.00

32ELTN256**Topics Of Applied Design**

Covers practical concepts integral to the design of systems. This includes component selection, and tolerance, circuit design and construction and other concepts that are important to the design of electronic system. Prereq: 32ELTN203, 32ELTN242. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32ELTN257**Electronic Communications Laboratory**

Experimental investigation of tuned circuits, signal analysis and Fourier methods in the time and frequency domains, and AM and FM modulation and demodulations circuits. Coreq: 32ELTN247. BoK: NA. Credit Level: U. Credit Hrs: 1.00

32ELTN266**Topics Of Applied Design Laboratory**

Practical projects and experiments in applied electronic design, in support of Applied Design lecture (32ELTN256). Prereq: 32ELTN213, 32ELTN252. BoK: NA. Credit Level: U. Credit Hrs: 1.00

32ELTN278**Basic Electrical Circuits**

DC and AC voltage, current and power concepts, series and parallel circuits, and elementary networks. Waveform analysis, impedance and phase relationships, application to power systems. Coreq: 32MATH179. BoK: NA. Credit Level: U. Credit Hrs: 2.00

32ELTN288**Basic Electrical Circuits Laboratory**

Experiments with DC and AC circuits, measurement techniques, and proofing of fundamental circuit analysis theorems. Coreq: 32ELTN278, 32MATH179. BoK: NA. Credit Level: U. Credit Hrs: 1.00

Electronic Technology**32ELTN288****Basic Electrical Circuits Laboratory**

Experiments with DC and AC circuits, measurement techniques, and proofing of fundamental circuit analysis theorems. Coreq: 32ELTN278, 32MATH179. BoK: NA. Credit Level: U. Credit Hrs: 1.00

32ELTN289**Topics in Electronic Instrumentation I**

Topics in operational amplifier systems, active filters and elementary instrumentation. Prereq: 32ELTN207. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

32ELTN299**Topics in Electronics Instrumentation I Laboratory**

Experiments with operational amplifiers in linear and nonlinear circuits and active filters, in support of the lecture course. Coreq: 32ELTN289. BoK: NA. Credit Level: U. Credit Hrs: 1.00

32ELTN309**Telecommunications I**

Basic concepts of telecommunications systems, emphasizing the present telephone system. Prereq: 32ELTN143. Coreq: 32ELTN219. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32ELTN310**Telecommunications II**

Study of computer communications networks and the problems encountered when sending data over them. Prereq: 32ELTN309. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32ELTN311**Telecommunications III**

Study of new and emerging telecommunications techniques, including cable and satellite systems. Prereq: 32ELTN310. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32ELTN319**Telecommunications I Laboratory**

Experiments and studies in support of the lecture. Prereq: 32ELTN153. Coreq: 32ELTN309. BoK: NA. Credit Level: U. Credit Hrs: 1.00

32ELTN320**Telecommunications II Laboratory**

Experiments and studies in support of the lecture. Prereq: 32ELTN319. Coreq: 32ELTN310. BoK: NA. Credit Level: U. Credit Hrs: 1.00

32ELTN321**Telecommunications III Laboratory**

Experiments and studies of advanced telecommunications techniques. Prereq: 32ELTN310. Coreq: 32ELTN311. BoK: NA. Credit Level: U. Credit Hrs: 1.00

32ELTN341**Topics of Electronic Instrumentation II**

Advanced topics in linear systems with emphasis on real life design and operation of amplifier circuits. Understanding manufacturer's literature and its application to design limitations with application to medical electronic systems. Prereq: 32ELTN289. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

32ELTN342**Embedded Systems**

Development of stand alone microcomputer systems, with emphasis placed upon the Intel 8031 and Motorola 68HC11 microcontroller, Sensors and display interfacing plus A/D converters are included. Prereq: 32ELTN243. BoK: NS. Credit Level: U. Credit Hrs: 3.00

32ELTN345**Servomechanisms**

Design and analysis of feedback systems for position and velocity control. Study of DC and AC servos, single-axis robotic actuators, and general closed-loop systems from Routh, Bode, and root locus viewpoints. Prereq: 32ELTN372. Coreq: 32ELTN355. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

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Electronic Technology**32ELTN346****Feedback Control II**

Design, analysis and simulation of digital control systems. Analysis in both time and frequency domains. Z-transforms and stability. Introduction to microcomputer control. Prereq: 32ELTN372. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

32ELTN351**Topics in Elec Instrumentation II Laboratory**

Experiments in advanced operational amplifier applications, with emphasis on biomedical systems. Prereq: 32ELTN289. Coreq: 32ELTN341. BoK: NA. Credit Level: U. Credit Hrs: 1.00

32ELTN352**Embedded System Laboratory**

Experiments in building stand alone microcomputer systems in support of the lecture course. Prereq: 32ELTN342. BoK: NA. Credit Level: U. Credit Hrs: 1.00

32ELTN355**Servomechanism Laboratory**

Experimental investigation of feedback control systems for speed and position control. Measurement of system transient response, steady state error, and compensation effects. Prereq: 32ELTN345. BoK: NA. Credit Level: U. Credit Hrs: 1.00

32ELTN356**Feedback Control II Laboratory**

Design of computer simulation and implementation of analog and digital compensators for servomechanisms in support of Feedback Control II lecture. BoK: NA. Credit Level: U. Credit Hrs: 1.00

32ELTN372**Feedback Control I**

Analysis and modeling of feedback systems using D.E.'s and T.F.'s. Prereq: 32MATH381. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

32ELTN373**Electromagnetics**

Investigation of electric and magnetic quantities under non-time varying charge and charge-free conditions. Maxwell's equations and wave propagation with applications to transmission line and antennas. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

32ELTN381**Electronic Fundamentals**

Introduction to linear and digital electronic devices and circuits with emphasis on the elements of instrumentation and measurement systems. FOR NON EET MAJORS. Prereq: 32ELTN278. Coreq: 32ELTN391. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

32ELTN382**Feedback Control I Laboratory**

Experimentation and simulation of feedback systems in support of the lecture (32ELTN372). Coreq: 32ELTN372. BoK: NA. Credit Level: U. Credit Hrs: 1.00

32ELTN391**Electronic Fundamentals Laboratory**

Experiments with linear and digital electronic circuits using oscilloscopes and other measurement instrumentation. Investigation of data acquisition system components and their interconnection. Prereq: 32ELTN381. BoK: NA. Credit Level: U. Credit Hrs: 1.00

32ELTN401**Topics of Data Communications**

Investigation of analog and digital modulation and detection methods and performance limitations primarily for data transmission including AM, FMD, OOK, FSK, PAM, PCM. Noise and channel considerations, system calculations. Prereq: 32ELTN411. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

Electronic Technology**32ELTN402****Topics of Data Communication Laboratory**

Experimental investigation of analog-to-digital conversion, compounding, pulse code modulation, and adaptive delta modulation. Time and frequency division multiplexing will also be investigated. Data communication protocols will be evaluated. Coreq: 32ELTN401. BoK: NA. Credit Level: U. Credit Hrs: 1.00

32ELTN411**Senior Design I**

Real-world design project combining both theoretical and experimental elements in area of student's primary interest. Approximately 150 hrs. effort culminating in Senior Thesis. BoK: NA. Credit Level: U. Credit Hrs: 2.00

32ELTN412**Senior Design II**

A continuation of Senior Design I. Prereq: 32ELTN411. BoK: NA. Credit Level: U. Credit Hrs: 1.00

32ELTN413**Senior Design III**

A continuation of Senior Design I Prereq: 32ELTN412. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32ELTN415**Topics of Flexible Automation**

An introduction to PLC architecture, programming, and networking based upon the Modicon984 family of controllers, Modsoft, and PanelMate Plus graphic MMI. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

32ELTN416**Rotating Electrical Machines**

An investigation of the operating characteristics and control of the following rotating electrical machines: 3-phase induction motors, single phase induction motors, stepper motors, synchronous motors, synchronous generators, and DC machines. Coreq: 32ELTN426. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

32ELTN417**Topics of Microcomputer Interfacing**

Interfacing of both DC and AC devices using various support circuits and the C programming language. Topics include programmable peripheral devices, interrupts, and optoisolators. Prereq: 32IET160. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

32ELTN418**Topics of AI-Expert Systems**

An application introduction to artificial intelligence concepts and expert systems. Topics include LISP programming, expert system shells, and applications. Prereq: 32ELTN484. Coreq: 32ELTN428. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

32ELTN419**Topics of Flexible Automation II**

Advanced topics in PLC architecture, programming and networking based upon the Modicon family of controllers. Prereq: 32ELTN415. Coreq: 32ELTN429. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

32ELTN422**Topics of Operating Systems**

Examination of operating systems concepts, services, file systems, scheduling, memory management, protection and real-time applications. Prereq: 32ELTN484. Coreq: 32ELTN432. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

32ELTN424**Topics of UNIX System Administration**

Examination of UNIX system administrative tasks. Topics include startup, shutdown, user accounts, file systems, backup and restore, terminals, modems, and TCP/IP management. Prereq: 32ELTN484. Coreq: 32ELTN434. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

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Electronic Technology**32ELTN425****Topics of Flexible Automation Laboratory**

PLC configuring, programming, trouble shooting, and networking.
Coreq: 32ELTN415. BoK: NA. Credit Level: U. Credit Hrs: 1.00

32ELTN426**Rotating Electrical Machines Laboratory**

A laboratory investigation of 3-phase induction motors, single phase induction motors, synchronous machines, and DC machines. In support of the lecture. Prereq: 32ELTN144. Coreq: 32ELTN416. BoK: NA. Credit Level: U. Credit Hrs: 1.00

32ELTN427**Topics of Microcomputer Interfacing Laboratory**

Hardware/software exercises to demonstrate classroom concepts utilizing the appropriate hardware and software. Prereq: 32IET160. Coreq: 32ELTN417. BoK: NA. Credit Level: U. Credit Hrs: 1.00

32ELTN428**Topics of AI-Expert Systems Laboratory**

LISP and expert system shell programming exercises to illustrate classroom concepts. Prereq: 32ELTN484. Coreq: 32ELTN418. BoK: NA. Credit Level: U. Credit Hrs: 1.00

32ELTN429**Topics of Flexible Automation II Laboratory**

Advanced concepts in PLC programming configuring and networking. Coreq: 32ELTN419. BoK: NA. Credit Level: U. Credit Hrs: 1.00

32ELTN432**Topics of Operating Systems Laboratory**

Programming projects to demonstrate operating systems lecture concepts. Prereq: 32ELTN484. Coreq: 32ELTN422. BoK: NA. Credit Level: U. Credit Hrs: 1.00

32ELTN434**Topics of UNIX System Administration Laboratory**

Exercises to demonstrate classroom concepts utilizing the UNIX operating system. Prereq: 32ELTN484. Coreq: 32ELTN424. BoK: NA. Credit Level: U. Credit Hrs: 1.00

32ELTN436**Topics of Compiler Design**

Examination of lexical analysis, parsing, code generation, optimization, and error recovery. Prereq: 32ELTN484. Coreq: 32ELTN426. BoK: NS. Credit Level: U. Credit Hrs: 3.00

32ELTN437**Object Oriented Programming in C++**

An introduction to data structures using the C++ programming language and the UNIX programming environment. Topics include linked lists, libraries, structures and pointers. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32ELTN445**Topics of State Variable Feedback**

Student learn to model a wide array of physical systems using state-variable models. The concept of altering the characteristics (poles) of a system using feedback is then discussed in terms of stability, transient response, and steady-state tracking performance indices. For systems which are controllable. Ackermann's Formula is used to compute the feedback control gains for the states. For systems in which the states cannot be physically measured, observers are designed which generate estimates of the states which will converge to the actual physical states. BoK: NS. Credit Level: U. Credit Hrs: 3.00

32ELTN446**Topics of Compiler Design Laboratory**

Programming projects to demonstrate classroom concepts utilizing the C programming language and the UNIX operating system. Prereq: 32ELTN484. Coreq: 32ELTN436. BoK: NA. Credit Level: U. Credit Hrs: 1.00

Electronic Technology**32ELTN447****Object Oriented Programming in C++ Laboratory**

Experiments and studies in C++ in support of the lecture. BoK: NA. Credit Level: U. Credit Hrs: 1.00

32ELTN451**Polyphase Networks**

Analysis of balanced and unbalanced Wye and Delta networks. Three-phase power measurements, 3-phase rectifiers, 3-phase transformations, symmetrical components. Prereq: 32ELTN144. Coreq: 32ELTN461. BoK: NS. Credit Level: U. Credit Hrs: 3.00

32ELTN455**Topics of State Variable Laboratory**

Students are given mechanical, electrical, and chemical systems to model and control. Matlab and Simulink are utilized extensively to compute the state gains and simulate the physical systems and the state estimators. BoK: NA. Credit Level: U. Credit Hrs: 1.00

32ELTN456**Topics of Computer Networks I**

An introduction to design, selection and implementation of computer networks. Specific topics include: transmission media packets, frames, LAN's, WAN's, addressing, routing, protocols and TCP/IP. Prereq: 32ELTN484. Coreq: 32ELTN466. BoK: NS. Credit Level: U. Credit Hrs: 3.00

32ELTN457**Topics of Computer Networks II**

UNIX network programming. Topics include interprocess communication, Berkeley sockets, System V transport layer, and network security. Prereq: 32ELTN456. Coreq: 32ELTN467. BoK: NS. Credit Level: U. Credit Hrs: 3.00

32ELTN458**Topics Of Virtual Instrumentation**

Control and monitoring of electronic systems using computers incorporating virtual instrumentation software. Topics covered will include data acquisition and logging, data analysis and reporting. Prereq: 32ELTN243, 32ELTN289. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32ELTN461**Polyphase Networks Laboratory**

Single-phase power measurements, power factor correction, 3-phase rectifiers, transformer characteristics, 3-phase transformations. Prereq: 32ELTN451. BoK: NA. Credit Level: U. Credit Hrs: 1.00

32ELTN466**Topics of Computer Networks I Laboratory**

Exercises and projects to illustrate lecture concepts. Coreq: 32ELTN456. BoK: NA. Credit Level: U. Credit Hrs: 1.00

32ELTN467**Topics of Computer Networks II Laboratory**

Programming projects to demonstrate classroom concepts utilizing the UNIX operating system. Prereq: 32ELTN456. Coreq: 32ELTN457. BoK: NA. Credit Level: U. Credit Hrs: 1.00

32ELTN468**Topics Of Virtual Instrumentation Laboratory**

Laboratory experiments in computer data acquisition, analysis and control, in support of the lecture. Prereq: 32ELTN299, 32ELTN253. BoK: NA. Credit Level: U. Credit Hrs: 1.00

32ELTN469**Topics of Power Semiconductor Drives**

Study of power semiconductor motor drives, including invertors, choppers and PW modulators. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32ELTN471**Topics of RF Communications Systems**

A study of radio frequency sources, amplifiers, and system design. Circuit design employing s-parameters, system calculations using

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Electronic Technology**32ELTN471****Topics of RF Communications Systems**

signal-to-noise ratios, and introduction to optical communication systems. Prereq: 32ELTN247. BoK: NS. Credit Level: U. Credit Hrs: 3.00

32ELTN478H**Topics Of Technical Project Management**

Issues related to managing technical projects in organizations. These include: Project Planning, Budgeting and Control Leadership, Conflict Resolution, Resource Allocation and Scheduling. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32ELTN479**Topics of Power Semiconductor Drives Laboratory**

Experimentation with power motor drives in support of the lecture. BoK: NA. Credit Level: U. Credit Hrs: 1.00

32ELTN481**Topics of RF Communication Systems Laboratory**

Experimental evaluation of modulation techniques to include: frequency modulation, FSK, BPSK, mixers and RF amplifiers will be constructed and evaluated. Measurement of transmission parameters. Introducing overview of RF software with application. Coreq: 32ELTN471. BoK: NA. Credit Level: U. Credit Hrs: 1.00

32ELTN483**Computer Architecture**

An introduction to computer design. Topics include performance and cost, instruction set design, instruction set measurements and basic processor implementation techniques. Prereq: 32ELTN243. BoK: NS. Credit Level: U. Credit Hrs: 3.00

32ELTN485**Digital Signal Processing**

Discrete-time signal operations, Z-transforms, and discrete Fourier transforms. Analysis of infinite impulse response digital filters including windowing. Introduction to fast Fourier transforms and computer simulation methods. Prereq: 32ELTN243, 32ELTN346. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

32ELTN486**Graphical Network Programming**

This course uses JAVA to explore graphical applications and network/web applications. This is a culminating, capstone-like project-based learning experience for CET students. Prereq: 32CET133. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

32ELTN487**Topics of Digital Signal Processing II**

Advanced studies and applications of digital signal processing. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32ELTN493**Computer Architecture Laboratory**

Simulation language exercises to illustrate classroom concepts. Coreq: 32ELTN483. BoK: NA. Credit Level: U. Credit Hrs: 1.00

32ELTN495**Digital Signal Processing Laboratory**

Application of computer techniques to DSP in support of DSP lecture. Coreq: 32ELTN485. BoK: NA. Credit Level: U. Credit Hrs: 1.00

32ELTN496**Graphical Network Programming Laboratory**

Programming projects to demonstrate classroom concepts utilizing X-based workstations. Coreq: 32ELTN486. BoK: NA. Credit Level: U. Credit Hrs: 1.00

32ELTN497**Topics of Digital Signal Processing II Laboratory**

Experimentation and simulation in support of the lecture. BoK: NA. Credit Level: U. Credit Hrs: 1.00

Electronic Technology**32ELTN499****Special Topics in EET**

Special Topics in Electrical Engineering Technology. BoK: NA. Credit Level: U. Credit Hrs: 1.00-6.00

Engineering Fundamentals**32ENFD101****Introduction to Engineering and Engineering Technology**

An overview of the Engineering and Engineering Technology profession and the skills necessary for success. BoK: NA. Credit Level: U. Credit Hrs: 2.00

32ENFD141**Mechanics I**

Study of statics. Moments, resultant forces and equilibrium for particular and rigid bodies. BoK: NS. Credit Level: U. Credit Hrs: 3.00

32ENFD142**Mechanics II**

Study of motion and the relationship between force, inertia, and kinetics of particles. Work-energy and impulse-momentum concepts. BoK: NS. Credit Level: U. Credit Hrs: 3.00

32ENFD143**Mechanics III**

Study of motion and the relationship between force, inertia, and kinematics of rigid bodies. BoK: NS. Credit Level: U. Credit Hrs: 3.00

32ENFD371**Basic Thermodynamics**

Thermodynamics as an engineering science, fundamental concepts, law, processes, and properties of matter; application in the field of engineering. BoK: NS., QR. Credit Level: U. Credit Hrs: 4.00

32ENFD372**Basic Fluid Mechanics**

Fluid properties, types of flow, fundamental concepts and equations, viscous effects, similarity parameters, measuring of flow. BoK: NS., QR. Credit Level: U. Credit Hrs: 4.00

32ENFD373**Basic Heat Transfer**

Fundamental considerations in heat transfer; conduction, convection, and radiation. BoK: NS., QR. Credit Level: U. Credit Hrs: 4.00

32ENFD374**Nature and Property of Materials**

The structures of solid materials. Structure imperfections and responses to static and dynamic loading. Phase equilibria in solids and material response to engineering environments. BoK: NS., QR. Credit Level: U. Credit Hrs: 4.00

32ENFD375**Basic Strength of Materials**

Application of the principles of mechanics to the design of shafts, beams, columns, and structures. Shear and bending moment diagrams; deflections; combined stresses. BoK: NS., QR. Credit Level: U. Credit Hrs: 4.00

32ENFD376**Basic Electric Circuit Theory**

Transient and steady state circuit analysis, equivalent networks, power, polyphase systems, resonance, and Thevenin's theorem. BoK: NS., QR. Credit Level: U. Credit Hrs: 4.00

32ENFD377**Basic Electrical Machinery**

Theory and characteristics of transformers and rotating machinery. BoK: NS., QR. Credit Level: U. Credit Hrs: 4.00

32ENFD378**Basic Electronics**

Characteristics of active devices, application to electronic circuits and instruments. BoK: NS., QR. Credit Level: U. Credit Hrs: 4.00

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Engineering Fundamentals**32ENFD499****Independent Study in Engineering Fundamentals**

Please complete and submit an Independent Application form available from the college office. BoK: NA. Credit Level: U. Credit Hrs: 1.00-12.00

English**32ENGL071****Study Skills and Problem Solving**

Individual and group instruction in skills important to successful college work. Additional emphasis on activities to enhance critical and analytical problem solving abilities. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32ENGL091**Basic Grammar and Writing**

A grammatical approach to writing anxieties with exercises in grammar, mechanics, usage, practice in sentence and paragraph writing: assignments based on student's language needs and interests. BoK: NA. Credit Level: U. Credit Hrs: 1.00-6.00

32ENGL097**Preparatory Reading and Writing**

Review of reading and writing skills for success in English Composition I. Heavy emphasis on effective reading strategies. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32ENGL099**Preparatory Composition**

Review of skills necessary for success in English Composition I. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32ENGL101**English Composition I**

A study of college level writing, including strategies for pre-writing, writing, revising, and editing that focuses on audience and purpose, and introduces concepts of critical thinking, reading, writing, and information literacy. Portfolio used for University Exit Exam. Transfer Module. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32ENGL102**English Composition II**

An introduction to researching and writing in the technical professions with a focus on fundamentals of argument and continued emphasis on information literacy from English Comp I resulting in writing of a major research paper on a technical subject, together with a study of memos, letters, proposals, and reports. Prereq: 32ENGL101. Transfer Module. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32ENGL103**English Composition III**

Final course in English Composition sequence, emphasizing further development of critical thinking, reading, and writing skills and strategies, through the study of literature including fiction, poetry, and/or drama. Prereq: 32ENGL102. Transfer Module. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32ENGL103H**Honors English Composition III**

Final course in English composition sequence for Honors Students. It emphasizes further development of critical thinking, with more challenging examples and readings than the regular section of English Comp III. Prereq: 32ENGL102. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32ENGL234**Contemporary Literature: Drama**

Focuses upon the works of 20th Century Playwrights. BoK: LT. Credit Level: U. Credit Hrs: 3.00

32ENGL235**Technical Poetry: The Peak of Technique**

The study of poetry as technique: technical analysis of poetic elements, with focus on poems that technical in form and content. BoK: LT. Credit

English**32ENGL235****Technical Poetry: The Peak of Technique**

Level: U. Credit Hrs: 3.00

32ENGL240**Biographies of Eminent Scientists**

We will read biographies of Sir Isaac Newton, Albert Einstein, Marie Curie and Stephen Hawking. Prereq: 32ENGL103. BoK: LT. Credit Level: U. Credit Hrs: 3.00

32ENGL250**British and American Mystery Stories**

Examines British and American mystery and detective stories as fictional puzzles, and explores the ways puzzles/crimes solved. BoK: LT. Credit Level: U. Credit Hrs: 3.00

32ENGL270**Contemporary Mystery and Spy Story**

The contemporary mystery and spy story: P.D. James, John LeCarre, John Grisham, Sara Paretsky, and Jonathan Valin. Prereq: 32ENGL103. BoK: LT. Credit Level: U. Credit Hrs: 3.00

32ENGL271**Themes in American Literature: Lifestyles**

Nonconformists, the individual vs. society. An examination of various literary works that deal with social outsiders, individualists, and rebels who resist society's expectations, conformity, or group acceptability. BoK: LT. Credit Level: U. Credit Hrs: 3.00

32ENGL272**Money and The American Dream**

This course is designed to improve your appreciation for as well as your reading, writing, and critical thinking about treatment of the theme of the American dream in American literature. We will trace this theme from the Jazz Age of the 1920's to the big money of today's casinos. BoK: LT. Credit Level: U. Credit Hrs: 3.00

32ENGL275**American Childhood in Literature**

Using a cultural studies approach, this course examines literary treatments of childhood in American literature. This is a multi-ethnic course that attempts to help students - understand childhood as a socially constructed concept. Prereq: 17ENGL101. BoK: LT. Credit Level: U. Credit Hrs: 3.00

32ENGL289**Intermediate Composition**

Drawing from a specific topic or topics drawn from broad disciplinary fields, this intermediate level, General Education course builds upon and enhances the writing and reading skills developed in first-year writing courses (English 101 & 102). The course emphasizes critical reading and writing, more advanced research and argumentative skills, and rhetorical understanding of discourse as it is used in different disciplines and discourse communities. This course will bridge students' learning about writing from the first-year sequence to more advanced writing in their chosen disciplines in upper-level courses. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32ENGL341**Technical and Professional Writing I**

Technical writing forms, emphasis on research, style, and use of graphics. Prereq: 32ENGL103. BoK: HU. Credit Level: U. Credit Hrs: 3.00

32ENGL342**Technical and Professional Writing II**

Emphasis on writing manuals, professional articles, and technical correspondence. Prereq: 32ENGL341. BoK: HU. Credit Level: U. Credit Hrs: 3.00

32ENGL350**The Spy Story: International Espionage and Politics.**

Explores ways that the spy in fiction mirrors closely the complexities of international politics and warfare in the 20th century. Prereq:

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English**32ENGL350****The Spy Story: International Espionage and Politics.**

32ENGL103. BoK: LT. Credit Level: U. Credit Hrs: 3.00

32ENGL360**Selected Comic, Satiric, & Bawdy Poetry and Prose**

We will read selections from Chaucer, Shakespeare, Dryden, Pope, Swift, Byron and Ogden Nash. We will also spend time on the limerick. Prereq: 32ENGL103. BoK: LT. Credit Level: U. Credit Hrs: 3.00

32ENGL370**Technical Publications: Layout, Design & Production**

This course is a study of the practices and principles of design, editing, and production of technical and organizational publications, or the "technical magazines" of business and industry, with emphasis on integrated editing, the merging of graphics and text into an organizational publication for distribution to a large audience. Prereq: 32ENGL103. BoK: HU. Credit Level: U. Credit Hrs: 3.00

32ENGL374**Border Crossings: Images in World Cinema**

The course will explore the meaning and legitimacy of border crossings as represented in Contemporary World Cinema. Students will attempt to consider and question categories such as exile, refugee, tourist, as well as those of invasion, war, and famine being represented and catalogued in this vibrant cinema discourse that provides an international dialogue about the things that separate and join us. Prereq: 32ENGL101, 32ENGL102. BoK: DC, LT. Credit Level: U. Credit Hrs: 3.00

32ENGL375**Entering The Global Conversation**

The course will look at the conditions of developing countries the voices of their writers, musicians, and filmmakers, concentrating on the day to day events that occupy a majority of the world's people. In the literary and artistic products of these are some of the most probing questions about how technology and global marketplace affect ordinary citizens who have even less influence over their futures than Westerners do. For instances, the class will look at the literature coming out of the Middle East, films shaping public opinion in India, or the music catalyzing democratic change in southern Africa. Prereq: 32ENGL103. BoK: LT, DC. Credit Level: U. Credit Hrs: 3.00

32ENGL378**Filmic Arts**

An introduction to film with concentration on the visual and verbal elements that create impact and viewing pleasure. Attention will be given to classic and contemporary films that best illustrate the filmic art. BoK: LT., FA. Credit Level: U. Credit Hrs: 3.00

32ENGL379**Film As Production**

In this course, students will concentrate on the elements of production both technical and artistic. Because filmmaking blends specific technical knowledge with visual, verbal and written arts, students will try their hand at composing and developing a short film through storyboarding, writing and editing. Prereq: 32ENGL101, 32ENGL102. BoK: LT, FA. Credit Level: U. Credit Hrs: 3.00

32ENGL382**Utopian and Science Fiction Novels**

Study of selected science fiction with focus on technology's effect on man's search for a better society. Prereq: 32ENGL103. BoK: LT. Credit Level: U. Credit Hrs: 3.00

32ENGL383**Literature of Science and Technology**

Study of selected scientific literature. BoK: LT. Credit Level: U. Credit Hrs: 3.00

32ENGL384**American Short Story**

An examination of the evolution and tradition of the American short

English**32ENGL384****American Short Story**

story, including the process through which stories are created. Prereq: 32ENGL103. BoK: LT. Credit Level: U. Credit Hrs: 3.00

32ENGL385**Technology, Holocaust and Text**

While no course can review every technological element related to the holocaust, this one will examine various texts in literature, film, and television to discern the role technology played initially and continues to play concerning this important historical moment; it will permit students to investigate the limits of technology in producing such an experience as well as the render the experience which is essentially beyond representation. The class will also consider ethical questions at the heart of recording, investigating, and dispensing such material. Prereq: 32ENGL103. BoK: SE, LT. Credit Level: U. Credit Hrs: 3.00

32ENGL387**Food and Film**

This course examines films that concern food or utilize food in its preparation as a meaning system in contemporary film. The class will investigate the significance of food in establishing groups such as family, community, and culture. Prereq: 32ENGL103. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

32ENGL393**The African American Literary Tradition**

This course presents key issues and themes in African American literature from the Slave Era to the present. The course is comprised of important texts in multiple genres: poetry, drama, short fiction, essays and novels which have both contributed to and shaped the major critical foci of African American literature from its "beginnings" through the 20th century. Though the course presumes very little knowledge on the students' parts of either African American studies specifically or ethnic studies more generally, it does presume some basic literature background. BoK: LT., DC. Credit Level: U. Credit Hrs: 3.00

32ENGL395**Nobel Prize for Literature: Globalization Nationalism & Post-Colonialism**

As readers we will try to understand the reasons for the awarding of the Nobel Prize to authors from diverse cultural, ethnic, religious and political backgrounds to see if Nobel's request that the prize be awarded to the author whose work "benefited humanity most in given years. BoK: LT., DC. Credit Level: U. Credit Hrs: 3.00

32ENGL396**Nobel Prize for Literature: Ireland's Four Laureates**

As readers we will try to understand the reasons for the awarding of the Nobel Prize to authors from diverse cultural, ethnic, religious and political backgrounds to see if Nobel's request that the prize be awarded to the author whose work "benefited humanity most in given years. BoK: LT., DC. Credit Level: U. Credit Hrs: 3.00

32ENGL397**Nobel Laureates in Literature: Past & Present Prize Winning Authors (1909-1993)**

An exploration of the writings of nobel laureates in literature in a cultural and political context. BoK: LT. Credit Level: U. Credit Hrs: 3.00

32ENGL398H**The Pink Triangle: Homosexuals in Nazi Germany**

When Hitler came to power in 1933, Germany changed from a center of homosexual liberation to a center of homosexual oppression. We will follow Germany's gay men from the cabaret to the concentration camp and try to comprehend how this happened, and what are the wider implications. Prereq: 32ENGL103. BoK: LT, DC. Credit Level: U. Credit Hrs: 3.00

32ENGL460**Senior Project Communications I**

The first communication course in the senior project sequence covers review of the literature, definition of the chemical problem to be

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English**32ENGL460****Senior Project Communications I**

investigated and solved, and development of two communication projects: a feasibility study and a project management plan. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32ENGL461**Senior Project Communications II**

The second communication course in the senior project sequence focuses on development of an oral presentation of the Project Management Plan, and a written interim report on the progress of the senior project at mid-year. Prereq: 32ENGL460. BoK: NA. Credit Level: U. Credit Hrs: 1.00

32ENGL462**Senior Project Communications III**

Third communication course in the senior project sequence develops student expertise in the oral, graphic, and written documentation of their project work. Students will plan, draft, and deliver a formal oral presentation. Prereq: 32ENGL460. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32ENGL483**Modern Fiction**

Study of selected late 19th century and early 20th century short stories and novellas. Prereq: 32ENGL103. BoK: LT. Credit Level: U. Credit Hrs: 3.00

32ENGL493**Senior Design Communications**

Researching, organizing and writing formal technical reports, and oral presentations, in conjunction with major departments' senior project requirements. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32ENGL498**Special Topics In English**

This course permits special topics instructions to be offered in the Humanities area of English. BoK: NA. Credit Level: U. Credit Hrs: 1.00-3.00

32ENGL499**Independent Study In English**

This course permits independent study instruction to be offered in the Humanities area of English. BoK: NA. Credit Level: U. Credit Hrs: 1.00-3.00

Energy**32ENGY101****Stationary Engineering I**

To provide the basic fundamental knowledge for high performance steam plant operation. This includes steam and its importance, utility boilers for electrical power, combined cycle and cogeneration systems, fundamentals of steam generation, principles of heat transfer, superheaters, nuclear steam generation, design and construction of boilers, fluidized bed boilers and combustion of fuels, maximum allowable working pressure, internal design pressure and boiler horsepower calculations. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32ENGY102**Stationary Engineering II**

Boiler settings, combustion systems and auxiliary equipment, handfiring, stokers, pulverized coal, fuel oil, gas, automatic operation of boilers, boiler accessories, operation and maintenance of boilers, instruments and automatic control systems pumps, and auxiliary steam plant equipment. Minimum and maximum hydrostatic test pressure calculations. Prereq: 32ENGY101. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32ENGY201**Stationary Engineering III**

Pumps, facts about fluids and pumping, factors affecting pump operation, pump installation and operations, pump testing and calculations, pump maintenance, steam turbines, turbine design and

Energy**32ENGY201****Stationary Engineering III**

construction, electric generations, cooling towers and condensers and steam turbine horsepower calculations. Prereq: 32ENGY102. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32ENGY202**Stationary Engineering IV**

To provide the fundamental technical knowledge of steam plant equipment for the Ohio State Stationary Engineer's Examination. Steam turbines and auxiliary equipment, environmental control systems, and Waste to energy plants, application of thermodynamics, fluid mechanics and heat transfer in power plant operations. Review of all power plant calculations and synthesis of Stationary Engineering I, II, III and IV. Prereq: 32ENGY201. BoK: NA. Credit Level: U. Credit Hrs: 3.00

Engineering Science**32ENSC141****Graphics I**

Instrumental drawing, geometric construction and descriptive geometry applied to multiview projection, auxiliary views, oblique projection, isometric drawing, and perspective. Dimensioning, graphic techniques, graphical math, empirical equations, least squares. BoK: QR. Credit Level: U. Credit Hrs: 4.00

32ENSC142**Graphics II**

Continuation of 30ENSC141, and its application using AutoCAD, introduction to CAD. BoK: QR. Credit Level: U. Credit Hrs: 4.00

32ENSC171**Methods of Digital Computation**

FORTAN programming utilizing basic numerical algorithms with engineering applications. BoK: QR. Credit Level: U. Credit Hrs: 4.00

32ENSC271**Advanced Computer Techniques**

Advanced techniques in FORTRAN. Subroutines, library programs, graphing, job control language, program debugging. BoK: QR. Credit Level: U. Credit Hrs: 4.00

32ENSC272**Numerical Methods and Computer Techniques I**

Roots of equations, matrices, polynomial approximations, and finite differences, quadrature, computer solutions. Computer control, searching, and sorting techniques. Offered alt. yrs. BoK: QR. Credit Level: U. Credit Hrs: 4.00

32ENSC273**Numerical Methods and Computer Techniques II**

Continuation of 30ENSC272. Offered alt. yrs. Matrix methods, eigenvalue problems, searching and sorting techniques, quadrature, numerical differentiation, error analysis, differential equations. Offered alt. yrs. BoK: QR. Credit Level: U. Credit Hrs: 4.00

32ENSC471**CAD/CAM**

Computer-aided-design; computer graphics software, representation of graphic elements, editing and transforming. Non-line simultaneous equations. Object modeling, system assembly, and mechanism design using IDEAS (3-D) CAD software. Computer-aided-manufacturing; numerical control and computer numerical control part programming, industrial robot technology and applications, robot programming. BoK: QR. Credit Level: U. Credit Hrs: 4.00

32ENSC499**Independent Study in Engineering Science**

Please complete and submit an Independent Application form available from the college office. BoK: NA. Credit Level: U. Credit Hrs: 1.00-12.00

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Engineering Science**32ENSC541****Finite Elements I**

Introduction to the finite element method. Truss analysis, beams, and frames. Stiffness matrices. Offered alt. yrs. BoK: QR. Credit Level: U. Credit Hrs: 3.00

32ENSC542**Finite Elements II**

Continuation of 30ENSC541. Use of variational methods. Assembly procedures. Algorithm development. Boundary conditions. Offered alt. yrs. BoK: QR. Credit Level: U. Credit Hrs: 3.00

32ENSC543**Finite Elements III**

Continuation of 30ENSC542. Boundary value problems. Two and three dimensional analyses. Isoparametric elements. Higher order elements. Grid generation. Offered alt. yrs. BoK: QR. Credit Level: U. Credit Hrs: 3.00

32ENSC571**Advanced Mechanics I**

Review of basic mechanics. Three-dimension motion. Lagrangian and energy methods. Gyroscopic motion and nonlinear oscillations. Offered alt. yrs. BoK: NS., QR. Credit Level: U. Credit Hrs: 3.00

32ENSC572**Advanced Mechanics II**

Continuation of 30ENSC571. Offered alt. yrs. Analytical and experimental modal analysis; single degree and multidegree of freedom systems, frequency response function analysis, proportional & non-proportional damped systems. BoK: NS., QR. Credit Level: U. Credit Hrs: 3.00

32ENSC573**Advanced Mechanics III**

Continuation of 30ENSC571. Offered alt. yrs. Analyzing the structure, heat transfer, fluid mechanics, and acoustical vibration problems using finite element method. BoK: NS., QR. Credit Level: U. Credit Hrs: 3.00

English as a Second Language**32ESL090****Introduction to Academic Reading and Writing**

This workshop course is designed to introduce non-native speakers of English to the skills required for successful academic reading and writing in preparation for 42ESL100. BoK: NA. Credit Level: U. Credit Hrs: 6.00

32ESL091**Editing Skills for Non-Native Writers**

A workshop course designed to assist non-native speakers to English to recognize, correct, and avoid the most common errors in their writing. This course is not open to students who are at the pre-Freshman English level. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32ESL100**Academic Reading and Writing Strategies**

This course is designed for advanced and non-native speakers of English who need to improve their academic reading and writing skills in preparation for Freshman English I. BoK: NA. Credit Level: U. Credit Hrs: 6.00

Fine Arts - Art**32FAA271****Basic Single-Panel Cartooning**

This course will introduce students to a sampling of the techniques and devices used by contemporary cartoonists, including caricature, symbolism, exaggeration, labeling, analogy, and irony. The novice will receive a clear, comprehensive course in beginning cartooning, from drawing faces and figures and backgrounds, to learning techniques of design and composition, to learning how to generate ideas for cartoons-pictorial concepts and captions. Special attention will be given to learning how to fine-tune captions to maximize their punch line

Fine Arts - Art**32FAA271****Basic Single-Panel Cartooning**

potential. Prereq: 32ENGL101. BoK: FA. Credit Level: U. Credit Hrs: 3.00

32FAA272**Regional Arts**

This course introduces students to the visual arts by visiting local galleries, visits and interactions with local artists in their studios and examination of the work in progress as well as the finished work of each artist. Upon completion of the course, students will have a clear understanding of the visual arts in the community. They will gain the ability to examine and explore a work of art with a more developed understanding of the issues that an individual work presents and the objectives of the artist. BoK: FA. Credit Level: U. Credit Hrs: 3.00

32FAA371**Multi-Panel Cartoons and Comics**

Students in this hands-on workshop style course will develop material for cartoons by keeping sketchbooks that will serve as journals for notes, observations, experiences, memories, and anecdotes which will be translated into cartoon narratives, from three-panel "gag" cartoons to many-panel stories and strips. The class will explore the rhythms of storytelling inherent in cartoon language with a focus on modeling the material in the sketchbooks into finished pieces through class critiques. The focus will be as much on storytelling, using the iconic language of cartoons, as on developing ability in drawing. Prereq: 32ENGL103. BoK: FA. Credit Level: U. Credit Hrs: 3.00

32FAA384**Digital Art: Theory and Practice**

Digital art is burgeoning in networked (Web) cyberspace and new museums of art and technology. This course offers students an introduction to digital art innovations. It contextualizes digital art in relation to twentieth and twenty-first century art historical trends, and facilitates the survey of nonlinear, interactive art on the web. BoK: FA. Credit Level: U. Credit Hrs: 3.00

32FAA386**Digital Art: Interactive Book Design**

In the interactive book, words meet images in complex cyberspace media and online information environments. How can the form and structure of an interactive book intensify its content? This course ofers student an in-depth study of digital interactive book design. We create nonlinear narrative structures that traverse new media "database" configurations using authoring software. We also explore how interactive books on CD-ROM or Web embed artistic and cinematic representations within the framework of an interactive contral surface. Prereq: 32ENGL103. BoK: FA, DC. Credit Level: U. Credit Hrs: 3.00

32FAA388**Documentary Photography**

An comprehensive, introductory course that explores the theory and practice of digital photography and image-making, documentary photography and video, media representation in visual research, and visual ethnography. Students compare, interpret, and ex, critique, and present visual research evidence and results. Prereq: 32ENGL103. BoK: FA, DC. Credit Level: U. Credit Hrs: 3.00

32FAA389**Poster Art: Aesthetics and Propaganda**

This course will explore the tensions that exist between art, propaganda and advertising. Discussions of these tensions will be framed by examining the genre of Poster Art. The course will use the Poster Art of World War I & II, together with famous public service announcements and poster ads to bring the often uneasy alliance between art, propaganda and commercialism to light. The stereotyping of national identities in the name of war and peace, together with issues of diversity and culture that such stereotyping entails, will be discussed. Theory will be put into practice by the generation of a series of assignments involving the creation of art posters. BoK: FA., SE. Credit Level: U.

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Fine Arts - Art**32FAA389****Poster Art: Aesthetics and Propaganda**

Credit Hrs: 3.00

Facilities & Hospitality Management**32FHM141****Facilities Management I**

This course will provide historical background and comprehensive overview of the facilities management area. The course includes a description of the positions and careers available in the field, career opportunities, and a process for exploring and securing career opportunities. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32FHM142**Facilities Management II**

The course will cover the facilities management process, terminology, and organizational development. An introduction to basic methods, concepts, and procedures of facilities planning, programming, budgeting, project management office productivity measurements, and operations management. Prereq: 32FHM141. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32FHM143**Special Topics**

This course will consist of forums with business leaders from the facilities management, casino, and hospitality fields. Prereq: 32FHM141, 32FHM142. BoK: NA. Credit Level: U. Credit Hrs: 1.00

32FHM151**Hospitality Management I**

This course surveys the hospitality industry. The students will be exposed to the career opportunities and the various issues involved in the field. The student will study hospitality operations, including room management, housekeeping, front office, security and engineering. Prereq: 32FHM142. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32FHM152**Hospitality Management II**

This course provides a practical approach to the system and practices used in hospitality office management emphasizing contemporary theory and information techniques. Some of the topics included in the course will be front office operations, reservation and room management, uniform service, housekeeping, security and engineering operations. Prereq: 32FHM151. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32FHM161**Casino Management I**

The course surveys the casino industry. The students will be exposed to the career opportunities in the field. The students will study the casino operations including gaming, hospitality, and security. Prereq: 32FHM142, 32FHM152. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32FHM162**Casino Management II**

The course provides the study of the unique administration and operational issues of casino management. Included in the course is the study of the casino operation, strategic management and planning, managing the guest experience, special issues involving management of casino personnel, planned management of assets, and marketing. Prereq: 32FHM161. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32FHM175**Introduction to Customer Service**

This course will cover the essential skills for anyone working in business. It will cover the following topics listening skills, verbal and non-verbal communications, use of technology and how to handle difficult customers. It will use the case approach. Prereq: 32FHM142, 32FHM152. BoK: NA. Credit Level: U. Credit Hrs: 3.00

Facilities & Hospitality Management**32FHM201****Facilities Systems I**

Principles of engineering mechanics applied to building structural systems. An overview of statics and strength of materials. An investigation of common construction materials and their properties. Prereq: 32FHM142. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32FHM202**Facilities Systems II**

Building code review and applications. An overview of various types of structural systems, perimeter enclosures and interior finishes. An investigation of common construction methods. Prereq: 32FHM201. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32FHM215**Directed Study-Facilities & Hospitality Management**

This course is designed for students who require individualized instruction in Facilities and Hospitality Management. Prereq: 32FHM202. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32FHM271**Building and Grounds Operations**

The course covers the operational aspects of property management. To facilitate learning the concepts covered in this course, students will conduct building surveys. Computer applications will be utilized for the planning, scheduling, inventory control, design techniques, and budget preparation. Prereq: 32FHM202. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32FHM273**Facilities Supervision**

The course applies to the supervisory function of a facilities management professional. The course includes the study of supervising employees, human psychology, labor relations, organizing and delegating work, scheduling techniques, TCM, problem-solving, developing employees' potential and long and short range planning of employment needs. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32FHM274**Special Event Planning and Management**

This course will cover the concepts in operational and marketing for planning, developing, and implementing conferences, banquets, conventions, catering, and special events. Techniques for developing goals and objectives for programming large events will be covered, as well as evaluative skills. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32FHM275**Casino Operations**

The course includes the study of casino operations including the dynamics of key operational issues such as player tracking, slot accounting systems, ticket-in-ticket-out, bill validators, controlling the game operations, and the fundamentals of various aspects of the casino operation. Students will study how casinos operate as compared and contrasted with other aspects of a casino resort, the hotel, employment issues, and demographics. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32FHM280**Hospitality Facilities Management and Design**

This course will cover the cost, and management of hospitality facilities, environmental and sustainability management, safety and security, energy management, renovation and capital projects. This course will also cover the operating systems that optimizes comfort for employees, residents, and guests while reducing energy and operating costs for the owners. Prereq: 32FHM152. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32FHM303**Facilities Systems III**

An examination of water supply and waste disposal systems, plumbing code requirements, and principles of waste management. BoK: NA. Credit Level: U. Credit Hrs: 3.00

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Facilities & Hospitality Management**32FHM304****Facilities Systems IV**

An investigation of heating, ventilating and air conditioning systems. An overview of mechanical code requirements, electrical systems, and lighting. Prereq: 32FHM303. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32FHM371**Space Planning and Interior Design**

The course covers the study and application of space planning and interior design concepts and the ergonomics involved as well as on others in the facility. Students will study building code requirements, costs, depreciation factors, space and functionality considerations. Prereq: 32ARTN121. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32FHM373**Facilities Management Law**

The course includes the study of real estate law, landlord-tenant, rental and leasing agreements, premises liability, regulatory requirements such as American with Disabilities Act (ADA), Occupational Safety & Health (OSHA) laws, anti-discrimination provisions, land use planning, zoning and eminent domain, etc. Students will have opportunities for practical application of the subject matter they study, for instance the students using the floor plans, etc for a facility will plan where accessibility would be best and in compliance with the laws. Student will review lease agreements to determine what provisions would be best. Prereq: 32BLAW272, 32BLAW271, 32FHM142. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32FHM374**Facilities Management Information Systems**

The course will cover the utilization of information technology in facilities management area. It will cover the use of wireless devices such as PDAs and cell phones to manage facilities operations. Prereq: 32IT101, 32IT209, 32FHM141, 32FHM142. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32FHM375**Casino Law**

The course includes the study of federal and state laws that regulate the gaming industries including casinos, lotteries, and Indian gaming. Students will study concepts, definitions, taxation, regulation, liabilities, licensing, and advertising. Prereq: 32BLAW271, 32BLAW272, 32FHM161, 32FHM162. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32FHM376**Casino Information Systems**

The course will cover the study of the utilization of technology in the operational and management aspects of casinos in the accounting aspects, operational tracking, and surveillance. The course will also cover the use of wireless devices such as PDAs and cell phones to manage facilities operations. Prereq: 32IT101, 32IT209, 32FHM161, 32FHM162. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32FHM377**Hospitality Law**

The course will review business law as applied to the hospitality field-hotel, resort, spa, restaurant, and travel professionals with an emphasis on preventative law to assist in avoiding lawsuits. Prereq: 32BLAW271, 32BLAW272, 32FHM151, 32FHM152. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32FHM378**Hospitality Information Systems**

The course will cover the utilization of technology in the operational and management aspects of the hospitality industry. The course will cover the use of wireless devices such as PDAs and cell phones to manage facilities operations. It will also cover software unique to hospitality operations. Prereq: 32IT101, 32IT209, 32FHM141, 32FHM142. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32FHM381**Hospitality Management Accounting**

This course will cover the Uniform System of Accounts for the Lodging

Facilities & Hospitality Management**32FHM381****Hospitality Management Accounting**

Industry, the Sarbanes-Oxley Act, fair value accounting, casino accounting and revenue management, food and beverage cost and income taxes. Prereq: 32ACCT271. BoK: QR. Credit Level: U. Credit Hrs: 3.00

32FHM383**Spa and Resort Management**

This course will cover the resort industry, the development and management of these properties, including ski resorts, cruise ships, and gaming properties. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32FHM384**Meeting Management**

This course will cover topics in meeting management strategies, destination options and issues, program development, meeting production and procedures and legal and ethical considerations. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32FHM385**Travel and Tourism Management**

This course will look at the economic, political and social forces that impact travel and tourism from a domestic and global perspective. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32FHM441**Senior Project I**

The course provides the students with the opportunity to bring together in a comprehensive manner all of the subjects covered in the program and the additional experiences gained from the internship. Perm of Instructor. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32FHM442**Senior Project II**

A continuation of Senior Project I (32FHM541). The course provides the student with the opportunity to bring together in a comprehensive manner all of the subjects covered in the program and the addition experiences gained from the internship. Prereq: 32FHM541. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32FHM471**Hotel & Restaurant Purchasing & Cost Control**

The course covers purchasing and cost control principles for hotel and restaurants. Provides guidelines for assessing, interpreting, and planning hotel operations including food and beverages. Prereq: 32FHM152, 32FHM274, 32FHM377, 32ACCT271. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32FHM472**Restaurant and Bar Management**

This course covers the study of restaurant and bar food service and drink management systems in the hospitality field; analysis including cost control and quality control techniques, factoring in the global traveler and a diverse guest base. Prereq: 32FHM152, 32FHM274, 32FHM377, 32FHM471. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32FHM473**Issues in Assisted-Living Facilities**

The course concentrates on the unique issues involved in managing assisted-living facilities such as appropriate facility design, equipment, and activities. Also included are the issues of safety and health associated with an aged clientele with various degrees of compromised health and/or physical capabilities. The students will study how to balance the special needs with budgetary concerns. Prereq: 32FHM141, 32FHM142. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32FHM475**Gaming Techniques and Operations**

The study of the various gaming options, including slot operations, and gaming tables, etc. Additionally, students will study the probability analysis necessary to make a casino operation profitable. An understanding of the systems, report, floor design and layout, pricing, customer service strategies and interactions will be studied. Field trips

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Facilities & Hospitality Management**32FHM475****Gaming Techniques and Operations**

and demonstrations will be provided. Prereq: 32FHM162, 32FHM275, 32FHM375. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32FHM476**Casino Security and Surveillance**

The course covers the study of security, potential loss, surveillance, crisis situations in the casino and gaming industry. Coverage includes the role of managers, and security personnel, computer fraud, available security and surveillance products and systems. Additionally, topics include strategic planning, crisis and security management techniques, surveillance operations and the practical application of the topics to a variety of situations. Prereq: 32FHM162, 32FHM275, 32FHM375, 32FHM475. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32FHM477**Project Management**

The course will cover the management of projects and include team work, sequencing of events, and budgeting. Project management software will be used. Upon completion of this course, students are qualified to take the CAPM exam to earn CAPM certification awarded by the Project Management Institute (PMI). Prereq: 32IT141, 32IT142, 32FIN371, 32STAT242. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32FHM481**Energy Management**

The course covers the area of energy conservation techniques applicable to diversified types of facilities such as hotels, schools, office and industrial complexes, apartment complexes, resorts casinos, sports and recreational facilities. The study of energy audit and analysis as well as the implementation and payback of the energy measures will be included. Building automation systems will be included. Computer simulation will be utilized to enhance student learning. Prereq: 32FHM303, 32FHM304. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32FHM482**Rooms Division Management**

This course will cover revenue management, lodging systems, room division, and housekeeping, and loss prevention. Prereq: 32FHM381. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32FHM483**Ethics in Hospitality and Tourism**

This course will apply ethics theories to situations in various hospitality industry job areas. Topics covered applying ethics to the purchasing, marketing and sales functions; the ethics of the food and beverage function, applying ethics to maintain environmentally sound hospitality and tourism industry. Prereq: 32PHIL371. BoK: SE. Credit Level: U. Credit Hrs: 3.00

32FHM484**International Hospitality Management**

This course will cover globalization, tourism and the lodging sector; emergence of international hotel, international human resources management and global competition. Perm of Department. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32FHM485**Project Costing and Estimating**

The course will cover estimating techniques, cash forecasting, budgeting, present value concepts, holdbacks, capital budgeting, financing and other cost considerations for pricing projects. Prereq: 32ACCT245, 32ACCT246, 32ACCT271. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32FHM486**Hospitality Marketing**

This course will cover revenue management, lodging systems, room division, and housekeeping, and loss prevention. Prereq: 32FHM381. BoK: NA. Credit Level: U. Credit Hrs: 3.00

Facilities & Hospitality Management**32FHM487****Human Resources in the Hospitality Industry**

This course will cover diversity, development and training, retention, managing conflict, FMLA, safety and security, workers compensation and other topics. Prereq: 32FHM385. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32FHM488**Advanced Hospitality Management**

The course involves the study of principles of facilities planning, facilities management, and maintenance for the hotel industry. Topics included in the course are developing strategic plans for the hotel industry, emphasizing strategy formulation, implementation and evaluation. Prereq: 32FHM152, 32FHM274, 32FHM271, 32FHM371, 32FHM378. BoK: SE. Credit Level: U. Credit Hrs: 3.00

32FHM489**Risk Management and Insurance**

The study of risk management and methods of controlling risks involved in facilities and property management, including the law and role of insurance. Students will have opportunities for practical application of the subject areas they study. For instance, students will be presented with a "case" from which they must determine the risks and safety factors involved and come up with solutions and plans to alleviate and/or protect against the risks. Students will study and learn how to formulate safety procedures including evacuation plans for any time of emergency-fire, toxic substance exposure, medical emergencies, and terrorist threats, critical issues for event safety, outdoor events and emergencies. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32FHM542**Senior Project II**

A continuation of Senior Project I (32FHM541). The course provides the student with the opportunity to bring together in a comprehensive manner all of the subjects covered in the program and the addition experiences gained from the internship. Prereq: 32FHM541. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32FHM571**Leadership Development Seminar**

This course will cover advanced business ethics, developing a leadership style, honing interpersonal relations, how to get the best from your employees, etc. Students will have the additional opportunity to have a variety of business people in the facilities management and related areas to speak on topics pertinent to executive leadership. Perm of Instructor. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32FHM573**Advanced Facilities Management**

This course will cover advanced facilities management processes such as quality of service, facilities effectiveness, benchmarking, audit activities, relocation, long range strategic and tactical planning, asset management, planning and resources planning. It will also cover global facilities management issues. Prereq: 32FHM142, 32FHM271, 32FHM273, 32FHM373, 32FHM378. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32FHM574**Facilities Management Seminar in Global Issues**

This course includes the study of global issues in the facilities management area. Included topics are diversity in a global economy-employee, and customer/guest; requirements of operating in over-seas venues; requirements of conducting business with foreign businesses; cultural differences and sound business principles and operations. This provides an excellent opportunity for students to apply their learning experience to case studies. Research papers will be utilized to nurture the students/ research. Perm of Instructor. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32FHM576**Special Issues Seminar in Resorts & Spas Management**

This course involves the study of the unique issues involved in managing resort and spa facilities including special ethical, legal and

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Facilities & Hospitality Management**32FHM576****Special Issues Seminar in Resorts & Spas Management**

business concerns, where employees and staff have physical contact with guests. The course will utilize case studies, research, papers, and in class presentations. Perm of Instructor. BoK: SE. Credit Level: U. Credit Hrs: 3.00

32FHM577**Advance Casino Management**

This course combines analytical skills with practical application concerning the ability to interpret numerical data, calculations and reports regarding the placement and performance of the various gaming areas within a casino, layout and design issues, and selection of product, customer research and profiles, evaluating marketing, planning and implementation of promotional events. The course includes the application of the analysis and skills in reports and class presentations. BoK: SE. Credit Level: U. Credit Hrs: 3.00

Finance**32FIN171****Personal Finance**

Personal Financial Planning; setting financial goals; budgeting; tax preparation and planning; consumer credit; major purchases and survey of investments. BoK: QR. Credit Level: U. Credit Hrs: 3.00

32FIN215**Directed Study - Finance**

This course is designed for students who require individualized instruction in Finance. Perm of Instructor. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32FIN241**BUSINESS FINANCE**

An introduction to business finance. Analysis of financial markets. An overview of the financial system and time value of money calculations. An introduction to capital budgeting, cost of capital and financial planning. BoK: QR. Credit Level: U. Credit Hrs: 3.00

32FIN271**Personal Finance**

This course will cover foundations of financial planning. Topics covered: managing your taxes, managing cash, consumer credit, insurance and health needs, major purchases, investment planning, planning for retirement and estate planning. BoK: QR. Credit Level: U. Credit Hrs: 3.00

32FIN272**Survey of Investments**

The economic background of investments. Investing in federal government securities; stocks and bonds. Overview of worldwide securities markets and investment policies. BoK: QR. Credit Level: U. Credit Hrs: 3.00

32FIN371**Business Finance**

This course will cover investment and financing decisions, analysis of financial markets, budgeting and forecasting cost of capital. An overview of international financial management, time value of money, risk analysis in capital. Budgeting and ration analysis. Prereq: 32ACCT245, 32ACCT246, 32ACCT271. BoK: QR. Credit Level: U. Credit Hrs: 3.00

32FIN372**Survey of Investments**

This course will cover the concept of investing. Topics will include understanding risk and return, bond fundamentals, common stock, market indexes, convertible securities, managing the equity portfolio, mortgage-backed securities and contemporary issues. Prereq: 32ACCT245, 32ACCT246. BoK: QR. Credit Level: U. Credit Hrs: 3.00

Fire Science**32FST101****English Composition I**

A study of college level writing, including strategies for pre-writing, writing revising, and editing that focuses on audience and purpose and introduces concepts of critical thinking reading, writing, and information literacy. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32FST102**Freshman Composition II**

This course is the second course in the English Composition sequence. It assumes continuing improvement in the basic of the writing process, and focuses on formal argument. Students write four essays during the course, all of which will improve argument, then expand one of these papers into a research project. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32FST103**Freshman Composition III**

Final course in English Composition sequence, emphasizing further development of critical thinking, reading, and writing skills and strategies, through the study of literature including fiction, poetry, and/or drama. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32FST171**General Psychology/OLFS**

The course covers the general topics and basic concepts of Psychology. It gives an overview of the science and technology of the field with heavy emphasis upon every day examples/illustrations of the concept. BoK: SS. Credit Level: U. Credit Hrs: 3.00-4.00

32FST172**Fundamentals of Speech Communication**

An introduction to speech composition, delivery, and audience analysis. BoK: HU. Credit Level: U. Credit Hrs: 3.00

32FST178**Algebra for OLFS**

Solving equations, exponents, algebraic fractions, exponential and logarithmic functions, and inequalities. BoK: NA. Credit Level: U. Credit Hrs: 4.00

32FST179**Trigonometry for OLFS**

Right triangle trigonometry, vectors, solving oblique triangles, trigonometric identities, and equations. Prereq: 32FST178. BoK: NA. Credit Level: U. Credit Hrs: 4.00

32FST209**Fire Tactics -- Open Learning**

Fire ground tactics and strategies. Company operations, large-scale operations and special firefighting procedures. BoK: SE. Credit Level: U. Credit Hrs: 5.00

32FST249**Hazardous Materials -- Open Learning**

Storage, transportation, and handling of hazardous materials; emergency situations, chemical reactions, firefighting control. BoK: SE. Credit Level: U. Credit Hrs: 5.00

32FST260**Industrial Fire Protection**

A survey of fire protection principles for industrial processes. BoK: SE. Credit Level: U. Credit Hrs: 5.00

32FST269**Fire Determination Strategies**

Fire investigation; report preparation; fire scene observation; evidence analysis. BoK: SE. Credit Level: U. Credit Hrs: 5.00

32FST275**Chemistry for Emergency Service Personnel**

Introduction to the chemistry of hazardous material for emergency service personnel. BoK: NA. Credit Level: U. Credit Hrs: 4.00

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Fire Science**32FST276****Chemical and Biological Warfare Agents**

This course provides information on the nature of chemical and biological warfare agents, including structure and function relationships, signs and symptoms of exposure, decontamination and prophylactic measures for protection. In addition, the course examines the potential for genetically modified biological weapons and agents based upon knowledge from cancer research, which are currently under development. BoK: NS. Credit Level: U. Credit Hrs: 3.00

32FST279**Firefighter Safety and Risk Management**

Death, injury and health statistics for emergency personnel; risk management and loss reduction. BoK: SE. Credit Level: U. Credit Hrs: 5.00

32FST283**Fire Protection Hydraulics and Water Supply**

This course provides the theoretical knowledge required for understanding the principles of use of water for fire protection. These principles are then applied in the analysis of common water supply problems. BoK: NA. Credit Level: U. Credit Hrs: 5.00

32FST289**Intermediate Composition**

Drawing from a specific topic or topics drawn from broad disciplinary fields, this intermediate level, General Education course builds upon and enhances the writing and reading skills developed in first-year writing courses (ENGL 101 & 102). The course emphasizes critical reading and writing, more advanced research and argumentative skills, and rhetorical understanding of discourse as it is used in different disciplines and discourse communities. This course will bridge students' learning about writing from the first-year sequence to more advanced writing in their chosen disciplines in upper-level courses. Prereq: 32FST101, 32ENGL102. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32FST319**Building Construction for the Fire Service**

This course will survey building construction principles and how these structures are affected and impacted by hostile fire damage. BoK: QR. Credit Level: U. Credit Hrs: 5.00

32FST321**Terrorism Awareness & Planning**

A comprehensive study of terror including technical, historical, governmental, and psychological issues for emergency management personnel. BoK: SE. Credit Level: U. Credit Hrs: 5.00

32FST355**Social Psychology for Firefighters**

The focus will be upon human behavior in social situations. Various psychological perspectives will be presented in discussions of social behavior. In addition, each major course topic will be addressed with specific attention to diversity and cultural influences and issues. BoK: SS. Credit Level: U. Credit Hrs: 3.00

32FST356**Border Crossings: Images in World Cinema**

The course will explore the meaning and legitimacy of border crossings as represented in Contemporary World Cinema. Students will attempt to consider and question categories such as exile, refugee, tourist, as well as those of invasion, war, and famine being represented and catalogued in this vibrant cinema discourse that provides an international dialogue about the things that separate and join us. Prereq: 32FST101, 32FST102. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32FST360**Special Topics in Humanities OLFS**

Periodic instruction of important or timely topics in Humanities. Repeatable up to 15 cr. BoK: NA. Credit Level: U. Credit Hrs: 1.00-5.00

Fire Science**32FST361****Resolving Conflicts in the Workplace**

Application of conflict self-management, principles, development of flexibility interpersonal relationships and conflict resolution skills BoK: NA. Credit Level: U. Credit Hrs: 1.00-5.00

32FST362**Organizational Communication**

Theory and practice of system thinking, psychology and leadership and teamwork, process improvement, management and leadership; writing, speaking, group interaction BoK: NA. Credit Level: U. Credit Hrs: 1.00-5.00

32FST363**Native American History**

This course provides students an opportunity to study the history of the Native Americans and the interactions between indigenous people and the larger American culture/society. The course will examine the historical, political, social and economic relations between Native Americans, the federal government, and American society in general. An understanding of these exchanges will assist students in comprehending the current state of affairs between indigenous nations and the United States. BoK: HP. Credit Level: U. Credit Hrs: 3.00

32FST364**American Short Story**

An examination of the evolution and tradition of the American short story, including the process through which stories are created. Selections include fiction of interest to firefighters and emergency service personnel. Prereq: 32FST103. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32FST365**Utopian Science Fiction**

The study of science fiction focusing on technology's effect on the search for a better society. Selections will include utopian and dystopian novels of interest to firefighters and emergency service personnel. Prereq: 32FST103. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32FST367**Technical and Professional Presentations**

Oral presentation of technical information with emphasis on historical and cultural influences on public speaking. Students will learn how to cover audience analysis research and develop support materials into rational and effective presentations. BoK: HU. Credit Level: U. Credit Hrs: 3.00

32FST368**Contemporary Global Issues**

The focus of the course will be to provide the student the opportunity to explore critical global issues like globalization, conflict, population/health and the study of the environmental and natural resources. BoK: SS., DC. Credit Level: U. Credit Hrs: 3.00

32FST369**Selected Comic and Satiric Literature**

Selected readings in comic literary material. Students will gain a deeper understanding of the world through laughter and experiment with humorous writing style. BoK: HU. Credit Level: U. Credit Hrs: 3.00

32FST370**Microcomputer Applications for Open Learning Fire Service Program**

Microcomputer Applications for Open Learning Fire Service Program BoK: NA. Credit Level: U. Credit Hrs: 1.00-5.00

32FST371**Statistics for OLFS**

Descriptive and inferential statistics with applications for fire science. Prereq: 32FST370. BoK: NA. Credit Level: U. Credit Hrs: 4.00

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Fire Science**32FST372****Calculus for Open Learning Fire Service**

Introduction to calculus for Open Learning Fire Service students. Topics include limits, differentiation and integration of algebraic functions and relations with applications. Prereq: 32MATH179. BoK: QR. Credit Level: U. Credit Hrs: 4.00

32FST373**ACCESS for OLFS**

Course will cover beginning through advanced features of Microsoft Access. Topics to be covered: relationships, importing and exporting data, tables, form/subforms, queries and reports. BoK: NA. Credit Level: U. Credit Hrs: 4.00

32FST374**EXCEL for OLS**

Course will cover beginning through advanced features of Microsoft Excel: templates, formatting, function/formula data validation, conditional formats. BoK: NA. Credit Level: U. Credit Hrs: 4.00

32FST375**Managerial Psychology for Firefighters**

This course will explore the application of behaviorial theory and techniques to performance problems encountered within the firefighting profession. The focus will be upon learning how to manage performance-enhancing the good while eliminating or diminishing problems. Behavior analytic, data based procedures will be employed in in-class and individual projects in order to begin developing professional competence. Lecture/discussion materials will NOT be limited to material covered in the text. Those in or working toward leadership roles will find the course most useful. BoK: SS. Credit Level: U. Credit Hrs: 3.00

32FST377**Hazardous Materials - Technician Level**

A lectures and field experience course for hazardous materials personnel covering a broad range of safety related topics and skills. BoK: NA. Credit Level: U. Credit Hrs: 5.00

32FST378**Filmic Art**

An introduction to film with concentration on visual and verbal elements that create impact and viewing pleasure. Attention will be given to classic and contemporary films that best illustrate the filmic art form. Prereq: 32FST101, 32FST102. BoK: FA, LT. Credit Level: U. Credit Hrs: 3.00

32FST380**Fire and Emergency Services Administration**

An overview of organization and management in the modern fire service. Topics include management of equipment and personnel, fire department functions, planning, resource development, labor relations, communications, financial management, and community relations. BoK: NA. Credit Level: U. Credit Hrs: 5.00

32FST381**Analytic Approaches to Public Fire Protection**

Systems analysis and its use and limitations in fire protection and other problem areas. Illustrated with case studies and models using the systems approach to fire suppression and prevention. BoK: NA. Credit Level: U. Credit Hrs: 5.00

32FST382**Fire Prevention Organization and Management**

Examines and evaluates the techniques, procedures, programs, and agencies involved with fire prevention functions, licenses, permits, zoning, legal aspects, inspections, investigations, and planning. BoK: NA. Credit Level: U. Credit Hrs: 5.00

32FST383**Fire Protection Structures and Systems**

The design principles involved in the protection of a structure from fire involvement. The empirical tests and prediction procedures. Control, detection, and suppression system design practices. Fundamentals of

Fire Science**32FST383****Fire Protection Structures and Systems**

the hydraulic design of sprinkler and water spray systems, including recent innovations. BoK: NA. Credit Level: U. Credit Hrs: 5.00

32FST384**Community Risk Reduction for the Fire and Emergency Services**

The sociological, economic, and political characteristics of communities and their influence on the fire problem. Review of rural and urban studies relative to public fire protection. The role of the fire department and fire prevention programs in the community. BoK: NA. Credit Level: U. Credit Hrs: 5.00

32FST385**Political and Legal Foundations of Fire Protection**

This course examines the legal basis for the political and social aspects of the government's role in public safety, including the American legal system, liability, negligence, code enforcement and public sector personnel issues. Review of judicial decisions and implications of product liability cases in fire prevention are discussed. BoK: NA. Credit Level: U. Credit Hrs: 5.00

32FST386**Managerial Issues of Hazardous Materials**

This course will be an amalgamation of hazardous materials awareness, operations, and technical levels placed in a managerial paradigm. BoK: NA. Credit Level: U. Credit Hrs: 5.00

32FST387**Fire Dynamics**

This course undertakes a study of fluid mechanics and thermodynamics principles of fire propagation. The study of phenomenon of fire propagation in both fuel- and air-regulated phases dealing with the variables in pre- and post-flashover fire development. Purpose of this course is to provide a scientific study of hostile fires applying physics, chemistry, and engineering principles with the objective of quantitatively describing fire and related processes. BoK: NA. Credit Level: U. Credit Hrs: 5.00

32FST388**Fire Scene Reconstruction, CSI**

This course is intended to provide the student with the fundametnals and technical knowledge needed in understanding the reconstruction principles, fire pattern analysis, fire modeling, fire deaths and injury analysis. BoK: NS., SS. Credit Level: U. Credit Hrs: 5.00

32FST390**Fire Service Computer Graphics**

This course is designed to make student familiar with operating systems (MS-DOS) and fundamentals of computer graphics and geometric principles using the commercial software package (AUTO CAD). BoK: NA. Credit Level: U. Credit Hrs: 4.00

32FST391**Design of Fire Protection Sprinklers**

This course is designed to give fundamentals of sprinkler design (all applications) using a commercial CAD package and a sprinkler design package. Prereq: 32FST390. BoK: NA. Credit Level: U. Credit Hrs: 3.00 -4.00

32FST399**Mathematics Topics for OLFS**

Special topics in upper-level mathematics with applications for fire science. BoK: NA. Credit Level: U. Credit Hrs: 4.00

32FST419**Building Construction II for OLFS**

A continuation of Building Construction I, students will be required to identify the NFPA Building types and present these types in a seminar setting. BoK: NA. Credit Level: U. Credit Hrs: 5.00

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Fire Science**32FST450****Emergency Medical Response to Hazardous Materials**

This course will explore the protocols that will be required for emergency medical technicians at hazardous material incidents. BoK: NA. Credit Level: U. Credit Hrs: 5.00

32FST460**Independent Study in Humanities for OLFS**

Individual research in Humanities developed between the instructor and student. Repeatable up to 15 hrs. BoK: NA. Credit Level: U. Credit Hrs: 1.00-5.00

32FST463**Modern Fiction**

Study of selected late 19th century and early short stories and novellas of interest of firefighters and emergency service personnel. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32FST471**Safety Management**

Introduction to OSHA, Worker's Compensation, environmental, transportation, accident and product safety, risk management, policies, procedures and training. BoK: NA. Credit Level: U. Credit Hrs: 5.00

32FST472**Occupational Safety Hazards Control**

Introduction to plant safety, construction safety, hand/power tools, machinery, materials handling and electrical safety. Prereq: 32FST471. BoK: NA. Credit Level: U. Credit Hrs: 4.00

32FST473**Introduction to Industrial Hygiene**

Develop a basic understanding of anatomy, toxics, airborne contaminants, thermal hazards, radiation and noise. Prereq: 32FST472. BoK: NA. Credit Level: U. Credit Hrs: 5.00

32FST474**System Safety**

Overview of quality control, hazard recognition, fault hazard analysis and failure mode and effect analysis. Prereq: 32FST473. BoK: NA. Credit Level: U. Credit Hrs: 4.00

32FST475**Construction Safety**

Advanced workplace safety analysis focusing on scaffolds, electrical and concrete safety. Prereq: 32FST474. BoK: NA. Credit Level: U. Credit Hrs: 5.00

32FST476**Principles of Ergonomics**

Pending BoK: NA. Credit Level: U. Credit Hrs: 4.00-5.00

32FST477**Contemporary Issues in the Fire Service**

Analysis of modern factors affecting tactical decisions and administrative planning in the modern fire department. BoK: NA. Credit Level: U. Credit Hrs: 1.00-15.00

32FST480**Disaster Planning and Control**

Concepts and principles of community risk assessment; regional and cooperative procedures and plans; the relationship of structural, climatic, and topographical variables to group fires, conflagrations and natural disasters; pre- and post-occurrence factors; communications; planning; organizing; coordination; command; and logistics. BoK: NA. Credit Level: U. Credit Hrs: 5.00

32FST481**Personnel Management for the Fire and Emergency Services**

Personnel practices and management procedures. Included are manpower planning, labor relations, recruitment, selection, testing, performance appraisals, classification, motivation, politics, and management. BoK: NA. Credit Level: U. Credit Hrs: 5.00

Fire Science**32FST482****Applications of Fire Research**

Understanding of fire research programs and areas of study application. The transfer and implications of research results for fire prevention and protection programs. Foreign studies and international programs. A research matrix of problem areas and results. Technology transfer. BoK: NA. Credit Level: U. Credit Hrs: 5.00

32FST483**Fire-Related Human Behavior**

Dynamics of human behavior in fire incidents related to fire prevention practices, programs, codes and ordinances, concepts of role, personal invulnerability, risk and group dynamics, as related to design aspects of buildings and the mitigation effects of communications during emergencies and the conduct of post-fire interviews. BoK: SS. Credit Level: U. Credit Hrs: 5.00

32FST484**Fire Investigation and Analysis**

Examination of the procedures and techniques for collection, comparison, and analysis of the physical evidence relative to the area of fire origin. Principles of evidence of ignition phenomenon and propagation variables. Legislative, economic, psychological, and sociological variables of incendiary fire. The role of insurance and government programs. Data analysis and prediction techniques, including pattern analysis. BoK: NA. Credit Level: U. Credit Hrs: 5.00

32FST486**Managerial Issues of Hazardous Materials**

This course will be an amalgamation of hazardous materials awareness, operations, and technical levels placed in a managerial paradigm. BoK: SE. Credit Level: U. Credit Hrs: 5.00

32FST488**Fire Science Portfolio**

Formalized instruction in documenting life experience equal to college learning. BoK: NA. Credit Level: U. Credit Hrs: 1.00

32FST499**Independent Research in the Fire Service**

Practical research study designed around an individual student's career in consultation with Director of Open Learning. BoK: NA. Credit Level: U. Credit Hrs: 1.00-15.00

History**32HIST230****American History to 1880**

This course will be a historical analysis of the political, cultural, economic, and social development of the United States to 1880. It will assist students in understanding the evolution of the American national identity through an examination of America's more recent past. BoK: HP. Credit Level: U. Credit Hrs: 3.00

32HIST231**American History Since 1880**

This course will be a historical analysis of the political, cultural, economic, and social development of the United States from 1880 to the present. It will assist students in understanding the evolution of the American national identity through an examination of America's more recent past. Prereq: 32ENGL103. BoK: HP. Credit Level: U. Credit Hrs: 3.00

32HIST273**Battling Empire**

Course charting turbulent relations between British Empire and her first colony Ireland. Focus on Ireland's efforts to break free from UK. BoK: HP., SS. Credit Level: U. Credit Hrs: 3.00

32HIST275**American Trailblazers**

Americans whose discoveries, inventions and innovations influenced the direction of American life to 1900. BoK: HP., SS. Credit Level: U. Credit Hrs: 3.00

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History**32HIST276****20th Century Trailblazers**

Americans whose discoveries, inventions and innovations influenced the direction of 20th century life. BoK: HP., SS. Credit Level: U. Credit Hrs: 3.00

32HIST301**History of American Culture**

Historical events and representative literature, art and music. 1865 to present. Prereq: 32ENGL103. BoK: HP, SS. Credit Level: U. Credit Hrs: 3.00

32HIST320**World History To 1900**

The movement toward globalization the last several years has made it imperative that students contextualize the events taking place around them into a global understanding of world history and politics. This course examines world history from 1700 to 1900. The course's approach is both global and comparative, stressing the growing interdependency of nations, regions, cultures, and economics. Prominent themes include the growth of empires, colonization, scientific and technological advances, revolutionary movements, and the interplay of politics, culture and economics. Prereq: 32ENGL103. BoK: HP, SS. Credit Level: U. Credit Hrs: 3.00

32HIST322**World History Since 1900**

The class provides students the opportunity to explore modern world history and understand how events, advances, and individuals, continue to shape the 21st century. The class will start with an understanding of the importance 1885 Berlin Conference and the high-tide of Western global dominance. The course's approach to both global and comparative, stressing the growing interdependency of nations, regions, cultures, and economics. Prominent themes includes the expansion of empires, decolonization, scientific and technological advances, revolutionary movements, global conflicts, ideological clashes, the collapse of the Soviet bloc, and the rise of global fundamentalism. Prereq: 32ENGL103. BoK: HP, SS. Credit Level: U. Credit Hrs: 3.00

32HIST363**Native American History**

This course will examine the historical, political, social and economic relations between Native Americans, the federal government and American society in general. An understanding of these exchanges will assist student in comprehending the current state of affairs between indigenous nations and the United States. Prereq: 32ENGL103. BoK: HP. Credit Level: U. Credit Hrs: 3.00

32HIST372**History of Technology**

The evolution of technology in modern Europe and the United States and its influence on social change. Prereq: 32ENGL103. BoK: HP, SE. Credit Level: U. Credit Hrs: 3.00

32HIST373**TYRANTS/PEACEMAKERS**

Exploration of Nobel Peace Prize and focus on figures such as Ghandi, Martin Luther King, Jr., Nelson Mandela, etc. and ways in which private initiative triumphed over tyranny and warmongers. BoK: HP., SS. Credit Level: U. Credit Hrs: 3.00

32HIST380**Investigating Historical and Professional Perspectives**

This course investigates the professional development of archivists and the multiple perspectives of historiography. The class provides students an opportunity to explore the theoretical foundations of archival technologies, the development of the archival profession, and the relevance of historical interpretations of archival materials. The integration of these topics will facilitate students' understanding of the growing importance of archival technologies in the global economy. New technologies, established professional views, and knowledge of historical perspectives are merging to reshape the mission of archivists. This class explores this movement and its relevance for

History**32HIST380****Investigating Historical and Professional Perspectives**

students. Prereq: 32ENGL103. BoK: HP, SS. Credit Level: U. Credit Hrs: 3.00

32HIST382H**Historical London Through The Lens Of Technology**

Student study history of societies by studying development of technologies of London through the ages. BoK: HP., QR. Credit Level: U. Credit Hrs: 3.00

32HIST388**History of American Invention**

This class provides students an opportunity to study the development of invention and engineering in the United States. Students will examine the roots of American innovation, the distinctiveness of American technology, and the development of technology over time. Students will also discuss the establishment of the American profession of engineering in its modern form, so that they can acquire a better consciousness of the problems and achievements of their chosen career. Prereq: 32ENGL103. BoK: HP, SS. Credit Level: U. Credit Hrs: 3.00

32HIST389H**Cold War Science and Technology Policies**

This course deals with the reciprocal interactions, both direct and indirect, between science, technology, and the American federal government during the Cold War years. The class examines the historical development of the relations between science, technology, and the government from the post World War II era to the present. Two themes will be explored in this class. First, students will consider the efforts of the government to promote scientific and technological activities, the effort of scientists and engineers to increase such support, and the degree to which the state received a return on its investments. Second, students will analyze the attempts by the federal government during the Cold War to regulate and legislate science and technology in order to control or minimize the negative consequences of state sponsored technological activities. BoK: HP., SS. Credit Level: U. Credit Hrs: 3.00

32HIST390**The Atomic Bomb & Global Politics**

This course examines the development of nuclear weapons from the discovery of fission to the proliferation of such systems in the post-Cold War era. The class will first consider the technological and political decisions that contributed to building the bomb during World War II. Next the course analyzes the nuclear standoff between the United States and the Soviet Union during the Cold War years. Finally, the class looks at the transition period begun as the Cold War concluded and the proliferation of nuclear weapons technology today. BoK: HP., SE. Credit Level: U. Credit Hrs: 3.00

32HIST391**Civil War Technologies & Sciences**

This course considers the relationships between government policies, technology development, scientific discoveries, and war-time. The class contextualizes these interactions by examining the policies and technologies generated during the American Civil War by both sides of the conflict. BoK: HP., SS. Credit Level: U. Credit Hrs: 3.00

Hotel Management**32HMG141****Introduction to Hotel Management**

A survey of the management of hotel operations. Areas include rooms, food and beverage operations, support structure, sales and marketing and systems and technologies. Descriptions of management duties are also included. BoK: NA. Credit Level: U. Credit Hrs: 3.00

Horticulture

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Horticulture

32HORT184

Plant Communities of Southwest Ohio

A survey of native plant communities of Southwest Ohio. Course develops awareness and appreciation of natural vegetative patterns and issues that threaten native plant communities; discussions and field studies of eastern deciduous forest, prairies and wetlands. BoK: NS. Credit Level: U. Credit Hrs: 3.00

32HORT185

Cincinnati Summer Horticulture

Designed for non-majors. Survey of horticulture in the Cincinnati area. Field trips and discussions concerned with commercial horticulture including greenhouses, orchards and ornamentals. BoK: NS. Credit Level: U. Credit Hrs: 3.00

32HORT187

Horticulture Science I

Survey of the plant kingdom, plant structure, anatomy, physiological functions, growth, development, and response to the environment. Field trip to be announced. BoK: NS. Credit Level: U. Credit Hrs: 3.00

32HORT188

Horticulture Science II

Human dependence on plants for existence, controlling plant environment through soil, water, temperature and light. The physical, biological, and chemical control of plant growth. Field trip to be announced. Prereq: 32HORT187. BoK: NS. Credit Level: U. Credit Hrs: 3.00

32HORT189

Horticulture Science III

Competition between cultivated plants and weeds; plants and stress factors-biotic and abiotic; sexual and asexual plant propagation; plant genetics and breeding. Field trip to be announced. Prereq: 32HORT188. BoK: NS. Credit Level: U. Credit Hrs: 3.00

32HORT195

Landscape Design I

A beginning course in landscape design, drafting and planning, emphasizing proper planning and design principles, site analysis, drafting techniques and the functional as well as aesthetic use of plant materials to complement a family residence. Individual project applying course content. Prereq: 32HORT187. BoK: FA. Credit Level: U. Credit Hrs: 3.00

32HORT235

Interior Plantscape

The culture and use of foliage and flowering plants indoors, management of the interior environment for plants, plants identification and business practices for interior plantscapes. Prereq: 32HORT187. BoK: NS. Credit Level: U. Credit Hrs: 3.00

32HORT275

Landscape Design II

An advanced landscape design course building on the skills presented in Landscape Design I. Students will be assigned both residential and commercial sites that will be taken through the design process. A site analysis and master plan will be required for each site. Design skill, graphics and plant materials will be further explored. Prereq: 32HORT187, 32HORT195. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32HORT276

Plant Pathology

An in-depth understanding of plant health management in relation to horticultural crops. Discussion topics include biotic and abiotic agents, identification, control of primary and secondary causal agents, and the cumulative impact of stress factors. Prereq: 32HORT187. BoK: NS. Credit Level: U. Credit Hrs: 3.00

32HORT277

Turfgrass Management

A comprehensive understanding of midwest turf grass culture. Discussion topics include turf grass uses, species identification, establishment, maintenance and stress control. Prereq: 32HORT187.

Horticulture

32HORT277

Turfgrass Management

BoK: NS. Credit Level: U. Credit Hrs: 3.00

32HORT278

Herbaceous Ornamental Plants I

Identification, maintenance, habits of growth, use in landscaping. New cultivars and hybrid plants will also be covered. Propagation and division of plants will be addressed. Combination of class room and field studies. Prereq: 32HORT187. BoK: NS. Credit Level: U. Credit Hrs: 3.00

32HORT279

Landscape Construction I

The techniques and installation of various construction materials used in contemporary landscape features and structures, such as patio, decks, walks and steps, pools, retaining walls and outdoor lighting. Prereq: 32HORT275. BoK: FA. Credit Level: U. Credit Hrs: 3.00

32HORT281

Woody Ornamental Plants I

Identification, habits of growth, and landscape use of deciduous woodies. Theory and advice on landscape maintenance. Combination classroom and field studies. Prereq: 32HORT187. BoK: NS. Credit Level: U. Credit Hrs: 3.00

32HORT282

Woody Ornamental Plants II

Identification, habits of growth, and landscape use of evergreen woodies. Theory and advice on landscape maintenance. Combination classroom and field studies. Prereq: 32HORT281. BoK: NS. Credit Level: U. Credit Hrs: 3.00

32HORT283

Flowers, Vegetables and Lawns

Their use in landscape, habits of growth and maintenance. Basic planning and types of forcing structures will be discussed. Theory and advice on landscape maintenance. Combination classroom and field studies. Designed for non-majors. BoK: NS. Credit Level: U. Credit Hrs: 3.00

32HORT284

Tri-State Native Plants

Morphology, taxonomy, and biology of our indigenous Eastern U.S. plants. Combination classroom and field studies. Prereq: 32HORT187. BoK: NS. Credit Level: U. Credit Hrs: 3.00

32HORT285

Entomology

Anatomy, physiology, ecology, behavior, lifestyle, and classification of insects. Economic effects of insects on horticultural crops. Prereq: 32HORT187. BoK: NS. Credit Level: U. Credit Hrs: 3.00

32HORT286

Soil Science

Understanding and controlling plant environment - soil types, moisture capacity, drainage. Fertilizers - uses and methods. Demonstrations. Prereq: 32HORT187. BoK: NS. Credit Level: U. Credit Hrs: 3.00

32HORT310

Plant Propagation

A lecture and demonstration course comprehensively examining plant, propagation and practices and their underlying principles. Plant biology, cultural practices, and the manipulation of growing environments as used in commercial production. Prereq: 32HORT189. BoK: NS. Credit Level: U. Credit Hrs: 3.00

32HORT312

Horticultural Microbiology

An introduction to microorganisms with an emphasis on ecological interactions, especially with plants. Course includes classroom demonstrations and hands-on experience with microbiological techniques. Intended primarily for students in the Horticulture programs. Prereq: 32HORT189. BoK: NS. Credit Level: U. Credit Hrs:

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Horticulture

32HORT312

Horticultural Microbiology

3.00

32HORT317

Advanced Entomology

A comparative survey of external and internal morphological features of insects with emphasis on developmental, functional, physiological, and evolutionary interpretations. Prereq: 32HORT189, 32HORT285. BoK: NS. Credit Level: U. Credit Hrs: 3.00

32HORT320

Tree Fruits and Small Fruits

A comprehensive course covering biology, cultivar selection, planting, fertilization, pruning, propagation, integrated pest management of the fruits and small fruits. Discussion topics include apples, pears, peaches, walnuts, grapes, strawberries, raspberries, blackberries, blueberries, and selected uncommon fruits. Prereq: 32HORT189. BoK: NS. Credit Level: U. Credit Hrs: 3.00

32HORT325

Vegetable Gardening

This class will acquaint students with the basic principles involved in small-scale vegetable production, including plant physiology and classification, economic importance, pest and disease management using both organic and IPM strategies, post-harvest physiology, and marketing. Prereq: 32HORT189, 32HORT276, 32HORT285. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32HORT331

Woody Ornamental Plant III

A more in-depth look at woody plants covered previously as well as the introduction of additional species. Emphasis is on sight identification, the use, the ecology, and culture of plants as well as the integration of plants in the landscape. Students will examine plants from the standpoint of understanding the needs of the plants studied, the selection of plants to meet various site requirements and the visual impact selected plants have on those around them. Prereq: 32HORT189. BoK: NS. Credit Level: U. Credit Hrs: 3.00

32HORT338

Landscape Construction II

An advanced course building on the skills presented in 32HORT195 and 32HORT279. Large and complex landscape construction projects will be discussed and analyzed. Issues such as materials selection, sequencing events, site supervision, cost estimating, bidding, the client and role of landscape architects will be discussed. Prereq: 32HORT195. BoK: FA. Credit Level: U. Credit Hrs: 3.00

32HORT340

Wildlife in Home Landscapes

This course will cover various forms of wildlife, principles and practices of landscaping for wildlife, and wildlife management. Students will learn how to identify and attract various forms of wildlife such as hummingbirds and birds, and butterflies. Students will also learn how to deal with nuisance wildlife problems. Prereq: 32HORT189, 32HORT195. BoK: NS. Credit Level: U. Credit Hrs: 3.00

32HORT364

Plant Nutrition

This course will cover plant nutrient uptake and assimilation, functions of essential plant elements including macronutrients and micronutrients, nutrient interactions, nutrient deficiencies and toxicities, and fertilization practices of horticultural plants. Both practical and theoretical issues of fertilizing trees, shrubs, flowers, vegetables, and fruit will be addressed. Prereq: 32HORT189. BoK: NS. Credit Level: U. Credit Hrs: 3.00

32HORT378

Advanced Turf Grass Management

Factors affecting the production of high quality turf are integrated into comprehensive, practical turf management programs. Prereq: 32HORT277. BoK: NS. Credit Level: U. Credit Hrs: 3.00

Horticulture

32HORT379

Herbaceous Ornamental Plants II

A more in-depth look at perennial plants available to the horticultural community as well as those not commonly found. Plant families, culture and ecology are examined. Design attributes of plants including color, texture and form and the design of floral beds and borders are discussed. Prereq: 32HORT278. BoK: NS. Credit Level: U. Credit Hrs: 3.00

32HORT385

Urban Forestry

The field of urban forestry is a dynamic multidisciplinary profession. U.S. municipalities contain over 610 million urban trees. These trees require professional management using sound arboricultural techniques combined with other disciplines such as landscape architecture, urban planning, and engineering. Prereq: 32HORT189, 32HORT281, 32HORT282. BoK: NS. Credit Level: U. Credit Hrs: 3.00

32HORT410

Edible Landscaping

This course of study is designed to examine edible plants suitable for use in midwest landscapes. This course will include plant identification as well as their cultural needs, historical, design and culinary uses. Prereq: 32HORT189, 32HORT195, 32HORT281. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32HORT416

Plant Problem Diagnostics

A detailed examination of the diagnostic process and field instruction on applying diagnostic principles to solving biotic and abiotic plant problems. Prereq: 32HORT276, 32HORT278, 32HORT312. BoK: NS. Credit Level: U. Credit Hrs: 3.00

32HORT420

Theme Gardens

A course of study designed to explore the principles and techniques of theme and specialty gardens. This course will develop an awareness of and appreciation for specialty garden styles. Students will learn the history and proper utilization of each garden style; be able to specify appropriate plant species and the technical consideration for each garden style. Prereq: 32HORT189, 32HORT195, 32HORT278. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32HORT434

Integrated Landscape Management

All aspects of landscape management are examined in this applied, practical and comprehensive course. Major focus will be given to site analysis, plant selection, handling, installation, pruning, pest diagnostics/management, and site techniques. Prereq: 32HORT281, 32HORT282, 32HORT320. BoK: NS. Credit Level: U. Credit Hrs: 3.00

32HORT441

Landscape Design III

An upper level landscape design course integrating design skills and horticultural knowledge and focusing on plant selection. What plants to use, where and why. From the aesthetic, horticultural and maintenance viewpoints. Several projects will be assigned. Field Trips Prereq: 32HORT189, 32HORT275, 32HORT278, 32HORT281. BoK: FA. Credit Level: U. Credit Hrs: 3.00

32HORT472

Plant Morphology

Systematic analysis of plant structure, form and development from embryogenesis to maturity using comparisons and generalizations based on present and fossil species and relationships of physiology to form and structure. BoK: NS. Credit Level: U. Credit Hrs: 3.00

32HORT478

Horticultural Crop Physiology

This course will cover physiological processes related to growth, development and productivity of horticultural crops. The effects of various environmental and cultural factors on physiological processes will be discussed. Topics include cell structure, plant hormones,

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Horticulture**32HORT478****Horticultural Crop Physiology**

dormancy, apical dominance, fruit development, flower development, and stress physiology. Prereq: 32HORT189. BoK: NS. Credit Level: U. Credit Hrs: 3.00

32HORT480**Economic Plant Pathology & Disease Management**

Major diseases of landscape and food crop plants with emphasis on etiology, epidemiology and control. Prereq: 32HORT189, 32HORT276, 32HORT285, 32HORT312. BoK: NS. Credit Level: U. Credit Hrs: 3.00

32HORT490**Economic Entomology and Pest Management**

Contemporary concepts of insect biology, behavior and insect population management are applied within the context of developing integrated pest management tactics. Prereq: 32HORT189, 32HORT276, 32HORT285, 32HORT312. BoK: NS. Credit Level: U. Credit Hrs: 3.00

32HORT498**Special Research Topics in Horticulture**

Topics may come from any of the four areas of Horticulture: horticulture science, plant health, plant materials and management, or landscape design and construction. Project requires identification of defined problem or current topic impacting horticulture. Approval of research proposal by sponsoring professor and department head. The project must culminate in a final report. Perm of Instructor. BoK: NS. Credit Level: U. Credit Hrs: 3.00

32HORT499**Independent Study in Horticulture**

Please complete and submit an Independent Application form available from the college office. Perm of Department. BoK: NA. Credit Level: U. Credit Hrs: 1.00-12.00

32HORT513**Economic Plant Pathology and Disease Management**

Major diseases of landscape and food crop plants with emphasis on etiology, epidemiology and control. Course is part of Plant Health cluster. BoK: NS. Credit Level: U. Credit Hrs: 3.00

32HORT519**Economic Entomology and Pest Management**

Contemporary concepts of insect biology, behavior and insect population management are applied within the context of developing integrated pest management tactics. Course is part of Plant Health cluster. BoK: NS. Credit Level: U. Credit Hrs: 3.00

HVAC and Stationary Engineering**32HVAC010****Stationary Engineering I/II**

Accelerated course combining Stationary Engineering I and II. BoK: NA. Credit Level: U. Credit Hrs: 6.00

32HVAC011**Stationary Engineering I**

To provide the basic fundamental technical knowledge for high performance steam plant operation. This includes steam and its importance utility boilers for electrical power, combined cycle and cogeneration systems, fundamentals of steam generation, principles of heat transfer, superheaters, nuclear steam generation, design and construction of boilers, fluidized bed boilers and combustion of fuels, maximum allowable working pressure, internal design pressure and boiler horsepower calculations. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32HVAC012**Stationary Engineering II**

Boiler settings, combustion systems and auxiliary equipment, handfiring, stokers, pulverized coal, fuel oil, gas, automatic operation of boilers, boiler accessories, operation and maintenance of boilers, instruments and automatic control systems pumps, and auxiliary steam

HVAC and Stationary Engineering**32HVAC012****Stationary Engineering II**

plant equipment. Minimum and maximum hydrostatic test pressure calculations. Prereq: 32HVAC011. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32HVAC013**Stationary Engineering III**

Pumps, facts about fluids and pumping, factors affecting pump operation, pump installation and operations, pump testing and calculations, pump maintenance, steam turbines, turbine design and construction, electric generations, cooling towers and condensers and steam turbine horsepower calculations. Prereq: 32HVAC012. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32HVAC014**Stationary Engineering IV**

To provide the fundamental technical knowledge of steam plant equipment for the Ohio State Stationary Engineer's Examination. Steam turbines and auxiliary equipment, environmental control systems, and Waste to energy plants, application of thermodynamics, fluid mechanics and heat transfer in power plant operation. Review of all power plant calculations and synthesis of Stationary Engineering I, II, III and IV. Prereq: 32HVAC013. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32HVAC015**Gas Turbine Operation**

Lecture on the basic concepts and procedures for operating a gas turbine used for generating electrical power at small power stations or as supplemental power sources at larger facilities. Training suitable for becoming a Gas Turbine Technician. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32HVAC030**Refrigeration I/II**

Accelerated course combining Refrigeration I and II. BoK: NA. Credit Level: U. Credit Hrs: 6.00

32HVAC031**Refrigeration I**

A combination of theoretical and practical work to give a thorough understanding of different types of refrigeration systems. A troubleshooters course emphasizing residential and commercial refrigeration and air conditioning. Coreq: 32EETN060. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32HVAC032**Refrigeration II**

Continuation of Refrigeration I (32-185-031). Prereq: 32HVAC031. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32HVAC033**Refrigeration III**

Industrial capacity reciprocating and centrifugal compressors, multi-stage units and low temperature applications, absorption-cycle cooling, vortex tube and automotive A/C. Prereq: 32HVAC032. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32HVAC034**Refrigeration IV**

Continuation of Refrigeration III (32-185-033). Prereq: 32HVAC033. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32HVAC041**HVAC Equipment I**

A troubleshooters course in air handling and heating. Pulleys, sheaves, traps, strainers, corrosion, humidifiers, hydronics, pumps and pneumatic and electric controls. Prereq: 32HVAC031. Coreq: 32EETN065. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32HVAC042**HVAC Equipment II**

Continuation of HVAC Equipment I (32-185-041). Prereq: 32HVAC041.

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HVAC and Stationary Engineering**32HVAC042****HVAC Equipment II**

Coreq: 32EETN026. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32HVAC043**Indoor Air Quality**

This intensive study is designed for building owners, facility and property managers, service contractors, administrators, school officials and environmental professionals. This course covers ways of addressing potential IAQ problems, diagnosing and remediating IAQ complaints, and measuring CO₂ and ventilation effectiveness. It also covers the origin of IAQ problems as well as IAQ litigation. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32HVAC046**Heating and Air Conditioning Fundamentals I**

Product selection, layout, and system sizing. Drawing knowledge valuable in incorporating HVAC systems into a building project. Not a troubleshooter's course. Prereq: 32MATH021, 32HVAC031, 32HVAC041. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32HVAC047**Heating and Air Conditioning Fundamentals II**

Continuation of Heating and Air Conditioning Fundamentals I (32-185-046). Prereq: 32HVAC046. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32HVAC051**Instrumentation I**

Practical course dealing with selection, care and sizing of various types of pneumatic and electronic primary elements used in industry for measurement of temperature and flow of liquids and gases. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32HVAC052**Instrumentation and Control**

An introduction to industrial instrumentation and control with emphasis on pneumatic controls, PLCs, and hydraulic and pneumatic circuits. Prereq: 32HVAC051. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32HVAC053**Building Automation**

An introduction to the controls and servos used to automate the environmental control of buildings including pneumatic, hydraulic, and digital control. Prereq: 32EETN018. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32HVAC060**Plumbing Systems**

Study of design, installation, and maintenance of plumbing systems for industrial and commercial applications. Lecture covers plumbing components, principal design features of plumbing systems, and common maintenance faults. Lab and field trip experience. Coreq: 32EETN080. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32HVAC063**General Building Maintenance and HVAC**

An introductory course designed to provide a broad range of knowledge of various components utilized in heating, ventilating and air conditioning systems. Both air and water side equipment and distribution networks will be discussed in conjunction with air/water balancing and maintenance methods with emphasis on achieving occupant comfort and air quality. BoK: NA. Credit Level: U. Credit Hrs: 2.00-3.00

32HVAC064**General Building Maintenance and HVAC II**

Continuation of Gen Bldg Main and HVAC. Prereq: 32HVAC063. BoK: NA. Credit Level: U. Credit Hrs: 2.00-3.00

32HVAC065**General Building Maintenance and HVAC III**

Continuation of Gen Bldg Main and HVAC II. Prereq: 32HVAC064. BoK: NA. Credit Level: U. Credit Hrs: 2.00-3.00

HVAC and Stationary Engineering**32HVAC070****Hydra Power Mech**

Industrial and mobile hydraulics, preventative maintenance, fluid maintenance, field and shop repairs, component assembly and replacement, symbology and troubleshooting. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32HVAC080**Basic Instrumentation and Controls I**

Lectures, discussions, and demonstrations to understand basic measurements and instrumentation control theory, pneumatic controls, electric controls, control systems and applications, and maintenance of instrumentation and controls. BoK: NA. Credit Level: U. Credit Hrs: 3.00-4.00

32HVAC081**Basic Instrumentation and Controls II**

Continuation of Basic Instrumentation and Controls I. Prereq: 32HVAC080. BoK: NA. Credit Level: U. Credit Hrs: 3.00-4.00

Information Engineering Technology**32IET010****Introduction to Computers**

Introduction to computer systems, applications, word processing, and BASIC computer programming. BoK: NA. Credit Level: U. Credit Hrs: 4.00

32IET121**Microcomputer Applications I**

Topics include microcomputer operating systems, spreadsheet, word processing, and the Internet. BoK: NS. Credit Level: U. Credit Hrs: 3.00

32IET155**Fortran Programming I**

Introduction to scientific programming with FORTRAN 77. Assignments of programs to be completed using interactive remote terminals. BoK: NA. Credit Level: U. Credit Hrs: 2.00-3.00

32IET160**Programming in C**

"C" language data types, operators, control flow, and elementary I/O control, arrays and structures. BoK: NS. Credit Level: U. Credit Hrs: 3.00

32IET321**Microcomputer Applications II**

A study of basic programming and database. Prereq: 32IET121. BoK: NS. Credit Level: U. Credit Hrs: 3.00

32IET455**Management in Information Technology**

General management techniques and specific issues and tools for project management in information engineering technology. BoK: NS. Credit Level: U. Credit Hrs: 3.00

32IET481**Advanced Web-Based System**

Using forms, sound, animation and database queries on web-based systems. Security issues and doing business on the Web. Prereq: 32IET282, 32IET295. BoK: NS. Credit Level: U. Credit Hrs: 3.00

32IET491**Senior Design I**

Capstone experience for seniors that involves their doing independent work on a project from conception to design to implementation, with guidance from a faculty advisor. Perm of Department. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32IET492**Senior Design II**

A continuation of Senior Design I (32-IET491) in which students will design and develop a prototype of the capstone project. Prereq: 32IET491. BoK: NA. Credit Level: U. Credit Hrs: 3.00

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Information Engineering Technology**32IET493****Senior Design III**

A continuation of Senior Design II (32IET492) in which students will complete the final version of the capstone project. Prereq: 32IET492. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32IET498**Special Topics in Information Engineering Technology**

Special Topics in Information Engineering Technology. Perm of Department. BoK: NA. Credit Level: U. Credit Hrs: 3.00-5.00

32IET499**Independent Study in Information Engineering Technology**

Independent study in Information Engineering Technology under faculty supervision. Perm of Department. BoK: NA. Credit Level: U. Credit Hrs: 1.00-6.00

Industrial Engineering**32INDS441****Human Factors Engineering**

Man and machine interaction, physiological, psychological, anthropological, climatological environment factors in design and performance. BoK: QR. Credit Level: U. Credit Hrs: 3.00

32INDS444**Safety and Product Liability**

Design and analysis of engineering systems from the standpoint of safety and liability. BoK: QR. Credit Level: U. Credit Hrs: 3.00

32INDS474**Quality Control**

Objectives, principles, methods, techniques including process performance, capability control, problem solving, sampling and risks in decision making. BoK: QR. Credit Level: U. Credit Hrs: 3.00

32INDS475**Methods Engineering**

The development of manufacturing effectiveness within a physical production facility, work and design simplification techniques, standardization of work methods, product justification techniques, motion study, predetermined motion time systems, organizing the manufacturing engineering function. BoK: QR. Credit Level: U. Credit Hrs: 3.00

32INDS476**Performance Controls and Work Measurements**

Techniques used in the development of performance time, stopwatch time studies, performance rating and allowances, development of standard data, design of labor control techniques and incentive plans, auditing procedures to maintain effective labor controls. BoK: QR. Credit Level: U. Credit Hrs: 3.00

32INDS481**Production Control**

Major techniques used in production control; objectives, functions, organization study of forecast, production planning scheduling, service levels, production capacity control, expediting, dispatching, priority rules, shop floor control, feedback. BoK: QR. Credit Level: U. Credit Hrs: 3.00

32INDS482**Material Control**

Major techniques used in material control; objectives, functions, organizations, study of EOQ, lead time, forecast error, order point, periodic review system, two-bin system, bill of material, product structure, aggregate inventory management, feedback, MRP, interrelationships of PIC techniques. BoK: QR. Credit Level: U. Credit Hrs: 3.00

32INDS499**Independent Study in Industrial Engineering**

Please complete and submit an Independent Application form available from the college office. BoK: NA. Credit Level: U. Credit Hrs: 1.00-12.00

Industrial Engineering**32INDS524****White Collar Productivity**

Case studies with engineering applications to identify problems and develop solution alternatives for government and non-manufacturing operations. Offered alt. yrs. BoK: QR. Credit Level: U. Credit Hrs: 3.00

32INDS525**Information Systems**

Structure and design of information requirements for manufacturing and servicing industries utilizing systems analysis and computers. Offered alt. yrs. BoK: QR. Credit Level: U. Credit Hrs: 3.00

32INDS526**Facilities Design**

Problem analysis and design of material handling, layout, and physical storage systems. Offered alt. yrs. BoK: QR. Credit Level: U. Credit Hrs: 3.00

32INDS551**Operations Analysis I**

Introduction to models of quantitative analysis used in business operations. Queuing, simulation and gaining theories. Introduction to dynamic programming. Offered alt. yrs. BoK: QR. Credit Level: U. Credit Hrs: 3.00

32INDS552**Operations Analysis II**

Continuation of 30INDS551. Advanced procedures in quantitative analysis. Use of computer models and other computational techniques. Application to industrial and commercial process design. Offered alt. yrs. BoK: QR. Credit Level: U. Credit Hrs: 3.00

32INDS581**Engineering Economy**

Principles and techniques for making decisions between various engineering alternatives on the basis of their beneficial return on investment. BoK: QR. Credit Level: U. Credit Hrs: 3.00

Interdisciplinary**32INTR001****First Year Experience Seminar**

The "First Year Experience Seminar" is a course designed to assist students in the academic and social transitions associated with college life. The development of specific success skills such as time management, note-taking and study strategies as well as career and academic guidance will be included in this class. The course will provide an orientation to the policies and procedures of the University and of the College. BoK: NA. Credit Level: U. Credit Hrs: 1.00

32INTR071**Study Skills and Problem Solving**

Individual and group instruction in skills important to successful college work. Additional emphasis on activities to enhance critical and analytic problem solving abilities. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32INTR301**SIFE Internship (Students in Free Enterprise)**

This experiential internship emphasizes leadership, communication and teamwork, and provides students with insight into the workings of a market economy. The supervised work experience must be approved by the SIFE Faculty Coordinator and must include a minimum of 90 supervised hours of work. The supervisor is required to submit an evaluation of the student's performance. This experience is limited to students enrolled in the AGS Students In Free Enterprise (SIFE) program in CECE. Prereq: 32ENGL103. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32INTR302**SIFE Internship (Students in Free Enterprise)**

This experiential internship emphasizes leadership, communication and teamwork, and provides students with insight into the workings of a market economy. The supervised work experience must be approved

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Interdisciplinary**32INTR302****SIFE Internship (Students in Free Enterprise)**

by the SIFE Faculty Coordinator and must include a minimum of 90 supervised hours of work. The supervisor is required to submit an evaluation of the student's performance. This experience is limited to students enrolled in the AGS Students In Free Enterprise (SIFE) program in CECE. Prereq: 32INTR301. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32INTR302H**Historical Perspectives In Computing**

This course will cover the historical, political, ethical, legal and other issues involving the development of computer hardware, software, and communications from the 1800s to the present from a non-technical viewpoint. The individuals and companies involved that played a pivotal role will also be studied. The specific details of the various computing technologies will not be discussed, but may be investigated by the individual student. This course will ultimately explore how computers and related technology have affected our lives. BoK: HP. Credit Level: U. Credit Hrs: 3.00

32INTR303**SIFE Internship (Students in Free Enterprise)**

This experiential internship emphasizes leadership, communication and teamwork, and provides students with insight into the workings of a market economy. The supervised work experience must be approved by the SIFE Faculty Coordinator and must include a minimum of 90 supervised hours of work. The supervisor is required to submit an evaluation of the student's performance. This experience is limited to students enrolled in the AGS Students In Free Enterprise (SIFE) program in CECE. Prereq: 32INTR302. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32INTR304H**Home Systems: Electronic Automation et al**

The course addresses basic knowledge and simplified science behind electrical and and electronic home systems. It is designed to be simple enough so that Honors students without a background in technology can benefit from it, but is enriching to provide provoking thoughts on innovation and futuristic aspects of the technologies involved. BoK: NS., QR. Credit Level: U. Credit Hrs: 3.00

32INTR321**Systematic Innovation I: Technology, Community Service and Entrepreneurship.**

In this course, which uses project based learning (PBL), experiential learning (EL) and service learning (SL) pedagogies, students working in interdisciplinary teams identify problems through community service, develop technical solutions to those problems, and propose business plans to transfer their solutions to a profitable venture. The focus is on methods of systematic innovation, the solving of real-world problems, and the development of teamwork skills for effective leadership. BoK: DC., SE. Credit Level: U. Credit Hrs: 3.00

32INTR322**Systematic Innovation II**

In the second course of a two-course sequence, which uses project based learning (PBL), experiential learning (EL) and service learning (SL) pedagogies, students working in interdisciplinary teams identify problems through community service, develop technical solutions to those problems, and propose business plans to transfer their solutions to a profitable venture. The course focuses on the management of innovative product development and includes topics such Market Analysis, Product Design Specification (PDS), Proposal preparations, Strategic Planning and Management for New Product for Community Service, Prototype Development, Manufacturing Requirements, and Business Plan. Prereq: 32INTR321. BoK: SE, DC. Credit Level: U. Credit Hrs: 3.00

32INTR331**Systematic Innovation I Lab**

This is an optional companion course to Systematic Innovations I:

Interdisciplinary**32INTR331****Systematic Innovation I Lab**

Technology, Community Service and Entrepreneurship that provides additional laboratory assignments to satisfy the requirements of some students who need a four credit technical elective. BoK: NA. Credit Level: U. Credit Hrs: 1.00

32INTR332**Systematic Innovation II Lab**

This is an optional companion course to Systematic Innovations II: Technology, Community Service and Entrepreneurship that provides additional laboratory assignments to satisfy the requirements of some students who need a four credit technical elective. Coreq: 32INTR322. BoK: NA. Credit Level: U. Credit Hrs: 1.00

32INTR346H**Math and Architecture of the Ancient Maya Civilization**

Using a hybrid model, students will study the math, architecture and culture of the Maya during the spring 2008 quarter. Students will work collaboratively to discover the unique contributions of the Maya civilization to our present world. The course will culminate with a required visit to Chiapas, Mexico for the student to experience these interrelations. In order to get the full credit for the course the students must be enrolled in the course and be prepared to travel to Chiapas. BoK: HP., DC. Credit Level: U. Credit Hrs: 3.00

32INTR347H**STC: Entrepreneurship through Innovative Interdisciplinary Projects**

In a Project Based Learning (PBL) approach to honors scholars education, the course explores the notion that entrepreneurship, technology and community service complement each other. BoK: NS., SE. Credit Level: U. Credit Hrs: 3.00

32INTR395H**Roman Construction Architecture and Culture**

Global development of technologies of structures, and architecture through the centuries is associated with societal culture, needs, progress and yes, war. The proposed seminar/course uses Problem Based Learning pedagogy to expose Honors students to these interrelationships, and helps them to better understand societies. In this course, teams of Honors students will research the technology of construction and architecture of roman monuments and reflect on the culture that promoted their construction. Students are required to travel to Rome the end of the course course at a cost of about \$2500. BoK: FA., HP. Credit Level: U. Credit Hrs: 3.00

32INTR396H**Technology, Architecture & Structures in Paris**

A special topics course for Honors. Part of the biennial interdisciplinary global component for the Honors Scholars Program, this course explores the development of technologies throughout the world. BoK: HP., FA. Credit Level: U. Credit Hrs: 3.00

32INTR397H**Global Experiential Learning**

Students will travel to various international destinations to experience the local culture, history and technology. Written and visual journals will be kept & exhibited on the web. Registration is restricted to UC Honors students. Travel expenses will be the responsibility of the student. Students can apply for partial subsidy from the UC International Program's Office. BoK: DC., HP. Credit Level: U. Credit Hrs: 3.00

32INTR401**SIFE Internship (Students in Free Enterprise)**

This experiential internship emphasizes leadership, communication and teamwork, and provides students with insight into the workings of a market economy. The supervised work experience must be approved by the SIFE Faculty Coordinator and must include a minimum of 90 supervised hours of work. The supervisor is required to submit an evaluation of the student's performance. This experience is limited to students enrolled in the AGS Students In Free Enterprise (SIFE) program in CECE. Prereq: 32INTR303. BoK: NA. Credit Level: U. Credit

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Interdisciplinary**32INTR401****SIFE Internship (Students in Free Enterprise)**

Hrs: 3.00

32INTR402**SIFE Internship (Students in Free Enterprise)**

This experiential internship emphasizes leadership, communication and teamwork, and provides students with insight into the workings of a market economy. The supervised work experience must be approved by the SIFE Faculty Coordinator and must include a minimum of 90 supervised hours of work. The supervisor is required to submit an evaluation of the student's performance. This experience is limited to students enrolled in the AGS Students In Free Enterprise (SIFE) program in CECE. Prereq: 32INTR401. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32INTR403**SIFE Internship (Students in Free Enterprise)**

This experiential internship emphasizes leadership, communication and teamwork, and provides students with insight into the workings of a market economy. The supervised work experience must be approved by the SIFE Faculty Coordinator and must include a minimum of 90 supervised hours of work. The supervisor is required to submit an evaluation of the student's performance. This experience is limited to students enrolled in the AGS Students In Free Enterprise (SIFE) program in CECE. Prereq: 32INTR402. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32INTR561**Interdisciplinary Capstone Seminar I**

An interdisciplinary course built around a timely theme. Student is asked to write several short papers on topics related to the course theme and/or to their completion of the baccalaureate degree. The theme is explored through reading and group discussions. This course must be followed by INTR562. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32INTR562**Interdisciplinary Capstone Seminar II**

A continuation of 30INTR561. The primary objective is to complete and present a senior paper and/or project related to both the theme covered in INTR561 and to the student's major area of study. Prereq: 32INTR561. BoK: NA. Credit Level: U. Credit Hrs: 3.00

Information Technology**32IT060****PC Maintenance**

This course is for the computer user in mind to troubleshoot their own PC. Topics in PC hardware and operating systems are covered to enable users to solve their own computer problems as they arise. These problems could span from computer accessories, performance, security, and issues surrounding Internet access. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32IT061**Windows Vista**

Getting started and working efficiently with Windows Vista. Working with files and folders, personalizing Vista, installing and configuring devices. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32IT070**Setting Up a Home Network**

This course deals with the basics of setting up a computer network for a home or small organization for internal use as well as Internet connectivity. It covers both wired and wireless network configurations, proper security implementation, and troubleshooting. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32IT080**Create Your Own Webpage**

This course covers the basics of Web page creation and maintenance. Students will learn the skills necessary to design, implement, and

Information Technology**32IT080****Create Your Own Webpage**

maintain small Web sites. No previous background in this area is required other than basic computer literacy. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32IT090**Basic Keyboarding**

A beginning course in typewriting/keyboarding including keyboard mastery, developing speed and accuracy, and simple document formatting. Taught on a personal computer. Out-of-class lab work required. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32IT091**Intermediate Personal Computer Keyboarding**

Brief review of PC keyboard and techniques used in typewriting and computer entry; drills for improvement of speed and accuracy; review business letters, forms, tabulations, and manuscripts. This course is part of Fundamentals cluster. Prereq: 32IT090. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32IT092**Word Processing Applications**

A course intended for students who wish to learn the basics of word processing as well as intermediate features such as merging, etc. Students will use current popular software programs. Out-of-class lab work required. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32IT093**Presentations using Power Point**

Creating effective and attractive presentations using MS PowerPoint. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32IT094**Spreadsheet Applications**

A hands-on course intended for students who wish to learn the basics of computer spreadsheets applications as well as intermediate features such as data analysis, manipulation, and presentation. Students will learn to use spreadsheet application to impact data from and export data to other applications and databases. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32IT101**Computer Applications**

A course in the use of the microcomputer in a professional business environment. This course includes an overview of hardware and software applications such as, the operating environment and the business software included in a typical office application (word processing, spread sheet and presentations). Hands-on active learning required. BoK: NS., QR. Credit Level: U. Credit Hrs: 3.00

32IT120**Web Publishing**

This is a course for non-majors that covers the design and creation of static Web sites using commonly available tools. The course includes the Web design process, user modeling, basic marketing issues and the importing of content from common office information systems software format (word-processed documents, spreadsheets, presentation and databases) for display on the Web. (IT majors should take 32IT220 Fundamentals of Web Development instead of this course). BoK: FA., NS. Credit Level: U. Credit Hrs: 3.00

32IT141**Business Computer Applications**

A course in the use of the microcomputer in a professional environment. Overview of hardware and business software applications including operating environments, word processing, spreadsheets and electronic mail. BoK: NS. Credit Level: U. Credit Hrs: 3.00

32IT142**Business Information Systems**

A course focusing on the support and improvement of business processes through the use of information technology. This course includes coverage of database management systems,

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Information Technology**32IT142****Business Information Systems**

telecommunications, networking, presentation graphics, and systems design and development. A hands-on approach to problem-solving in the business environment. Prereq: 32IT141. BoK: NS. Credit Level: U. Credit Hrs: 3.00

32IT160**Microsoft Windows**

Practical hands-on experience in using some of the basic windows applications. Windows is a graphical user interface which changes menu operating systems, so that the interface between the user and the program is in a more pleasant environment for visual detail. Course is a part of Fundamentals cluster. Section "707" is an "online" course. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32IT170**Introduction To Information Technology**

An Introduction to the field of Information Technology that surveys topics related to software development, computer networking, databases, digital media, the internet and web technologies and who it is used to service the IT needs of an organization. The course also discusses professional skills required for IT professionals. Perm of Department. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

32IT171**Programming: Logic and Methods**

The art and science of writing computer algorithms is introduced without reference to any specific computer language. Course relates logical and mathematical concepts such as truth tables and set theory to computer algorithm construction. Design and development of algorithms with the aid of structure charts, IPO charts, flowcharts and pseudo-codes will be emphasized. Concepts and program design for Object Oriented Programming will be introduced. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32IT181**Programming Logic & Methods (IT Technical Track)**

This course is an introduction to the basic concepts of programming; control structures, sequence selection iteration; terminology such as operators, expressions, assignment, functions; data structures, simple and complex, data types, variables. This includes broader issues such as development concepts, software life cycle, programming steps, basic modeling with use cases and other relevant components of the Unified Modeling Language. Project work using examples based on Visual Basic is expected. The 171 version is designed for the business tract. The 181 version was designed for the technical tract and introduces basic object-oriented concepts such as the following: encapsulation, polymorphism, inheritance. Course is part of the Fundamentals cluster. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32IT191**Introduction to Microcomputers I**

A course in the use of the microcomputer in a professional environment. Overview of hardware and business software applications including operating systems, word processing, spreadsheets, electronic mail. Course is part of Fundamentals cluster. Section "707" is an "online" course. Prereq: 30IT150. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32IT192**Introduction to Microcomputers II**

Advanced discussion of microcomputers in the business environment, including database management and presentation software. Attention paid to the exchange of information between systems. Course is part of Fundamentals cluster. Section "707" is an "online" course. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32IT200**Computational Concepts**

The emphasis of the course is in the applications of computational concepts used specifically in information technology. Students are given a range of computational topics that lead to the understanding in and the application of how, why, and where these computational

Information Technology**32IT200****Computational Concepts**

concepts are applied in information technology applications. Prereq: 32IT170, 32IT205, 32MATH179. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

32IT201**Word Processing Applications**

A hands-on word processing course using WORD. This survey course will introduce students to creating, editing, and proofing documents; formatting; tables; merging; and working with graphics in a word processing document. Course is part of Applications cluster. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32IT205**Computer Programming I**

This is the first programming course for students with no prior programming experience. It intends to provide an introduction to the fundamental concepts of composing and running a program using a current high-level programming language. Hands-on active learning required. Coreq: 32IT171. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

32IT206**Computer Programming II**

This course is a continuation of Computer Programming I. Students will learn to write programmer defined functions, work with data structures, read and write files to and from disk, and construct programmer defined class as well as import pre-defined classes to use in their programs using a current high-level programmable language. Hands-on active learning required. Prereq: 32IT205, 32IT170. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

32IT207**Computer Programming III**

This course is a continuation of Computer Programming II. Students will learn to work with pointers and/or reference variables and implement abstract data types. Additional libraries of classes will be included for discussion and usage in programs. Other object oriented programming concepts such as function/operator overloading, inheritance, overrides, polymorphism, and class templates will be discussed. Hands-on active learning required. Prereq: 32IT206. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

32IT209**Introduction To Database**

Introduction to Database system concepts and terminology with emphasis on relational database design. Hands-on active learning required. Prereq: 32IT170. BoK: NS. Credit Level: U. Credit Hrs: 3.00

32IT211**Introduction To Operating Systems**

Introduction to Operating Systems with emphasis on the UNIX operating system. Discussions of file system, file management, command language and shell programming. Hands-on active learning required. Prereq: 32IT101, 32IT170, 32IT205. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

32IT215**Directed Study - Information Technology**

A course designed for students who require individualized instruction in the information technology area. BoK: NA. Credit Level: U. Credit Hrs: 1.00-3.00

32IT216**Directed Study - Information Technology**

A course designed for students who require individualized instruction in the information technology area. BoK: NA. Credit Level: U. Credit Hrs: 1.00-3.00

32IT220**Fundamentals Of Web Development**

Fundamentals of website design, creation, implementation and publication of websites using XHTML, Cascading Style Sheets and local

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Information Technology**32IT220****Fundamentals Of Web Development**

and remote development tools. Web design process, the use of graphics development tools, and XML basics. Students will create a personal website on the University server and also a website for a community partner individually or in groups. Hands-on active learning required. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

32IT230**Fundamentals Of Digital Media**

Emphasizes the production of interactive presentations that incorporate graphics, sound, animation and video. Hands-on active learning required. Prereq: 32IT170. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

32IT236**Introduction to e-Business**

This course is a comprehensive overview of the role of e-business within a company and is applicable to those starting an e-business or looking to apply the technology and practices to an existing operation. This course examines how to develop and manage an e-business from startup including e-business concepts from market analysis, business strategies, information architecture, web site design, and integration to deployment. This course applies e-business concepts through examples, illustrations and case studies that analyze and design e-business solutions. Part of Business Management cluster. Prereq: 30IT170. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32IT241**COBOL Programming I**

Programming of typical business problems. Sequential and direct access file organization. Debugging. Course is part of Languages cluster. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32IT242**COBOL Programming II**

Continuation of IT 241. Develop advanced COBOL programs using new language elements used to edit and process various types of files on disk. The emphasis will be on internal sorts, arrays, processing sequential and indexed (VSAM) files, and called modules, as well as learning additional COBOL programming techniques. Course is part of Languages cluster. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32IT251**World Wide Web - Basic Concepts**

The course is an introduction of internet and intranet concepts, terminology, tools and applications. Principal topics include SGML, HTML, XML and DHTML basics, World Wide Web, e-mail, web servers, browsers, searching and internet services. This course also includes the origins and evolution of the internet and intranets as well as a survey of current commercial products. Students will complete case studies pertaining to the course objectives. Course is part of Web Technology cluster. Prereq: 30IT170. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32IT252**World Wide Web - Development Concepts**

This course is a survey of Internet and intranet software development concepts and implementation. Commercial software products will be used to design and develop applications using the latest technology. Topics include a survey of Javascript, XML and HTML. Course is part of Web Technology cluster. Prereq: 30IT251. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32IT253**World Wide Web - Multimedia Concepts**

A survey of multimedia oriented development with emphasis on Web applications. Topics include the integration of graphics, animation, video, and sound, into user interfaces and authoring tools. Course is part of Web Technology cluster. Prereq: 30IT252. BoK: NA. Credit Level: U. Credit Hrs: 3.00

Information Technology**32IT254****Web Administration**

An in-depth survey of Web server administration and related applications including site design, administration, implementation, installation, configuration, maintenance, data base administration and information policy (security, intellectual property). Includes case studies in the establishment and maintenance of a web server using commercial products and applications on various platforms. Course is part of Web Technology cluster. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32IT255**Visual Basic I**

This course is an introduction and overview of Visual Basic, a Windows development product. Principal topics include the Visual Basic language and data types. Additional topics include forms, controls (labels, command buttons, text boxes and list boxes), events and properties (colors). Students are expected to develop case studies pertaining to the course objectives. Course is part of the Languages cluster. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32IT256**Visual Basic II**

This course surveys advanced features of Visual Basic, a Windows development product. Principal topics include advanced Visual Basic language features as well as menus (pull-down, pop-up), advanced controls (dialog boxes, combo boxes, grids), error handling, object linking and embedding, graphics and data access. Students are expected to develop case studies pertaining to the course objectives. Course is part of the Languages cluster. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32IT257**Active Server Pages (Server Side Scripting)**

This course presents Active Server Pages for Web application development based on the .NET architectural framework. The principal topics include server side scripting using active server pages (ASP), XML, Web Services, Web forms, Web controls and database applications using web client server technology. The course includes substantive project work. Course is part of Languages cluster. Prereq: 30IT251, 30IT255. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32IT270**Pascal Programming**

Pascal is a general-purpose, high-level programming language. Pascal syntax and fundamental aspects such as data types, constants, variables, and declarations. Arithmetic and Boolean expressions, assignment of values to variables, techniques for performing input and output operations, control statements and structures, functions and procedures. Available only as Independent Study with permission of Instructor. Course is part of Language cluster. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32IT274**Computer Hardware**

Topics of discussion include, but are not limited to, installation, configuration and upgrading, diagnosing and troubleshooting, preventive maintenance, motherboards, processors, and memory; RAM, and printers. Hands-on active learning required. Prereq: 32IT170. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

32IT275**Introduction to Networking**

A broad course covering the spectrum of computer networking in the theoretical and practical frame- work. Students will learn such topics as network media, topologies, the OSI model, protocols, security, and network architectures. Hands-on labs for this course will introduce implementing and managing a peer-to-peer local network. Hands-on active learning required. Prereq: 32IT205, 32IT274. BoK: NA. Credit Level: U. Credit Hrs: 3.00

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Information Technology**32IT277****Fundamentals of Spreadsheets**

A hands-on spreadsheet course using Lotus 1-2-3 or a Lotus clone. Intended for students who wish to learn a basic spreadsheet software program. Advanced features such as macros, graphing, and database functions will be introduced. Course is part of Applications cluster. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32IT279**Introduction to Computers and Digital Publishing**

A hands-on course in digital publishing. Intended for students who wish to learn the basics of a desktop publishing software program. Features such as style sheets, document importation, drawing and writing tools, and printing will be introduced. Course is part of Applications cluster. Prereq: 30IT201. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32IT283**Digital Illustrating**

Offering an expanded knowledge of graphic design using draw programs this course allows students to enhance their digital publishing skills by becoming proficient in the vector environment. Drawing short-cuts and transformation methods are stressed, along with the building process for object-oriented rendering. Course is part of Applications cluster. Prereq: 30IT279. BoK: FA. Credit Level: U. Credit Hrs: 3.00

32IT285**Information Policy for Information Technology**

The course reviews information policy as it relates to access, openness, privacy, intellectual property (copyrights, trade marks), cost and benefits, security and legal issues. Included are issues pertaining to information integrity, electronic communications, and principles of ethical conduct. Students will be expected to complete case studies. Course is part of Business Management cluster. Section "707" is an "online" course. BoK: SE. Credit Level: U. Credit Hrs: 3.00

32IT288**Digital Painting I**

This class will introduce students to a unique computer program that allows the user to generate traditional mediums like charcoal, oil and water color paints, crayon, pencil, pen and ink, airbrush and much more. Course is part of Applications cluster. Prereq: 30IT283. BoK: FA. Credit Level: U. Credit Hrs: 3.00

32IT289**Digital Painting II**

This class will utilize the Painter 5 program in a unique but traditional setting. Students will sketch and develop illustrations and paintings while working from live models, and still lifes, while learning traditional rendering skills. Course is part of Applications cluster. Prereq: 30IT288. BoK: FA. Credit Level: U. Credit Hrs: 3.00

32IT291**Database Overview**

Introduction to database system concepts and terminology with emphasis on relational database design. Concepts covered include logical and physical database structure, database management systems (DBMS), data definition, data manipulation, database query and views, query languages, graphical user interfaces, and report generation. Students complete a case study of their choice using Microsoft Access. Course is part of Database Management cluster. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32IT293**C++I - Introduction**

This course is an introduction to the basic language fundamentals of C++ technology. The focus of this course is on object-oriented concepts including encapsulation, polymorphism and inheritance using objects, classes and member functions. Course is part of Languages cluster. Prereq: 30IT181. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32IT294**C++II - Intermediate**

This course introduces intermediate level C++ technology. The focus of

Information Technology**32IT294****C++II - Intermediate**

this course is on graphical user interface concepts and their application. Course is part of Languages cluster. Prereq: 30IT293. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32IT295**C++III - Advanced**

This course introduces advanced level C++ technology. The focus of this course is on software architecture, components and database programming. Course is part of Languages cluster. Prereq: 30IT294. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32IT296**Java I - Introduction**

This course is an introduction to the basic language fundamentals of Java technology. The focus of this course is on object-oriented concepts including encapsulation, polymorphism and inheritance using objects, classes and methods. Course is part of Languages cluster. Prereq: 30IT181. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32IT297**Java II - Intermediate**

This course introduces intermediate level Java technology. The focus of this course is on graphical user interface concepts and their application. Course is part of Languages cluster. Prereq: 30IT296. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32IT298**Java III - Advanced**

This course introduces advanced level Java technology. The focus of this course is on software architecture, components and database programming. Course is part of Languages cluster. Prereq: 30IT297. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32IT299**Implications In IT**

This course focuses on the impact brought upon our society by computer and its related technologies. Issues related to privacy, ethics law, encryption, copyright, computer crimes, etc, will be critically examines. Prereq: 32IT170. BoK: NS, SE. Credit Level: U. Credit Hrs: 3.00

32IT301**Systems Analysis and Design I**

A broad study of systems development life-cycle, from the initial stages of systems requirement analysis to the implementation of the system. Different techniques and methodologies in different development stages will be studied. Hands-on active learning required. Prereq: 32IT207, 32IT275, 32IT309. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32IT302**Systems Analysis and Design II**

The design phases of the system development life cycle. Hands-on active learning required. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32IT303**Systems Analysis and Design III**

Continuation of IT302. This course is the actual application of the principles of Systems Analysis and Design which the student acquired in 30IT301, 302. The student will completely execute their own analysis and design of a computer-based system in a case study environment. Course is part of Software Development cluster. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32IT305**Brand Identity**

A professional Graphic Design Course centering around Typography, Logo Signature Marks for identity marks in the corporate and brand identity arena. the background history, hands on development, and deepened understanding will benefit a designer in any field they choose. Course is part of Applications cluster. Prereq: 30IT283. BoK: NA. Credit Level: U. Credit Hrs: 3.00

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Information Technology**32IT306****Customer Service in IT**

The key to success in any organization is exceptional customer service. The purpose of this course is to provide the customer service skills to allow each person to improve customer service within their organizations. Topics include concept, customer service models, skills, empowerment, rewards and recognition, renewal (stress and burnout), communications, team building and problem handling. Course is part of Business Management cluster. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32IT307**Interactive Animation and Design**

This program has opened many doors for interactive animation and design. Static web pages become doorways to movies, audio sounds and more. This program has captured 80% of the WEB and is growing everyday. Students will have an opportunity to participate and play with vector graphic animation that is easily assembled into scenes for WEB animations and interactive CD's. Course is part of Applications cluster. BoK: FA. Credit Level: U. Credit Hrs: 3.00

32IT309**Database Management**

Database design using popular database packages. Tables, forms, queries, reports and building applications that automate database functions Hands-on active learning required. Prereq: 32IT209. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

32IT310**Digital Image Editing**

This intensive, hands-on course explores the vast capabilities of Adobe Photoshop, focusing on advanced manipulation techniques for photos and graphics. Participants learn to scan and enhance digital images, use layers, work with channels, and create impressive special effects using filters. Course is part of the Applications cluster. Prereq: 30IT283. BoK: FA. Credit Level: U. Credit Hrs: 3.00

32IT311**Business Intelligence**

Data warehouse design and implementation, OLAP cubes, data transformation, reporting services. Hands-on active learning required. Prereq: 32IT309. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

32IT313**Information Security & Privacy**

Information Security and Privacy is designed to give the student an introduction to some of the following security concepts: confidential, integrity, availability, authentication, and non-repudiation. This course first examines computer security and then moves on to the broader, more applicable issue of network security. Prereq: 32IT207, 32IT275. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

32IT314**Digital 3-D and Animation**

This class will allow students to create frames and render them in 3-D, while allowing them to move freely through space in a very visual manner. These images can be used for Web Movies, 3-D Product Rendering's, Store Walk Throughs, and much, much more. Students will be given an artistic and technical background in the program. Course is part of Applications cluster. Prereq: 30IT283, 30IT289, 30IT310. BoK: FA. Credit Level: U. Credit Hrs: 3.00

32IT315**Systems Administration I**

This course will provide the knowledge and hands-on skills necessary to manage a Local Area Network and its resources. Topics covered include server management, file and print services, disk management, system security, and user/client administration. Students will setup and manage a fully functioning computer network of systems. Hands-on active learning required. Prereq: 32IT275. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

Information Technology**32IT316****Systems Administration II**

Advanced study of systems administration in a computer network. This course will go beyond the basic study of systems administration into such areas as directory services, backup and recovery, clustering and load balancing, DNS, DHCP, and web services. Hands-on active learning required. Prereq: 32IT315. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

32IT317**Network Infrastructure Development**

An in-depth course covering the array of computer networking media and their associated components found in both LAN and WAN environments. Each media will be studied for its characteristics and students will obtain the skills for its implementation in the network. Physical cabling as well as wireless topics will be covered. This course utilizes a multitude of hands-on activities with various network media. Hands-on active learning required. Prereq: 32IT275. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

32IT318**Advanced Digital Illustrating & Photo Editing**

Class covers some advanced capabilities of Photoshop and Illustrator not covered in preceding classes. Tips and tricks of both programs help students to understand some step-by-step, hands-on learning that brings the program's more expert functions into a practical, everyday use. Prereq: 30IT283, 30IT310. BoK: FA. Credit Level: U. Credit Hrs: 3.00

32IT319**Network Security**

This course covers the array of technologies and techniques to secure a computer network. Anticipation of network weaknesses then design the network infrastructure and policies to pre-empt potential attacks upon the network will be presented. Practical skills in router security, firewalls, virtual private networks (VPN), intrusion detection/prevention systems (IDS/IPS), and host-based security will be key components to the course. Hands-on active learning required. Prereq: 32IT317, 32IT313. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

32IT321**Client Side Web Development**

Development of dynamic websites using current scripting languages for client-side development. The course involves understanding the difference between client-side and server-side web programming. Hands-on active learning required. Prereq: 32IT220. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

32IT322**Data Representation Technologies**

This course covers methods used to represent, store, and encode data for inter-operability and re-use between computer software systems. This includes methods of transforming data between representation formats and flexible presentation. The course covers a wide range of software tools to create representations, confirm compliance to representational formats, and to transform data between formats. This course requires active, hands-on learning. Prereq: 32IT321. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

32IT323**E-Business Fundamentals**

This course will address the e-Business fundamentals and concepts to analyze and design e-Business solutions with a rapidly changing environment. These solutions include e-Business models, processes, systems, Internet strategies and security strategies. The course examines e-Business through examples, illustrations and case studies that analyze and design e-business solutions. Course is part of Business Management cluster. Prereq: 30IT301, 30IT478. BoK: NA. Credit Level: U. Credit Hrs: 3.00

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Information Technology**32IT324****E-Commerce**

This course is designed to give students an understanding of the various types of eCommerce, implications and benefits of eCommerce, and the associated enabling technologies. The course will cover the requirements for developing an eBusiness, how to implement a website, Merchant accounts, interactive gateways, product management, security and the legal and ethical issues involved in eCommerce. The students will participate in a team project to design, and implement a complete B2B eCommerce website focusing on analysis and choice of enabling on analysis and choice of enabling technologies including single or multi-tier architectures. Hands-on active learning required. Prereq: 32IT421. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

32IT325**E-Business Systems Integration**

This course examines the full spectrum of e-business/commerce systems design, integration and deployment concepts and technologies. This course helps the potential e-business/commerce manager or professional to visualize and experience the process of designing/developing an e-business/commerce system that typically includes integration and deployment. Examples, case studies, actual integration exercises, and demonstrations are explored. Course is part of Business Management cluster. Prereq: 30IT324. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32IT330**Digital Image Development**

Focuses on the acquisition, creation and manipulation of graphical images (photographs, line art) using high level digital tools and techniques. Hands-on active learning required. Prereq: 32IT230. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

32IT331**Introduction to Smalltalk Programming**

The student will learn object-oriented concepts and the mechanisms that support them using Smalltalk. The principal topics are the Smalltalk language, object-oriented analysis and design concepts, the development of graphical user interfaces, and object-oriented patterns. Students are expected to complete projects to enhance their understanding of object-oriented programming. Available only as Independent Study with permission of Instructor. Course is part of Languages cluster. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32IT332**Digital Audio Development**

Focuses on the acquisition, creation and manipulation of audio information using high level digital tools and techniques. Deals with production processes, including management and use of audio materials. Hands-on active learning required. Prereq: 32IT230. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

32IT333**Digital Video Development**

Focuses on the acquisition, creation and manipulation of video information using high level digital tools and techniques. Deals with production processes, including management and use of video materials. Hands-on active learning required. Prereq: 32IT332. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

32IT341**Assembler Language I (IBM)**

An introduction to assembler language coding, testing and debugging. Includes a review of suitable applications for assembler language as well as class projects in assembler language. Course is part of Languages cluster. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32IT342**Assembler Language II (IBM)**

Continuation of IT 341. Topics include assembler language applications in file management, memory management, access methods, I/O devices and performance considerations. Offered alt. yrs. Course is part of Languages cluster. BoK: NA. Credit Level: U. Credit Hrs: 3.00

Information Technology**32IT342****Assembler Language II (IBM)**

Continuation of IT 341. Topics include assembler language applications in file management, memory management, access methods, I/O devices and performance considerations. Offered alt. yrs. Course is part of Languages cluster. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32IT343**Assembler Language III (IBM)**

Continuation of 30-441-342. Topics include re-entrant and recursive programming; advanced access methods, macros and operating system services. Course is part of Languages cluster. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32IT345**Contemporary Programming I**

This course deals with advanced programming techniques and design issues relating to enterprise-wide development. Topics include advanced object-oriented programming and techniques and application testing and deployment using current enterprise application development tools and development and design methodologies. The concentration will on presentation-tier development. Hands-on active learning required. Prereq: 32IT207. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

32IT346**Contemporary Programming II**

This course deals with advanced programming techniques and design issues relating to enterprise-wide development. Topics include advanced object-oriented programming and techniques, database processing and database interfaces using current enterprise application development tools and development and design methodologies. The concentration will on middle-tier development. Hands-on active learning required. Prereq: 32IT345. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

32IT347**Contemporary Programming III**

This course deals with advanced programming techniques and design issues relating to enterprise-wide development. Topics include advanced object-oriented programming and techniques, optimization techniques, multithreading, remote method invocation, system services, security techniques, how to use attributes, metadata, and reflection, and customization using current enterprise application development tools and development and design methodologies. The concentration will on advanced features used for enterprise application development. Hands-on active learning required. Prereq: 32IT346. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

32IT354**Web Administration**

Installation, configuration and administration of commercial Web servers. Web servers, Internet security, firewall servers, proxy servers. The course cover domain creation, indexing, mail server processing, FTP, NNTP, and other protocols and an understanding of various responsibilities of web server administration. Students will have opportunities to learn how to set up web server administration. Students will have opportunities to learn how to set up a security policy, request a digital server certificate and how to administer intranet applications and web database applications. Students will also learn how to analyze various Internet/intranet scenarios and how to suggest solutions using advanced Internet technologies. Hands-on active learning required. Prereq: 32IT275. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

32IT361**Computer Forensics**

This course introduces the learner to the concepts and techniques of computer forensics. Topics include detecting incident occurrence, data hiding through alternate data streams and steganography, incident preparation, incident response tools, scanners and sniffers, and developing a forensics methodology. Hands-on active learning

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Information Technology**32IT361****Computer Forensics**

required. Prereq: 32IT315. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

32IT371**Date Structures & Algorithms**

Data Structures deals with the systematic study of the most commonly occurring data structures and use of storage media and methods of representing structured data and the techniques and algorithms for operating on such data. Hands-on active learning required. BoK: NS., QR. Credit Level: U. Credit Hrs: 3.00

32IT372**SAS Programming**

This course will introduce various aspects of computing involved in modern day statistics. The SAS package will be used as a vehicle for illustrating different types of computations, utilities and extracts. Especially geared to the applications programmer. Course is part of Languages cluster. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32IT373**Applied Data Structures**

Applied Data Structures deals with the systematic study of the most commonly occurring data structures and their usage as a storage mechanism and a method representing structured data. The techniques and algorithms for operating on such data will be studied. Hands-on active learning required. Prereq: 32IT207. BoK: QR, NS. Credit Level: U. Credit Hrs: 3.00

32IT374**Groupware Technology**

This course provides an introduction to groupware technology concepts. Principal topics include terminology (collaboration, sharing knowledge, and replication), development -customer needs and analysis, design, implementation (forms, database, programming)½ and applications (messaging, workflow automation, approval processes, and office automation). Available only as Independent Study with permission of Instructor. Prereq: 30IT171, 30IT181. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32IT383**Hardware Architecture I**

A survey of hardware architecture concepts of both complex instruction set computing (CICS) and reduced instruction set computing (RISC) from microcomputers to mainframes. Principal topics include instructions and addressing, registers and indexing, interrupts and logic, microcode, buses, caches, memory, pipelining, superscalar, symmetrical multiprocessing, and massively parallel processors. Includes a detailed review of both Intel and Motorola microprocessors, storage devices from tape, disk, optical to redundant arrays of independent/inexpensive disks (RAID). Students are expected to complete case studies using the application of machine languages. Course is part of Computer Science Concepts cluster. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32IT384**Hardware Architecture II**

Current and advanced research topics in hardware architecture are presented. This course would serve to provide ideas on viable topics that are emerging that have promise and applicability to the technological aspects of the business environment. Part of Computer Science Concepts cluster. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32IT385**Data Warehousing**

Difference between OLAP and OLTP systems, designing a data warehouse, data transformation, creating and using cubes, querying cubes and applications. Hands-on active learning required. BoK: NS., QR. Credit Level: U. Credit Hrs: 3.00

Information Technology**32IT386****Data Mining**

Data mining theory and techniques, including clustering models and decision trees. Using software tools to find non-apparent meaning in large amounts of data. Hands-on active learning required. Prereq: 32IT385. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

32IT391**Quality Assurance and Testing**

This course presents techniques, procedures and tools used in the systems development life cycle for quality assurance testing and validation. Test plan preparation, test case development, event partitioning, designing for testability, software metrics and availability and selection of automated tools. Students will learn the importance of valid test procedures and practical application of them across hardware and software platforms. Course is part of Software Development cluster. Prereq: 30IT171, 30IT181. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32IT403**Software Engineering**

Software engineering processes, methods, tools and techniques are introduced in a framework of requirements generation, problem definition, analysis, design, software architecture, testing and quality assurance. Prereq: 32IT302. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

32IT411**Enterprise Network Administration**

Techniques for successfully implementing and supporting network services on an enterprise scale will be covered in this course. Through hands-on job simulations and case studies, students will obtain the knowledge to perform network management on a large magnitude. Hands-on active learning required. Prereq: 32IT316, 32IT488. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

32IT412**Information Architecture**

Information Architecture presents the underlying technical concepts and components to understand, analyze, design and implement systems for modern creative e-business enabled organizations. Information Architecture focuses on the structure of systems that comprise the major components, the externally visible properties of those components and their relationships. Information Architecture results in a holistic view of e-business implementation. This course includes a survey of the software architectures including host-centric, two-tier and three-tier, client server, distributed systems, WWW architectures and parallel systems. The principal topics include high level hardware, storage, connectivity related to data, voice, image and video software, networking, development tools and languages, transactions processing, web technologies and database building blocks for the future. This course is part of the Software Development cluster. Prereq: 30IT301. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32IT415**System Integration**

Hands-on study of computer networks comprised of heterogeneous operating systems and their applications. The course will focus on back-end network management and administration to enable seamless dataflow between differing computer systems. Students will follow established guidelines and best-practice techniques to create typical networks of varying operating systems and services which communicate efficiently. Hands-on active learning required. Prereq: 32IT316. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

32IT416**Senior Design Project I - Networking**

Development of a prototype of a final project in Computer Networking. Projects are selected in Senior Design (IT495). Independent analysis, design, and development of a prototype under the supervision of a faculty member. BoK: NS., QR. Credit Level: U. Credit Hrs: 3.00

H=University Honors course.

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Information Technology**32IT417****Senior Design Project II - Networking**

Development of the final senior project in Computer Networking that started in IT416. Independent development, testing, deployment and evaluation of the final project under the supervision of a faculty member. Prereq: 32IT416. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

32IT420**Web Server Application Development**

Covers the development of advanced Websites and Web-based applications. Includes database backends, Web services, Advanced XML, Web security etc. This course focuses on using commercial technologies. Hands-on active learning required. Prereq: 32IT322. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

32IT421**Enterprise Web Development**

Covers the development of advanced Websites and Web-based applications using disparate technologies for distributed solutions. Hands-on active learning required. Prereq: 32IT420. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

32IT426**Senior Design Project I - Web Technologies**

Development of a prototype of a final project in Web Technologies. Projects are selected in Senior Design (IT495). Independent analysis, design, and development of a prototype under the supervision of a faculty member. Coreq: BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

32IT427**Senior Design Project In Web Technologies II**

Development of the final senior project in Web Technologies that started in IT426. Independent development, testing, deployment and evaluation of the final project under the supervision of a faculty member. Prereq: 32IT426. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

32IT430**Human Computer Interaction I**

Concerned with the design of interfaces that facilitate the use of computers and other personal electronic devices such as handheld devices. Theory and practice of usability is emphasized. Prereq: 32IT230. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

32IT432**Digital Media in Web Development**

This course introduces students to the multimedia possibilities of the Web. This course will teach how to incorporate each form of media into their Web pages. From adding sound to integrating animation. Hands-on active learning required. Prereq: 32IT322, 32IT230. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

32IT433**Web Application Development**

Web Application development is a comprehensive review of the concepts in modern web development. Principal topics include major web architecture components, a survey of user interface design principals and guidelines for Web applications, designing for people (human computer interaction), analysis, design and implementation (languages) through graphical user interface (GUI) controls, forms and events. Students are expected to develop web applications using popular commercial products. Course is part of Web Technology cluster. Prereq: 30IT301, 30IT478. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32IT434**Creating a Successful Web Site**

Creating a successful Web site presents the underlying processes and technical concepts to understand, analyze, design and implement web sites to include a creative planning process, site design, frames and windows, site navigation and content accessibility, page architecture and design page layout, color, fonts, search engines. Modern tools will

Information Technology**32IT434****Creating a Successful Web Site**

be used to apply the concepts. Course is part of Web Technology cluster. Prereq: 30IT433. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32IT436**Digital Media in Web Development**

This course introduces students to the multimedia possibilities of the Web. This course will teach how to incorporate each form of media into their Web pages. From adding sound to integrating animation. Hands-on active learning required. Prereq: 32IT322, 32IT230. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

32IT441**Design of Communications-Based Systems I**

Development and implementation of teleprocessing systems, terminals and communication facilities. Case studies. Course is part of Networking cluster. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32IT442**Design of Communications-Based Systems II**

Continuation of IT441, including design of a terminal-oriented system. Course is part of Networking cluster. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32IT451**Database Management Systems I**

An in-depth review of database technology to include database applications, relational database concepts and structured query language. Students will be required to implement database applications. Course is part of Database Management cluster. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32IT452**Database Management Systems II**

Continuation of IT451. Topics include a review of commercial database products, database modeling and design (conceptual, logical and physical), database security, backup and recovery. A review of client server and distributed database architecture. Students will be required to design and implement database applications. Course is part of Database Management cluster. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32IT453**Operating Systems I**

This course is a survey of operating systems concepts. Principal topics include operating systems spanning desktops to mainframes to networks such as Linux, Windows 9X, Windows NT/Windows 2000, Unix and MVS. This course includes case studies and project work. Course is part of Computer Science Concepts cluster. Prereq: 30IT371, 30IT303. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32IT454**Operating Systems II**

This course is an in-depth review of modern operating systems concepts including computing architectures and network operating systems. Principal topics include Linux, Windows 2000, NetWare and Cisco's IOS. Course is part of Computer Science Concepts cluster. Prereq: 30IT453. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32IT455**Management In Information Technology**

General management techniques and specific issues and tools for project management in information technology. BoK: NS., QR. Credit Level: U. Credit Hrs: 3.00

32IT461**Special Topics in Networking**

This course addresses technical advances in the area of Computer Networking that are not covered by other courses in the curriculum. Topics may change from one offering to the other depending on the current technological advances. Hands-on active learning required. BoK: NS., QR. Credit Level: U. Credit Hrs: 3.00

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Information Technology**32IT462****Special Topics in Web Technologies**

This course addresses technical advances in the area of Web Technologies that are not covered by other courses in the curriculum. Topics may change from one offering to the other depending on the current technological advances. Hands-on active learning required. BoK: NS., QR. Credit Level: U. Credit Hrs: 3.00

32IT463**Special Topics in Software Development**

The course addresses technical advances in the area of Software Development that are not covered by other courses in the curriculum. Topics may change from one offering to the other depending on current technological advances. Hands-on active learning required. BoK: NS., QR. Credit Level: U. Credit Hrs: 3.00

32IT471**Information Systems - Design and Theory**

Design and theory of integrated information systems including technology, strategic planning processes and systems development methodologies to implement information systems that are congruent with companies' business goals. Offered alt. yrs. Course is part of Business Management cluster. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32IT472**Office Automation Systems**

Design and application of office-based technologies including text processing, imaging, records management, voice, facsimile, reprographics, mainframe integration and electronic messaging to enhance administrative support and information service requirements of the corporate office. Course is part of Applications cluster. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32IT475**Programming for Mobile Devices**

Developing and deploying applications for consumer and embedded devices and a survey of available technologies. Hands-on active learning required. Prereq: 32IT347. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

32IT476**Database Management Systems Technologies**

Issues regarding the ongoing operation and support of database applications and support structures. Subjects and activities are those usually associated with the database administrator. Tuning, security, backup/recovery, data restructuring and application enhancement. Course is part of Database Management cluster. Prereq: 30IT452. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32IT477**Database Design and Implementation**

Design principles for both operational database systems and data warehouses, including normalization theory, ER diagramming theory and tools, data storage. Hands-on active learning required. Prereq: 32IT311. BoK: QR. Credit Level: U. Credit Hrs: 3.00

32IT478**Software Engineering I**

Software engineering processes, methods, tools and techniques are introduced in a framework of requirements generation, problem definition, analysis, design, software architecture, testing and quality assurance. Team projects are included. Course is part of Software Development cluster. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32IT479**Software Engineering II**

Software engineering processes, methods and tools are applied through practice in a framework that highlights the systems engineering process, full life-cycle models and technical metrics. Team projects are utilized to strengthen concepts. Course is part of Software Development cluster. BoK: NA. Credit Level: U. Credit Hrs: 3.00

Information Technology**32IT480****Database Administration**

Installing and configuring database servers, database security, managing database files, disaster recovery plans, replication, monitoring and optimization. Hands-on active learning required. Prereq: 32IT309. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

32IT483**Project Management**

A survey of project management concepts as applied to information technology. Principal topics include project selection, planning and business strategy; project scheduling, costs and control; interpersonal, leadership and managerial skills; quality, risk, conflict and change management. Students are expected to complete individual and team projects. Course is part of Software Development cluster. Prereq: 30IT301, 30IT478. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32IT484**Object-Oriented Technology**

Object-oriented technology is examined with emphasis on object-oriented concepts, analysis, design, languages and implementation, databases, and networks. Students are expected to develop case studies using a commercial object-oriented tool. Course is part of Software Development cluster. Prereq: 30IT301, 30IT478. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32IT485**Information Engineering**

A review of information engineering concepts and applications. This includes a survey of computer aided software engineering (CASE) and an implementation project. Course is part of Software Development cluster. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32IT486**Knowledge Engineering**

A survey of the knowledge engineering process, inference engines and knowledge bases, deduction and induction, forward and reverse reasoning, syllogisms, rules, uncertainty algebra, fuzzy variables and unknown variables. Includes practical experience using an expert system. Course is part of Artificial Intelligence cluster. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32IT487**Topics in Advanced Database Management Systems**

Concepts of relational database management systems will be used to introduce distributed database technologies and the adoption of the relational models to the new technology. Course is part of Database Management cluster. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32IT488**Routing & Switching**

Students construct network segments and learn to link the segments together with routers and switches. Once networks are connected, issues such as network interoperability, real-time network analysis, and Quality of Service (Qos) will be addressed. Further, students will learn topics of router programming and will build applications for the router. Hands-on active learning required. Prereq: 32IT317. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

32IT489**Neural Networks**

A survey of neural network products and a review of neural net applications such as pattern recognition. Topics include processing elements, input units, output units, hidden units and fuzzy logic. Includes practical experience. Course is part of Artificial Intelligence cluster. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32IT490**Senior Design**

The process of research, analysis and defending a senior design project, which is a capstone experience for seniors that involves their doing independent work on a project from conception to design to implementation, with guidance from a faculty advisor. Perm of

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Information Technology**32IT490****Senior Design**

Department. BoK: QR. Credit Level: U. Credit Hrs: 3.00

32IT492**Information Technology for Managers**

This course, taught primarily by the case method, examines the environment, objectives, and issues relating to the management of the information systems function in current business entities. It is presented in the context of several industries to illustrate and explain the similarities as well as the differences caused by competition in today's business climate. The effect of Information Technology is examined at all levels of management (Strategic, Tactical and Operating). Course is part of Business Management cluster. Prereq: 30IT170. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32IT493**Senior Design Technical Practicum I**

Development of a prototype of a final project in Information Technology. Projects are selected in Senior Design (IT495). Independent analysis, design, and development of a prototype under the supervision of a faculty member. Prereq: 32IT490. Coreq: 32IT496. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

32IT494**Senior Design Technical Practicum II**

Development of the final senior project in Information Technology that started in IT416. Independent development, testing, deployment and evaluation of the final project under the supervision of a faculty member. Prereq: 32IT493. Coreq: 32IT497. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

32IT495**Senior Design**

The process of research, analysis and defending a senior design project, which is a capstone experience for seniors that involves their doing independent work on a project from conception to design to implementation, with guidance from a faculty advisor. Perm of Department. BoK: NS, QR. Credit Level: U. Credit Hrs: 4.00

32IT496**Senior Design Project Management I**

The life cycle of developing a project prototype. Students perform independent research and document and present the prototype for their senior design project. Prereq: 32IT490. Coreq: 32IT493. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

32IT497**Senior Design Project Management II**

A continuation of Senior Design Project Management I (32IT496) in which students will research and discuss issues related to project deployment, testing, client training and gathering feedback from the client. Students will document and defend their senior design project in a public forum. Prereq: 32IT496. Coreq: 32IT494. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

32IT499**Independent Study in Information Technology**

Please complete and submit an Independent Application form available from the College Office. BoK: NA. Credit Level: U. Credit Hrs: 1.00-12.00

32IT571**Solid Modeling**

Discussion of the construction and processing of informationally complete representations of 3D solid objects. Topics will include techniques for representing, manipulating, and displaying solid objects. Data exchange standards will also be presented. Solid Modeling is a technology fundamentally important in increasing the capability of applications such as CAD, robotics, and computer animation. Course is part of Applications cluster. BoK: NA. Credit Level: U. Credit Hrs: 3.00

Information Technology**32IT573****Software Engineering Applications**

This application of software engineering methods, tools, and techniques are used in a life-cycle systems engineering process, including metrics, testing, and code delivery. Group project required. Course is part of Software Development cluster. Prereq: 30IT479. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32IT575**Colloquium on Information Technology**

Current topics in information technology presented. This course will serve to provide ideas on viable topics that are emerging that have promise and applicability to the business environment. Course is part of Computer Science Concepts cluster. BoK: NA. Credit Level: U. Credit Hrs: 3.00

Mathematics**32MATH018****Strategies For Academic Success**

Incorporation of study skills, time management and decision-making techniques, problems-solving skills, and familiarization with services offered by the College/University. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32MATH021**Introduction to Technical Mathematics I**

Real numbers, exponents, variable expressions, solving linear equations, applications of linear equations, graphing linear equations, solving systems of linear equations. BoK: NA. Credit Level: U. Credit Hrs: 4.00

32MATH022**Introduction to Technical Mathematics II**

Trigonometric functions, right triangle and coordinate plane trigonometry, vectors, radian measure, graphing trigonometric functions, trigonometric identities, solving trigonometric equations, Laws of Sines and Law of Cosines, trigonometric applications. Prereq.: A score of at least 300 on the Math Placement Test or a grade of "C" or better in Tech Math I (32MATH021). Prereq: 32MATH021. BoK: NA. Credit Level: U. Credit Hrs: 4.00

32MATH023**Introduction to Technical Mathematics III**

Algebraic fractions, polynomials, factoring, radical expressions, quadratic equations, composition of functions, inverses. Prereq.: A score of at least 420 on the Math Placement Test or a grade of "C" or better in Intro Tech Math II (32MATH022). Prereq: 32MATH022. BoK: NA. Credit Level: U. Credit Hrs: 4.00

32MATH024**Preparatory Algebra**

Exponents; solving linear, literal and quadratics equations; operations with polynomials; factoring; solving systems of equations; graphing linear functions; radical expressions; rational exponents complex numbers. BoK: NA. Credit Level: U. Credit Hrs: 5.00

32MATH031**Creative Problem Solving**

This course is multi-disciplinary approach to problem solving involving mathematical and engineering technology as well as reading and writing skills. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32MATH033**Trade Mathematics I**

Whole numbers, fractions and decimals; principles of linear, surface, and volume measurement; percentages, averages, and estimations; basic algebra concepts; algebraic equations; powers and roots; ratios and proportions. BoK: NA. Credit Level: U. Credit Hrs: 2.00-4.00

32MATH034**Trade Mathematics II**

Applications of shop algebra, geometry and right angle trigonometry. Prereq: 32MATH033. BoK: NA. Credit Level: U. Credit Hrs: 2.00-4.00

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Mathematics

32MATH051

SAS Basics

This is a foundation class for the purpose of preparing students to write SAS programs. Topics will include the DATA step, SAS data libraries, PROC steps, reading and writing data, merging files, conditional processing, arrays, and functions. The class will facilitate the preparation of students preparing to take the BASE SAS certification exam. BoK: NA. Credit Level: U. Credit Hrs: 4.00

32MATH091

Elementary Algebra I

A review of arithmetic operations involving: Integers, fractions, and percents. Topics include: Number sense, solving linear equations and inequalities. Problem solving is emphasized. BoK: NA. Credit Level: U. Credit Hrs: 4.00

32MATH092

Elementary Algebra II

Topics from probabilities and statistics, graphs, linear equations, systems of equations and inequalities, exponents, polynomials and scientific notation. Prereq: 32MATH091. BoK: NA. Credit Level: U. Credit Hrs: 4.00

32MATH101

Elementary Algebra III

Factoring, simplifying rational expressions, working with radicals, solving rational, radical, and quadratic type equations, graphs. Prereq: 32MATH092. BoK: NA. Credit Level: U. Credit Hrs: 4.00

32MATH104

Preparatory Mathematics

A review of the arithmetic operations involving whole numbers, fractions, decimals, percents, and signed numbers. Introductory work with exponentiation and root extraction. A brief exposure to algebra is presented as the generalization of the processes of arithmetic. Problem solving is emphasized. As part of this course, students are also required to work at least one hour per week in a math learning center. BoK: QR. Credit Level: U. Credit Hrs: 3.00

32MATH132

Introductory Algebra I

A review of high-school algebra. Topics include signed numbers, factoring, exponents, radical, simplifying algebraic equations. Prereq: 32MATH104. BoK: QR. Credit Level: U. Credit Hrs: 3.00

32MATH133

Introductory Algebra II

Further topics from high-school algebra, including graphing, systems of equations, quadratic equations, word problems. Prereq: 32MATH132. BoK: QR. Credit Level: U. Credit Hrs: 3.00

32MATH134

Intermediate Algebra

A transition course from Introductory Algebra II to College Algebra I. This course is designed to strengthen the algebra skills and raise the level of mathematical sophistication of students. Topics include complex numbers, special factoring, rational expressions, rational exponents, quadratic equations, equations containing radicals and rational exponents, word problems, and graphing. Prereq: 32MATH133. BoK: QR. Credit Level: U. Credit Hrs: 3.00

32MATH141

Math for Health Sciences

The course will include basic calculations with fractions and decimals, conversions from one measurement system to another, percent calculations, ratios, proportions and solving simple linear and rational equations. BoK: QR. Credit Level: U. Credit Hrs: 3.00

32MATH142

Mathematics for the Physical Sciences

This course will include operations with signed numbers, exponents, scientific notation, significant figures, logarithms, solving equations, working with formulas, dimensional analysis, and graphing. Prereq: 32MATH141. BoK: QR. Credit Level: U. Credit Hrs: 3.00

Mathematics

32MATH142

Mathematics for the Physical Sciences

This course will include operations with signed numbers, exponents, scientific notation, significant figures, logarithms, solving equations, working with formulas, dimensional analysis, and graphing. Prereq: 32MATH141. BoK: QR. Credit Level: U. Credit Hrs: 3.00

32MATH145

Statistics For The Social Sciences

An introduction to basic statistical concepts and techniques applied to problems in the social sciences. Topics include tabular and graphical presentations of data, calculations of descriptive statistics, an introduction to probability and probability distributions and an introduction to statistics inference. Prereq: 32MATH134. BoK: QR. Credit Level: U. Credit Hrs: 3.00

32MATH146

Statistics for Health Sciences

The concepts of statistical models an inference applied to problems in the health sciences. Major emphasis on the role statistics plays in the Health Sciences, with the aim of giving the student an understanding of and confidence in the use of statistical techniques. Prereq: 32MATH134. BoK: QR. Credit Level: U. Credit Hrs: 3.00

32MATH150

Topics in Math

Introductory Algebra topics including, but not limited to, solving linear equations, solving proportions, solving percent equations, and applications involving all of these. Also includes introductory statistics topics including, but not limited to, ways of collecting statistical data and ways of describing statistical data using tables, bar graphs, the mean, the median, and the standard deviation. BoK: QR. Credit Level: U. Credit Hrs: 3.00

32MATH155

Topics In Math I

Mathematics used in Management Science, topics include using graphs and digraphs to model various management problems like the traveling salesman problem and problems in planning and scheduling, and linear programming. Prereq: 32MATH134. BoK: QR. Credit Level: U. Credit Hrs: 3.00

32MATH156

Topics in Math II

Statistics: The Science of Data, topics include appropriate ways of collecting data and describing data, the laws of probability, and methods of statistical inference. Prereq: 32MATH134. BoK: QR. Credit Level: U. Credit Hrs: 3.00

32MATH157

Topics in Math III

Fair division and apportionment, growth and form, the size of populations, measurements, measuring the universe with telescopes, and patterns. Prereq: 32MATH134. BoK: QR. Credit Level: U. Credit Hrs: 3.00

32MATH161

Math For Culinary Science I

This is an introductory course designed to provide proficiency in and an understanding of mathematical concepts required to successfully complete the coursework for a career in the culinary field. It includes an overview of topics such as: ratios and proportions, measurement systems, dimensional analysis, exponents and scientific notation, algebraic manipulations, equation solving, basic logarithms, and reading and interpreting graphs, charts and tables. Special emphasis will be placed on the development of critical thinking skills necessary to make decisions about how and when to apply the mathematical concepts. BoK: QR. Credit Level: U. Credit Hrs: 3.00

32MATH162

Math For Culinary Science II

This course will be a continuation of Math for Culinary Science I. An emphasis will be placed on applications and problem solving using the

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Mathematics**32MATH162****Math For Culinary Science II**

skills obtained from part one of the course. Students will also be required to work on group projects. Topics will include data collection, spreadsheets, curve fitting, systems of equations, basic geometry, and interpreting statistical and probabilistic information, Prereq:

32MATH161. BoK: QR. Credit Level: U. Credit Hrs: 3.00

32MATH170**Problem Solving**

This courses satisfies the General Education math requirement of the College of Evening and Continuing Education. Problem solving strategies emphasize understanding the problem, devising and carrying out the plan of solution, examining the solution obtained, & presenting written solution. Prereq: 32MATH133. BoK: QR. Credit Level: U. Credit Hrs: 3.00

32MATH173**College Algebra I**

Equations, inequalities, Cartesian coordinate system, graphs of polynomial functions. Prereq: 32MATH134. Transfer Module. BoK: QR. Credit Level: U. Credit Hrs: 3.00

32MATH174**College Algebra II**

Rational functions, conic sections, exponential and logarithmic function, systems of equations and inequalities. Prereq: 32MATH173. Transfer Module. BoK: QR. Credit Level: U. Credit Hrs: 3.00

32MATH176**College Algebra (Accel)**

Exponents, logarithms, polynomials, rational functions, equations, inequalities, graphing. Exponential and logarithmic functions. Selected other topics. Prereq: 32MATH134. BoK: QR. Credit Level: U. Credit Hrs: 3.00

32MATH178**Algebra and Trigonometry I**

Introduction to functions and their graphs, solving equations algebraically and graphically, radian measures and applications, graphs of circular functions, oblique triangles, vectors, complex numbers, trigonometric functions; and right angle trig. Prereq.: A score of at least 450 on the UC Math Placement Test or successful completion with a "C" or better in Intro to Tech 3 (32MATH023). BoK: QR. Credit Level: U. Credit Hrs: 4.00

32MATH179**Algebra and Trigonometry II**

Trigonometric identities, solving trig equations, the fundamental theorem of algebra, systems of equations and inequalities, matrices, sequences, series. Polynomial and rational functions, exponential and logarithmic functions variable. Prereq.: 32MATH178. A grade of C or better in 32MATH178. Prereq: 32MATH178. Transfer Module. BoK: QR. Credit Level: U. Credit Hrs: 4.00

32MATH180**College Algebra and Trigonometry**

Exponential, lograithmic, and trigonometric functions and their graphs. Polynomial functions, matrices, inequalities, rational functions, vectors, progressions, complex numbers. Trigonometric identities and equations; solutions of triangles. BoK: QR. Credit Level: U. Credit Hrs: 5.00

32MATH181**Trigonometry**

Rational functions, conic sections, trigonometry. Prereq: 32MATH174. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32MATH215**Direct Study-Math**

This course designed for students who require individualized instruction in mathematics. Perm of Instructor. BoK: QR. Credit Level: U. Credit Hrs: 1.00-3.00

Mathematics**32MATH217****Direct Study-Math**

This course designed for the student who requires individualized instruction in mathematics. Perm of Instructor. BoK: QR. Credit Level: U. Credit Hrs: 1.00-3.00

32MATH225**Finite Mathematics and Calculus I**

Operations with matrices, determinants. Linear programming. Probability. Prereq: 32MATH174. BoK: QR. Credit Level: U. Credit Hrs: 3.00

32MATH226**Finite Mathematics and Calculus II**

Limits, continuity, derivatives and techniques for differentiation. Optimization using derivatives. Graphical techniques. Prereq: 32MATH225. BoK: QR. Credit Level: U. Credit Hrs: 3.00

32MATH227**Finite Mathematics and Calculus III**

Derivatives of logarithmic and exponential functions. Definite and indefinite integrals. Partial derivatives, application of functions of several variables, solutions to first order differential equations. Prereq: 32MATH226. BoK: QR. Credit Level: U. Credit Hrs: 3.00

32MATH228**Algebra and Finite Mathematics**

Algebra review, modeling techniques, systems of equations, linear programming, and matrix algebra. BoK: QR. Credit Level: U. Credit Hrs: 5.00

32MATH229**Concepts of Calculus**

Limits, continuity, differentiation, rates of change, marginal analysis, elasticity of demand, curve sketching, optimization, and integration. Prereq: 32MATH228. BoK: QR. Credit Level: U. Credit Hrs: 5.00

32MATH244**Calculus I**

Study of differential calculus with topics to include: limits, continuity, rules for differentiation, curve sketching, partial derivatives, and applications of the derivative including optimization methods and related rates. Prereq.: A grade of "C" or better in either Algebra & Trigonometry II (32MATH179) or College Algebra & Trigonometry (32MATH180) before entering this course. BoK: QR. Transfer Module. BoK: QR. Credit Level: U. Credit Hrs: 4.00

32MATH245**Calculus II**

A study of integral calculus with topics to include: Riemann sums, area approximation, definite and indefinite integration, techniques of integration, applications (volumes, work, fluid force and pressure, and centers of mass), and hyperbolic functions. Prereq.: Calculus I (32MATH244). A grade of "C" or better in Calculus I. BoK: QR. Prereq: 32MATH244. Transfer Module. BoK: QR. Credit Level: U. Credit Hrs: 4.00

32MATH251**Calculus and Analytic Geometry I**

This course covers the topics of functions, limits and continuity, the derivatives of algebraic and transcendental functions, rules of differentiation applications of the derivative, anti-differentiation and an introduction to integration and Riemann Sums. Prereq.: Grade of C or better in 32MATH179 or 32MATH180, or score of 670 or better on Placement Test. Transfer Module. BoK: QR. Credit Level: U. Credit Hrs: 5.00

32MATH254**Calculus I Tech Lab**

Topics of Calculus I covered from a technological perspective using computer software and graphics calculators. Limits, continuity, differentiation, integration and applications. Coreq: 32MATH244. BoK: NA. Credit Level: U. Credit Hrs: 1.00

H=University Honors course.

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Mathematics**32MATH255****Calculus II Tech Lab**

Topics of Calculus II covered from a technological perspective using computer software and graphics calculators. Differentiation and integration of exponential, logarithmic and trigonometric functions, techniques of integration. Coreq: 32MATH245. BoK: NA. Credit Level: U. Credit Hrs: 1.00

32MATH271**Discrete Mathematics I**

A course designed for students in the computing technology program. Includes topics in logic, algorithms, number systems, switching circuits, proofs, set theory, vectors, matrices, and mathematical induction. Prereq.: 32MATH179 or 32MATH180. A grade of C or better in 32MATH179 or 32MATH180. Prereq: 32MATH179. BoK: QR. Credit Level: U. Credit Hrs: 4.00

32MATH272**Discrete Mathematics II**

A continuation of 32MATH271 with topics in counting principles, probability and probability distributions, Boolean algebra, logic networks, recurrence relations and recursion and matrices. Prereq: 32MATH271. BoK: NS, QR. Credit Level: U. Credit Hrs: 4.00

32MATH371**Probability and Statistics**

Descriptive statistics, normal distribution, sampling theory, hypothesis testing, confidence limits, regression and correlation, ANOVA. Prereq: 32MATH179. BoK: QR. Credit Level: U. Credit Hrs: 4.00

32MATH376**Vector and Matrix Algebra**

Matrix representation of systems using determinants including Gauss reduction and inversion methods. Three-dimensional vector spaces, vector calculus, del operator, Greens, Stokes, and divergence theorems. Prereq: 32MATH245. BoK: QR. Credit Level: U. Credit Hrs: 4.00

32MATH381**Advanced Technical Calculus**

First and second order differential equations, harmonic motion, matrices, LaPlace transforms, trigonometric Fourier series. Prereq: 32MATH245. BoK: QR. Credit Level: U. Credit Hrs: 4.00

Mechanical Engineering**32MECH371****Kinematics**

Geometry of constrained motion; motion analysis of linkages, gears and gear trains; synthesis of mechanisms. BoK: QR. Credit Level: U. Credit Hrs: 4.00

32MECH372**Dynamics of Machines**

Static and dynamic forces in mechanisms; flywheels; balancing rotating and reciprocating elements; energy methods in analysis and synthesis. BoK: QR. Credit Level: U. Credit Hrs: 4.00

32MECH373**Engineering Thermodynamics**

Extension of basic thermodynamics to applications in mixtures, cycles, chemical reactions, availability, and other topics. BoK: QR. Credit Level: U. Credit Hrs: 4.00

32MECH374**Machine Design**

Principles of design applied to machine elements; strength and rigidity of machine members; principles of machine construction. Offered alt. yrs. BoK: QR. Credit Level: U. Credit Hrs: 4.00

32MECH375**Measurements**

Introduction to measurement engineering; systems and components; static and dynamic responses. BoK: QR. Credit Level: U. Credit Hrs:

Mechanical Engineering**32MECH375****Measurements**

4.00

32MECH376**Instrumentation**

Components of instrument systems; basic electronics and mechanics of instruments; specifications and evaluation. BoK: QR. Credit Level: U. Credit Hrs: 4.00

32MECH377**Mechanical Vibrations**

Vibratory motion in systems with one, two, or more degrees of freedom. Use of the analog computer in solution of vibration problems. BoK: QR. Credit Level: U. Credit Hrs: 4.00

32MECH378**Advanced Mechanical Vibrations**

Design for vibration suppression, active vibration suppression, passive control system, vibration testing and experimental modal analysis, measurement hardware, signal analysis, and finite element method. Introduction to nonlinear vibration may be covered in this course. BoK: QR. Credit Level: U. Credit Hrs: 4.00

32MECH379**Control Theory**

Fundamental concepts of automatic control systems; feedback, transfer functions, control components, time and frequency domain analysis. BoK: QR. Credit Level: U. Credit Hrs: 4.00

32MECH380**Engineering Design**

Study of the interdisciplinary nature of design and methodology of design synthesis, creativity, and human factors; economics. Offered alt. yrs. BoK: QR. Credit Level: U. Credit Hrs: 4.00

32MECH381**Computational Methods**

Engineering applications of determinants, matrices, simultaneous linear algebra equations, differencing and interpolation methods. BoK: QR. Credit Level: U. Credit Hrs: 4.00

32MECH382**Engineering Heat Transfer**

Extension of basic heat transfer to treatment in greater depth of basic modes, combined modes, and applications. Offered alt. yrs. BoK: QR. Credit Level: U. Credit Hrs: 4.00

32MECH383**Manufacturing Processes and Planning**

Principles of metal forming, machining and machines required; production requirements, overall production planning. Offered alt. yrs. BoK: QR. Credit Level: U. Credit Hrs: 3.00

32MECH499**Independent Study in Mechanical Engineering**

Please complete and submit an Independent Application Form available from the college office. BoK: NA. Credit Level: U. Credit Hrs: 1.00-12.00

32MECH582**Design of Mechanical Components**

Characteristics of mechanical systems. Mechanical system components. Synthesis of components into systems. Student teams will be assigned projects. Offered alt. yrs. BoK: QR. Credit Level: U. Credit Hrs: 4.00

Mechanical Engineering Technologies**32MET010****Industrial Rigging And Safety**

Lecture and lab on the study of slings and special lifting devices used to suspend a load from a hoist. The study includes how to calculate the weight and the center of gravity of a load and how to determine the safe load rating of the components used for lifting the load. BoK: NA. Credit Level: U. Credit Hrs: 3.00

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Mechanical Engineering Technologies**32MET010****Industrial Rigging And Safety**

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32MET011**OSHA 30 Hour Industrial Safety**

Lecture and lab on basic safety topics needed in industry including an introduction to OSHA requirements, personal protective equipment, machine guarding, lockout/tagout and selected other topics that will best serve the class needs. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32MET012**Industrial Hydraulics and Pneumatics**

Lecture and lab on basic fundamentals of hydraulics and pneumatics, which includes fluid pressure, pumps, containment, valves, and associated concepts for an industrial mechanic. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32MET013**Industrial Equipment Maintenance**

Lecture and lab on lubrication, bearings, belt drives, mechanical drives, vibration, alignment, and associated concepts for an industrial mechanics. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32MET015**Occupational Safety & Health Standards for the General Industry**

This course covers OSHA policies, procedures, and standards, as well as general industry safety and health principles. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32MET016**Hazardous Materials**

This course covers OSHA General Industry Standards and integrates materials from other consensus and proprietary standards that relate to hazardous materials. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32MET025**Machinery and Machine Guarding Standards**

This course provides the student with an overview of various types of common machinery and related safety standards. The course also provides guidance in recognizing hazards such as those created by points of operations, ingoing nip points, rotating parts and flying chips or sparks, and provides some options to achieve abatement. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32MET035**Electrical Standards**

This course is designed to provide the trainee with an overview of electrical installations and equipment. Emphasis is placed on controlling electrical hazards by the application of OSHA standards and the National Electrical Code. Topics include grounding requirements and overcurrent protection for both portable and fixed equipment. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32MET045**Trainer Course for the General Industry Standard**

This course is designed for students in the private sector who are interested in teaching the 10- and 30-hour general industry safety and health outreach program to their employees and other interested groups. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32MET053**Solid Modeling**

For the professional. See 32-195-375. Not for degree credit. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32MET061**Basic CAD/2D**

Introduction and overview of computers, microcomputers, computer-aided drafting; overview of DOS as it relates to commercial CAD

Mechanical Engineering Technologies**32MET061****Basic CAD/2D**

systems; introduction to menu structures; graphics primitives (drawing simple geometric entities); setting up the drawing; introduction to editing; drawing output. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32MET062**Advanced CAD/3D**

Drawing enhancements; drawing intelligence (dimensioning); herding objectives into symbols; 3D use of drawings; advanced editing text; drawing output; overview of "CADD" as it relates to micro-mini. Prereq: 32MET061. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32MET063**Introduction to Parametric Solid Modeling**

Lecture and lab introduction to parametric solid modeling interface. Topics include sketching, constraining, dimensioning, extruding, revolving, sweeping, Boolean operations with toolbodies, and creating 2D drawings from 3D models. Prereq: 32MET062. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32MET065**Introduction to CAD for Theater Design & Production**

Introduction and overview of computer aided drafting: introduction to menu structures; graphics entity creation; drawing editing; CAD drawing set-up. Introduction to drawing aids for entity creation and accuracy; use of selection sets; basic dimensioning and drawing output. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32MET066**Advanced CAD for Theater Design & Production**

Drawing sectional views; advanced text editing; herding objects into symbols using BLOCKS. Introduction to 3D wireframe and solid modeling; 3D coordinate systems. Introduction to solid model rendering. Obtaining 2D drawing output from 3D data. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32MET070**Industrial Blueprint Reading**

Course in reading blueprints in a variety of fields, in such areas as mechanical, electrical, construction (buildings). Prereq: 32MATH033. Coreq: 32EETN060. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32MET071**Sheet Metal Layout I**

Development of skills for layout of sheet metal patterns. Introduction to drafting fundamentals. Parallel line development methods for sheet metal layout. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32MET072**Sheet Metal Layout II**

Continuation of Sheet Metal Layout I (32MET071). Radial line development methods for sheet metal layout. Prereq: 32MET071. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32MET073**Sheet Metal Layout III**

Continuation of Sheet Metal Layout II (32MET072). Triangulation methods for sheet metal layout. Prereq: 32MET072. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32MET074**Sheet Metal Layout IV**

Continuation of Sheet Metal Layout III (32MET073). Layout problems requiring use of combinations of parallel line, radial line, and triangulation and techniques for pattern preparation. Prereq: 32MET073. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32MET095**Fundamentals Engineering Prep-FTP**

This course will help students prepare and review for the FE exam. The subjects in this course will serve as ONLY a review. This course contains brief reviews of: engineering math, probability & stat, chemistry, computers, ethics, economics, engineering mechanics,

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Mechanical Engineering Technologies**32MET095****Fundamentals Engineering Prep-FTP**

material properties, fluid electricity, thermodynamics. Specific engineering disciplines will not be covered. BoK: NA. Credit Level: U. Credit Hrs: 4.00

32MET098**Special Topics in Mechanical Certificates**

Periodic introduction of important new topics in the Mechanical certificate programs. BoK: NA. Credit Level: U. Credit Hrs: 1.00-15.00

32MET099**Independent Study in Mechanical Certificates**

Opportunity for student to pursue topics of individual interest relevant to Mechanical certificate program goals. Open to student only upon successful written petition. BoK: NA. Credit Level: U. Credit Hrs: 1.00-15.00

32MET140**Statics**

Composition and resolution of vector forces. Principles of static equilibrium; the free body diagram. Force systems in two- and three-dimensions; points and rigid bodies; concentrated and distributed loads. Centroids and moments of inertia. Static friction. Introduction to structural analysis: trusses, frames, machines, cables, beams. Lecture and problem session. Prereq.: Engr Drwg I, Alg & Trig I, Phys for Tech I. Prereq: 32MATH179, 32PHYS181. BoK: NS, QR. Credit Level: U. Credit Hrs: 4.00

32MET160**Technical Problem Solving with MATLAB/EXCEL**

This is an introductory course in problem solving using Excel and Matlab. I/O control, arrays, scalars, vectors, matrices, conditional statements will be covered using macros and built in functions of both softwares. 2-D plotting and iterative programming will also be covered. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32MET171**Engineering Design Graphics I**

Freehand sketching; isometric sketching, creation of 3-dimensional geometric models, orthographic projection, sectioning, auxiliary views, dimensioning, ANSI standards, creation of graphs and charts. Lec and lab. Coreq: 32MATH178. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

32MET172**Engineering Design Graphics II**

Continuation of Engineering Graphics I. Geometric dimensioning and tolerancing, selection of fits and tolerances, weldments, casting, screws and threads, working shop drawings, assembly drawings, bill of materials. A design project from concept sketches to final drawings. Lec and lab. Prereq: 32MET171. BoK: NS, QR. Credit Level: U. Credit Hrs: 4.00

32MET210**Introduction to Thermosciences**

Incompressible fluid mechanics: fluid properties; hydrostatic; conservation of mass; conservation of energy; buoyancy and stability of floating bodies. Heat and work relationships, first and second laws of thermodynamics, enthalpy entropy. Perfect gas laws, equation of state. Closed and open thermodynamics systems. Fundamentals of steady state conduction heat transfer, free and forced convection and radiation. Applications in combined conduction, convection and radiation. Lec and lab. Prereq: 32MATH179, 32PHYS182. BoK: NS, QR. Credit Level: U. Credit Hrs: 4.00

32MET215**Thermodynamics**

Second law of thermodynamics, entropy. Power cycles: Rankine, Otto, Diesel, Brayton, Stirling. Analysis and performance characteristics of steam turbines, pumps, compressors, combustion engines, refrigeration systems, gas turbines. Design of heat exchangers. Lec and lab. Prereq: 32MATH244, 32MET210. BoK: NS, QR. Credit Level: U. Credit

Mechanical Engineering Technologies**32MET215****Thermodynamics**

Hrs: 4.00

32MET241**Mechanics of Materials I**

Concept and types of stress and strain, stress and strain diagram and material properties. Axially loaded members: deflection, statically indeterminate structures, temperature effects, stress concentration, stresses on inclined planes. Torsion: torsion formula, pure shear transmission of power, statically indeterminate. Shear force and bending moment: relationships between load, shear force, and bending moments, shear and bending diagram. Lec. and lab. Prereq: 32MATH244, 32MET140. BoK: NS, QR. Credit Level: U. Credit Hrs: 4.00

32MET242**Mechanics of Materials II**

Analysis of transversely loaded members. Bending and shear stress: bending stress formula, shear stress formula, design of beams, stress concentrations in bending. Analysis of stress and strain: principal stresses and maximum shear stresses, Mohr's circle, pressure vessels, combined loadings. Deflections of beams: integration, Moment-area, and superposition. Statically Indeterminate Beams: analysis by differential equation, Moment-area method, and methods of superposition. Lec and Lab. Prereq: 32MET241, 32MATH245. BoK: NS, QR. Credit Level: U. Credit Hrs: 4.00

32MET260**Mechanisms**

Kinematics of machine elements; displacement, velocity, acceleration. Introduction to the synthesis of linkages. Gears, cams, gear trains. Lec. and lab. Prereq: 32MET171, 32PHYS181. Coreq: 32MATH245. BoK: NS, QR. Credit Level: U. Credit Hrs: 4.00

32MET270**Design of Machine Elements**

Design of machine elements: springs, columns, power screws, brakes. Mechanical power transmission: gear drives, belt and chain drives, clutches. Welded and riveted structures. Project work in design of mechanical systems, selection of standard mechanical components, such as bearings. Lecture and lab. Prereq: 32MET172, 32MET242, 32MET260. BoK: NS, QR. Credit Level: U. Credit Hrs: 5.00

32MET302**Numerical Analysis**

Numerical methods in analysis of mechanical systems, with emphasis on applications with scientific computer languages: roots of higher order polynomials and transcendental equations; elements of linear algebra; numerical differentiation and integration; interpolation and extrapolation. Applications of numerical mathematics in a variety of engineering problems. Lec. and lab. Prereq: 32MATH381. BoK: NS, QR. Credit Level: U. Credit Hrs: 4.00

32MET315**Heat Transfer**

Review of thermodynamics. Fundamentals of steady state and transient conduction heat transfer. Free and forced convection. Infrared and solar radiation. Applications in combines conduction, convection and radiation. Heat exchangers, temperature measurement, insulation systems optimization of heat transfer rates. Prereq: 32MATH381, 32MET330. BoK: NS, QR. Credit Level: U. Credit Hrs: 4.00

32MET325**Solar Heating and Cooling**

Review of conduction, convection and radiation heat transfer. Computer simulation, design of solar components and systems. Survey of active and passive solar heating; introduction to solar cooling and other applications. Prereq: 32MET215, 32MET415. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

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Mechanical Engineering Technologies**32MET330****Fluid Mechanics**

Fluid Dynamics. Forces due to fluids in motion: impulse and momentum; nozzles, jets, lift and drag on airfoils. Fundamentals of compressible flow. Similitude theory and its application to modeling. Lec. and lab. Prereq: 32MATH245, 32MET215. BoK: NS, QR. Credit Level: U. Credit Hrs: 4.00

32MET340**Dynamics**

Two-dimensional motion of particles and rigid bodies. Equations of motion in kinematics and kinetics; translation, rotation and plane motion; work and energy methods; impulse and momentum. Applications and the dynamics of machinery. Lecture and problem session. Prereq: 32MET140, 32MET260. Coreq: 32MATH381. BoK: NS, QR. Credit Level: U. Credit Hrs: 5.00

32MET344**Applied Stress Analysis**

Advanced topics in mechanics of materials, with emphasis on analysis and design of thick-walled pressure vessels. Applications of ASME Pressure Vessel Codes and other recognized national and international design standards. Foundations of finite element analysis. Prereq: 32MATH381, 32MET270. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

32MET346**Applied Mechanics I**

Statics and dynamics. Two- and three-dimensional vector force systems. Principles of static equilibrium. Kinematics and kinetics of translation, rotation and plane motion. FOR NON-MET MAJORS ONLY. Prereq: 32MATH245, 32PHYS181. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

32MET347**Applied Mechanics II**

Continuation of Applied Mechanics I. Prereq: 32MET346. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

32MET350**Motion Control**

Course focuses on the study of control system modeling and analysis. Use differential equations and transfer functions to model system, use theory and equipment to analyze system performance, and use software to simulate and design system. Software usage: MATLAB and simulink. Prereq: 32MET340, 32MFTN260, 32MATH381. BoK: NS, QR. Credit Level: U. Credit Hrs: 4.00

32MET355**Concurrent Engineering**

Design for manufacturing and assembly. Methods for the design and manufacturing groups in an organization to work together to produce a faster, less expensive and higher quality product. Example designs will show how multi-disciplinary teams can create and produce improved products using meetings, and other communication techniques computer data bases, and internet and intranet sessions. A final paper or project will demonstrate an application chosen by the student. Technical Elective approved for all MET options (M,D,E). BoK: NA. Credit Level: U. Credit Hrs: 3.00

32MET365**Introduction to Nanotechnology**

The main goal of this introductory course is to gain a state-of-the-art understanding of nanotechnology in the context of the issues surrounding it and the history preceeding it. In this aspect, a working knowledge of the basics in some areas of nanotechnology will be introduced with emphasis on nanomaterials, and nanobiomedical applications. The course will include an introduction, brief history of nanotechnology, fabrication of nanoparticles; buckyballs and carbon nanotubes; characterization techniques using (SEM), (TEM), (SPM) and (AFM), concept of nanofluids and smart structures. Perception of nanobiomedical (nanoinplants, nanocarriers in drug delivery, nanobiosensors, DNA-based nanostructures, cellular and tissue

Mechanical Engineering Technologies**32MET365****Introduction to Nanotechnology**

engineering). BoK: NA. Credit Level: U. Credit Hrs: 3.00

32MET370**Mechanical Design**

Advanced topics in design of machine components and subsystems, with heavy emphasis on team project work. Design techniques for impact, static and dynamic loading, introduction of new design concepts such as linkage synthesis, cam dynamics, etc. Lec. and lab. Prereq: 32MET270, 32MET340. BoK: NS, QR. Credit Level: U. Credit Hrs: 4.00

32MET372**Geometric Dimensioning and Tolerancing ANSI and/or ISO**

Successful student will have working knowledge of GD&T principles from ANSI ASME Y14.5 and surface texture specific principles from ASME Y14.36. GD&T is language for specs & interpretation of dimensional design intent, based on math concept & traditional machine shop practice. Students needs decide inclusion of ANSI & SIO differences. Lec, demos, discussion, problem solving. Tech. Option D, M. BoK: NS., QR. Credit Level: U. Credit Hrs: 3.00

32MET374**Design Modeling**

Design technologies for conceptual and configuration design of mechanical products and systems: Component Assemblies, parametric solid modeling. CAD/CAM integration. Generating tool paths. Data integration between graphic & non-graphic information. Lec and lab. Tech. Option D. BoK: NS., QR. Credit Level: U. Credit Hrs: 3.00

32MET375**Integrated CAD/CAM**

Design technologies for conceptual and configuration design of mechanical products and systems: Component Assemblies, parametric solid modeling, CAD/CAM integration. Generating tool paths. Data integration between graphic and non-graphic information. Lec and lab. Tech. Option D, M. Prereq: 32MET172. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

32MET380**Fundamentals of Packaging Technology**

Overview of packaging technology: history development, functions, and materials. Container types, rigid/flexible, paper/plastic. Packaging methods, decorating/coding, gluing/closing, handling, distributing. BoK: NS., QR. Credit Level: U. Credit Hrs: 3.00

32MET385**Bioengineering Technology I**

This is an introductory course in bioengineering technology with emphasis on topics that covers the basic types of tissues and their biomechanical properties. Students will apply their knowledge by evaluating the biomechanical properties of selected soft tissues. Tech. Options D,M. Coreq: 32MATH381. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

32MET390**Topics in Professional Responsibility**

Junior seminar in current topics of controversy of special importance in the broader aspects of technical responsibility. Topics selected from energy, pollution, safety and liability, ergonomics, automation, and other timely areas of interest. Ethical, social and economic responsibilities of technical professionals are emphasized. BoK: SS., SE. Credit Level: U. Credit Hrs: 3.00

32MET392**Fundamentals of Intellectual Properties**

Identifying, protecting, using and exploiting intellectual property. A survey of types of intellectual property, including intellectual property that may be protected by patents, copyrights, trademarks and trade secrets. Identifying intellectual property. Value of intellectual property. Evaluation of intellectual and trade secrets are. How patents, copyrights and trademarks may be obtained. Using intellectual property for one's own benefit. Making intellectual property profitable by licensing

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Mechanical Engineering Technologies**32MET392****Fundamentals of Intellectual Properties**

it for use by others. Primary emphasis is on patents and patentable subject matter. Ethical issues relating to intellectual property. Tech. Option D, E, M. BoK: SE. Credit Level: U. Credit Hrs: 3.00

32MET395**Advanced Topics by International Visitor**

An international visitor will be selected to conduct a technical elective on a topic of his/her expertise after submitting the syllabus to the MET Faculty in a selection process. The material level will be junior/senior with the only prerequisite requirements being all sophomore courses. The visitor and topic will be known by March for the summer. BoK: DC. Credit Level: U. Credit Hrs: 3.00

32MET415**Thermal Environmental Systems**

Application of thermodynamic principles in environmental control; heating and cooling load calculations. Psychometrics. Design of heating and cooling systems: steam, water, and air. Air duct design and fan selection. Project work in design analysis of heating and cooling loads in current building practice. Lec. and lab. Prereq: 32MET210. BoK: NS, QR. Credit Level: U. Credit Hrs: 4.00

32MET420**Power Plant Technology**

Study of power plant components: steam generators; turbines; feedwater heaters; cooling towers. Analysis of combustion products and pollutants, air and water pollution control. Design and computer simulation of power generations systems. Prereq: 32MET330. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32MET421**Energy Systems**

Study and comparisons of alternative large-scale energy sources: fossil fuels, shale, synthetic fuels; biomass, wood, solar, wind, ocean, hydro, fission, fusion. Availability of resources, status of technology, costs, environmental effects. Tech. Option E. Prereq: 32ECON286, 32MET215, 32PHYS182. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

32MET425**Combustion Engines**

Extended study of internal combustion engine power cycles. Analysis of Otto, Diesel, Brayton, and Stirling cycles, including turbocharging, preheating and other cycle enhancements. Alternate fuels. Influences of pollution control devices. Exploration of advanced engine technology. Tech. Option E. Prereq: 32MET215. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

32MET426**Fundamentals of Nuclear Energy**

Basic principles of atomic and nuclear structure. Naturally radioactive and stable nuclides, radioactive decay; shielding principles, structural and biological effects. Introduction to fission and fusion power processes. Tech. Options E. Prereq: 32MATH381, 32MET215, 32MET340, 32PHYS182. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

32MET435**Turbomachinery**

Practical design analysis of rotating machinery which operates with incompressible and/or compressible fluids: impulse and reaction turbines, centrifugal pumps and compressors, axial flow compressors, pumps and turbines. Tech. Option D, E. Prereq: 32MET330, 32MET340. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

32MET440**Mechanical Vibrations**

Free and forced, damped and undamped vibrations, equations of motion; LaGrange equations, natural frequencies and resonance. Vibrating Systems. Tech. Option D. Prereq: 32MET270, 32MET340. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

Mechanical Engineering Technologies**32MET444****Experimental Stress Analysis**

Experimental methods for determining stresses in complex parts; qualitative and quantitative techniques. Modeling and simulation; instrumentation and procedures; analysis of experimental results. Lec. and lab. Tech. Option D. Prereq: 32MET270. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

32MET445**Safety Engineering**

Course to provide an overview of Safety Engineering principles, including a review of applicable laws which can impact the design of products and equipment. Product liability and tools that can be used in the design process. Technical elective approved for all options (M, D, E). BoK: NA. Credit Level: U. Credit Hrs: 3.00

32MET470**Product Development**

Systematic methods and steps that have to be undertaken during the development of a product. The morphology of design; QFD (Quality Function Deployment) used to establish the customer needs; DFM (Design for Manufacturing), DFA (Design for Assembly), GT (Group Technology) methods for developing and selecting the best alternative designs, design for environmental considerations. Design teams will develop a new product using the above mentioned techniques. Lec. and lab. Prereq: 32MET370. BoK: QR, SE. Credit Level: U. Credit Hrs: 4.00

32MET472**Applied Finite Element Methods**

This project-oriented course includes Fundamentals of Finite Element Analysis. Displacement and energy methods. Analyzing engineering problems and components using commercial FEA software. Lec and lab. Tech. Option D. Prereq: 32MATH381, 32MET302, 32MET270. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

32MET475**Advanced Mechanical Design Technology**

Applications of modern computer-based concepts and techniques in the mechanical design process: three-dimensional graphics, Group Technology, finite element analysis, graphics applications programming. Lec. and lab. Tech Option D. Prereq: 32MATH381, 32MET270, 32MET370. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32MET480**PACKAGING MACHINERY**

Basic processes utilizing packaging machinery. Equipment and systems for specialized operations, material handling, distribution, storage and retrieval. Analysis of major types of packaging machinery from a practical and operational perspective. Contract specifications and selection. Prereq: 32MET380. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

32MET485**Bioengineering Technology II**

This is the second part of the bioengineering technology courses with emphasis on structural correlation of tissues and their mathematical modeling. Students will learn to apply modeling techniques used for analyzing selected soft tissues. Tech. Option D,M. Prereq: 32MET385. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

32MET486**Biomaterials**

This course introduces and covers materials that have good compatibility with the human body. Discussion of surface degradation, fatigue life, stress fracture, impact and other failure conditions will be also part of the course. Tech. Option D,M. BoK: NS., QR. Credit Level: U. Credit Hrs: 3.00

32MET490**SENIOR DESIGN SPECIFICATIONS**

An original effort by the students to investigate and solve an acceptable engineering problem. Students will prepare a proposal which will contain a project plan, including definitive technical and management

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LT: Literature. NS: Natural Sciences. QR: Quantitative Reasoning. SE: Social & Ethical Issues. SS: Social Sciences.

Mechanical Engineering Technologies**32MET490****SENIOR DESIGN SPECIFICATIONS**

objectives, technical specifications, time schedule and proposed budget. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32MET491**SENIOR SEMINAR**

Definition of complex engineering problems; analysis of the design/fabricate/test process; technical management of complex mechanical projects; time scheduling; cost estimating, budgeting, and cost control. Students will prepare an acceptable proposal for the Senior. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32MET492**Senior Design Project I**

Together with Senior Seminar and Senior Design Project II, the baccalaureate thesis. Students will execute an independent design-and-build project of substantial technological sophistication, based upon a project plan completed in Senior Seminar. Work in Senior Design Project I will normally include completion of a literature survey, working and assembly drawings, bill of materials, software flowcharts and regular reporting to a faculty project. Prereq: 32MET491. BoK: NA. Credit Level: U. Credit Hrs: 4.00

32MET493**Senior Design Project II**

A continuation of Sr Design Project I (32MET492): completion of the baccalaureate thesis, including proof-of-design, working demonstration and documentation. Students will prepare a professional quality written and bound report and will deliver an oral presentation and defense of the design thesis project. Approval of faculty advisor and department head to enroll. NOTE: Sr. Seminar, Sr. Design Project I & II are considered one continuous course. All grades will be issued upon completion of the sequence. Prereq: 32MET492. Coreq: 32ENGL493. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32MET495**Fundamentals Engineering Prep**

This course will help students prepare and review for the FE exam. The subjects in this course will serve as ONLY a review. This course contains brief reviews of: engineering math, probability & stat, chemistry, computers, ethics, economics, engineering mechanics, material properties, fluid electricity, thermodynamics. Specific engineering disciplines will not be covered. BoK: NA. Credit Level: U. Credit Hrs: 4.00

32MET498**Special Topics in Mechanical Engineering Technology**

Periodic introduction of important topics in the fields of mechanical design, energy systems and manufacturing. Perm of Department. BoK: NA. Credit Level: U. Credit Hrs: 1.00-15.00

32MET499**Independent Study**

Open to students only upon successful written petition. Perm of Department. BoK: NA. Credit Level: U. Credit Hrs: 1.00-15.00

32MET511**Heat Transfer II**

Extension of convective heat transfer to forced convection systems, particularly those with complex geometries. Application of the transient temperature technique to determine the heat transfer and fluid flow properties of complex systems in the flow regime of practical interest in air moving equipment (ventilation, heating, and cooling). 50% lab work. Tech Option E. Prereq: 32MET315. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

32MET512**Heat Transfer III**

Further techniques to determine the pertinent properties required to characterize convective heat transfer in complex geometries. In addition, fundamentals of radiative heat transfer. 50% lab work. Tech Option E. Prereq: 32MET511. BoK: NS, QR. Credit Level: U. Credit Hrs:

Mechanical Engineering Technologies**32MET512****Heat Transfer III**

3.00

Manufacturing Engineering Technology**32MFTN010****Machine Tool Fundamentals I**

Fundamentals of milling, lathe operations, cutter sharpening practice to provide reference material that may be of the broadest usefulness. Prereq: 32WLTN010, 32MATH021. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32MFTN011**Machine Tool Fundamentals II**

Drilling machines, planers, shapers, and all types of precision grinding machines. Basic operations performed, cutting tools used, set-ups, attachments used, proper care of equipment and safety precautions. Touches on N/C applications to machine tools. Prereq: 32MFTN010. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32MFTN021**Art Applications in Joining**

The object of the course is to make students familiar with basic joining operations on a hands-on level. The laboratory assignments cover SMAW-welding, GMAW/MIG-welding, GTAW/TIG-welding, RSW/spot-welding, oxy-fuel welding and brazing. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32MFTN022**Art Apps in Machining**

The object of the course is to give students the ability to choose and apply realistic machining principles. The course discusses material characteristics related to machinability, tool materials and machining parameter calculations, covering methods, such as turning, drilling, broaching, grinding, honing and lapping. The course additionally gives an overview of machining economy, automation and nontraditional machining methods. Material Fee. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32MFTN023**Art Apps in Cast & Form**

The objective of the course is to give students the ability to select and apply appropriate manufacturing methods for work having modest accuracy requirements. The course reinforces materials science associated with solidifying and heat treatment. Various state of the art casting, forging, forming, stamping, piercing and bending, methods are analyzed both from a manufacturing and design perspective. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32MFTN030**Introduction to Lean Manufacturing-FTP**

This course is for the professional. The course is designed to give the student the understanding of the five principles of Lean: value, value stream, flow, pull and perfection. The techniques for achieving Lean are presented: Waste, visual management, standards, Just-in-Time, developing defect free process, human involvement, Lean planning and the lean culture. Contemporary and lean manufacturing are contrasted. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32MFTN040**Introduction to Lean Manufacturing-FTP**

This course is for the professional. The course is designed to give the student the understanding of the five principles of Lean: value, value stream, flow, pull and perfection. The techniques for achieving Lean are presented: Waste, visual management, standards, Just-in-Time, developing defect free process, human involvement, Lean planning and the lean culture. Contemporary and lean manufacturing are contrasted. BoK: NA. Credit Level: U. Credit Hrs: 3.00

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Manufacturing Engineering Technology**32MFTN045****Industrial Plastics Technology**

Survey of properties, characteristics, and applications of synthetic thermoplastic and thermo-setting materials, composite materials; durability, design guidelines, testing practices. Prereq.: Basic knowledge of introductory chemistry, engineering materials, and design principles. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32MFTN050**Inspection**

General field of inspection analyzed: line inspection, final assembly, gauges, use and reading of micrometers, vernier calipers, indicators, etc. Threads, surface finish and shop terms discussed. Prereq: 32MATH021. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32MFTN054**Coordinate Measurement Machine (CMM) Operations**

Introduction to CMM methods, operations, and applications including: blueprint interpretation, inspection techniques, geometric dimensioning and tolerancing, repeatability and reproducibility analysis, and reverse engineering methods. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32MFTN055**LATHE AND DRILL FUNDAMENTALS**

Lecture and laboratory instructions on basic fundamentals of lathe operations which include safety, operation, set-up, tool selection, and standard shop procedures associated with the engine lathe. This course is coordinated with Lathe and Drill Operations (32MFTN056), which should be taken concurrently. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32MFTN056**LATHE AND DRILL OPERATIONS**

Laboratory instructions on lathe and drilling operations applying the knowledge gained in Lathe and Drill Fundamentals. The lathe and associated tools will be used to produce personal machinist tools as lathe operational skills are developed. Lathe and Drill Fundamentals (32MFTN055) must be taken concurrently unless waived by the department. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32MFTN057**Milling and Grinding Fundamentals**

Lecture and laboratory instructions on the basic fundamentals of milling and grinding operations which include safety, operation, set-up, tool selection, and standard shop procedures associated with the milling machine and surface grinder. This course is coordinated with Mill and Grind Operations (32MFTN058) which must be taken concurrently. Coreq: 32MFTN058. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32MFTN058**Milling and Grinding Operations**

Laboratory instructions applying the knowledge gained in Mill and Grind Fundamentals. The milling machine, surface grinder, and associated tools will be used to produce personal machinist tools as operations skills are developed. Mill and Grind Fundamentals (32MFTN057) must be taken concurrently unless waived by the department. Coreq: 32MFTN057. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32MFTN059**Advanced Machine Tool Operations**

Advanced skills development laboratory using the lathe, milling machine, surface grinder and the associated tools. Both the Lathe and Drill Operations as well as Mill and Grind Operations are prerequisites to take this class. The student will choose the project to make in this lab. Prereq: 32MFTN058, 32MFTN055. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32MFTN060**Machine Tool Operations I**

To achieve an understanding of the functions and operations of machine tools used in conventional machining. To develop familiarity with basic inspection methods and gages used in conventional machining. Prereq: 32MATH034, 32MET070, 32MFTN050,

Manufacturing Engineering Technology**32MFTN060****Machine Tool Operations I**

32MFTN010. BoK: NA. Credit Level: U. Credit Hrs: 2.00

32MFTN061**Machine Tool Operations II**

Fundamentals of operations and care of machine tools and use of gages. Thread chasing, knurling, milling, and drilling to produce parts that meet blueprint tolerances. Prereq: 32MFTN060. Coreq: 32MFTN065. BoK: NA. Credit Level: U. Credit Hrs: 2.00

32MFTN062**Manufacturing Projects**

Manufacturing problem solving and creative thinking skills development lab. This lab is directly related to working with tools and materials used in manufacturing to develop various projects. BoK: NA. Credit Level: U. Credit Hrs: 1.00-4.00

32MFTN065**CNC LATHE PROGRAMMING**

Introduction and overview of CNC two axis programming as related to the engine lathe. Standard practices using G and M codes will be used to write programs that will be run on CNC lathes or CNC simulators. Coreq: 32MFTN061. BoK: NA. Credit Level: U. Credit Hrs: 3.00-4.00

32MFTN066**CNC MILL PROGRAMMING**

Introduction and overview of CNC three axis programming as related to the milling machine. Standard practices using G and M codes will be used to write programs that will be run on CNC milling machines or CNC simulators. Prereq: 32MFTN065. Coreq: 32MET061. BoK: NA. Credit Level: U. Credit Hrs: 3.00-4.00

32MFTN067**CAM Profile**

Introduction and overview of computers, operating systems, and CAD drawing techniques as they relate to Computer Aided Machining. Simple profiles will be constructed using CAM software to produce the shapes needed for generating tool passes in the study of Computer Aided Machining. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32MFTN068**CAM Surface**

Introduction and overview of CAD solid modeling techniques as they relate to Computer Aided Machining. Simple solid models will be constructed using CAM software to produce the surfaces needed for generating tool passes in the study of Computer Aided Machining. Prereq: 32MFTN067. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32MFTN071**Tool Design I**

Instruction and practice in the design of tools, jigs and fixtures for maximum efficiency and economy of production. Prereq: 32MATH022, 32MET171. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32MFTN072**Tool Design II**

Continuation of Tool Design I. Prereq: 32MFTN071. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32MFTN080**Six Sigma-FTP**

This course is for the professional. Six Sigma is a professional survival must! The course will cover topics such as: The Rolled Throughout Yield, Review of Shewhart Control Charts, Review of Process Capability, Overview of Quality Functional Deployment, Overview of Failure Mode & Effect Analysis, Overview of Design of Experiments and the Idea of the Dynamic Mean. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32MFTN099**Independent Study in Manufacturing Certificates**

Opportunity for students to pursue topics of individual interest relevant to manufacturing certificate program goals. Open to students only upon

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Manufacturing Engineering Technology**32MFTN099****Independent Study in Manufacturing Certificates**

successful written petition. BoK: NA. Credit Level: U. Credit Hrs: 1.00-15.00

32MFTN131**Principles of Joining**

The objective of the course is to give student the ability to choose and apply feasible joining processes. The course covers basic material science including grid and grain structures, hardness, stress-strain curves and phase diagrams, together with joining processes such as - SMA-welding, MIG-welding, TIG-welding, gas welding soldering, spot-welding riveting and gluing. Coreq: 32MATH178, 32MFTN141. BoK: NA. Credit Level: U. Credit Hrs: 2.00

32MFTN132**Principles of Machining**

The objective of the course is to give the student the ability to choose and apply feasible machining principles. The course discusses material characteristics related to machinability, tool materials and machining parameter calculations, covering methods, such as turning, milling, drilling, broaching, grinding, honing and lapping. The course additionally gives an overview of machining economy, automation and nontraditional machining methods. Coreq: 32MFTN142, 32MATH178. BoK: NA. Credit Level: U. Credit Hrs: 2.00

32MFTN133**Principles of Casting and Forming**

The objective of the course is to give the student the ability to select and apply appropriate manufacturing methods for parts having modest accuracy requirements. The course reinforces material science associated with solidifying and heat treatment. Various state of the art casting, forging, forming, stamping, piercing and bending, methods are analyzed both from a manufacturing and from a design perspective. Coreq: 32MATH178. BoK: NA. Credit Level: U. Credit Hrs: 2.00

32MFTN141**Principles of Joining Laboratory**

The object of the course is to make the students familiar with basic joining operations on a hands on level. The laboratory assignments cover SMW-welding, MIG-welding, TIG-welding, spot-welding oxy-fuel welding and brazing. Coreq: 32MATH178, 32MFTN131. BoK: NA. Credit Level: U. Credit Hrs: 1.00

32MFTN142**Principles of Machining Laboratory**

The objective of the course is to make students familiar with elementary machining on a hands on level. The project assignments include turning, milling, tapping, grinding, alignment, and basic metrology. Coreq: 32MFTN132, 32MATH178. BoK: NA. Credit Level: U. Credit Hrs: 1.00

32MFTN143**CAM-Applications Laboratory**

The objective of the course is to make the student familiar with the hands on use of computer aided manufacturing tools in the machining of various three dimensional shapes. The projects give an introduction to commercial state of the art CAM-packages, and gives an ability to revise programs based on ISO standardized G and M codes. Additionally, the course demonstrates the application of CAM in the manufacture of elementary castings. Prereq: 32MET171, 32MFTN142, 32MET171, 32MET172. BoK: NA. Credit Level: U. Credit Hrs: 1.00

32MFTN210**CNC Technology**

The objective of the course is to make the students familiar with the use of full scale state of the art CNC-machines. The course covers canned cycles, tool offsets, machine specific coordinate systems, multi-axis machining, machine tool designs, tool wear control, CAM programming, machine tool drives and post-processing. The course includes programming and machining. BoK: NS. Credit Level: U. Credit Hrs: 3.00

Manufacturing Engineering Technology**32MFTN214****Sequencing and Fixturing**

The objective of the course is to give the student the ability to plan and design a manufacturing sequence for accurate and complex parts. The course discusses geometric tolerancing, machining forces, deformations, vibrations, fixturing, metrology and nontraditional manufacturing methods such as chemical machining, electro-chemical machining, laser machining, water jet machining, and electric discharge machining. BoK: NS. Credit Level: U. Credit Hrs: 3.00

32MFTN216**Manufacturing System Design**

The objective of the course is to give the student the ability to design a manufacturing system or cell, producing specific parts or products. The course is conducted in the form of a manufacturing unit design project, covering sequencing, tool and machine tool selection, work organization layout planning, basic ergonomics, cellular inventory management, continuous improvement, and cost analysis. BoK: NS. Credit Level: U. Credit Hrs: 3.00

32MFTN235**Statistical Quality Control**

Practical industrial applications of statistical techniques in quality control: control charts, accepted sampling, cost and legal implications of quality decisions; process control from product inspection data; analysis of inspection measurements; predictive models and simulation. Tech Option D, E. M. Prereq: 32MATH371, 32MFTN131, 32MFTN132, 32MFTN133. BoK: NS. Credit Level: U. Credit Hrs: 3.00

32MFTN250**Material Science**

Atomic structure and bonding: Structure of the atom, atomic bonding, crystal structures and crystal geometry: space lattice and unit cells, crystal systems, miller indices, crystallographic planes and directions, volume, planar, and linear density, allotropy. Imperfections: solidification of metals, solid solutions, crystalline imperfections. Mechanical properties of metals: stress and strain in metals, plastic deformation, recovery and recrystallization of plastically deformed metals, fracture, fatigue, and creep. Phase diagrams: Gibbs phase rule, non-equilibrium solidification of alloys, binary eutectic alloys. Dispersion strengthening by solidification. Dispersion strengthening by phase transformation: strengthening by exceeding solubility limits, age hardening, eutectoid reaction, controlling, eutectoid reaction, martensitic reaction and tempering. Engineering materials: Ferrous alloys, heat treatment, quench and temper heat treatments, effects of alloying elements, hardenability, stainless steels, cast irons. Nonferrous alloys: Aluminum alloys, magnesium alloys, nickel and titanium alloys. Prereq: 32CHEM174, 32MET241. BoK: NS. Credit Level: U. Credit Hrs: 4.00

32MFTN260**Logic Devices**

Course objective: to give the students the ability to automate industrial processes by using PLC's. Course focuses on binary pneumatic, hydraulic and electric (solenoids and elementary AC and DC motors). Feedback is registered through binary sensors and limit switches. Concepts covered: specifications, flow charts, user interfaces, allocation lists, wiring diagrams and system structured programming, giving hands-on practice in designing, programming and documenting PLC-based systems. Lec and Lab. Prereq: 32ELTN278, 32ELTN288. BoK: NS. Credit Level: U. Credit Hrs: 4.00

32MFTN280**CNC Systems**

Planning, development, and implementation of robotic workcells: layout and CNC programming of integrated manufacturing systems containing computer-controlled machine tools, robots, gauging, fixturing, and other automation components. Introduction to human factors in automation. Lec. and lab. Prereq: 32MFTN250. BoK: NS. Credit Level: U. Credit Hrs: 3.00

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Manufacturing Engineering Technology**32MFTN335****Six Sigma**

Six Sigma is a professional survival must! The course will cover topics such as: The Rolled Throughout Yield, Review of Shewhart Control Charts, Review of Process Capability, Overview of Quality Functional Deployment, Overview of Failure Mode & Effect Analysis, Overview of Design of Experiments and the Idea of The Dynamic Mean. Technical Elective approved for all options (M, D, E). BoK: QR. Credit Level: U. Credit Hrs: 3.00

32MFTN340**Introduction to Lean Manufacturing**

The course is designed to give the student the understanding of the five principles of Lean: value, value stream, flow, pull and perfection. The techniques for achieving Lean are presented: Waste, visual management, standards, Just-in-Time, developing defect free process, human involvement Lean planning and the lean culture. Contemporary and lean manufacturing are contrasted. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32MFTN342**Materials Science II**

Heat treatment of ferrous and non-ferrous metals, effects on microstructure and properties, process controls. Powder metallurgy and ceramics; formulation, processing and properties. Semiconductor materials. Lec. and lab. Tech. Option M. Prereq: 32MFTN250. BoK: NS. Credit Level: U. Credit Hrs: 3.00

32MFTN345**Engineering Plastics**

Introduction to the nature, properties and chemistry of synthetic thermoplastic and thermosetting materials; composite materials; durability, design guidelines, testing practices. Applications in consumer goods, industrial products, transportation. Tech. Option D,M,T. Prereq: 32CHEM174, 32MET270, 32MFTN131. BoK: NS. Credit Level: U. Credit Hrs: 3.00

32MFTN347**Plastics Processing**

Manufacturing processes used in the production of thermoplastic, thermoset and composite consumer goods and industrial products: production equipment, tooling, finishing, processing conditions. Tech. Option T,E,M. Prereq: 32MFTN131, 32MFTN132, 32MFTN133, 32MFTN345. BoK: NS. Credit Level: U. Credit Hrs: 3.00

32MFTN349**Forming Theory & Practice**

This course is designed to give the student an overall knowledge of metal forming, shearing, punching and forming tooling as it is used in industry. Lecture and test materials will discuss the application of this information and how it is used by the product engineer, manufacturing engineer and shop personnel. Information on product liability will be included. The course will be broken into lecture and problem solving classes. Tech. Option M. Prereq: 32MFTN133, 32MET172. Coreq: 32MFTN250. BoK: NS. Credit Level: U. Credit Hrs: 3.00

32MFTN350**Metrology**

Theory of dimensional measurement, uncertainty, sampling plans, statistical data analysis; national standards and shop calibration of measuring instruments; automated inspection methods and practices in unattended manufacturing, introduction to machine vision, optical tactile sensors, applications in feedback control of machine tools. Lec & Lab. Tech Option M. Prereq: 32MATH371, 32MATH381, 32MET340, 32ELTN381. BoK: NS. Credit Level: U. Credit Hrs: 3.00

32MFTN430**Product and Production Planning**

Correlation of design and manufacturing requirements; planning of manufacturing operations for parts and assemblies; production time and cost estimating; introduction to computer techniques in: group technology, material requirements planning, capacity requirements planning. Lec. and lab. Tech Option D,M. Prereq: 32ECON286,

Manufacturing Engineering Technology**32MFTN430****Product and Production Planning**

32MFTN131. BoK: NS. Credit Level: U. Credit Hrs: 3.00

32MFTN431**CIM Systems Management**

Management of integrated computer-aided-technology systems: geometric and analytical CAD models, CADD drawing files, database integration and management, CAM/CNC part programming files, networking and interfacing. Applications in networks of advanced microcomputers and workstations, group technology, file transfers. Tech Option D,M. BoK: NS. Credit Level: U. Credit Hrs: 3.00

32MFTN440**Principles of Non-Destructive Testing**

Non-Destructive testing has its roots in the military, nuclear and aerospace worlds, beginning in the Second World War and has spread into the Construction industry and plant maintenance operations where premature failure can result in significant financial losses. In the current world of ISO 9000 and "Six Sigma" quality certification, it has become an important tool in insuring that a company's products will perform their designed tasks without failure. This course will familiarize the student with the theories and application of the nine major nondestructive testing methods and enable the student to choose the appropriate nondestructive testing methods to evaluate components and structures to perform their intended use without premature failure. BoK: QR. Credit Level: U. Credit Hrs: 3.00

32MFTN460**Manufacturing Automation**

The course gives the ability to build advanced automated systems by using industrial robots, CNC machines, manipulators, PLCs and other microprocessor controlled systems. Hands-on competency is reached on systems realized by tailored binary I/O-based protocols. More complex systems are covered on a specification level. The course covers communication hierarchies (master-slave, client-server, sequential synchronization), communication protocols (standard high level protocols and tailored low level protocols, I/O protection (relays and opto couplers), communication hardware (serial communication, parallel communication and networks), the syntax and semantics of various industrial control languages (CNC languages, PLC languages, industrial robots and personal computers), reliability analysis (FTA) and safety issues. Lec and Lab. Prereq: 32MFTN132, 32MFTN143, 32MFTN260, 32MET370. BoK: NS. Credit Level: U. Credit Hrs: 4.00

32MFTN465**Control Theory**

Dynamic systems with feedback control; servomechanisms; performance and stability of mechanical systems. Digital control systems, stepper motors; encoders; D/A computer interfacing networked control devices; programmable controllers; CNC control devices. Sensory feedback. Applications in automated machine tools and robotics. Block diagramming, control programming via relay logic and scientific computer language. Nyquist & Bode diagrams; Laplace techniques. Tech. Option D. Prereq: 32MET302, 32MET350. BoK: NS. Credit Level: U. Credit Hrs: 3.00

32MFTN483**Materials Handling Systems**

Methods of automatically transferring workpieces, assemblies, tooling, scrap and other articles in manufacturing plants and warehouses. ASR systems, conveyors, robotic transfer devices, buffers, fixturing, sensors, controls. Tech Option M. Prereq: 32MET270, 32MFTN131, 32MFTN132, 32MFTN133. BoK: NS. Credit Level: U. Credit Hrs: 3.00

32MFTN497**International Manufacturing Studies Series**

Special elective course taught by international faculty. Tech Option D,E,M. BoK: NS., QR. Credit Level: U. Credit Hrs: 3.00

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Manufacturing Engineering Technology**32MFTN498****Special Topics in Manufacturing**

Periodic introduction of important topics in the fields of mechanical design, energy systems and manufacturing. BoK: NA. Credit Level: U. Credit Hrs: 1.00-15.00

32MFTN499**Independent Study in Manufacturing**

Open to students only upon successful written petition. BoK: NA. Credit Level: U. Credit Hrs: 1.00-15.00

32MFTN555**TLH Student Exchange**

Limited to foreign exchange students. Permission of department required. Perm of Instructor. BoK: DC. Credit Level: U. Credit Hrs: 1.00-15.00

32MFTN580**Advanced Manufacturing Systems**

Analysis and assessment of applications of advanced technology in manufacturing systems for industrial and consumer products. Tech Option M. BoK: NS., QR. Credit Level: U. Credit Hrs: 3.00

32MFTN596**Problems in Manufacturing Management**

Analysis of modern manufacturing operations from economic and financial perspectives: costing, capital budgeting, investment recovery. BoK: NS., QR. Credit Level: U. Credit Hrs: 3.00

Management**32MGMT201****Human Resource Management**

Background development of Human Resources Management, change and challenges, organizational considerations, job requirements, human resources planning and recruitment, analyzing qualifications of job candidates, making selection decisions, training employees, career development, evaluating and improving performance. BoK: SE. Credit Level: U. Credit Hrs: 3.00

32MGMT215**Directed Study - Management**

This course is designed for students who require individualized instruction in management. Perm of Instructor. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32MGMT251**Labor Relations and Collective Bargaining**

An overview of the labor relations and collective bargaining process. The development of unions and collective bargaining in the United States. Current trends in industrial relations and public policy. A case study approach. Prereq: 32ECON286. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32MGMT255**Principles of Supervision I**

The supervisor and diversity, the supervisor's job, skills of supervision, organizing and delegating, planning and control, making sound and creative decisions, improving communication and handling conflict, the supervisor as a leader and motivator. BoK: SE. Credit Level: U. Credit Hrs: 3.00

32MGMT256**Principles of Supervision II**

Understanding groups and teamwork, safety and health in the work place, improving productivity, supervising "problem" employees, appraising performance, selecting and training employees, management of time, ethics and organizational politics. Prereq: 17MGMT255. BoK: SE. Credit Level: U. Credit Hrs: 3.00

32MGMT261**Introduction to Management**

An overview of the basic concepts of management, beginning with the planning function and concluding with the control function. Emphasis is

Management**32MGMT261****Introduction to Management**

given to defining the management process, reviewing management history, the changing environment of management, planning and decision making. BoK: SE. Credit Level: U. Credit Hrs: 3.00

32MGMT262**Principles of Management II**

Motivating job performance, group dynamics, power, leadership and behavior modification, organization development, managing information, operations management, and international management. Prereq: 32MGMT261. BoK: SE. Credit Level: U. Credit Hrs: 3.00

32MGMT271**Small Business Management**

An applied introduction to starting or buying a business. Topics include: franchising, locating, financing, marketing, and developing a marketing plan. BoK: SE. Credit Level: U. Credit Hrs: 3.00

32MGMT272**Introduction to the New Business Venture**

An overview of all aspects of starting and operating a successful business venture to provide a fundamental understanding of the processes to complete the marketing, financial, and organizational plans which are the foundation of a meaningful business plan. BoK: SE. Credit Level: U. Credit Hrs: 3.00

32MGMT273**Creating a Business Plan**

The development, communication, and implementation of a strategic plan for a new or existing business. Prereq: 32MGMT272. BoK: SE. Credit Level: U. Credit Hrs: 3.00

32MGMT274**Basic Entrepreneur**

This course will focus on the basic issues that will be central to personal goal setting and decision making for the budding entrepreneur or small business owner. Prereq: 32ECON141. BoK: SE. Credit Level: U. Credit Hrs: 3.00

32MGMT290**Directed Studies in Free Enterprise I**

Directed Studies in Free Enterprises. A didactic opportunity for students to participate in experiential internships or Students in Free Enterprise projects. Requires a minimum of thirty contact hours of participation. Perm of Instructor. BoK: SE. Credit Level: U. Credit Hrs: 3.00

32MGMT291**Directed Studies in Free Enterprise II**

Directed Studies in Free Enterprises. A didactic opportunity for students to participate in experiential internships or Students in Free Enterprise projects. Requires a minimum of thirty contact hours of participation. Perm of Instructor. BoK: SE. Credit Level: U. Credit Hrs: 3.00

32MGMT292**Directed Studies in Free Enterprise III**

Directed Studies in Free Enterprises. A didactic opportunity for students to participate in experiential internships or Students in Free Enterprise projects. Requires a minimum of thirty contact hours of participation. Perm of Instructor. BoK: SE. Credit Level: U. Credit Hrs: 3.00

32MGMT293**Directed Studies in Free Enterprise IV**

Directed Studies in Free Enterprises. A didactic opportunity for students to participate in experiential internships or Students in Free Enterprise projects. Requires a minimum of thirty contact hours of participation. Perm of Instructor. BoK: SE. Credit Level: U. Credit Hrs: 3.00

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Management**32MGMT294****Directed Studies in Free Enterprise V**

Directed Studies in Free Enterprises. A didactic opportunity for students to participate in experiential internships or Students in Free Enterprise projects. Requires a minimum of thirty contact hours of participation. Perm of Instructor. BoK: SE. Credit Level: U. Credit Hrs: 3.00

32MGMT295**Directed Studies in Free Enterprise VI**

Directed Studies in Free Enterprises. A didactic opportunity for students to participate in experiential internships or Students in Free Enterprise projects. Requires a minimum of thirty contact hours of participation. Perm of Instructor. BoK: SE. Credit Level: U. Credit Hrs: 3.00

32MGMT371**Management Theory**

An in-depth analysis of management theories. The course addresses motivation, job performance, group dynamics, power leadership, behavior modification, organization development, managing information, operations management. The course focuses on managerial communication in the organization. Prereq: 32MGMT261. BoK: SE. Credit Level: U. Credit Hrs: 3.00

32MGMT375**Small Business Management**

An applied introduction to starting or buying a business. Course addresses the business plan, the operations team, financing, marketing plan. Focus is on the business niche, the business plan and strategic planning and marketing. Prereq: 32MGMT261. BoK: SE. Credit Level: U. Credit Hrs: 3.00

32MGMT383**Labor Relations and Collective Bargaining**

An overview of the labor relations and collective bargaining process. Topics covered will include: the legal aspects of collective bargaining, management strategies and structure for collective bargaining, union strategies and structures for representing workers, the negotiation process and strikes, contract terms and employment outcomes, participatory processes. A case study approach will be used. Prereq: 32MGMT261. BoK: SE. Credit Level: U. Credit Hrs: 3.00

32MGMT385**Human Resource Management and Supervision**

The course covers history of human development, management, staff planning, selection, recruitment, evaluation, labor relations, collective bargaining, industrial relations, discipline, compensation, incentives, handling conflicts, time management, ethics, and organizational politics. Prereq: 32MGMT261, 32FHM142, 32FHM152, 32FHM162. BoK: SE. Credit Level: U. Credit Hrs: 3.00

Marketing**32MKTG215****Directed Study - Marketing**

This course is designed for students who require individualized instruction in Marketing. Perm of Instructor. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32MKTG275**Marketing**

Basic concepts of marketing and the application of these concepts in making decisions and managing marketing activities. Concentration on development of a marketing strategy: target markets, product, price, distribution and promotion. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32MKTG283**Principles of Retailing**

The nature of retailing, ethical and legal issues, evolution of retail institutions, buying behavior of consumers, organizational structure of small and large retail firms, staffing and personnel issues, designing store facilities, ensuring store security, site selection, product mix,

Marketing**32MKTG283****Principles of Retailing**

buying procurement and inventory control. Prereq: 32MKTG275. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32MKTG284**Principles of Personal Selling**

Principles and practices of professional personal selling. Emphasis on relationship selling and the development of a professional sales presentation. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32MKTG371**Advertising**

Concepts and techniques of advertising and promotions from a marketing management perspective. Topics are addressed to advance promotion of product. Advertising and public relations issues are emphasized. Contemporary techniques of direct marketing, catalog and web based advertising are stressed. Prereq: 32MKTG275. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32MKTG372**Retailing**

This course will cover the various aspects of retailing. The course will address ethical and legal issues, consumer behavior, organizational structure, personnel, security, site selection, product mix. Topics addressed from management perspectives. Principles addressed are applicable to project management and planning for decision makers who will market products to consumers and to the trade. Prereq: 32MKTG275. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32MKTG373**Personal Selling**

Persuasive oral communication from a business perspective. Emphasis on student application of personal selling principles. Prereq: 32MKTG275. BoK: NA. Credit Level: U. Credit Hrs: 3.00

Multidisciplinary**32MLTI150****Culinary Dual Admission**

Placeholder class for students participating in the UC/Cincinnati State Culinary Program. BoK: NA. Credit Level: U. Credit Hrs: 0.00

32MLTI171**Learning Across Disciplines I**

This course is designed to give new students the opportunity to obtain skills that are important for their success in the college, irrespective of their field of study. It will include very specific skills such as reading and interpreting graphs, to more general skills such as critical thinking and writing. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32MLTI172**Learning Across Disciplines II**

Continuation of 32MLTI171. Prereq: 32MLTI171. BoK: NA. Credit Level: U. Credit Hrs: 3.00

Professional Development**32PD101****Adult Transitions**

An introduction to the University and policy and procedures necessary for a successful transition to the academic environment for adult students. This course should also provide an opportunity to serve as a support system for adults returning to the classroom after a period of functioning in roles other than that of a student. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32PD132**Professional Development I**

Serves as a career orientation vehicle. The basics of career planning are taught in addition to the methodology and tooling of career entrance, change and advancement. BoK: NA. Credit Level: U. Credit Hrs: 1.00

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Professional Development

32PD432

Professional Development II

A career planning class covering the methodology and skills of career entrance, change and advancement. Topics include self-assessment, tools of the job search, interviewing techniques and Web interface as part of overall research methodology. BoK: NA. Credit Level: U. Credit Hrs: 1.00

Philosophy

32PHIL182

Contemporary Moral Issues

Philosophical and ethical issues underlying major controversies of the day: rights, freedom and punishment; sex, euthanasia, abortion, and others. Transfer Module. BoK: HU, SE. Credit Level: U. Credit Hrs: 3.00

32PHIL301

Logic - Induction

A consideration inductive (probable) inference. Topics include: language, definitions, fallacies, analogical and causal reasoning, science and hypothesis, probability. BoK: HU., QR. Credit Level: U. Credit Hrs: 3.00

32PHIL302

Logic - Deduction

A consideration of deductive (certain) inference. Topics include: categorical propositions and syllogisms, symbolic logic, methods of deduction, quantification theory. BoK: HU., QR. Credit Level: U. Credit Hrs: 3.00

32PHIL325

Ethics in the Applied Sciences

Survey of basic ethical insights from various cultures; relation of basic ethical insights to codes of professional conduct in various applied sciences; use of cases in problem-based learning, active student participation. Prereq: 32ENGL103. BoK: SE, DC. Credit Level: U. Credit Hrs: 3.00

32PHIL350

Philosophies in Global Context

What our international neighbors believe becomes increasingly important as we move into the "global village." Each geographical/cultural area of the world has a distinctive philosophical or wisdom tradition. By studying selected traditions, we will get to know our global neighbors better. Prereq: 32ENGL101, 32ENGL102, 32ENGL103. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

32PHIL365

Religions in a Secular, Scientific Age

Purposes are: 1-to build religious literacy; 2-to compare and contrast beliefs, practices, etc. of religions; and 3-to reflect philosophically on religions in secular and scientific context. Prereq: 32ENGL101, 32ENGL102. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

32PHIL371

Ethics and Social Issues in the Workplace

This course explores the various philosophical and social theories, issues, and documentation produced in workplace setting, considering questions of ethics and values likely to arise in the course of professional careers. BoK: HU., SE. Credit Level: U. Credit Hrs: 3.00

Physics

32PHYS020

Preparatory Physics I

An introduction to the principles of Physics with an emphasis on problem solving. Topics include systems of measurement and conversion, vectors, Newtonian mechanics. NOTE: This course will not meet any OCAS degree requirements for Physics. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32PHYS021

Preparatory Physics II

Continuation of an introduction to the principles of Physics with an

Physics

32PHYS021

Preparatory Physics II

emphasis on problem solving. Topics include Newtonian mechanics, work, energy and power. NOTE: This course will not meet any OCAS degree requirements for Physics. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32PHYS181

Physics For Technology I

Vectors, kinematics, statics, Newton's Laws, gravity, work, energy, momentum, collisions. Prereq: 32MATH178. BoK: QR, NS. Credit Level: U. Credit Hrs: 3.00

32PHYS182

Physics For Technology II

Rotation, elasticity, vibration, waves, fluids, heat and thermodynamics. Prereq: 32PHYS181, 32PHYS186. Coreq: 32PHYS187. BoK: QR, NS. Credit Level: U. Credit Hrs: 3.00

32PHYS183

Physics For Technology III

Electricity and magnetism, optics. Prereq: 32PHYS182, 32PHYS187. Coreq: 32PHYS188. BoK: QR, NS. Credit Level: U. Credit Hrs: 3.00

32PHYS186

Physics For Technology I Laboratory

Laboratory course to accompany Physics for Technology I (32PHYS181). Coreq: 32PHYS181. BoK: NA. Credit Level: U. Credit Hrs: 1.00

32PHYS187

Physics For Technology II Laboratory

Laboratory course to accompany Physics for Technology II (32PHYS182). Prereq: 32PHYS181, 32PHYS186. Coreq: 32PHYS182. BoK: NA. Credit Level: U. Credit Hrs: 1.00

32PHYS188

Physics For Technology III Laboratory

Laboratory course to accompany Physics for Technology III (32PHYS183). Prereq: 32PHYS182, 32PHYS186. Coreq: 32PHYS183. BoK: NA. Credit Level: U. Credit Hrs: 1.00

32PHYS291

Physics For Engineering And Science Students I

A calculus based course. Measurement, motion (1D,2D,3D), Newton's Laws, equilibrium, gravity, particle dynamics, work and energy, impulse and momentum. Prereq: 32MATH245. BoK: QR. Credit Level: U. Credit Hrs: 4.00

32PHYS292

Physics For Engineering And Science Students II

A calculus based course. Rotational kinematics and dynamics, special relativity, oscillations, fluids, waves, thermal energy and thermodynamics. Prereq: 32PHYS291, 32MATH245. BoK: QR. Credit Level: U. Credit Hrs: 4.00

32PHYS293

Physics For Engineering And Science Students III

A calculus based course. Electric charge, field and potential, Gauss' Law, circuit elements, basic circuits, circuit analysis, magnetic field, AC circuit, Maxwell's Equations, optics (reflection, refraction), diffraction, optical instruments. Prereq: 32MATH381, 32PHYS292. BoK: QR. Credit Level: U. Credit Hrs: 4.00

32PHYS296

Physics For Engineering And Science Students I Lab

Laboratory course to accompany 32PHYS291. Coreq: 32PHYS291. BoK: NA. Credit Level: U. Credit Hrs: 1.00

32PHYS297

Physics For Engineering And Science Students II Lab

Laboratory course to accompany 32PHYS292. Prereq: 32PHYS296. Coreq: 32PHYS292. BoK: NA. Credit Level: U. Credit Hrs: 1.00

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Physics**32PHYS298****Physics For Engineering And Science Students III Lab**

Laboratory course to accompany 32PHYS293. Prereq: 32PHYS293.

Coreq: 32PHYS297. BoK: NA. Credit Level: U. Credit Hrs: 1.00

32PHYS299**Independent Study Physics**

Independent study of Physics under faculty supervision. Requires previous written permission of the professor conducting the course for each student before registration. Perm of Department. BoK: NA. Credit Level: U. Credit Hrs: 1.00-12.00

32PHYS396**Thermal Physics for Applied Science**

This course covers the basics of thermal physics and thermodynamics from a statistical viewpoint. The subject is simple and elegant but the results are powerful and used throughout all science and technology. A review of simple thermodynamics ideas and concepts (ideal gas laws and Laws of Thermodynamics) will be followed by a study of the molecular underpinnings of those laws from a statistical and quantum mechanical viewpoint. Students will learn the basic phenomena behind their studies of heat flow and transfer, entropy enthalpy, etcetera.

Prereq: 32MATH381. BoK: NS. Credit Level: U. Credit Hrs: 3.00

32PHYS396H**Thermal Physics for Applied Science**

This course covers the basics of thermal physics and thermodynamics from a statistical viewpoint. The subject is simple and elegant but the results are powerful and used throughout all science and technology. A review of simple thermodynamics ideas and concepts (ideal gas laws and Laws of Thermodynamics) will be followed by a study of the molecular underpinnings of those laws from a statistical and quantum mechanical viewpoint. Students will learn the basic phenomena behind their studies of heat flow and transfer, entropy enthalpy, etcetera.

Prereq: 32MATH381. BoK: NS. Credit Level: U. Credit Hrs: 3.00

32PHYS476H**Thermal Physics For Non-Physicists I**

Honors Course. Basic ideas in thermodynamics. Emphasis is on basic ideas and principles with mathematical rigor kept to a minimum. Brief introduction to simple quantum mechanics and quantum states. Then, using the idea of a quantum state thermal Physics is explored including such topics as the laws of thermodynamics, temperature, entropy, internal energy, osmotic pressure, chemical reactions, semiconductors, and superconductors. BoK: QR., NS. Credit Level: U. Credit Hrs: 3.00

32PHYS477H**Thermal Physics For Non-Physicists II**

Honors Course. Continuation of 32PHYS476H. Prereq: 32PHYS476H. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

32PHYS499**Independent Study in Physics**

Please complete and submit an Independent Application form available from the college office. Perm of Department. BoK: NA. Credit Level: U. Credit Hrs: 1.00-12.00

Political Science**32POL201****American Government and Politics I**

After study of the constitutional and cultural basis of the American governmental system, emphasis will be on the public's involvement in the political system -- political parties, interest groups, public opinion, voting, campaigns, elections. Transfer Module. BoK: SS. Credit Level: U. Credit Hrs: 3.00

32POL202**American Government and Politics II**

A study of the Presidency, Congress, the judiciary, the bureaucracy and their policy-making roles. Transfer Module. BoK: SS. Credit Level: U. Credit Hrs: 3.00

Political Science**32POL203****American Government and Politics III**

A study of the U.S. government dealing with other nations and dealing, internally, with state government, as well as state governments' relations with their own citizens. Transfer Module. BoK: SS. Credit Level: U. Credit Hrs: 3.00

32POL251**Survey of Constitutional Law**

A survey of the principles of the American Constitution and Supreme Court decision making, including judicial review, separation of powers, civil rights and civil liberties. BoK: SS., SE. Credit Level: U. Credit Hrs: 3.00

32POL323**Contemporary Global Issues**

An examination of major problems confronting the world. BoK: SS., DC. Credit Level: U. Credit Hrs: 3.00

32POL324**Technology, Space And Global Cities**

The ongoing globalization of markets and culture has transformed the modern cityscape. The objective of this course is to examine the integration of politics, usage, and innovative technologies on the urban landscape through a series of global case studies. BoK: HP., DC. Credit Level: U. Credit Hrs: 3.00

32POL325**Politics and Food**

This course examines the ways in which food companies use political processes to obtain government and professional support. It examines the American diet, marketing strategies of the food industry, and its use (and misuse) of the political system. Prereq: 32ENGL103. BoK: SS, SE. Credit Level: U. Credit Hrs: 3.00

32POL330H**The Killing Fields: Genocide and the Modern Age**

The course will examine the documents that have circulated around the construction of and the response to genocide. Always a technological and rhetorical event, genocide depends increasingly upon the use of the mass media to identify and spearhead violent actions, and the technologies of killing to continue to develop so that mass destruction is ever more available to smaller and smaller groups. Students will examine the historical and political ideologies that service and mobilize programs of identification, isolation, expropriation, deportation and elimination that accompany these events as well as the testimonies of those who have survived or fallen victim to them. Students will increase their critical writing and thinking skills. BoK: HU., SS. Credit Level: U. Credit Hrs: 3.00

32POL397H**Global Urban Politics and Space Usage**

The objective of this course is to examine the integration of politics, space usages, and innovation technologies on the urban landscape. Global urban problems, such as organization and space utilization, may be approached using three perspectives that will be studied in this course: 1) understanding the politics of urban space usage, 2) the politics and economics of technology innovation in the urban setting, and 3) the interactions of culture, technology, and politics in the organization of the cityscape. The course facilitates students' reconceptualization of the urban landscapes, politics, and economics. BoK: HU., SS. Credit Level: U. Credit Hrs: 3.00

32POL398H**International Politics And The Technological Frontier**

This course investigates the establishment of national and international technology policies using a series of case studies. The fundamental question underlying this class is examining what are the basic political, social, and economic rationales for the promotion of specific technologies in particular communities. BoK: SS., HP. Credit Level: U. Credit Hrs: 3.00

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Psychology**32PSYC141****Principles of Psychology I**

The beginning course in psychology which covers history, research, biological topics, sensation and perception, memory, intelligence, cognition and language. Transfer Module. BoK: SS. Credit Level: U. Credit Hrs: 3.00

32PSYC142**Principles of Psychology II**

A beginning course in psychology which covers Life Span Development, Learning and Conditioning, Personality Theories and Testing, Abnormal Psychology and Therapies. Prerequisite: Psych 141 Transfer Module. BoK: SS. Credit Level: U. Credit Hrs: 3.00

32PSYC171**General Psychology**

An introduction to psychology. Topics include learning, motivation, perception, and personality. Practical application of principles of psychology supplement text. Transfer Module. BoK: SS. Credit Level: U. Credit Hrs: 3.00

32PSYC181**General Psychology Laboratory**

Laboratory instructions for General Psychology (32PSYC171) BoK: NA. Credit Level: U. Credit Hrs: 1.00

32PSYC271**Learning & Problem Solving**

The first half of the course will focus upon how human and other animals learn. The behavior analytic perspective will be emphasized, however cognitive approaches and other current learning theories will be addressed. The second half of the course will cover basic problem strategies. Students will be presented with several varied problem solving approaches as well as how to avoid common problem solving errors. BoK: SS. Credit Level: U. Credit Hrs: 3.00

32PSYC371**Psychology of Work Teams**

An experiential approach to participative decision making including quality circles, socio-technical committees, and other applications of Theory Z. Prereq: 32PSYC171. BoK: SS. Credit Level: U. Credit Hrs: 3.00

32PSYC373**Managerial Psychology**

Study of concepts and practices applicable to managing human behavior in the business and industrial setting, using case studies and game simulations. Prereq: 32PSYC171. BoK: SS. Credit Level: U. Credit Hrs: 3.00

32PSYC374**Behavioral Technology**

This course is designed to present the student with the technical concepts and the technical procedures used in applying behavior analytic principles. Student will learn how to more effectively manage their own behavior and also will learn how behavior analysis is applied in various settings including: schools, sports, business and industry institutions, homes, the community, etc. Students will also learn about and discuss the ethics surrounding the use of behavioral technology. BoK: SS. Credit Level: U. Credit Hrs: 3.00

32PSYC375**Social Psychology**

This course will present theories and research pertaining to Social Psychology. Students will explore explanations of human social behavior in an attempt to broaden their understanding of why people behave in particular ways in social situations. Students will be encouraged to relate personal experience to their growing awareness and understanding as the course progresses. BoK: SS. Credit Level: U. Credit Hrs: 3.00

Psychology**32PSYC376****Psychology of Sport**

The role of psychological aspects of human behavior as it affects performance in sports. Topics include violence and deviant behavior in sport, sport aggression, extrinsic and intrinsic motivation in sport. Prereq: 32PSYC171. BoK: SS. Credit Level: U. Credit Hrs: 3.00

Reading**32READ086****Math Success Seminar/Effective Reading Paired with Elementary Algebra**

A course to improve reading and learning strategies for better comprehension of math courses. Students learn self-direction in mastering math concepts and principles of effective communication in the language of mathematics by integrating reading, writing, speaking, and listening. This course is designed to be taken in conjunction with basic math courses. The content of the math courses is used to assist student in the attainment of the necessary learning strategies. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32READ088**Accelerating Toward Learning and Academic Success (ATLAS)**

This course is required of all students who are on suspension warning and suspension appeal and is strongly recommended to any student with below 2.0 GPA. Intensive, individualized instruction will address anxiety, attitude, and motivation as they affect college student behaviors. BoK: NA. Credit Level: U. Credit Hrs: 3.00

Sports Management**32SMGT171****Introduction to Sport Administration**

The definition and evolution of sport management. This course will explore various careers in professional, collegiate, high school and other areas of sport management. The student will define professional goals based on personal strengths and weaknesses in light of skills and competencies of sport leaders. BoK: SE. Credit Level: U. Credit Hrs: 3.00

32SMGT373**Sport Finance**

This course seeks to develop a comprehensive understanding of the impact of finance on sport management. Topics include financial planning and administration for professional athletes, inter-collegiate administrations, and the public/private sport industry. The student will become familiar with financial statement analysis, budgeting, operating expenses, risk/return models, revenue sources and their eventual impact on sport management. Prereq: 32FIN371. BoK: QR. Credit Level: U. Credit Hrs: 3.00

32SMGT374**Sport Marketing**

The marketing planning process relative to the sport industry. This course will focus on development of a marketing strategy with consideration to the unique aspects of sport marketing. Topics include selection of a target market and sport consumer behavior as well as decisions on product, distribution, price and promotion. Prereq: 32MKTG275. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32SMGT387**Sport Management**

The basic concepts of management applied to a variety of sport settings. This course will emphasize strategic planning, creating an organizational structure, staffing, leadership and motivation, as well as controlling the sport organization. Prereq: 32MGMT371. BoK: SE. Credit Level: U. Credit Hrs: 3.00

32SMGT441**Senior Project I**

This course provides the student with the opportunity to bring together in a comprehensive manner all of the subjects covered in the program and the additional experiences gained from the co-op. Perm of

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Sports Management**32SMGT441****Senior Project I**

Instructor. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32SMGT442**Senior Project II**

This course provides the student with the opportunity to bring together in a comprehensive manner all of the subjects covered in the program and the additional experiences gained from the co-op. Perm of Instructor. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32SMGT471**Sport Facility & Event Management**

An overview of planning and design of an athletic facility. This course will focus on the management of venues and events, venue and event operations and maintenance, as well as venue and event programming and scheduling. Prereq: 32SMGT387. BoK: SE. Credit Level: U. Credit Hrs: 3.00

32SMGT473**Athletic Fundraising**

This course is designed to create a complete understanding of the development industry. The student will be made aware of the roles, functions, economic needs/goals, and responsibilities of those who manage fund raising activities for both private and public facilities, including specific marketing techniques, communication responsibilities, and relationship building programs. The student will also review the ethical and legal natures connected to both collegiate and public fundraising. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32SMGT475**Sport and the Media**

This course will prepare the student in the area of sport media and media relations. Sport and the media develops an understanding of advertising, public relations, public relations, sport information, promotions, and writing for sport publications. The student will be made aware of the interactive nature between television, radio, sport marketing and management firms, sport stat researchers, sport video production and the internet. All aspects if the media will be explored including specialized sport media techniques and strategies. Prereq: 32SMGT374. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32SMGT483**Sport Governance**

This course is designed to provide knowlege of the organizational structure, authority and functions of governing bodies in professional and amateur sport, with emphasis on the role of the National Collegiate Athletic Association in collegiate athletics, and awareness of the influence of state and federal government on sport governing bodies. Prereq: 32SMGT387. BoK: SS, SE. Credit Level: U. Credit Hrs: 3.00

32SMGT485**Sport Public Relations**

The importance of positive relations with both external and internal publics in the field of sports. This course will focus on the various tools available to effectively communicate with relevant stakeholders, from group to mass communication. Sport Public Relations will feature a case study approach. Prereq: 32SMGT374. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32SMGT487**Ethical Issues in Sport**

An analysis of moral and ethical issues in organized sport. Emphasis is placed on concepts of morality, professional ethics, and personal management values. Ethical dilemmas and conflicts will be discussed, as well as coaching, funding and management practices. Upon completion of the student should be able to apply ethical theories to typical problems in the world of sport. BoK: NA. Credit Level: U. Credit Hrs: 3.00

Sports Management**32SMGT489****Current Topics in Sport**

This course is designed for senior Sport Management majors. The course studies current issues, problems and trends in sport from a socio- cultural, management, ethical, marketing, communication, financial, legal, goverance or economic perspective. Prereq: 32SMGT387. BoK: NA. Credit Level: U. Credit Hrs: 3.00

Sociology**32SOC121****Introduction to Sociology I**

A general survey of the basic concepts and theoretical perspectives underlying social organization. Transfer Module. BoK: SS. Credit Level: U. Credit Hrs: 3.00

32SOC122**Introduction to Sociology II**

An examination of social institutions and the processes of sociocultural changes in contemporary society. Transfer Module. BoK: SS. Credit Level: U. Credit Hrs: 3.00

32SOC370**The Sociology of Sport**

This course will focus on the development of sport as an organized social phenomenon, the functions of sport in society, the interrelationships with other major institutions, the roles and connection of sport, the culture of sport and sport as a reflection of culture, sport as a change agent influencing structure and culture, alternative ways of seeing sports, and contemporary issues in sport. Prereq: 32SOC121. BoK: SS. Credit Level: U. Credit Hrs: 3.00

Social Science**32SOSC341****Civility and Manners in a Global Age**

Students focus on the proper equiette skills necessary to conduct business in the national and international workplace. BoK: SE., DC. Credit Level: U. Credit Hrs: 3.00

32SOSC342**The World of Tea**

This course examine the role tea plays in various cultures. The history, technology, biochemistry, and traditions provide a lens through which to examine its role in society from 2700 B.C. to the 21st century. Prereq: 32ENGL103. BoK: SS, DC. Credit Level: U. Credit Hrs: 3.00

32SOSC371**Ethics And Social Issues In The Workplace**

This course explores the various philosophical and social theories, issues, and documentation produced in the workplace setting, considering questions of ethics and values likely to arise in the course of professional careers. BoK: SS., SE. Credit Level: U. Credit Hrs: 3.00

32SOSC471**Technology and Society**

Political, social, and ethical consequences of technology in the twentieth century. BoK: SS. Credit Level: U. Credit Hrs: 3.00

32SOSC498**Special Topics in Social Sciences**

Periodic instruction of important topics in the social sciences. BoK: NA. Credit Level: U. Credit Hrs: 1.00-3.00

32SOSC499**Independent Study in Social Sciences**

Individualized program in reading and research development jointly by the student and instructor. BoK: NA. Credit Level: U. Credit Hrs: 1.00-3.00

Statistics

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Statistics**32STAT171****Introduction to Management Statistics**

Collection, presentation, and descriptive measurement of data.

Introduction to probability. BoK: QR. Credit Level: U. Credit Hrs: 3.00

32STAT181**Statistics for Culinary Science**

Topics include graphical and numeric descriptive measures for univariate and bivariate data and control charts. Food industry and business applications are emphasized. Includes a laboratory with experiments and data analysis using computer software. BoK: QR. Credit Level: U. Credit Hrs: 4.00

32STAT201**Business Statistics I**

Calculations of descriptive statistics. Graphic presentations. Introduction to probability. Discrete probability distributions. Prereq: 32MATH174. BoK: QR. Credit Level: U. Credit Hrs: 3.00

32STAT202**Business Statistics II**

Continuous probability distributions. Sampling distributions. Interval estimation and hypothesis testing. BoK: QR. Credit Level: U. Credit Hrs: 3.00

32STAT203**Business Statistics III**

Hypotheses testing continued. Chi-square tests. Analysis of variance. Correlation analysis. Simple linear and multiple regression. Index numbers and forecasting. BoK: QR. Credit Level: U. Credit Hrs: 3.00

32STAT215**Directed Study - Statistics**

This course is designed for students who require individualized instruction in statistics. Perm of Instructor. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32STAT231**Applied Statistics for Business I**

Topics include graphical and numeric descriptive statistics, introduction to probability, discrete and continuous probability distributions. Business applications are emphasized. Coverage of topics supplemented by use of laboratory exercises that include hands-on activities and data analysis using computer software. Prereq: 32MATH174, 32IT142. BoK: QR. Credit Level: U. Credit Hrs: 4.00

32STAT232**Applied Statistics for Business II**

Topics include sampling techniques, sampling distributions, interval estimation and hypothesis testing, chi-square tests, analysis of variance, simple and multiple linear regression. Business applications are emphasized. Coverage of topics supplemented by use of laboratory exercises that include hands-on activities and data analysis using computer software. Prereq: 32STAT231. BoK: QR. Credit Level: U. Credit Hrs: 4.00

32STAT241**Business Statistics -- Accelerated I**

Descriptive statistics, probability and probability distributions. Sampling and interval estimation. Emphasis on business applications. BoK: QR. Credit Level: U. Credit Hrs: 3.00

32STAT242**Business Statistics II -- Accelerated**

Hypothesis testing, regression and correlation analysis, analysis of variance, the chi-square distribution, time series analysis, and index numbers. Emphasis on business applications. BoK: QR. Credit Level: U. Credit Hrs: 3.00

Welding Technology**32WLTN020****Welding, GMAW**

MIG welding. Principles, types of materials, electrodes and welds,

Welding Technology**32WLTN020****Welding, GMAW**

machines used, current and voltage required, test used. BoK: NA.

Credit Level: U. Credit Hrs: 3.00

32WLTN021**Welding, GMAW**

MIG Welding. Principles, types of materials, electrodes and welds, machines used, current and voltage required, test used. BoK: NA.

Credit Level: U. Credit Hrs: 3.00

32WLTN022**Welding, GMAW**

MIG Welding. Principles, types of materials, electrodes and welds, machines used, current and voltage required, test used. BoK: NA.

Credit Level: U. Credit Hrs: 3.00

32WLTN023**Welding, GMAW**

MIG Welding. Principles, types of materials, electrodes and welds, machines used, current and voltage required, test used. BoK: NA.

Credit Level: U. Credit Hrs: 3.00

32WLTN030**Welding, SMAW (Electric Arc)**

Stick welding. Principles, types of welds and electrodes, machines used, current and voltage required, tests used. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32WLTN031**Welding, SMAW**

WELDING SMAW BoK: NA. Credit Level: U. Credit Hrs: 3.00

32WLTN032**Welding, SMAW**

WELDING SMAW BoK: NA. Credit Level: U. Credit Hrs: 3.00

32WLTN033**Welding, SMAW**

WELDING SMAW BoK: NA. Credit Level: U. Credit Hrs: 3.00

32WLTN040**Welding, Oxy-Fuel**

Through 32WLTN043, Gas Welding. Principles of gas welding and cutting, types of rods, metals and fluxes used. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32WLTN041**Welding, Oxy-Fuel**

WELDING OXY-FUEL BoK: NA. Credit Level: U. Credit Hrs: 3.00

32WLTN042**Welding, Oxy-Fuel**

WELDING OXY-FUEL BoK: NA. Credit Level: U. Credit Hrs: 3.00

32WLTN043**Welding, Oxy-Fuel**

WELDING OXY FUEL BoK: NA. Credit Level: U. Credit Hrs: 3.00

32WLTN050**Welding, GTAW**

TIG Welding. Principles, types of materials, electrodes and welds, machines used, current and voltage required, test used. BoK: NA.

Credit Level: U. Credit Hrs: 3.00

32WLTN051**Welding, GTAW**

TIG Welding. Principles, types of materials, electrodes and welds, machines used, current and voltage required, test used. BoK: NA.

Credit Level: U. Credit Hrs: 3.00

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Welding Technology**32WLTN052****Welding, GTAW**

TIG Welding. Principles, types of materials, electrodes and welds. machines used, current and voltage required test used. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32WLTN053**Welding, GTAW**

TIG welding. Principles, types of materials, electrodes and welds, machines used, current and voltage required, test used. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32WLTN060**Welder Qualification Program**

Trains welders to successfully complete a weld procedure certification test. This test can be either a company specific weld procedure or AWS QC 7. Perm of Instructor. BoK: NA. Credit Level: U. Credit Hrs: 4.00

32WLTN061**Welding Skills**

Principles, materials, equipment and techniques of SMAW (electric arc), oxy-fuel and GTAW/GMAW (inert arc) welding, Hands-on stick, gas, and TIG and MIG welding. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32WLTN062**Industrial Materials**

Lecture and lab on some basic materials used in industry including metals, both ferrous, non-ferrous, and non-metals. Topics include the production, identification, mechanical properties, formability, and suitability for use of the materials studied BoK: NA. Credit Level: U. Credit Hrs: 3.00

32WLTN065**Weld Quality Control Administration**

Welding performance of state building codes and applicable technical codes and standards. BoK: NA. Credit Level: U. Credit Hrs: 4.00

32WLTN071**Aircraft Engine Assembly I**

Jet engine concepts, descriptions and use of tools, interpretation of assembly, lifting and inspection procedures related to jet engine assembly. Hands-on assembly of gear box components. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32WLTN072**Aircraft Engine Assembly II**

Continuation of Aircraft Engine Assembly Methods I: torquing procedures, installation of piping, inspection and installation of turbine blades. Prereq: 32WLTN071. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32WLTN073**Aircraft Engine Assembly III**

Continuation of Aircraft Engine Assembly Methods II: assembly inspection, rotor stacking and balancing. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32WLTN081**Design and Fabrication of Plastic Molds**

Specifies the manufacturing methods for molds -- from blow molds to injection molds. The emphasis is on injection molds where the student will learn how to design and specify the materials for an injection mold. In the lab section of the course, the student will design a medium complexity injection mold. BoK: NA. Credit Level: U. Credit Hrs: 5.00

32WLTN084**Plastic Processing Machinery**

Concentrates on the most popular methods of plastics processing and the equipment and machinery associated with them (i.e., the molds, the dies, injection molding machines, etc). The students will learn the processing variables and the complexity involved in transforming plastic resin into finished product. BoK: NA. Credit Level: U. Credit Hrs: 1.00-5.00

Welding Technology**32WLTN088****Plastic Assembly Processes**

Covers the joining and assembly techniques for plastic products (i.e., mechanical fasteners, solvents, adhesives, ultra-sonic welding, and designed integration of plastic component part mechanical connectors). The course will expose the student to automation and automatic assembly. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32WLTN430**Joining Theory Prac**

JOINING THEORY PRAC Prereq: 32MFTN131. Coreq: 32MFTN250. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

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MCMICKEN COLLEGE OF ARTS AND SCIENCES

COURSE DESCRIPTIONS

(15) McMicken College of Arts and Sciences

2008 - 2009

McMicken College of Arts and Sciences 1

Accounting

15ACCT311

Advanced Financial Accounting I

(Formerly Intermediate Accounting). Work sheets; financial statements; corporate structure accounting. Valuation principles, investments, intangible assets, liabilities, capital stock, reserves. BoK: QR. Credit Level: U. Credit Hrs: 3.00

15ACCT470

Consolidated Financial Statements

(Formerly 30ACCT471, Advanced Accounting). Consolidation statements and business combinations. Handling of mergers, consolidations and other forms of business combinations. BoK: QR. Credit Level: U. Credit Hrs: 3.00

15ACCT481

Auditing Concepts I

(Formerly 30ACCT483, Auditing I). Principles, standards, and procedures involved in the conduct of an audit. Internal control, statistical sampling, objectives and report presentation. BoK: QR. Credit Level: U. Credit Hrs: 3.00

15ACCT571

Federal Tax I

Principles of federal income taxation, economic implications; including laws, rulings and regulations. BoK: QR. Credit Level: U. Credit Hrs: 3.00

15ACCT577

Accounting For Funded Organizations

Accounting principles and techniques as they relate to the funded entity, applications of accounting procedures, educational, religious, social organizations and hospitals. BoK: QR. Credit Level: U. Credit Hrs: 3.00

15ACCT579

Accounting Information Systems

Principles of analyzing and designing accounting information systems; manual, mechanized, and computerized systems. BoK: QR. Credit Level: U. Credit Hrs: 3.00

15ACCT588

Applied Accounting Theory

(Formerly 30ACCT589, Accounting Theory). Reading and research in current accounting literature. Discussion of controversial topics. BoK: QR. Credit Level: U. Credit Hrs: 3.00

Air Force ROTC

15AF101

Aerospace Studies 100: The Air Force Today

AS 100 is a survey course designed to introduce students to the United States Air Force and Air Force Reserve Officer Training Corps. Feature topics include: mission and organization of the Air Force, officership and professionalism, military customs and courtesies, Air Force officer opportunities, group leadership problems, and an introduction to communication skills. 15-112-120. Basic Leadership Laboratory is mandatory for Air Force ROTC cadets, and it complements this course. BoK: HP. Credit Level: U. Credit Hrs: 1.00

15AF102

Aerospace Studies 100: The Air Force Today

AS 100 is a survey course designed to introduce students to the United States Air Force and Air Force Reserve Officer Training Corps. Feature topics include: mission and organization of the Air Force, officership and professionalism, military customs and courtesies, Air Force officer opportunities, group leadership problems, and an introduction to communication skills. 15-112-120. Basic Leadership Laboratory is mandatory for Air Force ROTC cadets, and it complements this course by providing cadets with fellowship experiences. This is the second offering in a three-part course sequence. BoK: HP. Credit Level: U. Credit Hrs: 1.00

Air Force ROTC

15AF103

Aerospace Studies 100: The Air Force Today

AS 100 is a survey course designed to introduce students to the United States Air Force and Air Force Reserve Officer Training Corps. Feature topics include: mission and organization of the Air Force, officership and professionalism, military customs and courtesies, Air Force officer opportunities, group leadership problems, and an introduction to communication skills. 15-112-120. Basic Leadership Laboratory is mandatory for Air Force ROTC cadets, and it complements this course by providing cadets with followership experience. This is the third offering in a three-part course sequence. BoK: HP. Credit Level: U. Credit Hrs: 1.00

15AF120

Basic Leadership Lab

The AS 100 and AS 200 Leadership Laboratory courses (LLABs) include a study of Air Force customs and courtesies, drill and ceremonies, and military commands. The LLAB also includes studying the environment of an Air Force officer and learning about areas of opportunity available to commissioned officers. This course also requires two (2) mandatory hours of Physical Training (PT) per week. BoK: NA. Credit Level: U. Credit Hrs: 1.00

15AF201

Aerospace Studies 200: The Air Force Way

AS 200 is a survey course designed to facilitate the transition from Air Force ROTC cadet to Air Force ROTC candidate. Featured topics include: Air Force heritage, Air Force leaders, quality Air Force, and introduction to ethics and values, introduction to leadership, group leadership problems, and continuing application of communication skills. 15-112-120. Basic Leadership Laboratory is mandatory for Air Force ROTC cadets, and it complements this course by providing cadets with their first opportunity for applied leadership experiences discussed in class. BoK: HP. Credit Level: U. Credit Hrs: 1.00

15AF202

Aerospace Studies 200: The Air Force Way

AS 200 is a survey course designed to facilitate the transition from Air Force ROTC cadet to Air Force ROTC candidate. Featured topics include: Air Force heritage, Air Force leaders, quality Air Force, and introduction to ethics and values, introduction to leadership, group leadership problems, and continuing application of communication skills. 15-115-120. Basic Leadership Laboratory is mandatory for Air Force ROTC cadets, and it complements this course by providing cadets with their first opportunity for applied leadership experiences discussed in class. This is the second offering in a three-part course sequence. BoK: HP. Credit Level: U. Credit Hrs: 1.00

15AF203

Aerospace Studies 200: The Air Force Way

AS 200 is a survey course designed to facilitate the transition from Air Force ROTC cadet to Air Force ROTC candidate. Featured topics include: Air Force heritage, Air Force leaders, quality Air Force, and introduction to ethics and values, introduction to leadership, group leadership problems, and continuing application of communication skills. 15-112-120. Basic Leadership Laboratory is mandatory for Air Force ROTC cadets, and it complements this course by providing cadets with their first opportunity for applied leadership experiences discussed in class. This is the third offering in a three-part course sequence. BoK: HP. Credit Level: U. Credit Hrs: 1.00

15AF301

Aerospace Studies 300: Air Force Leadership and Management

AS 300 is a study of leadership and quality management fundamentals, professional knowledge, Air Force doctrine, leadership ethics, and communication skills required of an Air Force junior officer. Case studies are used to examine Air Force leadership and management

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Air Force ROTC**15AF301****Aerospace Studies 300: Air Force Leadership and Management**

situations as a means of demonstrating and exercising practical application of the concepts being studied. 15-115-320 Advanced Leadership Lab is mandatory and complements this course by providing advanced BoK: HP., SE. Credit Level: U. Credit Hrs: 3.00

15AF302**Aerospace Studies 300: Air Force Leadership and Management**

AS 300 is a study of leadership and quality management fundamentals, professional knowledge, Air Force doctrine, leadership ethics, and communication skills required of an Air Force junior officer. Case studies are used to examine Air Force leadership and management situations as a means of demonstrating and exercising practical application of the concepts being studied. 15-115-320 Advanced Leadership Lab is mandatory and complements this course by providing advanced leadership experiences in officer-type activities, giving students the opportunity to apply leadership and management principles of this course. This is the second offering in a three-part course sequence. BoK: HP., SE. Credit Level: U. Credit Hrs: 3.00

15AF303**Aerospace Studies 300: Air Force Leadership and Management**

AS 300 is a study of leadership and quality management fundamentals, professional knowledge, Air Force doctrine, leadership ethics, and communication skills required of an Air Force junior officer. Case studies are used to examine Air Force leadership and management situations as a means of demonstrating and exercising practical application of the concepts being studied. 15-115-320 Advanced Leadership Lab is mandatory and complements this course by providing advanced leadership experiences in officer-type activities, giving students the opportunity to apply leadership and management principles of this course. This is the third offering in a three-part course sequence. BoK: HP., SE. Credit Level: U. Credit Hrs: 3.00

15AF320**Advanced Leadership Lab**

The AS 300 and AS 400 LLabs consist of activities classified as advanced leadership experiences. They involve the planning and controlling of military activities of the cadet corps and the preparation and presentation of briefings and other oral and written communications. LLABs also include interviews, guidance, and information which will increase the understanding, motivation, and performance of other cadets. This course also requires two (2) mandatory hours of Physical Training (PT) per week. BoK: NA. Credit Level: U. Credit Hrs: 1.00

15AF401**Aerospace Studies 400: Preparation for Active Duty**

AS 400 examines the national security process, regional studies, advanced leadership ethics, and Air Force doctrine. Special topics of interest focus on the military as a profession, officership, military justice, civilian control of the military, preparation for active duty, and current issues affecting military professionalism. Within this structure, continued emphasis is given to refining communication skills. 15-112-320 Advanced Leadership Lab is mandatory and complements this course by providing advanced leadership experiences, giving the students the opportunity to apply the leadership and management principles of this course. BoK: HP., SS. Credit Level: U. Credit Hrs: 3.00

15AF402**Aerospace Studies 400: Preparation for Active Duty**

AS 400 examines the national security process, regional studies, advanced leadership ethics, and Air Force doctrine. Special topics of interest focus on the military as a profession, officership, military justice, civilian control of the military, preparation for active duty and current issues affecting military professionalism. Within this structure, continued emphasis is given to refining communication skills. 15-112-320 Advanced Leadership Lab is mandatory and complements this course by providing advanced leadership experiences, giving the students the opportunity to apply the leadership and management principles of this course. This is the second offering in a three-part

Air Force ROTC**15AF402****Aerospace Studies 400: Preparation for Active Duty**

course sequence. BoK: HP., SS. Credit Level: U. Credit Hrs: 3.00

15AF403**Aerospace Studies 400: Preparation for Active Duty**

AS 400 examines the national security process, regional studies, advanced leadership ethics, and Air Force doctrine. Special topics of interest focus on the military as a profession, officership, military justice, civilian control of the military, preparation for active duty, and current issues affecting military professionalism. Within this structure, continued emphasis is given to refining communication skills. 15-112-320 Advanced Leadership Lab is mandatory and complements this course by providing advanced leadership experiences, giving the students the opportunity to apply the leadership and management principles of this course. This is the third offering in a three-part course sequence. BoK: HP., SS. Credit Level: U. Credit Hrs: 3.00

African-American Studies**15AFAM101****Introduction to African and African American Studies**

Introduction to the history, core concepts, guiding questions, and current issues in the field of African and African American Studies. Transfer Module. BoK: SS, DC. Credit Level: U. Credit Hrs: 3.00

15AFAM106**Freshman Seminar: The African Diaspora and the United States**

In this course students will learn about the African Diaspora and its relevance in the United States today. We will explore literature, history and sociology on this topic. Members and affiliates of the African and African American Studies Department will appear as guest lecturers. The course will include a field trip to the Freedom Center. BoK: DC., HU. Credit Level: U. Credit Hrs: 3.00

15AFAM107**Freshman Seminar: The African Diaspora and Socio-cultural Experience**

The unique socio-cultural experience of the African Diaspora is conveyed through its music, art and folk wisdom. This course will explore the global interpretations of these experiences. One example is the commodification of hip-hop throughout Africa and the Diaspora. Activities will include reading, discussion, outreach and field trips. BoK: DC., SE. Credit Level: U. Credit Hrs: 3.00

15AFAM108**Freshman Seminar: The African Diaspora in the Twenty-first Century**

This course will examine the African Diaspora in global context through a historical lens. We will look at the phenomena of Soweto in South Africa, favelas in Brazil, enclaves of Black Brits, and urban ghettos of Black America. We will examine how people of African descent have been historically marginalized in Africa, Europe and North and South America. BoK: DC., HP. Credit Level: U. Credit Hrs: 3.00

15AFAM109**Freshman Seminar: The African Diaspora in Literature**

In this course students will study literature of the African Diaspora, including poetry and prose about Africa, the Caribbean, and the US. As the last in a series of freshman seminars devoted to the African Diaspora and the US, this seminar will include readings, discussion, a field trip and community outreach. BoK: DC., HU. Credit Level: U. Credit Hrs: 3.00

15AFAM120**Beginning Yoruba**

Instruction in the basic elements of Yoruba, a major West African language (Nigeria). Taught in distance learning. Does not satisfy foreign language requirement. BoK: DC., HP. Credit Level: U. Credit Hrs: 3.00

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African-American Studies**15AFAM204****Introduction to Black Gender Studies**

Introduction to gender and gender oppression as major organizing principles in African-American social institutions, culture, and politics. BoK: DC. Credit Level: U. Credit Hrs: 3.00

15AFAM206**African Diaspora Cultures I: African Cultures**

An analysis of traditional and/or contemporary cultures and aspects of cultural production in the African continent. BoK: SS., DC. Credit Level: U. Credit Hrs: 3.00

15AFAM207**The African Diaspora Cultures II: African American Cultures**

An analysis of traditional and/or contemporary cultures and aspects of cultural production of people of African descent in the United States. BoK: SS., DC. Credit Level: U. Credit Hrs: 3.00

15AFAM208**African Diaspora Cultures III: Afro-Latin and Caribbean Cultures**

An analysis of traditional and/or contemporary cultures and aspects of cultural production of people of African descent in Latin American and Caribbean societies. BoK: SS., DC. Credit Level: U. Credit Hrs: 3.00

15AFAM227**Introduction to Modern Africa**

An interdisciplinary course offering a general understanding of contemporary Africa, especially Africa south of the Sahara Desert. This course covers some critical issues and problems facing Africa today. BoK: SS., DC. Credit Level: U. Credit Hrs: 3.00

15AFAM234**Sociology of the Black Community**

Introduction to issues affecting African-American communities including institutional discrimination and contrasting views of Black culture. Transfer Module. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15AFAM235**Sociology of the Black Community**

Survey of Black cultural institutions including family, religion, music, and dance. Transfer Module. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15AFAM236**Sociology of the Black Community**

Survey of race, poverty, and the urban underclass. Special attention to Cincinnati Black communities. Transfer Module. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15AFAM245**African-American Drama**

Survey of Black drama and the role of Blacks in the theater from post-Civil War through the Depression years. Transfer Module. BoK: FA, LT. Credit Level: U. Credit Hrs: 3.00

15AFAM246**African-American Drama**

Survey of Black drama and the role of Blacks in theater and film from the late 1930s up to the present. Transfer Module. BoK: FA, LT. Credit Level: U. Credit Hrs: 3.00

15AFAM247**Black Drama Studio**

Students will apply the principles of Black drama encountered in prior course work, by participating in the performance and/or production of a dramatic presentation. Perm of Instructor. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15AFAM291**The Black Adolescent Male**

A survey of the psycho-cultural influences occurring during adolescence that affect the Black male in American society. BoK: SS., DC. Credit Level: U. Credit Hrs: 3.00

African-American Studies**15AFAM301****African History: Antiquity to 18th Century**

A study of ancient African history and civilization: southern origins of Egyptian civilization, and the early empires of the Western Sudan-Ghana, Mali, Songhay, and Zimbabwe empires in Southern Africa. BoK: HP. Credit Level: U. Credit Hrs: 3.00

15AFAM302**African History: 18th Century to 1945**

The genesis of modern African history. History of African social and political institutions before the European conquest. The European settlements in Africa; the Atlantic slave trade and Euro-Christian and Islamic influence before partition of Africa. BoK: HP. Credit Level: U. Credit Hrs: 3.00

15AFAM303**African History: 1935 to Present**

The partition and colonization of Africa by European countries. African response to European conquest. Colonial administration of Africa up to the end of World War II. BoK: HP. Credit Level: U. Credit Hrs: 3.00

15AFAM304**Black Men in U.S. Society**

An examination of how systems of race, class, and gender shape the experiences of African-American men. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15AFAM305**Black Women in U.S. Society**

An examination of how systems of race, class, and gender shape the experiences of African-American women. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15AFAM307**Blacks in Science and Technology**

An historical exploration of the contributions of African and African Americans to science and technology. Topics include social factors affecting the ways in which these contributions have been viewed by the West, and the special challenges that people of African descent face in controlling the scientific and technological products of their imaginations. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15AFAM308**Women in African History**

Explores the social, economic and political roles that women have played in African History. BoK: DC., HP. Credit Level: U. Credit Hrs: 3.00

15AFAM309**Black Families in Diasporic Context**

Overview of historical and contemporary issues of African American family life as well as experiences throughout the African Diaspora. Formerly 15AFAM310. BoK: DC., HP. Credit Level: U. Credit Hrs: 3.00

15AFAM310**African American Literature**

African American Literature from the mid-eighteenth century to the turn of the twentieth century. Formerly 15AFAM210. BoK: LT., DC. Credit Level: U. Credit Hrs: 3.00

15AFAM311**African American Literature**

Survey African American Literature from beginning of the twentieth century to Richard Wright emphasizing the new Negro Renaissance and the Depression years. Formerly 15AFAM211. BoK: LT., DC. Credit Level: U. Credit Hrs: 3.00

15AFAM312**African American Literature**

Survey of modern African American Literature with consideration to its growth and development from Richard Wright through Black Womanist Literature. Formerly 15AFAM212. BoK: LT., DC. Credit Level: U. Credit Hrs: 3.00

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African-American Studies

15AFAM316

African American Poetry I

A study of early African-American poets from Phillis Wheatley to Sterling Brown with emphasis on the thematic and stylistic development. BoK: LT. Credit Level: U. Credit Hrs: 3.00

15AFAM317

African American Poetry II

The exploration of African-American poetry since the 1950s with attention to the various traditions in modern African-American literature, i.e., Civil Rights Era, New Black Arts Movement, Black womanist tradition. BoK: LT. Credit Level: U. Credit Hrs: 3.00

15AFAM321

Black Entrepreneurship

An exploration of the business culture in which African American entrepreneurs operate. Topics include the role of socialization in affecting the way the prospective entrepreneur, the consumer, and lending institutions view the concept of Black entrepreneurship. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15AFAM322

African American History to 1860

Examination of African Americans from 1619 to the Civil War, including major West African civilizations, the slave trade and slavery. BoK: HP., DC. Credit Level: U. Credit Hrs: 3.00

15AFAM323

African American History: 1860-1930

Examination of African Americans from the Civil War to the end of the nineteenth century. Emphasis on Civil War and Reconstruction. BoK: HP., DC. Credit Level: U. Credit Hrs: 3.00

15AFAM324

African American History: 1930-Pres

Examination of African Americans in the twentieth century. Topics include protest, nationalism, and black power. BoK: HP., DC. Credit Level: U. Credit Hrs: 3.00

15AFAM326

African-Americans and Education

An exploration of African American experience in American educational institutions. Topics include African-Americans and K-12 public education, Blacks in higher education, racial desegregation and Black achievement, and the growth specialized schools. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15AFAM345

African Religion

Introduces students to the complexity and dynamics of religions conceptualization and practice in Sub-Saharan Africa. On-line course. BoK: DC., SE. Credit Level: U. Credit Hrs: 3.00

15AFAM360

Literature of the African Diaspora I

Examines the journey narrative in literature by writers of African descent with emphasis on critical and comparative approaches. BoK: LT. Credit Level: U. Credit Hrs: 3.00

15AFAM361

Literature of the African Diaspora II

Explores intertextual and comparative relationships in texts by women writers of African descent. Special emphasis will be placed on the Caribbean and the United States. BoK: LT. Credit Level: U. Credit Hrs: 3.00

15AFAM362

Literature of the African Diaspora III

Examines global literary and aesthetic movements by writers and critics of the African Diaspora. Specialized topics include: the Harlem Renaissance, the Negritude Movement, Pan-African thought, etc. BoK: LT. Credit Level: U. Credit Hrs: 3.00

African-American Studies

15AFAM363

African Literature I: Introduction

Contemporary African literature from Nigeria, Ghana, Kenya, Zimbabwe, and Senegal, reflecting both traditional and post-colonial subjects and form. BoK: LT. Credit Level: U. Credit Hrs: 3.00

15AFAM364

African Literature II: Topics

A study of topics, themes, genres, or regions in contemporary African Literature reflecting both traditional and post-colonial subjects and form. BoK: LT. Credit Level: U. Credit Hrs: 3.00

15AFAM365

African Literature III: Drama

This course focuses on plays written in South Africa, Kenya, Nigeria, and Ghana. They deal with the consequences of colonialism and racism and problems of political, cultural, personal and linguistic identity. BoK: LT. Credit Level: U. Credit Hrs: 3.00

15AFAM366

Cultures of Africa

Pre-colonial African thought, social and economic values, and how they have been influenced by external forces. BoK: DC., SE. Credit Level: U. Credit Hrs: 3.00

15AFAM367

Caribbean Literature

Surveys contemporary Caribbean literatures, examines key themes addressed within literary texts written by authors from the archipelago. BoK: DC., LT. Credit Level: U. Credit Hrs: 3.00

15AFAM370

W.E.B. DuBois & the African American Experience

This course will acquaint students with DuBois' major works and his life as a scholar and political activist in America during the first fifty years of his life. BoK: DC., HP. Credit Level: U. Credit Hrs: 3.00

15AFAM371

20th Century Black Internationalism: Globalization and American Experience

Acquaints students with the lives of black leaders like W.E.B DuBois, Claudia Jones, Paul Robeson, Willis Nathaniel Higgins & William Patterson, who internationalized the black struggle for freedom, democracy and human rights in America. BoK: DC., HP. Credit Level: U. Credit Hrs: 3.00

15AFAM380

The Black Church in America

The role of the Black church in the African American historical, religious, cultural, and political experience. BoK: HU., DC. Credit Level: U. Credit Hrs: 3.00

15AFAM386

Black Politics

The political behavior of Black people, the Black community involvement in voter registration and the impact of the Black vote on the American society. BoK: SS., DC. Credit Level: U. Credit Hrs: 3.00

15AFAM395

Race and Politics in America: 1936 to the present

This course offers an overview of African American voting behavior and enfranchisement, the historic breakthroughs by African Americans in appointed positions and elective office, and the relevance of conservative and liberal ideologies for the black community. BoK: DC., HP. Credit Level: U. Credit Hrs: 3.00

15AFAM397H

African Americans and State-Sponsored Injustice/ Inequality

Addresses the relationship African Americans have had with the state in the post-civil rights era. BoK: DC., HP. Credit Level: U. Credit Hrs: 3.00

15AFAM401

Research and Writing in African American Studies

A workshop on writing research papers and other forms of writing in the field of African American Studies. BoK: NA. Credit Level: U. Credit Hrs: 3.00

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African-American Studies**15AFAM401****Research and Writing in African American Studies**

3.00

15AFAM404**Contemporary Black Film, 1960 to the Present**

Explores the range of genre and topics projected by Blacks in contemporary film. Particular emphasis will be placed upon the impact of African film and the proliferation of films acted in, authored, directed, and produced by African-Americans. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15AFAM414**Politics in Post-Colonial Africa**

Examines political development in Africa since independence: single-party rule, military governments, and the concept of African socialism. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15AFAM430**African-American Adolescence**

An overview of U.S. Black males and U.S. Black females through the experience of adolescence. Topics covered include Black adolescent development, Black youth school achievement, patterns and unemployment, Black youth and the drug industry, teen pregnancy and parenting, and violence and Black youth. Special attention is given to grassroots and other community responses to issues facing Black adolescents. Prereq: 15AFAM234, 15AFAM235, 15AFAM236. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15AFAM431**Black Urban Poverty**

An introduction to poverty as a major social issue facing urban African-American communities. Uses institutional discrimination to develop a comprehensive analysis of Black urban poverty as shaped by race, class, and gender. Topics include: Surveying how Black poverty has been analyzed in scholarship and public policy, Assessing specific public programs such as urban renewal, school desegregation and busing, and Public housing. BoK: SS. Credit Level: U. Credit Hrs: 4.00

15AFAM432**Black Health Care**

BLACK HEALTH CARE BoK: HP. Credit Level: U. Credit Hrs: 3.00

15AFAM433**The Economic Transformation of Africa**

Examines the various economic paths that Africa has experienced since the pre-colonial period to the continent's current struggles to survive in an increasingly global economy. BoK: QR., DC. Credit Level: U. Credit Hrs: 3.00

15AFAM442**Religion in African American Literature**

An exploration of religious themes in African American literature, with emphasis on the twentieth century. Formerly 15AFAM342. BoK: DC., SE. Credit Level: U. Credit Hrs: 3.00

15AFAM443**Race in African American Literature**

African American writers and their treatment of race in selected fiction, poetry, and exposition. Formerly 15AFAM343. BoK: DC., SE. Credit Level: U. Credit Hrs: 3.00

15AFAM450**West African History and Civilizations**

Examines process of state formation, the trans-Saharan Trade, the trans-Atlantic slave trade and other historical development in West Africa prior to the Europeans. BoK: HP. Credit Level: U. Credit Hrs: 3.00

15AFAM451**Colonization, Nationalism and Post-Colonial West African States**

Examine European colonization, the various colonial policies, the struggle for independence and developments since independence. BoK: HP., SS. Credit Level: U. Credit Hrs: 3.00

African-American Studies**15AFAM452****Liberation Struggles**

This course focuses on the movements of people of African descent in search of freedom from colonialism, racial oppression, slavery and apartheid. Topics include the African American Civil Rights Movement, the South African of the anti-apartheid movement, and anti-colonial movements of Africa and the Caribbean. BoK: HP., SS. Credit Level: U. Credit Hrs: 3.00

15AFAM453**Afro-Caribbean and Afro-Latin American History**

A study of the history and people of African descent in the Caribbean, Central and South America from slavery to the present. Topic include slavery and resistance, post-emancipation labor systems, the rise of Pan African and modern Black hemispheric politics. BoK: HP. Credit Level: U. Credit Hrs: 3.00

15AFAM460**Africana Demography**

Explores the demographic dynamics in the African Diaspora, including issues of population growth, contraction and movement. Perm of Instructor. BoK: SS, DC. Credit Level: U. Credit Hrs: 3.00

15AFAM462**History of South Africa**

A study of the history of southern Africa; the Mfecane white settlement and the politics of Apartheid. BoK: HP. Credit Level: U. Credit Hrs: 3.00

15AFAM470**The City in African American Literature**

Examines the Black urban experience in 20th century fiction and explores how post-Harlem Renaissance writers conceive of the modern city. Includes service learning component. BoK: LT. Credit Level: U. Credit Hrs: 3.00

15AFAM479**Racism**

Personal, institutional and cultural consciousness related to sexual attraction, justice and social change. BoK: SS., DC. Credit Level: U. Credit Hrs: 3.00

15AFAM505**Research in African American Studies**

An introduction to questions, issues and themes concerning research in African American Studies, in particular, those concerning the design, implementation, and evaluation of research projects. Students work on research projects under supervision of faculty advisor. Perm of Instructor. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

15AFAM506**Topics in Contemporary Black Film**

Examines post 1960 independent and Hollywood films from a topical approach. Students will discuss how the themes are interrelated and how their representations have contributed in the construction of everyday life in the United States. Prereq: 15AFAM404. BoK: DC, HU. Credit Level: U. Credit Hrs: 3.00

15AFAM508**Seminar in African World History**

Intensive study of a selected topic in the history of people of African descent in the African continent, the Caribbean, Latin America, and/or Europe. Perm of Instructor. BoK: SE. Credit Level: U, G. Credit Hrs: 3.00

15AFAM509**Seminar in African American History**

Explores the process of conducting research in African American History. Students work collaboratively and individually toward the production of a seminar paper. Perm of Instructor. BoK: SE. Credit Level: U, G. Credit Hrs: 3.00

15AFAM515**African American Social and Political Thought**

This course will examine the intellectual history of African-American

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African-American Studies**15AFAM515****African American Social and Political Thought**

from the epoch of slavery to the present. We will explore African-American political, social, economics, and artistic thought with particular attention to developing conceptions of the meaning of freedom, Black identity and issues of race, class, and gender. BoK: HU. Credit Level: U, G. Credit Hrs: 3.00

15AFAM520**Internship in African American Studies**

Internship experience that allows students to investigate the applicability of African American Studies in the work world. Prereq: 15AFAM597. BoK: SS. Credit Level: U, G. Credit Hrs: 3.00

15AFAM521**Internship in African American Studies**

Internship experience that allows students to investigate the applicability of African American Studies in the work world. Prereq: 15AFAM597. BoK: SS. Credit Level: U, G. Credit Hrs: 3.00

15AFAM522**Teaching Practicum in African American Studies**

Upon invitation and under supervision of faculty, junior and senior area majors serve as teaching assistants for lower division African American Studies courses. Perm of Instructor. BoK: SS. Credit Level: U, G. Credit Hrs: 3.00

15AFAM530**Seminar in Black Creative Expression**

Intensive study of selected topics germane to the creative vision of African Americans as represented in the various artistic domains. Perm of Instructor. BoK: DC, HU. Credit Level: U. Credit Hrs: 3.00

15AFAM532**Black Popular Culture**

Black Popular Culture BoK: HU. Credit Level: U, G. Credit Hrs: 3.00

15AFAM535**Seminar in Black Social Organization**

Analysis of social, political, and economic development of Black communities. BoK: SE. Credit Level: U, G. Credit Hrs: 3.00

15AFAM537**Individual Study**

Students work in a chosen area of studies. Work consists of (a) internship problems, (b) individual research paper or project, or (c) Black readings. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

15AFAM538**Individual Study**

See 15-093-537. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

15AFAM539**Individual Study**

See 15-093-537. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

15AFAM540**Pan-Africanism: Politics of Unity**

Examination of the nature of historical roots of Pan-Africanism in the Diaspora, and its emergence on the continent. Also examines the nature, structure, and functioning of the OAU in the context of international politics. BoK: HU. Credit Level: U, G. Credit Hrs: 3.00

15AFAM550**Comparative Racial Oppression in the United States and South Africa**

This course focuses on the movements of people of African descent for freedom from colonialism, racial oppression and racism, slavery and apartheid. Using a comparative approach, it traces evolving programs and conceptions of the freedom struggle across generations and regions. Topics include the African American Civil Rights Movement, the South African anti-apartheid movement, the anticolonial movements of Africa and the Caribbean. BoK: HU. Credit Level: U, G. Credit Hrs: 3.00

African-American Studies**15AFAM550****Comparative Racial Oppression in the United States and South Africa**

This course focuses on the movements of people of African descent for freedom from colonialism, racial oppression and racism, slavery and apartheid. Using a comparative approach, it traces evolving programs and conceptions of the freedom struggle across generations and regions. Topics include the African American Civil Rights Movement, the South African anti-apartheid movement, the anticolonial movements of Africa and the Caribbean. BoK: HU. Credit Level: U, G. Credit Hrs: 3.00

15AFAM559**Black Feminism**

An analysis of historical and/or contemporary feminist thought and activism of women of African descent. BoK: SS. Credit Level: U, G. Credit Hrs: 3.00-4.00

15AFAM562**Topics in African American Literature**

An analysis of selected topics in the fiction, poetry, drama, and other forms of literature of African Americans. BoK: LT. Credit Level: U, G. Credit Hrs: 4.00

15AFAM563**Topics in Black Gender Studies**

An analysis of selected topics in how gender affects the history, social organization and cultural production of men and women of African descent in the African continent, the Caribbean, Latin America, and/or Europe. Perm of Instructor. BoK: SS. Credit Level: U, G. Credit Hrs: 4.00

15AFAM564**African American Art 1945 to present**

Designed to familiarize students with art by Black Americans. Issues include aesthetic, abstract and configurative representations. BoK: DC., FA. Credit Level: U, G. Credit Hrs: 3.00

15AFAM565**Topics in Black Community Organization**

An analysis of selected topics in the social instructions and social organization of people of African descent in the African continent, the Caribbean, Latin America, and/or Europe. Perm of Instructor. BoK: SS. Credit Level: U, G. Credit Hrs: 3.00-4.00

15AFAM566**Topics in African World History**

An analysis of selected topics in the history of people of African descent in the African continent, the Caribbean, Latin America, and/or Europe. Perm of Instructor. BoK: HU. Credit Level: U, G. Credit Hrs: 3.00-4.00

15AFAM567**Topics in Black Cultural Studies**

An analysis of selected topics in and the traditional and contemporary cultures and cultural production of people of African descent in the African continent, North America, the Caribbean, Latin America, and/or Europe. Perm of Instructor. BoK: LT. Credit Level: U, G. Credit Hrs: 3.00-4.00

15AFAM575**Black Male Contemporary Issues**

An understanding of the many contemporary issues which confront Black males in America. Sociological and psychological aspects of Black male behavior and attitudes. BoK: SS., DC. Credit Level: U. Credit Hrs: 3.00

15AFAM576**Seminar in Black Gender Studies**

An examination of how ideas about sexuality and power affect relationships among African-American men and women and between U.S. Blacks and other groups. BoK: SE., SS. Credit Level: U, G. Credit Hrs: 3.00

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African-American Studies**15AFAM580****The Law and Black People**

This course is an in-depth analysis of the sociological, psychological, and economical aspects of the justice system and laws as they relate to Black people with special emphasis on the immediate community. A seminar with term papers and with speakers in law-related positions in the Cincinnati community. BoK: SS. Credit Level: U, G. Credit Hrs: 3.00

15AFAM581**The Law and Black People**

This course is an in-depth analysis of the sociological, psychological, and economical aspects of the justice system and laws as they relate to Black people with special emphasis on the immediate community. A seminar with term papers and with speakers in law-related positions in the Cincinnati community. The second offering in a three-part course sequence. BoK: SS. Credit Level: U, G. Credit Hrs: 3.00

15AFAM582**The Law and Black People**

This course is an in-depth analysis of the sociological, psychological, and economical aspects of the justice system and laws as they relate to Black people with special emphasis on the immediate community. A seminar with term papers and with speakers in law-related positions in the Cincinnati community. The third offering in a three-part course sequence. BoK: SS. Credit Level: U, G. Credit Hrs: 3.00

15AFAM587**African American Women's History**

Traces the experiences of African American women against the backdrop of racism, sexism and classism in American Society. BoK: DC., HP. Credit Level: U. Credit Hrs: 3.00

15AFAM589**Early Black Women Writers: Wheatley to Hurston**

A survey of early Black women's literature with emphasis on the contributions of major writers to the development of Black women's literary tradition. BoK: LT. Credit Level: U, G. Credit Hrs: 3.00

15AFAM590**Contemporary Black Women Writers: Hurston to Present**

A study of modern literature by Black women writers with special emphasis on the writers' contributions to Black women's literary tradition. BoK: LT. Credit Level: U, G. Credit Hrs: 3.00

15AFAM591**IND ST BLK GENDER**

IND ST BLK GENDER BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-4.00

15AFAM592**Internship in Black Gender Studies**

Students plan and participate in internship in Black gender studies in community organizations. Requirements include 30 hours of unpaid community service and summary report. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-4.00

15AFAM593**Current Issues in Black America**

Topics of special significance to Blacks in contemporary society, i.e., unemployment, housing, private and public education, sexism among Blacks, etc. BoK: SS. Credit Level: U, G. Credit Hrs: 3.00

15AFAM595**Senior Honors Project I**

Under supervision of full-time faculty, advanced individual study on senior honors thesis or project. Perm of Instructor. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

15AFAM596**Senior Honors Project II**

Under supervision of full-time faculty, advanced individual study on senior honor thesis or project. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

African-American Studies**15AFAM597****Seminar in African American Studies**

A capstone seminar for African American Studies majors. The major requirement consists of preparing a seminar paper or senior project. Prereq: 15AFAM508, 15AFAM509. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

15AFAM600**Independent Study**

Master's and doctoral candidates can also take 500 level courses. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00-9.00

15AFAM601**Independent Study**

See 15-093-600. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00-9.00

15AFAM802**Master's Thesis Research**

MASTHESIS RESEARCH Credit Level: G. Credit Hrs: 3.00-9.00

15AFAM902**Directed Reading**

b Credit Level: G. Credit Hrs: 3.00-15.00

Anthropology**15ANTH100****Introduction to Anthropology**

This course introduces students to the field of anthropology and its four subfields, linguistics, social/cultural anthropology, physical anthropology, and archaeology. The course provides students with a foundation in anthropological knowledge that helps them to understand human cultural and biological variation and its intersection with important issues such as globalization, cultural conflict, ethnicity, racism, and identity. BoK: DC., SS. Credit Level: U. Credit Hrs: 3.00

15ANTH101**Cultural Anthropology**

An introduction to the study of culture and its aspects, emphasizing the evolution of cultural systems. Transfer Module. BoK: SS, DC. Credit Level: U. Credit Hrs: 3.00

15ANTH102**Cultural Anthropology**

An introduction to the study of culture and its aspects, emphasizing the evolution of cultural systems. The second offering in a three-part course sequence. Prereq: 15ANTH101. Transfer Module. BoK: SS, DC. Credit Level: U. Credit Hrs: 3.00

15ANTH103**Cultural Anthropology**

An introduction to the study of culture and its aspects, emphasizing the evolution of cultural systems. The third offering in a three-part course sequence. Transfer Module. BoK: SS, DC. Credit Level: U. Credit Hrs: 3.00

15ANTH104**Biological Anthropology**

Introduction to evolutionary theory, genetics, speciation, and the ecological strategies of non-human primates. BoK: NS., SS. Credit Level: U. Credit Hrs: 3.00

15ANTH105**Biological Anthropology**

Introduction to life history and mating strategies of non-human primates, the evolution of primates, and the fossil record of early human ancestors. Prereq: 15ANTH104. BoK: NS, SS. Credit Level: U. Credit Hrs: 3.00

15ANTH106**Biological Anthropology**

Examines the evolution of modern humans, biological variation in human populations, mate choice, parenting strategies and the biological basis of human behavior. Fulfills 3 credit hours of the Natural Science

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Anthropology**15ANTH106****Biological Anthropology**

requirements. Prereq: 15ANTH104, 15ANTH105. BoK: NS, SS. Credit Level: U. Credit Hrs: 3.00

15ANTH107**Introduction to Archaeology**

Examines goals of archaeological research; formation processes; remote sensing; survey, excavation, and dating techniques; artifact classification; data analysis, interpretation. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15ANTH108**World Prehistory**

Survey of selected prehistoric cultural sequences in the Old World until the time of the Romans and in the New World before European contact. BoK: HP., SS. Credit Level: U. Credit Hrs: 3.00

15ANTH109**Introduction to Linguistic Anthropology**

Introduction to the study of linguistic systems from an anthropological perspective, addressing key topics in the field related to language structure, language use, and language change. BoK: SS., DC. Credit Level: U. Credit Hrs: 3.00

15ANTH150**Cultural Modification Of The Body**

An anthropological investigation of the modification of the human body, including tattooing, piercing and other skin and bone modifications. Discusses the cultural ideology behind modifications, the osteological/musculo-skeletal ramifications of some of modifications, and the evolution of these modifications in western societies. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15ANTH151**People and Wetlands**

Examines several case studies from around the that address the complexity of human interactions with wetlands and their many cultural values. In many of these cases, wetlands are viewed as places of pestilences that should be avoided, as are the people who are associated with them, and thus the degree to which people interact with or inhabit wetland landscapes often contributes to the emergence of inequalities and structuring of power relationships between groups. This course engages students both with contemporary issues re: wetland preservation and with current ethnographic and archaeological research on people who live in wetland settings. BoK: SE. Credit Level: U. Credit Hrs: 3.00

15ANTH190**Fantastic Archaeology and Archaeological Mysteries: Science vs Pseudoscience**

Fantastic claims about the human past are widely available on television, in books and newspapers, and on the internet. Acceptance of such claims as fact is increasing, despite the fact that they are often based on pseudoscientific claims or unverifiable evidence. This freshman seminar examines how scientific knowledge is accumulated, particularly knowledge about the past, and examines the methodological differences between science and pseudoscience in archaeology. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15ANTH191**Archaeology of Slavery, Colonialism, and Freedom**

One of the greatest contributions of archaeology is its ability to give voice to populations whose perspectives are poorly documented in historical records, such as slaves, through the material record of their past. Through an examination of recent archaeological studies of the slave trade, the conditions of slavery, the Underground Railroad, and life after emancipation in the eastern United States and the Caribbean, students will gain a greater understanding of the nature of American slavery, its colonial roots, and its aftermath. We will also compare American slavery with ancient examples of slaveholding societies. This is a Freshman Seminar. BoK: SS. Credit Level: U. Credit Hrs: 3.00

Anthropology**15ANTH195****Individual Study Research Honors**

Honors topic and credit to be arranged with instructor. BoK: SS. Credit Level: U. Credit Hrs: 1.00-15.00

15ANTH196**Individual Study Research Honors**

Honors topic and credit to be arranged with instructor. BoK: SS. Credit Level: U. Credit Hrs: 1.00-15.00

15ANTH197**Individual Study Research Honors**

Honors topic and credit to be arranged with instructor. BoK: SS. Credit Level: U. Credit Hrs: 1.00-15.00

15ANTH204**Great Discoveries in Archaeology**

Surveys important prehistoric discoveries worldwide and examines them from the perspective of archaeological science and anthropological theory. Critiques popular culture presentations of the past. BoK: DC., HP. Credit Level: U. Credit Hrs: 3.00

15ANTH230**Languages of the World**

Studies how language and languages work, with examples from major and representative minor language families in ethnological, geographic, historical and typological perspectives. Transfer Module. BoK: SS, DC. Credit Level: U. Credit Hrs: 3.00

15ANTH231**Languages of the World**

Studies how language and languages work, with examples from major and representative minor language families in ethnological, geographic, historical and typological perspectives. Prereq: 15ANTH230. BoK: SS, DC. Credit Level: U. Credit Hrs: 3.00

15ANTH232**Language and Culture**

Variation in language associated with other cultural variables, including social organization and world view. Linguistic relativity, multi-glossia, linguistics and prehistoric cultures. BoK: SS., DC. Credit Level: U. Credit Hrs: 3.00

15ANTH250**Religion in Culture**

Cross-cultural comparative study of systems of ritual and belief, particularly as related to other aspects of culture. BoK: SS., DC. Credit Level: U. Credit Hrs: 3.00

15ANTH275**Film and Anthropology**

Documentary film production and the communication of anthropology to global audiences. Topics include the theory of anthropological filmmaking, analysis of the dynamics of anthropological film genres, and the methods of cinema used to convey the results of anthropological studies and knowledge. BoK: DC., SE. Credit Level: U. Credit Hrs: 3.00

15ANTH278**Old World Prehistory**

A developmental approach to the prehistory of the Old World from human origins in Africa to the initial experiments in civilization. BoK: HP., SS. Credit Level: U. Credit Hrs: 3.00

15ANTH279**Medical Anthropology**

A cross-cultural introduction to the epidemiology, causation, and treatment of disease in different ecologies and cultures. BoK: SS., DC. Credit Level: U. Credit Hrs: 3.00

15ANTH280**Forensic Anthropology**

Forensic Anthropology focuses on the recovery, analysis and identification of human remains in a forensic setting. Students will be introduced to the history; basic principles: determination of age, sex, ancestry, and stature for skeletal remains; trauma analysis; field

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Anthropology**15ANTH280****Forensic Anthropology**

recovery techniques; time since death estimation and other pertinent topics. Prereq: 15ANTH104, 15ANTH105, 15ANTH106. BoK: QR, NS. Credit Level: U. Credit Hrs: 3.00

15ANTH290**Ecological Anthropology**

Examines the ways in which societies interact with their environments. Topics include subsistence adaptations, population growth and regulation, ethnoecology, cooperative resource management, and globalization. Special consideration is given to the relevance of these topics for conservation and sustainable development. BoK: SS., SE. Credit Level: U. Credit Hrs: 3.00

15ANTH301**Cultural Resource Management**

The protection and management of cultural heritage, including archaeological, historical and landscape data and objects, records, non-cultural materials, reports, and digital data. Course covers an overview of laws and regulations related to cultural resource management, including archaeological collections, historical preservation, and museums. The course includes a practicum. BoK: SS., SE. Credit Level: U. Credit Hrs: 3.00

15ANTH303**Southwest Prehistory**

An introduction to the prehistoric cultural patterns and trends in the archaeological record of the American Southwest. Topics include the development of political, settlement, and economic systems. BoK: HP., SS. Credit Level: U. Credit Hrs: 3.00

15ANTH305**Maya Prehistory**

An introduction to the prehistoric cultural patterns and trends in the archaeological record of ancient Maya and their immediate neighbors. BoK: HP., SS. Credit Level: U. Credit Hrs: 3.00

15ANTH308**New World Prehistory**

Survey of selected cultural sequences in North, Middle, and South America prior to European contact, including both civilized and non-civilized cultures. BoK: HP., SS. Credit Level: U. Credit Hrs: 3.00

15ANTH309**Ohio Valley Prehistory**

Sequence of cultures and development of archaeological research in eastern North America with emphasis on the Ohio Valley. BoK: HP., SS. Credit Level: U. Credit Hrs: 3.00

15ANTH319**Introduction to Afro-Brazilian Anthropology**

The course explores the history and ethnography of the African diaspora in Brazil from the colonial period to the present. Topics will include development and current forms of Afro-Brazilian culture, the intersections of race, racism and identity, present-day social and economic problems facing Afro-Brazilians, and the emergence of grassroots movements and political activism. BoK: DC., SS. Credit Level: U. Credit Hrs: 3.00

15ANTH320**Balkan Peoples**

People and cultures of SE Europe (Greece, Serbia, Bosnia, Rumania, etc.). Peasant life amid the larger societies. Ethnogenesis and interrelations of groups and the Balkan language area. Sources of ethnic conflict. BoK: SS., DC. Credit Level: U. Credit Hrs: 3.00

15ANTH322**Peoples of Siberia, Central Asia, and Turkey**

Representative peoples, culture, and nature of adaptations to the arctic and subarctic ecological base. Cultural base of modern Turkey and Turkish secularization. BoK: SS., DC. Credit Level: U. Credit Hrs: 3.00

Anthropology**15ANTH325****Identities and Material Culture**

This course will explore the ways in which the material world is implicated in the production and assertion of identity, and how the use of material culture to express identity can be interpreted in both modern and ancient contexts. The course takes an integrated anthropological approach. Case studies will be drawn from ethnographic and archaeological sources. BoK: HP., DC. Credit Level: U. Credit Hrs: 3.00

15ANTH326**Peoples of Japan**

Reviews anthropological work on the nature of sociocultural systems of Japan. Attention to modernization and the maintenance of cultural integrity. BoK: SS., DC. Credit Level: U. Credit Hrs: 3.00

15ANTH327**Anthropology Junior Readings**

Topic and credit to be arranged with instructor. BoK: SS. Credit Level: U. Credit Hrs: 1.00-15.00

15ANTH328**Anthropology Junior Readings**

Topic and credit to be arranged with instructor. BoK: SS. Credit Level: U. Credit Hrs: 1.00-15.00

15ANTH329**Anthropology Junior Readings**

Topic and credit to be arranged with instructor. BoK: SS. Credit Level: U. Credit Hrs: 1.00-15.00

15ANTH330**Honors Special Topics**

Topics in anthropology for Honors students. Prereq: Permission of instructor. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15ANTH333**Peoples of the Caribbean**

The peoples and cultures of the Caribbean and circum-caribbean region. Overview of European colonialism and slavery and their impact on indigenous populations and on the social, religious, and ethnic identities of contemporary Caribbean peoples. BoK: HP., DC. Credit Level: U. Credit Hrs: 3.00

15ANTH334**Indians of Mexico and Guatemala**

Aboriginal Indian and contemporary peasant cultures of Mexico and Guatemala. Prereq: 15ANTH102. BoK: SS, DC. Credit Level: U. Credit Hrs: 3.00

15ANTH335**Indians of North America**

A description of modern Native American cultures of the United States and Canada, including history, social organization, and current issues. BoK: SS., DC. Credit Level: U. Credit Hrs: 3.00

15ANTH341**The Anthropology of Food**

An exploration of the different approaches that archaeologists, ethnologists, biological anthropologists and linguists take to the study of food and its role in human societies. BoK: SS., DC. Credit Level: U. Credit Hrs: 3.00

15ANTH346**Country and City**

The anthropological literature on movements between rural and urban spaces; cultural and symbolic transitions, hybridity, and identity transformations. BoK: DC., SS. Credit Level: U. Credit Hrs: 3.00

15ANTH354**Identities: Ethnic, Gender, Class, (Trans)National**

Anthropological perspectives on identities, how they are formed, and how they change. Emphasis will be on ethnic identities and their interaction with other types of identities, such as gender, class, national, and transnational identities. BoK: SS., DC. Credit Level: U. Credit Hrs: 3.00

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Anthropology**15ANTH354****Identities: Ethnic, Gender, Class, (Trans)National**

Anthropological perspectives on identities, how they are formed, and how they change. Emphasis will be on ethnic identities and their interaction with other types of identities, such as gender, class, national, and transnational identities. BoK: SS., DC. Credit Level: U. Credit Hrs: 3.00

15ANTH355**Peoples of Lowland Tropical America**

From Amazon to Mexico: the ecological and cultural diversity of peoples adapted to the lowland tropics; based on ethnographies and other materials. BoK: SS., DC. Credit Level: U. Credit Hrs: 3.00

15ANTH360**Origins of Agriculture**

The processes by which people domesticated plants and intensified plant use are examined. Although a world-wide perspective will be taken, New World examples will be emphasized. BoK: HP., SS. Credit Level: U. Credit Hrs: 3.00

15ANTH362**Origins of Civilization**

The origins of complex community organization in both New and Old Worlds are examined. The effects of trade, warfare, large scale irrigation systems, and the influence of population growth will be assessed. Examples of these developmental trends will draw principally from Middle America and the Near East. BoK: HP., SS. Credit Level: U. Credit Hrs: 3.00

15ANTH370**Historical Archaeology**

Archaeology of the recent past, when written documentation is available, including colonial and post-colonial development. Includes an introduction to Ethnohistory as well as historic structures and sites. Prereq: 15ANTH107. BoK: SS, DC. Credit Level: U. Credit Hrs: 3.00

15ANTH379**Medical Anthropology II**

This course builds on the Introduction to Medical Anthropology (279) with an emphasis upon clinically applied anthropology. Prereq: 15ANTH279. BoK: SS, DC. Credit Level: U. Credit Hrs: 3.00

15ANTH385**Stars, Time, and Culture**

The use of astronomy and calendars in tribal and pre-industrial state societies and theories on the origins of primitive astronomical knowledge. BoK: SS., DC. Credit Level: U. Credit Hrs: 3.00

15ANTH413**Economic Anthropology**

Covers contemporary and classic readings that focus on theories of households and women, especially in times of globalization with new forms of labor organization, migration and revised gender roles; looks at these factors at the household level and their relation to the larger world and includes research project on the effects of that larger world on households and individuals. Prereq: 15ANTH101. BoK: DC, SE. Credit Level: U. Credit Hrs: 3.00

15ANTH418**Applied Anthropology**

Pro-seminar on the practice and theory of applied anthropology (mainly, cultural anthropology), in both domestic and international, or cross-cultural, contexts. Prereq: 15ANTH101, 15ANTH102, 15ANTH103. BoK: SS, DC. Credit Level: U. Credit Hrs: 3.00

15ANTH422**The Archaeological Record and Its Interpretation**

Approaches for understanding the origins and the inferential potential of the archaeological record are presented. Case studies are drawn from prehistoric occupational horizons worldwide. Prereq: 15ANTH107, 15ANTH108. BoK: HP, SS. Credit Level: U. Credit Hrs: 3.00

Anthropology**15ANTH423****Principles of Archaeological Analysis**

An exploration of the theories and methods that archaeologists use to obtain chronological, behavioral, and organizational information from different kinds of archaeological assemblages and data bases. Prereq: 15ANTH107. BoK: SS, QR. Credit Level: U. Credit Hrs: 3.00

15ANTH437**Anthropology Senior Readings**

Topic and credit to be arranged with instructor. BoK: SS. Credit Level: U. Credit Hrs: 1.00-15.00

15ANTH438**Anthropology Senior Readings**

Topic and credit to be arranged with instructor. BoK: SS. Credit Level: U. Credit Hrs: 1.00-15.00

15ANTH439**Anthropology Senior Readings**

Topic and credit to be arranged with instructor. BoK: SS. Credit Level: U. Credit Hrs: 1.00-15.00

15ANTH440**Royal Courts of the Ancient New World**

This course examines the institution of the royal courts in the ancient New World as a nexus for negotiation of power and assertion of cultural identity. Case studies concentrate on the Maya; Aztec and Inca cultures to provide important comparative contexts. We also explore the integration of textual and material evidence in investigating ancient cultures. Prereq: 15ANTH305, 15ANTH308. BoK: HP, SS. Credit Level: U. Credit Hrs: 3.00

15ANTH471**Field Course in Archaeology: Southwest**

Archaeological field methods involving participation in actual site survey and/or excavation in the American Southwest. BoK: SS., SE. Credit Level: U. Credit Hrs: 3.00-6.00

15ANTH472**Field Course in Archaeology: Mesoamerica**

Archaeological field methods involving participation in actual site survey and/or excavation in Mesoamerica. BoK: HP., SS. Credit Level: U. Credit Hrs: 3.00-6.00

15ANTH473**Field Course in Archaeology: Midwest**

Archaeological field methods involving participation in actual site survey and/or excavation in the American Midwest. BoK: HP., SS. Credit Level: U. Credit Hrs: 6.00-12.00

15ANTH489**Human Adaptation**

Adaptation of humans to the environment, emphasizing climate, altitude, disease, nutrition and behavior. BoK: NS., SS. Credit Level: U. Credit Hrs: 3.00

15ANTH499**Senior Seminar**

An advanced integrative course required of all anthropology majors. Deals with core topics, new developments, ongoing debates, and current issues in anthropology as presented in a diverse set of media: books, articles, video, and the internet. Seminar format. BoK: SS., DC. Credit Level: U. Credit Hrs: 3.00

15ANTH500**Sex and Gender in Language**

Cross-cultural studies of men's and women's dialects. Noun classifiers and grammatical gender related to other features of language and of culture. Prereq: Course in Linguistics and Cultural Anthropology or Sociology. BoK: SS., DC. Credit Level: U, G. Credit Hrs: 4.00

15ANTH504**Ethnographic Methods**

Introduction to ethnographic research. Survey of qualitative research methods, experience in skills such as interviewing, observation and

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Anthropology**15ANTH504****Ethnographic Methods**

record-keeping. BoK: SS., DC. Credit Level: U, G. Credit Hrs: 4.00

15ANTH510**Biocultural Anthropology**

Looks at the different perspectives of human behavioral ecology, dual inheritance theory, and evolutionary psychology, highlighting the strengths and weaknesses of each for understanding the ways in which cultural traits allow humans to adapt to novel evolutionary challenges. Prereq: 15ANTH104, 15ANTH105, 15ANTH106. BoK: SS, DC. Credit Level: U, G. Credit Hrs: 4.00

15ANTH512**Public Archaeology Internship**

Practical experience in the conduct of preservation and/or contract archaeology, including the preparation of National Register nominations and field work and/or laboratory analysis and report preparation. BoK: SS., DC. Credit Level: U, G. Credit Hrs: 3.00-8.00

15ANTH515**Water Management**

A comparative treatment of water management systems in the archaeological and ethnographic record. BoK: HP., SS. Credit Level: U, G. Credit Hrs: 3.00-4.00

15ANTH520**Anthropology and Archaeology**

Explores the historical roots and contemporary relationship between sociocultural anthropology and archaeology. Employing case studies by British and American ethnographers and archaeologists, the course examines how each sub-discipline has influenced the other. Prereq: Recommended Anth107 or 108. Prereq: 15ANTH107. BoK: SS, DC. Credit Level: U, G. Credit Hrs: 4.00

15ANTH550**Anthropology of Race**

Interdisciplinary course on biological, archeological, linguistic and cultural research and perspectives on contemporary human variation: race. Covers the history of concepts and their use in the public domain, as well as the scientific evidence and debate. BoK: DC., SE. Credit Level: U, G. Credit Hrs: 4.00

15ANTH555**Spatial Archaeology**

The manipulation and use of physical space and settlement by past societies. The construction, maintenance, and distribution of vernacular architecture, both domestic and public, will be studied. Focus on archaeologically retrieved data. BoK: SS., DC. Credit Level: U, G. Credit Hrs: 4.00

15ANTH581**Individual Work Anthropology**

Individual examination of an anthropological topic or problem under faculty direction and guidance. BoK: SS. Credit Level: U, G. Credit Hrs: 1.00-15.00

15ANTH582**Individual Work Anthropology**

Individual examination of an anthropological topic or problem under faculty direction and guidance. This is the second part of three-course sequence. BoK: SS. Credit Level: U, G. Credit Hrs: 1.00-15.00

15ANTH583**Individual Work Anthropology**

Individual examination of an anthropological topic or problem under faculty direction and guidance. The third part of a three-course sequence. BoK: SS. Credit Level: U, G. Credit Hrs: 1.00-15.00

15ANTH590**Human Osteology**

Laboratory course on identification and recovery of human skeletal remains. Prereq: 15ANTH104. BoK: NS, SS. Credit Level: U, G. Credit Hrs: 4.00

Anthropology**15ANTH590****Human Osteology**

Laboratory course on identification and recovery of human skeletal remains. Prereq: 15ANTH104. BoK: NS, SS. Credit Level: U, G. Credit Hrs: 4.00

15ANTH591**Human Skeletal and Dental Analysis**

Introduction to methods of skeletal and dental analysis including measurement and description, non-metrical assessment, morphological variation, age-related changes, and the assessment of individual and population health. Builds upon basic knowledge of human osteology. Prereq: 15ANTH590. BoK: QR, SS. Credit Level: U, G. Credit Hrs: 4.00

15ANTH592**Current Topics in Archaeology**

Review of current debates and findings in Archaeology. BoK: SS. Credit Level: U, G. Credit Hrs: 4.00

15ANTH593**Skeletal Biology and Archaeology**

Examines how physical anthropologists and archaeologists use skeletal materials to address questions about lifeway, populational relations, health, social organizations and symbolic thought. BoK: HP., SS. Credit Level: U, G. Credit Hrs: 4.00

15ANTH594**Human Origins**

Evidence and theories on the origin and evolution of humankind. BoK: NS., SS. Credit Level: U, G. Credit Hrs: 4.00

15ANTH595**Evolution of Homo Sapiens**

Evidence and theories on the origin and evolution of prehistoric and modern Homo sapiens. - BoK: NS., SS. Credit Level: U, G. Credit Hrs: 4.00

15ANTH620**Cultural Anthropology Field Practicum**

Covers cultural anthropology methods such as mapping, kinship, field diary, questionnaires and interviews, photo/video, participant observation and a research and/or service project while living with a family in a community. May include local language classes for credit. Sites vary. Perm of Instructor. BoK: SS, DC. Credit Level: U, G. Credit Hrs: 3.00-8.00

15ANTH630**Language and Linguistics**

Nature of form and process in languages of the world from the perspective of linguistics as a social science. BoK: SS., DC. Credit Level: U, G. Credit Hrs: 4.00

15ANTH631**Language Types**

Proseminar on strategies of non-historical language classification and typological change. Survey of major language families. Review of pertinent literature and recent research. Prereq.: Advanced standing in Linguistics or permission of instructor. BoK: SS., DC. Credit Level: U, G. Credit Hrs: 4.00

15ANTH632**Ethnolinguistics**

Relationships of linguistic variation to other cultural variables including social organization and world view. The linguistic relativity hypothesis, linguistic inference and prehistoric culture. BoK: SS., DC. Credit Level: U, G. Credit Hrs: 4.00

15ANTH643**Special Topics in Anthropology**

Special topics in anthropology. May be repeated if topics vary. BoK: SS. Credit Level: U, G. Credit Hrs: 4.00

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Anthropology**15ANTH647****History and Theory of Anthropology**

Growth of anthropology; examination of major theoretical positions in cultural anthropology. BoK: SS., DC. Credit Level: U, G. Credit Hrs: 4.00

15ANTH648**Contemporary Anthropological Theory**

A treatment of anthropological theory since 1960, with emphasis on cultural anthropology. Prereq: 15ANTH647. BoK: SS, DC. Credit Level: U, G. Credit Hrs: 4.00

15ANTH696**Archaeological Theory**

Historical survey of, and recent trends in, archaeological theory, with emphasis on the scientific aspects of archaeological research. Prereq: 15ANTH107. BoK: HP, SS. Credit Level: U, G. Credit Hrs: 4.00

15ANTH690**Seminar in Ecological Anthropology**

Examines the ways in which societies interact with their environments. Topics include subsistence adaptations, population growth and regulation, ethnoecology, cooperative resource management, and globalization. Special consideration will be given to the relevance of these topics for conservation and sustainable development. Credit Level: G. Credit Hrs: 4.00

15ANTH700**Fundamentals of Anthropology**

A critical examination of the history, methods, and theory of four-field anthropology. Credit Level: G. Credit Hrs: 4.00

15ANTH701**Advanced Cultural Resource Management**

Advanced methods in the protection and management of cultural heritage, including archaeological, historical and landscape data and objects, records, non-cultural materials, reports, and digital data. This course covers an overview of laws and regulations related to cultural resource management, including archaeological collections, historical preservation, and museums. The course includes a practicum. Credit Level: G. Credit Hrs: 4.00

15ANTH703**Southwest Archaeology**

A discussion of patterns and trends in the archaeological record of the American Southwest. Topics include political, settlement, and economic systems. Credit Level: G. Credit Hrs: 4.00

15ANTH705**Maya Archaeology**

Discussion of patterns and trends in the archaeological record of lowland and highland Maya. Credit Level: G. Credit Hrs: 4.00

15ANTH708**New World Archaeology**

Survey of selected cultural sequences in North, Middle and South America prior to European contact, including both civilized and non-civilized cultures. Credit Level: G. Credit Hrs: 4.00

15ANTH709**Ohio Valley Archaeology**

Sequence of cultures prior to European contact and development of archaeological research in eastern North America with emphasis on the Ohio Valley. Credit Level: G. Credit Hrs: 4.00

15ANTH710**Individual Work in Anthropology**

Topic to be arranged with professor. Credit Level: G. Credit Hrs: 1.00-15.00

15ANTH711**Individual Work in Anthropology**

Topic to be arranged with professor. Prereq.: Perm. of instr. Credit Level: G. Credit Hrs: 1.00-15.00

Anthropology**15ANTH712****Individual Work in Anthropology**

Topic to be arranged with professor. Prereq.: Perm. of instr. Credit Level: G. Credit Hrs: 1.00-15.00

15ANTH713**Seminar in Economic Anthropology**

Seminar on the impact of world political and economic systems on household, using anthropological theories to understand forms of labor, migration and revised gender roles. Credit Level: G. Credit Hrs: 4.00

15ANTH715**Master's Thesis Research**

Topic to be arranged with professor. Prereq.: Perm. of instr. Credit Level: G. Credit Hrs: 1.00-15.00

15ANTH716**Master's Thesis Research**

Topic to be arranged with professor. Prereq.: Perm. of instr. Credit Level: G. Credit Hrs: 1.00-15.00

15ANTH717**Master's Thesis Research**

Topic to be arranged with professor. Prereq.: Perm. of instr. Credit Level: G. Credit Hrs: 1.00-15.00

15ANTH718**Advanced Applied Anthropology**

Pro-seminar on the practice and theory of applied anthropology (mainly, cultural anthropology), in both domestic and international, or cross-cultural, contexts. Credit Level: G. Credit Hrs: 4.00

15ANTH719**Afro-Brazilian Ethnography**

The course explores the history and ethnography of the African diaspora in Brazil from the colonial period to the present. Topics will include development and current forms of Afro-Brazilian culture, the intersections of race, racism and identity, present-day social and economic problems facing Afro-Brazilians, and the emergence of grassroots movements and political activism. Credit Level: G. Credit Hrs: 4.00

15ANTH720**Balkan Ethnography**

Peoples and cultures of SE Europe (Greece, Serbia, Bosnia, Rumania, etc.). Peasant life amid the larger societies. Ethnogeneses and interrelations of groups and the Balkan language area. Sources of ethnic conflict. Credit Level: G. Credit Hrs: 4.00

15ANTH722**Advanced Topics in Archaeological Interpretation**

Attention focuses on how consideration of cultural and natural formation processes affects the interpretation of archaeological variability. Credit Level: G. Credit Hrs: 4.00

15ANTH723**Assemblage Analysis**

Advanced theories and methods in archaeological analysis. Credit Level: G. Credit Hrs: 4.00

15ANTH725**Archaeology of Identity**

This course will explore the ways in which the material world is implicated in the production and assertion of identity, and how the use of material culture to express identity can be interpreted in both modern and ancient contexts. The course takes an integrated anthropological approach. Case studies will be drawn from ethnographic and archaeological sources. Credit Level: G. Credit Hrs: 4.00

15ANTH726**Ethnography of Japan**

Reviews anthropological work on the nature of sociocultural systems of Japan. Attention to modernization and the maintenance of cultural integrity. Credit Level: G. Credit Hrs: 4.00

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Anthropology**15ANTH727****Ethnography of Siberia, Central Asia, and Turkey**

Representative peoples, culture, and nature of adaptations to the arctic and subarctic ecological base. Cultural base of modern Turkey and Turkish secularization. Credit Level: G. Credit Hrs: 4.00

15ANTH729**Advanced Topics in Linguistic Anthropology**

Advanced topics in the study of linguistic systems from an anthropological perspective, with focus on language structure, language use, and language change. Credit Level: G. Credit Hrs: 4.00

15ANTH733**Caribbean Ethnography**

The peoples and cultures of the caribbean and circum-caribbean region. Overview of European colonialism and slavery and their impact on indigenous populations and on the social, religious and ethnic identities of contemporary caribbean peoples. Credit Level: G. Credit Hrs: 4.00

15ANTH734**Mesoamerican Ethnography**

Aboriginal Indian and contemporary cultures of Mexico and Guatemala. Credit Level: G. Credit Hrs: 4.00

15ANTH735**North America Indian Ethnography**

Ethnography and ethnology of Native North American societies. Credit Level: G. Credit Hrs: 4.00

15ANTH740**Ancient New World Nobility**

Examines the institution of the royal courts in the ancient New World as a nexus for negotiation of power and assertion of cultural identity. Case studies concentrate on the Maya, Aztec and Inca cultures to provide important comparative contexts. We also explore the integration of textual and material evidence in investigating ancient cultures. Credit Level: G. Credit Hrs: 4.00

15ANTH741**Seminar: Food Research in Anthropology**

An exploration of the different approaches that archaeologists, ethnologists, biological anthropologists and linguists take to the study of food and its role in human societies. Credit Level: G. Credit Hrs: 4.00

15ANTH746**Country and City Seminar**

The anthropological literature on movements between rural and urban spaces. It will treat cultural and symbolic transitions, hybridity, and identity transformations. Credit Level: G. Credit Hrs: 3.00-4.00

15ANTH750**Anthropology of Religion**

Cross-cultural comparative study of systems of ritual and belief, particularly as related to other aspects of culture. Credit Level: G. Credit Hrs: 4.00

15ANTH751**Advanced Introduction to Biological Anthropology**

Advanced introduction to evolutionary theory and primate ecology. Credit Level: G. Credit Hrs: 4.00

15ANTH752**Advanced Introduction to Biological Anthropology**

Advanced introduction to primate mating strategies, life history theory, social behavior, and the fossil record. Credit Level: G. Credit Hrs: 4.00

15ANTH753**Advanced Introduction to Biological Anthropology**

Advanced introduction to human evolution, behavioral ecology and biological variation in contemporary populations. Credit Level: G. Credit Hrs: 4.00

Anthropology**15ANTH755****Ethnography of the Tropical Lowlands of the Americas**

Advanced ethnographic seminar covering peoples from Amazon to Mexico: the ecological and cultural diversity of peoples adapted to the lowland tropics; based on ethnographies and other materials. Credit Level: G. Credit Hrs: 4.00

15ANTH760**Agricultural Analysis**

In-depth study of plant domestication and plant use. Both New World and Old World examples will be treated. Credit Level: G. Credit Hrs: 4.00

15ANTH762**Analysis of Civilization**

Detailed examination of the origins of community organization in the New and Old Worlds. The detailed effects of trade, warfare, large scale irrigation systems, and the influence of population growth will be assessed. Credit Level: G. Credit Hrs: 4.00

15ANTH770**Advanced Historical Archaeology**

Archaeology of the recent past, when written documentation is available, including colonial and post-colonial development. Includes an introduction to Ethnohistory as well as historic structures and sites. Credit Level: G. Credit Hrs: 4.00

15ANTH771**Advanced Field Course in Archaeology: Southwest**

Archaeological field methods involving participation in actual site survey and/or excavation in the American Southwest. Credit Level: G. Credit Hrs: 4.00-8.00

15ANTH772**Advanced Field Course in Archaeology: Mesoamerica**

Archaeological field methods involving participation in actual site survey and/or excavation in Mesoamerica. Prereq.: Perm. of instr. Credit Level: G. Credit Hrs: 4.00-8.00

15ANTH773**Advanced Field Course in Archaeology: Midwest**

Archaeological field methods involving participation in actual site survey and/or excavation in the American Midwest. Credit Level: G. Credit Hrs: 4.00-12.00

15ANTH775**Seminar in Anthropological Film**

Documentary film production and the communication of anthropology to global audiences. Topics include advanced theory of anthropological filmmaking, analysis of the dynamics of anthropological film genres, and the methods of cinema used to convey the results of anthropological studies and knowledge. Credit Level: G. Credit Hrs: 4.00

15ANTH776**World Archaeology**

Survey of selected prehistoric cultural sequences in the Old World until the time of the Romans and in the New World before European contact. Credit Level: G. Credit Hrs: 4.00

15ANTH778**Old World Archaeology**

A developmental approach to the prehistory of the Old World from human origins in Africa to the initial experiments in civilization. Credit Level: G. Credit Hrs: 4.00

15ANTH779**Advanced Medical Anthropology Seminar**

Problems in medical anthropology with an emphasis upon clinically applied anthropology. Credit Level: G. Credit Hrs: 4.00

15ANTH780**Seminar in Anthropological Forensics**

Advanced analysis of procedures and advanced methods forensic anthropologists utilize for the search, recovery and identity of human skeletal remains (sex, age, stature, trauma and ancestry, cause and

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Anthropology**15ANTH780****Seminar in Anthropological Forensics**

time since death). Prereq: 15ANTH590. Credit Level: G. Credit Hrs: 4.00

15ANTH785**Archaeo- and Ethno-Astronomy**

The use of astronomy and calendars in tribal and pre-industrial state societies and theories on the origins of primitive astronomical knowledge. Credit Level: G. Credit Hrs: 4.00

15ANTH789**Human Adaptation Seminar**

Adaptation of humans to the environment, emphasizing climate, altitude, disease, nutrition and behavior. Credit Level: G. Credit Hrs: 4.00

15ANTH831**Advanced Individual Work in Anthropology**

Topics to be arranged with professor. Credit Level: G. Credit Hrs: 1.00-15.00

15ANTH832**Advanced Individual Work in Anthropology**

Topics to be arranged with professor. Credit Level: G. Credit Hrs: 1.00-15.00

15ANTH833**Advanced Individual Work in Anthropology**

Topics to be arranged with professor. Credit Level: G. Credit Hrs: 1.00-15.00

15ANTH837**Anthropological Research**

Topics to be arranged with professor. Credit Level: G. Credit Hrs: 1.00-15.00

15ANTH838**Anthropological Research**

Topics to be arranged with professor. Credit Level: G. Credit Hrs: 1.00-15.00

15ANTH839**Anthropological Research**

Topics to be arranged with professor. Credit Level: G. Credit Hrs: 1.00-15.00

15ANTH879**Clinical Anthropology Seminar**

This course builds on advanced medical anthropology seminar (779) with an emphasis upon clinically applied anthropology. Graduate students will be required to design a research project. Prereq.: A course in cultural or physical anthropology at the graduate level, preferably medical anthropology or perm. of instr. Perm of Instructor. Credit Level: G. Credit Hrs: 4.00

Arabic Languages and Culture**15ARAB101****Basic Literary Arabic 1**

Basic Arabic Language and culture. First quarter in a 3-quarter sequence that fulfills the A&S language requirement. DC HU BoK: DC., HU. Credit Level: U. Credit Hrs: 5.00

15ARAB102**Basic Literary Arabic II**

Basic Arabic language and culture. Second quarter in a 3 quarter sequence that fulfills the A&S language requirement. DC HU Prereq: 15ARAB101. BoK: DC, HU. Credit Level: U. Credit Hrs: 5.00

15ARAB103**Basic Literary Arabic 3**

Basic Arabic language and culture. Third quarter in the 3-quarter sequence that fulfills A&S language requirement. DC HU Prereq: 15ARAB102. BoK: DC, HU. Credit Level: U. Credit Hrs: 5.00

Arabic Languages and Culture**15ARAB110****Reading and Writing for Arabic Speakers**

Reading and writing instruction for heritage speaker of Arabic. Some grammar and vocabulary with an emphasis on calligraphy and alphabet. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15ARAB151**Colloquial Arabic I**

Introduction to the phonology, morphology, and syntax of the spoken language of educated urbanites of the eastern Arab world. Does not fulfill the foreign language requirement. BoK: DC., HU. Credit Level: U. Credit Hrs: 3.00

15ARAB152**Colloquial Arabic II**

Continuation of 151; analysis of and drill in morphological and syntactic patterns; expansion of vocabulary; practice in conversation Prereq: 15ARAB151. BoK: DC, HU. Credit Level: U. Credit Hrs: 3.00

15ARAB153**Colloquial Arabic III**

Course is a continuation of 152. Intensive practice in speaking colloquial Arabic with emphasis on various cultural aspects of Arab life. Prereq: 15ARAB152. BoK: DC, HU. Credit Level: U. Credit Hrs: 3.00

15ARAB201**Second Year Literary Arabic 1**

Intermediate Arabic literary language and culture First quarter in a 3-quarter sequence; continuation of the Basic Literary Arabic course. DC HU Prereq: 15ARAB103. BoK: HU, DC. Credit Level: U. Credit Hrs: 5.00

15ARAB202**Second Year Literary Arabic 2**

Intermediate Arabic literary language and culture. Second quarter in an intensive 3-quarter sequence. DC HU Prereq: 15ARAB201. BoK: HU, DC. Credit Level: U. Credit Hrs: 5.00

15ARAB203**Second Year Literary Arabic 3**

Intermediate Arabic literary language and culture. Third quarter in an intensive 3-quarter sequence. DC HU Prereq: 15ARAB202. BoK: HU, DC. Credit Level: U. Credit Hrs: 5.00

15ARAB301**Advanced Intermediate Literary Arabic I**

Reading skills through adapted and authentic Arabic texts: aural comprehension, conversation, and controlled compositions on various aspects of Arabic culture. BoK: NA. Credit Level: U. Credit Hrs: 5.00

15ARAB302**Advanced Intermediate Literary Arabic II**

Continues Arabic 301 in the development of advanced intermediate level of proficiency. Prereq: 15ARAB301. BoK: NA. Credit Level: U. Credit Hrs: 5.00

15ARAB303**Advanced Intermediate Literary Arabic III**

Course continues the development of advanced intermediate level of proficiency, transforming passive skills into active ones and introducing a range of literary genres, styles, themes, and periods. Prereq: 15ARAB302. BoK: NA. Credit Level: U. Credit Hrs: 5.00

15ARAB310**Culture of Contemporary Arabic Society**

An analytical study of the cultural traits and patterns of contemporary Arab society. It examines the development of its language and dialects, family structure, beliefs and traditions, sectarianism, and challenges of modernization as depicted in some recent Arabic literature, music, and art. DC HU BoK: DC., HU. Credit Level: U. Credit Hrs: 3.00

15ARAB310H**Culture of Contemporary Arabic Society**

This course examines the cultural traits and patterns of contemporary Arab society, including the development of its language and dialects,

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LT: Literature. NS: Natural Sciences. QR: Quantitative Reasoning. SE: Social & Ethical Issues. SS: Social Sciences.

Arabic Languages and Culture**15ARAB310H****Culture of Contemporary Arabic Society**

beliefs, customs, and traditions within the framework of a dynamically changing society that attempts to promote change without sacrificing continuity and to pursue development without losing identity. BoK: DC., HU. Credit Level: U. Credit Hrs: 3.00

15ARAB311**Arab-American Culture**

Students discuss, analyze, and write about issues in Arab-American culture, society, and literature within the context of social diversity in the United States. Taught in English. DC HU BoK: DC., HU. Credit Level: U. Credit Hrs: 3.00

15ARAB320**Modern Arabic Literature in Translation**

This course surveys the development of modern Arabic literature and the influence of Western literary genres. Poetic selections, short stories novels, and plays of wide-ranging orientation (romantic, mystical, socio-political, religious, and philosophical) are read and critically discussed with reference to their historical and cultural contexts and literary techniques. Taught in English. DC LT BoK: LT., DC. Credit Level: U. Credit Hrs: 3.00

15ARAB321**Classical Arabic Literature in Translation**

Survey in English of classical & medieval Arabic poetry & prose genres developed between 5th & 16th centuries & literary styles & conventions. Incl: heroic odes, Qur'anic, philosophical, aesthetic, mystical narratives, fables, epistles, erotic tales, love lyrics, drama & folkloric romances. DC LT BoK: LT., DC. Credit Level: U. Credit Hrs: 3.00

15ARAB322**Arabic Women Novelists**

This course examines, in English translation, novels by Arab women writers with reference to Arab and Western feminist theories. It explores themes such as the conflict between tradition and modernity; sexuality, literary discourse, neo-patriarchy, and war; religion, imperialism, and sexual politics; and the construction of individual and national identity. BoK: LT., DC. Credit Level: U. Credit Hrs: 3.00

15ARAB323**Love and Sexuality in Arabic Literature**

Examines themes of love and sexuality as depicted in texts from pre-Islamic poetry and the Qur'an to Arabian Nights and Modern Arabic Literature, including: courtly and mystical love poetry, erotic awareness and structures, the female body and literary discourse, sexual politics, and patriarchal sexuality. DC LT BoK: LT., DC. Credit Level: U. Credit Hrs: 3.00

15ARAB401**Advanced Literary Arabic 1**

The series 401, 402, 403 emphasize reading, translating, and analyzing classical, medieval and modern Arabic literary and cultural texts of different genres and themes, communicating through written assignments and oral presentations, and acquiring an understanding of Arabic structure, syntax, and style. This class is conducted in Arabic. Prereq: 15ARAB303. BoK: DC, LT. Credit Level: U. Credit Hrs: 3.00

15ARAB402**Advanced Literary Arabic 2**

Continuation of 15-ARAB-401. Conducted in Arabic Prereq: 15ARAB401. BoK: DC, LT. Credit Level: U. Credit Hrs: 3.00

15ARAB403**Advanced Literary Arabic 3**

Continuation of 15-ARAB-402. Conducted in Arabic. Prereq: 15ARAB402. BoK: DC, LT. Credit Level: U. Credit Hrs: 3.00

15ARAB411**Literary Arabic Grammar I**

Accelerated introduction to the structure of Modern Standard and Classical Arabic: phonology, morphology, and syntax, with emphasis on translation exercises and the development of reading

Arabic Languages and Culture**15ARAB411****Literary Arabic Grammar I**

comprehension skills. Perm of Instructor. BoK: DC, HU. Credit Level: U. Credit Hrs: 3.00

15ARAB412**Literary Arabic Grammar II**

Analysis of more complex structures of Arabic to enable students to comprehend authentic Modern Standard and classical Arabic texts. Prereq: 15ARAB411. BoK: DC, HU. Credit Level: U. Credit Hrs: 3.00

15ARAB481**Arabic Capstone**

A seminar for graduating seniors to discuss and analyze common readings, to reflect on methodological issues, and to exchange ideas with other students sharing related issues. The course will require completion of an independent research project. BoK: NA. Credit Level: U. Credit Hrs: 1.00

15ARAB511**History of the Arabic Language**

Survey of the development of the Arabic language from its origins to the present, with emphasis on the externally motivated changes that led to its evolution from a tribal dialect into an international literary language. Perm of Instructor. BoK: DC, HU. Credit Level: U, G. Credit Hrs: 3.00

15ARAB591**Independent Study In Arabic**

Previous written approval of instructor and undergraduate adviser required. Perm of Instructor. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-15.00

15ARAB592**Independent Study In Arabic**

Previous written approval of instructor and undergraduate adviser required. The second offering in a three-part course sequence. Perm of Instructor. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-15.00

15ARAB593**Independent Study In Arabic**

Previous written approval of instructor and undergraduate adviser required. The third offering in a three-part course sequence. Perm of Instructor. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-15.00

15ARAB594**Group Study in Arabic Studies**

An instructor-supervised collective study of a topic in Arabic language, literature or culture. (repeatable up to 15 hours) Perm of Instructor. BoK: LT, DC. Credit Level: U, G. Credit Hrs: 1.00-5.00

15ARAB581**Basic Literary Arabic 1 for Graduate Students**

This course is open to graduate students taking Arabic 101, which develops reading, speaking, listening, writing, and cultural skills in Modern Literary Arabic. No previous knowledge of Arabic is required. Students attend one of the sections of Arabic 101. Credit Level: G. Credit Hrs: 3.00

15ARAB582**Basic Literary Arabic 2 for Graduate Students**

The course is open to graduate students taking Arabic 102, which continues Arabic 101 in the development of elementary level proficiency. Students attend one of the sections of Arabic 102. Prereq: 15ARAB581. Credit Level: G. Credit Hrs: 3.00

15ARAB583**Basic Literary Arabic 3 for Graduate Students**

This course is open to graduate students taking Arabic 103, which continues Arabic 102 in the development of elementary level of proficiency. Students attend one of the sections of Arabic 103. Prereq: 15ARAB582. Credit Level: G. Credit Hrs: 3.00

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Arabic Languages and Culture**15ARAB584****2nd Year Literary Arabic 1 for Graduate Students**

This course is open to graduate students taking Arabic 201, which develops reading, speaking, listening, writing, and cultural skills in Modern Literary Arabic. Students attend a section of Arabic 201. Prereq: 15ARAB103, 15ARAB583. Credit Level: G. Credit Hrs: 3.00

15ARAB585**2nd Year Literary Arabic 2 for Graduate Students**

This course is open to graduate students taking Arabic 202, which continues Arabic 201 in the development of intermediate level proficiency. Students attend a section of Arabic 202. Prereq: 15ARAB251. Credit Level: G. Credit Hrs: 3.00

15ARAB586**2nd Year Literary Arabic 3 for Graduate Students**

This course is open to graduate students taking Arabic 203, which continues Arabic 202 in the development of intermediate level proficiency. Students attend a section of Arabic 203. Prereq: 15ARAB252. Credit Level: G. Credit Hrs: 3.00

Asian Languages**15ASIA101****Elementary Japanese**

Fundamental patterns of modern Japanese with emphasis on spoken language. Mastery of Hiragana and Katakana and up to 200 Japanese characters is also expected. BoK: HU., DC. Credit Level: U. Credit Hrs: 3.00

15ASIA102**Elementary Japanese**

Fundamental patterns of modern Japanese with emphasis on spoken language. Mastery of Hiragana and Katakana and up to 200 Japanese characters is also expected. The second offering in a three-part course sequence. Prereq: 15ASIA101. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15ASIA104**Elementary Chinese**

Basic patterns of modern Chinese with emphasis on spoken language. Mastery of about 300 Chinese characters is expected. BoK: HU., DC. Credit Level: U. Credit Hrs: 3.00

15ASIA105**Elementary Chinese**

Basic patterns of modern Chinese with emphasis on spoken language. Mastery of about 300 Chinese characters is expected. The second offering of a three-part course sequence. Prereq: 15ASIA104. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15ASIA106**Elementary Chinese**

Basic patterns of modern Chinese with emphasis on spoken language. Mastery of about 300 Chinese characters is expected. The third offering of a three-part course sequence. Prereq: 15ASIA105. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15ASIA161**Intensive Japanese for International Co-op students.**

This is the first in a series of language/ culture courses, which prepare students participating in the International co-op Program for a five-months co-op assignment in Japan. The course focuses on communicative language use while establishing fundamental understanding of the Japanese language. It also provides students with cultural information and an understanding of the Japanese people and the Japanese work environment. Perm of Instructor. BoK: HU, DC. Credit Level: U. Credit Hrs: 6.00

15ASIA201**Intermediate Japanese**

Aims at basic proficiency in spoken language; additional 200-300 Japanese characters are also introduced. Prereq: 15ASIA103. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

Asian Languages**15ASIA202****Intermediate Japanese**

Aims at basic proficiency in spoken language; additional 200-300 Japanese characters are also introduced. The second offering of a three-part course sequence. Prereq: 15ASIA201. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15ASIA203**Intermediate Japanese**

Aims at basic proficiency in spoken language; additional 200-300 Japanese characters are also introduced. The third offering of a three-part course sequence. Prereq: 15ASIA202. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15ASIA204**Intermediate Chinese**

Aims at basic proficiency in spoken Chinese (Mandarin); additional 300 Chinese characters are also introduced. Prereq: 15ASIA106. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15ASIA205**Intermediate Chinese**

Aims at basic proficiency in spoken Chinese (Mandarin); additional 300 Chinese characters are also introduced. The second offering of a three-part course sequence. Prereq: 15ASIA204. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15ASIA206**Intermediate Chinese**

Aims at basic proficiency in spoken Chinese (Mandarin); additional 300 Chinese characters are also introduced. The third offering of a three-part course sequence. Prereq: 15ASIA205. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15ASIA210**Philosophy of Asian Religions**

Read sacred texts of Hinduism, Buddhism, Islam. Explore philosophical questions. What is role of faith, reason, experience? How interpret religious texts? Religious views of human nature, incl. nature of "evil"? How reconcile views of believer and non- or un-believer? Quizzes, essay, final exam, required attendance. BoK: DC., SE. Credit Level: U. Credit Hrs: 3.00

15ASIA214**Intermediate Chinese I**

First quarter of intensive intermediate Chinese (Mandarin), builds upon the 100-level introductory courses in Chinese. BoK: DC., HU. Credit Level: U. Credit Hrs: 5.00

15ASIA215**Intermediate Chinese II**

Second quarter of intensive intermediate Chinese (Mandarin). BoK: DC., HU. Credit Level: U. Credit Hrs: 5.00

15ASIA216**Intermediate Chinese III**

Third quarter of intensive intermediate level Chinese (Mandarin). BoK: DC., HU. Credit Level: U. Credit Hrs: 5.00

15ASIA224**Intermediate Intensive Chinese**

This is an Intensive Course for Chinese Language. It facilitates the listening, speaking, writing, and reading required for effectively learning the language. Students will become familiar with the ways (in theory and via interaction with local people) to communicate, make a point, exchange ideas, and develop problem solving strategies, specifically within the social and cultural aspects of cultural differences. Open to students who have completed one year of college-level Mandarin Chinese. BoK: HU., DC. Credit Level: U. Credit Hrs: 3.00-5.00

15ASIA225**Contemporary Chinese Culture**

This is a course in contemporary Chinese culture designed to complement the Intensive Course for Chinese language that takes

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Asian Languages**15ASIA225****Contemporary Chinese Culture**

place in China. This program is open to students in good academic standing, and who have successfully completed one year of college-level Mandarin Chinese or equivalent coursework. Assignments will include reading and reacting to pertinent texts on Chinese culture, and comparing daily observations of Chinese culture to readings and class discussions. Students will maintain a daily journal, prepare class presentations and writing assignments. BoK: HU., DC. Credit Level: U. Credit Hrs: 3.00-5.00

15ASIA301**Japanese Composition and Conversation**

Class conducted in Japanese. Using readings from various subject areas. Proficiency in reading and speaking Japanese will be stressed. Prereq: 15ASIA203. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15ASIA302**Japanese Composition and Conversation**

Class conducted in Japanese. Using readings from various subject areas. Proficiency in reading and speaking Japanese will be stressed. The second offering of a three-part course sequence. Prereq.: 15-021-201,2,3 or equiv. Prereq: 15ASIA301. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15ASIA303**Japanese Composition and Conversation**

Class conducted in Japanese. Using readings from various subject areas. Proficiency in reading and speaking Japanese will be stressed. The third offering of a three-part course sequence. Prereq.: 15-021-201,2,3 or equiv. Prereq: 15ASIA302. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15ASIA361**Language and Cultural Immersion (Nagoya, Japan)**

This course includes a four-week intensive Language and Culture Program at the Nagoya University of Foreign Studies in Japan. While attending the school, students will stay with a host family. After completing the intensive course, the students will relocate to Tokya and stay with another host family for a week. Hands-on cultural programs will be available for all the students, and advanced students will have an opportunity to take cultural classes. Students must contact the Japanese Program upon registration. BoK: NA. Credit Level: U. Credit Hrs: 5.00-10.00

15ASIA364**Japanese Language and Culture I for International Co-op Program**

This course follows the summer course and is designed for students who are visiting Japan to work and/or study in the future. The students will review the basic grammatical items and gradually develop their ability to comprehend authentic materials in listening and reading. Perm of Instructor. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15ASIA481**Individual Work in Asian Studies**

Open only to those in the programs leading to the BA or the Certificate in Asian Studies. BoK: HU., DC. Credit Level: U. Credit Hrs: 3.00

15ASIA482**Individual Work in Asian Studies**

Open only to those in the programs leading to a BA or the Certificate in Asian Studies. The second offering of a three-part course sequence. Prereq.: Perm. of instr. and Chairperson of Committee on Asian Studies. BoK: HU., DC. Credit Level: U. Credit Hrs: 3.00

15ASIA483**Individual Work in Asian Studies**

Open only to those in the programs leading to the BA or Certificate in Asian Studies. The third offering of a three-part course sequence. Prereq.: Perm. of instr. and Chairperson of Committee on Asian Studies. BoK: HU., DC. Credit Level: U. Credit Hrs: 3.00

Asian Languages**15ASIA491****Senior Project in Asian Studies**

Open only to the Asian Studies major in the senior year. May focus on one discipline or may be interdisciplinary. Directed readings, research, or other learning experiences designed to provide cohesion to the individual's program of study. BoK: DC. Credit Level: U. Credit Hrs: 3.00

15ASIA492**Senior Project in Asian Studies**

Open only to the Asian Studies major in the senior year. May focus on one discipline or may be interdisciplinary. Directed readings, research, or other learning experiences designed to provide cohesion to the individual's program of study. The second offering of a three-part course sequence. Prereq.: Perm. of instr. and Chairperson of Committee on Asian Studies. BoK: DC. Credit Level: U. Credit Hrs: 3.00

15ASIA493**Senior Project in Asian Studies**

Open only to the Asian Studies major in the senior year. May focus on one discipline or may be interdisciplinary. Directed readings, research or other learning experiences designed to provide cohesion to the individual's program of study. The third offering of a three-part course sequence. Prereq.: Perm. of instr. and Chairperson of Committee on Asian Studies. BoK: DC. Credit Level: U. Credit Hrs: 3.00

15ASIA501**Elementary Conversation Japanese**

For graduate beginners, emphasis on spoken modern Japanese; mastery of Hiragana and Katakana and up to 200 Japanese characters is also expected. BoK: HU., DC. Credit Level: U, G. Credit Hrs: 3.00

15ASIA502**Elementary Conversation Japanese**

For graduate beginners, emphasis on spoken modern Japanese; mastery of Hiragana and Katakana and up to 200 Japanese characters is also expected. The second offering of a three-part course sequence. Prereq: 15ASIA501. BoK: HU, DC. Credit Level: U, G. Credit Hrs: 3.00

15ASIA503**Elementary Conversation Japanese**

For graduate beginners, emphasis on spoken modern Japanese; mastery of Hiragana and Katakana and up to 200 Japanese characters is also expected. The third offering of a three-part course sequence. Prereq: 15ASIA502. BoK: HU, DC. Credit Level: U, G. Credit Hrs: 3.00

15ASIA504**Elementary Conversation Chinese**

For graduate beginners, emphasis on spoken modern Chinese. Master of about 300 Chinese characters is expected. BoK: HU., DC. Credit Level: U, G. Credit Hrs: 3.00

15ASIA505**Elementary Conversation Chinese**

For graduate beginners, emphasis on spoken modern Chinese. Mastery of about 300 Chinese characters is expected. The second offering of a three-part course sequence. Prereq.: 15-021-504 or perm. of instr. Prereq: 15ASIA504. BoK: HU, DC. Credit Level: U, G. Credit Hrs: 3.00

15ASIA506**Elementary Conversation Chinese**

For graduate beginners, emphasis on spoken modern Chinese. Mastery of about 300 Chinese characters is expected. The third offering of a three-part course sequence. Prereq.: 15-021-504 or perm. of instr. Prereq: 15ASIA505. BoK: HU, DC. Credit Level: U, G. Credit Hrs: 3.00

15ASIA550**Introduction to Asian Studies**

Interdisciplinary survey of the issues and methods in Asian Studies. Examines the influence of Asia's historical and cultural traditions on contemporary politics, policies, and society. BoK: DC., HU. Credit Level: U, G. Credit Hrs: 3.00-4.00

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Asian Languages**15ASIA581****Independent Study**

Individual research projects requiring prior faculty approval. Cr. and hrs. to be arranged. BoK: DC. Credit Level: U, G. Credit Hrs: 1.00-5.00

15ASIA582**Independent Study**

See: 15-021-581. BoK: DC. Credit Level: U, G. Credit Hrs: 1.00-5.00

15ASIA583**Independent Study**

See: 15-021-581. BoK: DC. Credit Level: U, G. Credit Hrs: 1.00-5.00

Biological Sciences**15BIOL101****Biology**

The sequences Biology 101, 102,103 taken concurrently with Biol. 111, 112, 113, fulfills the natural Science requirement in Arts_and Sciences as well as the beginning course required of major and preprofessional students. Topics covered in Biol. 101 include: geologic time scale; origin of life; atoms and molecules; cell structure, biochemistry, physiology and division; plant tissues and origins; plant nutrition; nitrogen cycle. Coreq.: Biol. 111. Coreq: 15BIOL111. Transfer Module. BoK: NS. Credit Level: U. Credit Hrs: 3.00

15BIOL101H**Honors Biology**

An honors course associated with first year biology. Three lectures and one recitation per week. Coreq: 15BIOL111H. Transfer Module. BoK: NS. Credit Level: U. Credit Hrs: 3.00

15BIOL102**Biology**

Continuation of a sequence designed for biology majors and preprofessional students. Topics covered include: nuclear and cell division, Mendelian and molecular genetics, the gene, DNA, population biology, and plant diversity. Pre-req. 15Biol101; Co-req. 15Biol112. Transfer Module. BoK: NS. Credit Level: U. Credit Hrs: 3.00

15BIOL102H**Honors Biology**

See 15-047-101H Prereq: 15BIOL101. Coreq: 15BIOL112. Transfer Module. BoK: NS. Credit Level: U. Credit Hrs: 3.00

15BIOL103**Biology**

Continuation of sequence designed for Biology majors and preprofessional students. Topics covered include: animal diversity; animal develop; nerves; muscle; circulation; respiration; homeostasis; ecology. Pre-req. 15BIOL102; Co-req. 15BIOL113. Transfer Module. BoK: NS. Credit Level: U. Credit Hrs: 3.00

15BIOL103H**Honors Biology**

See 15-047-101H Prereq: 15BIOL102. Coreq: 15BIOL113H. Transfer Module. BoK: NS. Credit Level: U. Credit Hrs: 3.00

15BIOL104**Life on Earth: Evolution, Diversity, and Ecology**

Organismal biology, including the evolution of life on earth, the classification of contemporary life, and the fundamentals of ecology. For non-science majors. Pre-req.: None. Transfer Module. BoK: NS. Credit Level: U. Credit Hrs: 3.00

15BIOL105**How Life Reproduces: Genetics**

Basic principles of genetics including how genetic information is stored, reproduced, inherited, expressed and mutated. The relevance of these basic genetic principles to current social issues such as human genetic diseases, genetic cloning, biotechnology, drug development and cancer is discussed. For non-science majors. Pre-req.: None. Transfer Module. BoK: NS. Credit Level: U. Credit Hrs: 3.00

Biological Sciences**15BIOL106****How Life Works: From Cells to Organisms**

Cell structure from bacteria through multicellular organisms, how cells function and produce or use energy; organization of complex organisms, and how these organisms interact with their environment. For non-science majors. Pre-req.: None. Transfer Module. BoK: NS. Credit Level: U. Credit Hrs: 3.00

15BIOL111**Biology Laboratory**

Designed for students to see and experiment with plants and animals, materials and methods discussed in the lecture. An introduction to modern biological techniques. Topics are complementary to the lectures for that quarter. Coreq: 15BIOL101. Transfer Module. BoK: NA. Credit Level: U. Credit Hrs: 2.00

15BIOL111H**Lab: Honors Biology & Recitation**

Description not available. Coreq: 15BIOL101H. Transfer Module. BoK: NA. Credit Level: U. Credit Hrs: 2.00

15BIOL112**Biology Laboratory**

Designed for students to see and experiment with plants and animals, materials and methods discussed in the lecture. An introduction to modern biological techniques. Topics are complementary to the lectures for that quarter. This is the second offering of a three-course sequence. Coreq.: Biol. 102. Coreq: 15BIOL102. Transfer Module. BoK: NA. Credit Level: U. Credit Hrs: 2.00

15BIOL112H**Honors Biology Laboratory**

An honors laboratory course associated with first year biology, with one lab per week. The third offering of a three-part course sequence. Coreq.: 15BIOL102H. Coreq: 15BIOL102H. Transfer Module. BoK: NA. Credit Level: U. Credit Hrs: 2.00

15BIOL113**Biology Laboratory**

Designed for students to see and experiment with plants and animals, materials and methods discussed in the lecture. An introduction to modern biological techniques. Topics are complementary to the lectures for that quarter. This is the third offering of a three-course sequence. Coreq.: Biol. 103. Coreq: 15BIOL103. Transfer Module. BoK: NA. Credit Level: U. Credit Hrs: 2.00

15BIOL113H**Honors Biology Laboratory**

See 15-047-111H Coreq: 15BIOL103H. Transfer Module. BoK: NA. Credit Level: U. Credit Hrs: 2.00

15BIOL122**Plants and Society**

Discussion of economically important plants used by humans in the past and present with a focus on the biology of agricultural and medicinal plants. BoK: NS. Credit Level: U. Credit Hrs: 3.00

15BIOL123**AIDS: Biomedical, Social and Ethical Issues**

An examination of the AIDS crisis in terms of biomedical, social, and ethical issues. Acknowledge of basic biology is not needed. There are no prerequisites. Satisfies the "Social and Ethical Issues" requirement of the General Education curriculum; does not fulfill biology major requirements. BoK: DC., SE. Credit Level: U. Credit Hrs: 3.00

15BIOL124**Biotechnology in the 21st century: Biomedical, Social and Ethical Issues**

The methods and uses of Biotechnology with emphasis on the Biotechnical, Social and Ethical issues raised by such technology. BoK: SE. Credit Level: U. Credit Hrs: 3.00

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Biological Sciences**15BIOL131****Genetics and Society**

Principles of genetics as applied to humans. Includes DNA technology and genetic engineering, sexual reproduction and genetic variation, ethical, legal, and social issues of human genetics, issues of quantity and quality of the human gene pool, and practical applications of these topics to individuals and society. For non-science majors. BoK: NS. Credit Level: U. Credit Hrs: 3.00

15BIOL132**Plants and People**

Descriptions of current and historical uses people have made of plants; economic impact of plants; plant involvement in human disease and pests. For non-biology majors. BoK: NS. Credit Level: U. Credit Hrs: 3.00

15BIOL133**Microbes And Society**

This course will provide students with an understanding of the significant impact that microorganisms have on human populations, as well as use microorganisms as a model system to provide students with a basic understanding of key concepts in biology. BoK: NS. Credit Level: U. Credit Hrs: 3.00

15BIOL140**The Power of Plagues**

Enhances general awareness and understanding of infectious diseases. Covers several disease outbreaks or epidemics (plagues) that were/are important to Western civilizations. Students learn how scientists found out what caused specific epidemics and how they developed methods to control, cure or prevent them. The course also discusses plagues in the context of history and how they impacted on the practices, values, and traditions observed in today's culture. BoK: NS. Credit Level: U. Credit Hrs: 3.00

15BIOL181**At the Zoo: Biodiversity**

Survey of animal kingdom using Zoo collection to understand group distinctions. Legal and demographic aspects of captive populations, and role of zoo in maintenance of endangered species. BoK: NS. Credit Level: U. Credit Hrs: 3.00

15BIOL182**At the Zoo: Behavior**

Physical and behavioral adaptation by animals to their natural habitats using animals in the zoo collections as examples BoK: NS. Credit Level: U. Credit Hrs: 3.00

15BIOL183**At the Zoo: Ecology**

Description of world's ecosystems and habitats with emphasis on conservation issues. Use of zoo collection for demonstration. BoK: NS. Credit Level: U. Credit Hrs: 3.00

15BIOL187**Horticulture I**

The first of a three-part series intended to to teach students basic horticulture science concepts and principles. The focus of Horticulture I is on the botanical concepts of plant structure, growth, and development. Students gain an an understanding of the plant kingdom and classification, basic morphology and physiological functions. BoK: NS. Credit Level: U. Credit Hrs: 3.00

15BIOL188**Horticulture II**

The second of a three-part series intended to to teach students the basics of horticulture science concepts. The focus of Horticulture II is on plant growth and development as a response to environmental conditions and management techniques. During this course students will learn the relationships between horticulture and ecological processes. BoK: NS. Credit Level: U. Credit Hrs: 3.00

Biological Sciences**15BIOL189****Horticulture III**

The third of a three-part series intended to teach students the basics of horticulture science concepts and principles. The focus of Horticulture III is on biotic and abiotic plant stressors including diseases, insects, and competitions for nutrients. BoK: NS. Credit Level: U. Credit Hrs: 3.00

15BIOL201**Anatomy and Physiology I**

A lecture and laboratory course on the structure and function of the human body. No credit for biology majors. BoK: NS. Credit Level: U. Credit Hrs: 4.00

15BIOL202**Anatomy and Physiology II**

A continuation of Anatomy and Physiology I. Prereq: 15BIOL201. BoK: NS. Credit Level: U. Credit Hrs: 4.00

15BIOL203**Anatomy and Physiology**

A continuation of Anatomy and Physiology II. Prereq: 15BIOL202. BoK: NS. Credit Level: U. Credit Hrs: 4.00

15BIOL271**Elementary Microbiology**

Fundamental aspects of microbiology and immunity; role of microorganisms in disease. No credit for biology majors. Prereq: Course in biological science. BoK: NS. Credit Level: U. Credit Hrs: 3.00

15BIOL301**Cell Structure and Function**

Lectures and labs on the integration of strucure and function in cells. Topics include protein structure and function, cell membranes and transport systems, organelles, both function and biogenesis and the cytoskeleton. Also covered are aspects of regulation of cell function including signal transduction and regulation of the cell cycle. Prereq: 15BIOL103, 15CHEM103. BoK: NS, QR. Credit Level: U. Credit Hrs: 4.00

15BIOL302**Genetics**

Lectures and Lab on the scope and significance of moderen genetics including molecular genetics, Mendelian genetics and population genetics. Prereq: 15CHEM103, 15BIOL103, 15BIOL102. BoK: NS, QR. Credit Level: U. Credit Hrs: 4.00

15BIOL303**Ecology**

Lecture and lab on the basic principles of ecology with an evolutionary perspective, including adaptation of organisms to environments, population and community ecology, ecosystem structure and function, and conservation biology. Field trips. Prereq: 15BIOL103, 15CHEM103. BoK: NS. Credit Level: U. Credit Hrs: 4.00

15BIOL304**Cell Biology for Chemistry Majors(BioChemistry Concentration)**

An introduction to the principles which define organelles, cells and tissues. Topics include protein structures, membranes, molecular motors, sensory receptors, and immune recognition. For Chemistry majors following the BioChemistry concentration. Prereq: 15BIOL101, 15BIOL102, 15BIOL103, 15CHEM101, 15CHEM102. BoK: NS. Credit Level: U. Credit Hrs: 3.00

15BIOL321**Introduction to Research and Careers**

Through this course students will develop an understanding of the process of research in biology. Research presentations will be made by faculty engaged in research and students will be introduced to the primary literature in conjunction with these presentations. Presentations will also introduce students to career possibilities in biology. BoK: NS. Credit Level: U. Credit Hrs: 1.00

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Biological Sciences**15BIOL460****Botany**

Introductory botany. A survey of the major concepts in the plant sciences. Molecular, cellular, anatomical, morphological, individual-level, taxonomical, populational, and evolutionary topics will be examined. The major ways in which plants and humans interact will also be reviewed. Prereq: 15BIOL102, 15BIOL112. Transfer Module. BoK: NS. Credit Level: U. Credit Hrs: 4.00

15BIOL498**Internship in Biology**

Field experience related to biology working with career professionals (paid or volunteer) under the guidance of the Department of Biological Sciences. Experience should provide education, training or instruction. BoK: NS. Credit Level: U. Credit Hrs: 1.00-6.00

15BIOL520**Invertebrate Zoology**

An introduction to the diversity of invertebrate animal life, including adaptive morphology, comparative physiology, behavior, ecology, and evolution of major phyla. Lec. and lab. Prereq: 15BIOL303. BoK: NS. Credit Level: U, G. Credit Hrs: 4.00

15BIOL535**Lab-Exercise Development in Anatomy and Physiology**

Development and implementation of laboratory exercises in anatomy and physiology. Cr. and hrs. to be arranged. BoK: NA. Credit Level: U. Credit Hrs: 1.00-5.00

15BIOL540**Neurobiology**

Lectures and discussion of the biophysics and physiology of cells in the nervous system, and the mechanisms by which neural circuits process information. Prereq: 15BIOL301. BoK: NS. Credit Level: U. Credit Hrs: 3.00

15BIOL550**Animal Behavior**

A broadly comparative introduction to animal behavior with some emphasis on evolutionary and ecological interpretations of behavioral diversity. Prereq: 15BIOL303. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

15BIOL551**General Microbiology**

An overview of the diversity, genetics, physiology, and ecology of microorganisms, with an emphasis on bacteria, archaea, and viruses. This is an organismal biology course and will focus on what sets these microorganisms apart from plants and animals. This course will provide the necessary background for upper-level courses in bacterial genetics, immunology, pathogenic microbiology, prokaryotic physiology, eukaryotic microbiology, environmental engineering, and microbial ecology. Pre-req: BIOL301, BIOL302, and Organic Chemistry. Prereq: 15BIOL301, 15BIOL302. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

15BIOL552**General Microbiology Laboratory**

Laboratory to accompany BIOL551 (co-req) which explores the identification, characterization, and metabolic capabilities of microorganisms, using appropriate sterile technique, culturing and microscopy skills. Prereq: 15BIOL302, 15BIOL301, 15CHEM203. Coreq: 15BIOL551. BoK: NA. Credit Level: U, G. Credit Hrs: 2.00

15BIOL565**Medical Botany**

Physiological and biochemical aspects of plants and plant products. Will fulfill departmental Capstone requirement. Prereq: 15BIOL301. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

15BIOL571**Animal Physiology**

This course explores comparative physiology at the organismal level. The emphasis is on basic principles of physiological processes. Prereq: 15BIOL301. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

Biological Sciences**15BIOL571****Animal Physiology**

This course explores comparative physiology at the organismal level. The emphasis is on basic principles of physiological processes. Prereq: 15BIOL301. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

15BIOL572**Animal Physiology**

Study of physiological functions common to all animals, with emphasis on biochemical, cellular, organ systems, organismal, and comparative physiology. The second offering in a two-part course. Prereq: 15BIOL571. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

15BIOL573**Developmental Biology**

Focuses on animal development and includes both descriptive embryology and the cellular and molecular basis for developmental changes. Weekly recitations will emphasize readings from the primary literature. Will fulfill departmental Capstone requirement. Prereq: 15BIOL301, 15BIOL302. BoK: NS. Credit Level: U, G. Credit Hrs: 4.00

15BIOL574**Sensory Physiology**

Basic properties of stimuli: sensory bases of vision, hearing, touch and smell; current concepts of transduction, neural pathways, transmitters and research techniques. Prereq: 15BIOL301, 15BIOL302, 15BIOL571, 15BIOL540. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

15BIOL577**Evolutionary Biology**

Study of the historical evolution of organisms, including synthesis of topics in molecular evolution, genetics of populations, speciation, phylogenetics, natural selection, biogeography, coevolution, and history of biological diversity. Will fulfill departmental Capstone requirement. Prereq: 15BIOL302, 15BIOL303. BoK: NS. Credit Level: U. Credit Hrs: 3.00

15BIOL580**Urban Ecology**

Ecology of water and energy supply for urban systems and disposal of residuals -- waste water, industrial waste, solid waste, hazardous waste, and polluted airsheds. Will fulfill departmental Capstone requirement. Prereq: 15BIOL303. BoK: NS, SE. Credit Level: U. Credit Hrs: 3.00

15BIOL590**Environmental Field Techniques**

This course uses field and laboratory methods to measure features of the biological and physical world. Students will learn about and use techniques to study plant and animal ecology, soils, and climate in both terrestrial and aquatic environments. Students will design and carry out their own research projects, applying the techniques learned in the class. Prereq: 15BIOL303. BoK: NS. Credit Level: U, G. Credit Hrs: 4.00

15BIOL597**Molecular Microbiology**

Focuses on molecular mechanisms that underlie important phenomena of bacteria, including biosynthesis of macromolecules, regulation of metabolic flux and gene expression, propagation of bacterial viruses, organization and dynamics of the genome, and antibiotic resistance. The course will emphasize the experimental and conceptual framework in which these mechanisms have been studied. Prereq: 15BIOL551. BoK: NS. Credit Level: U. Credit Hrs: 3.00

15BIOL598**Introduction to Molecular Biology**

An in-depth discussion of the structure of the gene and the molecular basis of DNA replication and repair. Prereq: 15BIOL301, 15BIOL302. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

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Biological Sciences**15BIOL599****Eukaryotic Genetics**

Recombinant DNA technology and the analysis of DNA sequences stressing eukaryotic examples. The laboratory provides experience with the basic techniques of recombinant DNA technology. Will fulfill departmental requirement. Prereq: 15BIOL301, 15BIOL302. BoK: NS. Credit Level: U. Credit Hrs: 4.00

15BIOL600**Undergraduate Research**

Credits and hours to be arranged. Perm of Instructor. BoK: NA. Credit Level: U. Credit Hrs: 1.00-15.00

15BIOL601**Undergraduate Research**

Credits and hours to be arranged. Will fulfill departmental Capstone requirement. Perm of Instructor. BoK: NA. Credit Level: U. Credit Hrs: 1.00-15.00

15BIOL602**Undergraduate Research**

Credits and hours to be arranged. Will fulfill departmental Capstone requirement. Perm of Instructor. BoK: NA. Credit Level: U. Credit Hrs: 1.00-15.00

15BIOL603**Undergraduate Research**

Credits and hours to be arranged. Will fulfill departmental Capstone requirement. BoK: NA. Credit Level: U. Credit Hrs: 1.00-15.00

15BIOL604**Special Problems**

Undergraduate individual study. Cr. and hrs. to be arranged. Perm of Instructor. BoK: NA. Credit Level: U. Credit Hrs: 1.00-15.00

15BIOL605**Special Problems**

See 15-047-604. BoK: NA. Credit Level: U. Credit Hrs: 1.00-15.00

15BIOL606**Special Problems**

See 15-047-604. BoK: NA. Credit Level: U. Credit Hrs: 1.00-15.00

15BIOL610**Conservation Biology**

The application of ecological and evolutionary principles to the study and preservation of genetic, species and ecosystem diversity. Formerly known as Conservation Biology 15BIOL490. Prereq: 15BIOL303. BoK: NS, QR. Credit Level: U, G. Credit Hrs: 3.00

15BIOL616**Biological Problems Honors Research**

For Honors students only. Individual research projects. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-15.00

15BIOL617**Biological Problems Honors Research**

For Honors students only. Individual research projects. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-15.00

15BIOL618**Biological Problems Honors Research**

For Honors students only. Individual research projects. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-15.00

15BIOL626**Ecological Modeling**

An advanced undergraduate/graduate level lecture class providing an overview of the many types and ways in which models are used in Ecology. Investigates and develops models at all levels of organization from global climate models to individual behavioral models. Cross-listed with EVST626. Prereq: 15BIOL303. BoK: NS, QR. Credit Level: U, G. Credit Hrs: 3.00

Biological Sciences**15BIOL631****Lab-Exercise Development in Cell Biology**

Development and implementation of laboratories in cell biology. Cr. and hrs. to be arranged. BoK: NA. Credit Level: U. Credit Hrs: 1.00-10.00

15BIOL632**Lab-Exercise Development in Genetics**

Development and implementation of laboratories in genetics. Cr. and hrs. to be arranged. Perm of Instructor. BoK: NA. Credit Level: U. Credit Hrs: 1.00-10.00

15BIOL633**Lab-Field Exercise Development in Ecology**

Development and implementation of laboratories and field exercises in ecology. Cr. and hrs. to be arranged. BoK: NA. Credit Level: U. Credit Hrs: 1.00-10.00

15BIOL639**VIROLOGY**

An introduction to the molecular biology of viruses. Topics include: genome structure, mechanisms of infection, proliferation, pathogenicity, host resistance and the role which viruses have played in the evolution of the human genome. Prereq: 15BIOL301, 15BIOL302. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

15BIOL640**Introduction to Genomics**

Discussion on the language of life. Topics include the structure of genes, chromosomes, genomes, transcriptomes and proteomes. Will fulfill departmental Capstone requirement. Prereq: 15BIOL302. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

15BIOL641**Introduction to Proteomics**

Discussion on the structure, function and the evolution of proteins. Topics include enzyme catalysis, sensory receptors, molecular motors, cytoskeleton, extracellular matrices, and immune recognition. Will fulfill departmental Capstone requirement. Prereq: 15BIOL302. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

15BIOL642**Advanced Cell Biology**

The relationship between structure and function of cellular components, both intracellularly and in interactions with other cells. Topics include organization of cells, methods of study, membrane transport, cell-to cell -signalling, cell motility, and the extracellular matrix. Will fulfill departmental Capstone requirement. Prereq: 15BIOL301, 15BIOL302. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

15BIOL647**Vertebrate Zoology**

Phylogeny of vertebrates. Evolution of structure and function. Lab includes anatomy, taxonomy and identification. Lecture and lab. Prereq: 15BIOL303. BoK: NS. Credit Level: U, G. Credit Hrs: 4.00

15BIOL650**Behavioral Ecology**

Study of the adaptive value of animal behavior; foraging; territoriality; communication; mating systems; sexual selection; social behavior. Prereq: 15BIOL302, 15BIOL303. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

15BIOL651**Neuroethology**

Explores the neural basis of animal behavior. The format includes short lectures that will provide background, and in depth discussions of primarily literature focusing on vertebrate as well as invertebrate systems. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

15BIOL652**Behavioral Genetics**

This class explores genetic approaches to the study of behavior. Prereq: 15BIOL302. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

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Biological Sciences**15BIOL656****Biology of Cancer**

A fundamental discussion of the biology of the cancerous state, including the underlying mechanisms of induction, as well as the physiology of neoplasms, at both the organ and molecular levels. Prereq: 15BIOL301, 15BIOL302, 15BIOL303. BoK: NS. Credit Level: U. Credit Hrs: 3.00

15BIOL660**Arachnology**

Lecture and laboratory course dealing with the classification, anatomy, physiology, behavior, and ecology of arachnids. Some field trips. Prereq: 15BIOL520. BoK: NS. Credit Level: U, G. Credit Hrs: 4.00

15BIOL666**Ecotoxicology**

The impacts of pollution and other stresses on the structure and function of natural ecosystems. Will fulfill departmental Capstone requirement. Prereq: 15BIOL303. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

15BIOL668**Flowering Plant Classification**

An introduction to the diversity of the families of flowering plants, with an emphasis on the acquisition of plant identification skills. Two Sat. or Sun. field trips Equivalent to lab course for undergrad. majors. Prereq: 15BIOL303. BoK: NS. Credit Level: U, G. Credit Hrs: 4.00

15BIOL669**Tropical Ecology**

A survey of the distinctive biological characteristics of tropical rain forests. The evolutionary forces thought to be responsible for creating and maintaining these extremely diverse communities will be explored. The impact of anthropogenic forces on these biomes, possible consequences for future generations, and improved management strategies designed to curtail their demise will also be examined. Prereq: 15BIOL302, 15BIOL303. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

15BIOL670**Plant Physiology**

Lecture and lab work on transport, nutrition, biochemistry, and development in plants. Will fulfill departmental requirement. Prereq: 15BIOL301. BoK: NS. Credit Level: U, G. Credit Hrs: 4.00

15BIOL677**Population Genetics**

An introduction to the principle and practice of population genetics with emphasis on evolutionary processing and current methods of analysis. Prereq: 15BIOL302, 15BIOL767. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

15BIOL679**Comparative Endocrinology**

Study of hormones and hormonal mechanisms affecting life processes. Prereq: 15BIOL571. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

15BIOL683**Medical Parasitology**

Major protozoan, fungal, and helminth parasites that cause disease in humans and animals. Prereq: 15BIOL301, 15BIOL302. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

15BIOL686**Capstone Experience in Biology**

General Education Capstone Experience. Options include undergraduate research, a capstone course, field trips, senior thesis, biology honors thesis, or teaching experiences. (part of requirement) Perm of Instructor. BoK: NA. Credit Level: U. Credit Hrs: 1.00

15BIOL690**Plant Ecology**

Biological environmental relationships in plant communities. Lecture with two (2) field trips. Prereq: 15BIOL302, 15BIOL303. BoK: NS. Credit

Biological Sciences**15BIOL690****Plant Ecology**

Level: U, G. Credit Hrs: 4.00

15BIOL691**Limnology**

Freshwater ecology from a system perspective, integrating physical, chemical and biological processes in lakes and reservoirs and streams and rivers. Prereq: 15BIOL303. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

15BIOL692**Limnology Laboratory**

Examination of physics, chemistry, and biological process and organisms in lakes, reservoirs, streams and rivers. Sat. field trips required. Spaces limited. BoK: NA. Credit Level: U, G. Credit Hrs: 2.00

15BIOL693**Physiology & Biomechanics Laboratory**

Laboratory experiments emphasizing the physiology and biomechanics of human exercise with quantitative analysis of cardiac function, muscle activity, metabolic rate, ventilation, gas exchange, movement, force and power production. Will fulfill departmental Capstone requirement. Prereq: 15BIOL302. BoK: QR, NS. Credit Level: U, G. Credit Hrs: 4.00

15BIOL694**Human and Comparative Anatomy**

A course for biology majors regarding regional gross anatomy of the human body and its relationship to organ functions. Laboratory will include mammalian dissection with comparison to human structures. Prereq: 15BIOL301, 15BIOL302, 15BIOL303. BoK: NS. Credit Level: U, G. Credit Hrs: 5.00

15BIOL695**Immunology**

Survey of the basic concepts and mechanisms involved in the immune response. Prereq: 15BIOL301, 15BIOL302. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

15BIOL696**Plant-Animal Interaction**

3 ug. or gr. cr. Prereq: 15BIOL577. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

15BIOL697**Immune Defense and Disease**

Overview of how human defense mechanisms deal with infections, disease, allergies and cancer, as well as mechanisms involved in transplant rejection. Prereq: 15BIOL695. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

15BIOL707**Molecular Biology Lab**

Basic laboratory techniques in molecular biology and molecular genetics including recombinant DNA manipulations. Perm of Instructor. Credit Level: G. Credit Hrs: 3.00

15BIOL720**Readings in Invertebrate Zoology**

A companion course to 15BIOL520 for graduate students, covering topics in current literature. Coreq: 15BIOL520. Credit Level: G. Credit Hrs: 1.00

15BIOL765**Data Analysis Biol**

An introduction to statistics for examining biological data. Emphasizes understanding of quantitative methodologies and problem solving techniques. Credit Level: G. Credit Hrs: 4.00

15BIOL766**Readings in Ecological Toxicology**

Advanced readings and discussions in ecotoxicology. Credit Level: G. Credit Hrs: 1.00

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Biological Sciences**15BIOL767****Evolution**

Study of the process of evolution, including synthesis of topics in: molecular evolution, population genetics, speciation and phylogenetics. Credit Level: G. Credit Hrs: 3.00

15BIOL773**Population/Community Ecology**

Theoretical and empirical developments in modern ecology, emphasizing the interaction of populations in their environments that structure biological communities. Credit Level: G. Credit Hrs: 4.00

15BIOL775**Advanced Data Analysis**

Advanced linear models including post-hoc testing, bootstrapping and resampling, multivariate methods. Emphasis is on analysis of existing data and biological problem solving. Prereq: 15BIOL765. Credit Level: G. Credit Hrs: 4.00

15BIOL783**Immunoparasitology**

Introduces current topics on immunity to parasitic infections. Emphasis will be AIDS-associated and re-emerging opportunistic infections in developing and developed countries. Prereq: 15BIOL695. Credit Level: G. Credit Hrs: 3.00

15BIOL791**Molecular Biology I**

Recombinant DNA technology and analysis of DNA sequences. Prokaryotic and eukaryotic systems will be discussed. Topics will be explored using texts and original literature. Perm of Instructor. Credit Level: G. Credit Hrs: 3.00

15BIOL800**Graduate Topics in Biology**

This is a literature-based course with discussions of current ideas and research in Biology. May be taken repeatedly. Credit Level: G. Credit Hrs: 1.00-3.00

15BIOL810**Advanced Limnology**

Expanded analysis of topics in freshwater ecology. Topic varies by year such as lake restoration, paleolimnology, big river or stream ecology, fish ecology, invading exotic species, or algal ecology. Prereq: 15BIOL691. Credit Level: G. Credit Hrs: 3.00

15BIOL827**Advanced Topics in Ecology**

Study of current literature in ecology. Topics will be chosen according to the instructor's area of expertise and may include evolutionary ecology, theoretical ecology, quantitative methods and the design and interpretation of experiments. Perm of Instructor. Credit Level: G. Credit Hrs: 3.00

15BIOL850**Readings in Behavioral Ecology**

Guided discussion of topics in current literature of behavioral ecology. Coreq: 15BIOL650. Credit Level: G. Credit Hrs: 1.00-3.00

15BIOL856**Biology of Cancer**

A fundamental discussion of the biology of the cancerous state, including the underlying mechanisms of induction, as well as the physiology of neoplasms at both the organ and molecular levels. A term paper involving a critical discussion on a topic related to cancer will be required. Prereq: 15BIOL695. Credit Level: G. Credit Hrs: 3.00

15BIOL860**Effective Tools for Teaching in the Biological Sciences**

This course is designed to improve the teaching effectiveness of those students in the life sciences who plan to seek academic careers. Coreq: 15MLT1842. Credit Level: G. Credit Hrs: 1.00

Biological Sciences**15BIOL876****Phylogenetic Systematics**

A study of methods used to infer evolutionary history. Includes both theoretical background and hands-on analysis of diverse types of data. Credit Level: G. Credit Hrs: 3.00

15BIOL888**Molecular Evolution**

Evolution at the molecular level, including topics such as: gene structure and mutation; evolutionary change in nucleotide sequences; rates and patterns of nucleotide substitution; evolution by gene duplication, exon shuffling, and transposition; formation of gene families and the acquisition of new function; and organization and evolution of genomes. Prereq: 15BIOL577. Credit Level: G. Credit Hrs: 3.00

15BIOL901**Biology Seminar**

Discussion of current topics in biology by experts in a wide variety of biological subdisciplines. May be taken repeatedly. Credit Level: G. Credit Hrs: 1.00

15BIOL902**Biology Seminar**

See 15-047-901. Credit Level: G. Credit Hrs: 1.00

15BIOL903**Biology Seminar**

Discussion of current topics in biology by experts in a wide variety of biological subdisciplines. May be taken repeatedly. Credit Level: G. Credit Hrs: 1.00

15BIOL904**Graduate Topics in Biology**

Individualized study on some aspect of biology not covered in formal courses. Independent readings, discussions and/or lab. work. May be taken repeatedly. Credit Level: G. Credit Hrs: 1.00-5.00

15BIOL905**Graduate Topics in Biology**

Individualized study on some aspect of biology not covered in formal courses. Independent readings, discussions and/or lab. work. May be taken repeatedly. Credit Level: G. Credit Hrs: 1.00-5.00

15BIOL906**Graduate Topics in Biology**

Individualized study on some aspect of biology not covered in formal courses. Independent readings, discussions and/or lab. work. May be taken repeatedly. Credit Level: G. Credit Hrs: 1.00-5.00

15BIOL951**Graduate Research in Biology**

Open to graduate students in Biology. Hours and credits arranged according to the student's graduate program. May be taken repeatedly. Credit Level: G. Credit Hrs: 1.00-12.00

15BIOL952**Graduate Research In Biology**

Open to graduate students in Biology. Hours and credits arranged according to the student's graduate program. May be taken repeatedly. Credit Level: G. Credit Hrs: 1.00-12.00

15BIOL953**Graduate Research in Biology**

Open to graduate students in Biology. Hours and credits arranged according to the student's graduate program. May be taken repeatedly. Credit Level: G. Credit Hrs: 1.00-12.00

15BIOL954**Graduate Research in Biology**

Open to graduate students in Biology. Hours and credits arranged according to the student's graduate program. May be taken repeatedly. Credit Level: G. Credit Hrs: 1.00-12.00

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Biological Sciences**15BIOL955****Research Progress in Biology**

Open to graduate students in Biology. Each student presents a seminar on his/her research. May be taken repeatedly. Credit Level: G. Credit Hrs: 1.00

15BIOL985**Current Topics in Biology**

Readings and discussions of current ideas and research in Biology. May be taken repeatedly. Credit Level: G. Credit Hrs: 1.00

15BIOL986**Current Topics in Biology**

Readings and discussions of current ideas and research in Biology. May be taken repeatedly. Credit Level: G. Credit Hrs: 1.00

Business Law**15BLAW171****Business Law I: The Legal Process**

State and federal court systems. Procedure reasoning followed in reaching decisions. Recent court decisions, current issues in the administration of justice. BoK: NA. Credit Level: U. Credit Hrs: 3.00

Chemistry**15CHEM101****First-Year Chemistry**

A first college course for science and engineering students. 3 lectures and 1 recitation per week. Transfer Module. BoK: NS, QR. Credit Level: U. Credit Hrs: 4.00

15CHEM102**First-Year Chemistry**

A first college course for science and engineering students. 3 lectures and 1 recitation per week. A second offering in a three-part course sequence. Prereq.: High school chemistry or General Chem. 104. Coreq.: Chem. 111, 12, 13 if additional work in chemistry is planned. Prereq: 15CHEM101. Transfer Module. BoK: NS, QR. Credit Level: U. Credit Hrs: 4.00

15CHEM102H**First-Year Honors Chemistry**

An honors course associated with first-year chemistry. Three lectures and one recitation each week. Transfer Module. BoK: NS, QR. Credit Level: U. Credit Hrs: 4.00

15CHEM103**First-Year Chemistry**

A first college course for science and engineering students. 3 lectures and 1 recitation per week. The third offering in a three-part course sequence. Prereq.: High school chemistry or General Chem. 104. Coreq.: Chem. 111,12,13 if additional work in chemistry is planned. Prereq: 15CHEM102. Transfer Module. BoK: NS, QR. Credit Level: U. Credit Hrs: 4.00

15CHEM103H**First-Year Honors Chemistry**

An honors course associated with first-year chemistry. Three lectures and one recitation each week. The second offering of a two-part course sequence. Transfer Module. BoK: NS, QR. Credit Level: U. Credit Hrs: 4.00

15CHEM104**General-Organic-Biochemistry I for Nursing and Allied Health**

General chemistry concepts, with an emphasis on inorganic chemistry, providing a transition from high school education. Two lectures and one recitation each week. The first offering of a three-part course sequence. Coreq: 15CHEM114. BoK: NS. Credit Level: U. Credit Hrs: 3.00

15CHEM105**General-Organic-Biochemistry II for Nursing and Allied Health**

Organic chemistry topics relevant to health professional, providing the necessary background for topics in biochemistry. Two lectures and one recitation each week. The second offering of a three-part course

Chemistry**15CHEM105****General-Organic-Biochemistry II for Nursing and Allied Health**

sequence. Prereq: 15CHEM104. Coreq: 15CHEM115. BoK: NS. Credit Level: U. Credit Hrs: 3.00

15CHEM106**General-Organic-Biochemistry III for Nursing and Allied Health**

Biochemistry topics relevant to health professionals. Two lectures and one recitation each week. The third offering of a three-part course sequence. Prereq: 15CHEM105. Coreq: 15CHEM116. BoK: NS. Credit Level: U. Credit Hrs: 3.00

15CHEM107**Chemistry in Today's Society I**

An overview of chemistry and its relationship to modern society. Based on science standards this course serves as an introduction to the chemical concepts needed to understand many of the numerous scientific problems confronting society today with an emphasis on relating the standards to K-9 education. BoK: NS. Credit Level: U. Credit Hrs: 3.00

15CHEM108**Chemistry in Today's Society II**

An overview of chemistry and its relationship to modern society. Based on science standards this course serves as an introduction to the chemical concepts needed to understand many of the numerous scientific problems confronting society today with an emphasis on relating the standards to K-9 education. Prereq: 15CHEM107. BoK: NS. Credit Level: U. Credit Hrs: 3.00

15CHEM111**First-Year Chemistry Laboratory**

Experimental work including qualitative analysis, supplementary to Chem. 101,2,3. One laboratory period per week. Prereq: 15CHEM101. Transfer Module. BoK: NA. Credit Level: U. Credit Hrs: 1.00

15CHEM112**First-Year Chemistry Laboratory**

Experimental work including qualitative analysis, supplementary to Chem. 101,2,3. One Laboratory period per week. The second offering of a three- part course sequence. Coreq.: Chem. 101,2,3. Prereq: 15CHEM111. Coreq: 15CHEM102. Transfer Module. BoK: NA. Credit Level: U. Credit Hrs: 1.00

15CHEM112H**First-Year Honors Chemistry Laboratory**

An honors laboratory course associated with first-year chemistry, with one laboratory per week. Transfer Module. BoK: NA. Credit Level: U. Credit Hrs: 1.00

15CHEM113**First-Year Chemistry Laboratory**

Experimental work including qualitative analysis, supplementary to Chem. 101,2,3. One laboratory period per week. The third offering of a three- part course sequence. Coreq.: Chem. 101,2,3. Prereq: 15CHEM112. Coreq: 15CHEM103. Transfer Module. BoK: NA. Credit Level: U. Credit Hrs: 1.00

15CHEM113H**First-Year Honors Chemistry Laboratory**

An honors laboratory course associated with first- year chemistry, with one laboratory per week. The second offering of a two-part course sequence. Prereq.: Invitation of instr. Transfer Module. BoK: NA. Credit Level: U. Credit Hrs: 1.00

15CHEM114**General-Organic-Biochemistry Laboratory I for Nursing and Allied Health**

Experimental work supplementary to 15-CHEM-104, 105, & 106. One laboratory period each week. The first offering of a three-part course sequence. Coreq: 15CHEM104. BoK: NS. Credit Level: U. Credit Hrs: 1.00

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Chemistry**15CHEM115****General-Organic-Biochemistry Laboratory II for Nursing and Allied Health**

Experimental work supplementary to 15-CHEM-104, 105, & 106. One laboratory period each week. The second offering of a three-part course sequence. Prereq: 15CHEM114. Coreq: 15CHEM105. BoK: NS. Credit Level: U. Credit Hrs: 1.00

15CHEM116**General-Organic-Biochemistry Laboratory III for Nursing and Allied Health**

Experimental work supplementary to 15-CHEM-104, 105, & 106. One laboratory period each week. The third offering of a three-part course sequence. Prereq: 15CHEM115. Coreq: 15CHEM106. BoK: NS. Credit Level: U. Credit Hrs: 1.00

15CHEM117**Chemistry in Today's Society Lab I**

A laboratory overview of chemistry and its relationship to modern society. Based on science standards this course serve as an introduction to the chemical concepts needed to understand many of the numerous scientific problems confronting society today with an emphasis on relating the emphasis on relating the standards to K-9 education. Coreq: 15CHEM107. BoK: NS. Credit Level: U. Credit Hrs: 1.00

15CHEM118**Chemistry in Today's Society Lab II**

A laboratory overview of chemistry and its relationship to modern society. Based on science standards this course serve as an introduction to the chemical concepts needed to understand many of the numerous scientific problems confronting society today with an emphasis on relating the the standards to K-9 education. Prereq: 15CHEM117. Coreq: 15CHEM108. BoK: NS. Credit Level: U. Credit Hrs: 1.00

15CHEM122**Introduction to Forensics**

A survey of forensic chemistry for students who are not science majors. The course is taught by presenting crime scenes and discussing the types of techniques needed for the investigation. Crime scenes will be taken from episodes of NOVA, from the US FDA, and from the local crime labs. BoK: NS. Credit Level: U. Credit Hrs: 3.00

15CHEM131**General Chemistry I**

A general overview of the science of chemistry for non-majors and students lacking a high school chemistry course. Two lectures and one recitation per week. The first offering in a three-part course sequence. Coreq: 15CHEM141. BoK: NS. Credit Level: U. Credit Hrs: 3.00

15CHEM132**General Chemistry II**

A general overview of the science of chemistry for non-majors and students lacking a high school chemistry course. Two lectures and one recitation per week. The second offering in a three-part course sequence. Prereq: 15CHEM131. Coreq: 15CHEM142. BoK: NS. Credit Level: U. Credit Hrs: 3.00

15CHEM133**General Chemistry III**

A general overview of the science of chemistry for non-majors and students lacking a high school chemistry course. Two lectures and one recitation per week. The third offering of a three-part course sequence. Prereq: 15CHEM132. Coreq: 15CHEM143. BoK: NS. Credit Level: U. Credit Hrs: 3.00

15CHEM141**General Chemistry Laboratory I**

Experimental work supplementary to 15-CHEM-131. One laboratory period per week. (Requirement of many programs.) The first offering of a three-part course sequence. Coreq: 15CHEM131. BoK: NS. Credit Level: U. Credit Hrs: 1.00

Chemistry**15CHEM142****General Chemistry Laboratory II**

Experimental work supplementary to 15-CHEM-132. One laboratory period per week. (Requirements of many programs.) The second offering of a three- part course sequence. Prereq: 15CHEM141. Coreq: 15CHEM132. BoK: NS. Credit Level: U. Credit Hrs: 1.00

15CHEM143**General Chemistry Laboratory III**

Experimental work supplementary to 15-CHEM-133. One laboratory period per week. (Requirements of many programs.) The third offering of a three-part course sequence. Prereq: 15CHEM142. Coreq: 15CHEM133. BoK: NS. Credit Level: U. Credit Hrs: 1.00

15CHEM201**Organic Chemistry Lecture and Recitation**

The fundamentals of bonding, structure, and stereochemistry of organic compounds; reaction mechanisms and synthetic utility of reactions involving unsaturated compounds, aromatic compounds, alkyl halides and alcohols, carbonyl compounds, and nitrogen-containing compounds; reaction intermediates. BoK: NS. Credit Level: U. Credit Hrs: 4.00

15CHEM202**Organic Chemistry Lecture and Recitation**

The fundamentals of bonding, structure, and stereochemistry of organic compounds; reaction mechanisms and synthetic utility of reactions involving unsaturated compounds, aromatic compounds, alkyl halides and alcohols, carbonyl compounds, and nitrogen-containing compounds; reaction intermediates. The second offering of a three-part course sequence. Prereq: 15CHEM201. BoK: NS. Credit Level: U. Credit Hrs: 4.00

15CHEM203**Organic Chemistry Lecture**

Organic Chemistry Lecture and Recitation. 4 ug.cr. The fundamentals of bonding, structure and stereochemistry of organic compounds; reaction mechanisms and synthetic utility of reactions involving unsaturated compounds, aromatic compounds, alkyl halides and alcohols, carbonyl compounds, and nitrogen-containing compounds; reaction intermediates. This is the third offering Prereq: 15CHEM202. BoK: NS. Credit Level: U. Credit Hrs: 4.00

15CHEM203H**Honors Organic Chemistry Lecture and Recitation**

Honors version of the third quarter of Organic Chemistry lecture and recitation. BoK: NS. Credit Level: U. Credit Hrs: 4.00

15CHEM204**Bio-organic Chemistry**

For non-majors in chemistry. The structure and function of organic compounds in living systems stressed. BoK: NS. Credit Level: U. Credit Hrs: 3.00-4.00

15CHEM205**Bio-organic Chemistry**

For non-majors in chemistry. The chemistry of proteins, nucleic acids, polysaccharides and lipids is stressed. Coreq: 15CHEM215. BoK: NS. Credit Level: U. Credit Hrs: 3.00-4.00

15CHEM206**Bio-organic Chemistry**

For non-majors in chemistry. Energy production and utilization in biochemical systems. Prereq: 15CHEM205. Coreq: 15CHEM216. BoK: NS. Credit Level: U. Credit Hrs: 3.00-4.00

15CHEM211**Organic Chemistry Laboratory**

An introduction to microscale laboratory techniques of organic chemistry, including isolation, purification, chromatography, extraction and distillation of organic compounds. BoK: NA. Credit Level: U. Credit Hrs: 1.00

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Chemistry**15CHEM212****Organic Chemistry Laboratory and Recitation**

Application of the techniques taught in Chem. 211 to the synthesis and study of a variety of organic compounds. Prereq: 15CHEM211. Coreq: 15CHEM202. BoK: NA. Credit Level: U. Credit Hrs: 1.00

15CHEM212H**Honors Organic Chemistry Laboratory**

Honors laboratory course that uses current faculty research projects to teach organic chemistry laboratory techniques. Each student has his/her own project. BoK: NA. Credit Level: U. Credit Hrs: 1.00

15CHEM213**Organic Chemistry Laboratory**

Application of the techniques taught in Chem. 211 to the synthesis and study of a variety of organic compounds. Prereq: 15CHEM212, 15CHEM202. Coreq: 15CHEM203. BoK: NA. Credit Level: U. Credit Hrs: 2.00

15CHEM213H**Honors Organic Chemistry Laboratory**

Multi-step synthesis, characterization of products and by-products from chemical reactions using spectroscopy, reaction kinetics and modern laboratory techniques such as working under an inert atmosphere. BoK: NA. Credit Level: U. Credit Hrs: 2.00

15CHEM214**Bio-organic Laboratory**

Laboratory work to accompany Chem. 204. Prereq: 15CHEM204. BoK: NA. Credit Level: U. Credit Hrs: 1.00

15CHEM215**Bio-organic Laboratory**

Laboratory work to accompany Chem. 205. Prereq: 15CHEM214. Coreq: 15CHEM205. BoK: NA. Credit Level: U. Credit Hrs: 1.00

15CHEM216**Bio-organic Laboratory**

Laboratory work to accompany Chem. 206. Prereq: 15CHEM215. Coreq: 15CHEM206. BoK: NA. Credit Level: U. Credit Hrs: 1.00

15CHEM278**Introduction to Nanoscience and Technology**

A survey of nanoscience and nanotechnology at an introductory level for engineering and science students in their 2nd or 3rd year of study: Nanoparticles, synthesis and applications, nanoelectronics, nanophotonics, nanobioscience, and societal and ethical implications. Prereq: 15MATH252. BoK: NS. Credit Level: U. Credit Hrs: 3.00

15CHEM279**Experimental Nanoscale Science and Technology**

A laboratory experience for engineering and science students, covering the synthesis and characterization of nanostructures and the simple devices that can be made from them: carbon nanotube synthesis, nanotube sensor fabrication and characterization, quantum dot characterization and gold nanoparticle fabrication and characterization. Prereq: 15CHEM278. BoK: NS. Credit Level: U. Credit Hrs: 3.00

15CHEM280**Sophomore Seminar Series for Majors**

Seminar series on careers in chemistry (with outside speakers), CV/resume preparation, undergraduate research, graduate school, research ethics, library use, and hot topics in chemistry. Perm of Instructor. BoK: NA. Credit Level: U. Credit Hrs: 1.00

15CHEM322H**Chemical Aspects of Forensic Science**

This course is designed for honors students interested in forensic science, regardless of their majors. They will concentrate on the chemistry involved in forensic investigations. The chemistry will include analyzing auto glass, auto paint, links used in forgery, blood types, drugs, poisons, and DNA. Students will perform many tests themselves. BoK: NS. Credit Level: U. Credit Hrs: 3.00

Chemistry**15CHEM331****Chemical Analysis for Engineering Applications**

Methods of chemical analysis, as applied in industrial processes. Prereq: 20CHE362. BoK: NS. Credit Level: U. Credit Hrs: 3.00

15CHEM332**Chemical Analysis Laboratory -- Engineering Applications**

Laboratory studies to illustrate chemical analysis, principles and operations. Prereq: 15CHEM331. BoK: NA. Credit Level: U. Credit Hrs: 2.00

15CHEM333**Physical Chemistry for Engineering Sciences**

Selected topics in physical chemistry, including statistical thermodynamics, equilibrium and dynamic electrochemistry, surface chemistry and heterogeneous catalysis. Prereq: 20CHE362. BoK: NS. Credit Level: U. Credit Hrs: 4.00

15CHEM341**Chemical Equilibrium and Separations**

Basic principles of acid-base, solubility, complexation and separation equilibria will be discussed. Prereq: 15CHEM381. BoK: NS. Credit Level: U. Credit Hrs: 3.00

15CHEM342**Electrochemistry and Spectroscopy**

Electrochemical and spectroscopic methods in analytical chemistry. Prereq: 15CHEM341, 15CHEM382. BoK: NS. Credit Level: U. Credit Hrs: 3.00

15CHEM350**Organic Chemistry for Engineers I**

The fundamentals of bonding, structure, and stereochemistry of organic compounds: reaction mechanism and synthetic utility of reactions involving unsaturated compounds, aromatic compounds, alkyl halides and alcohols, carbonyl compounds, and nitrogen-containing compounds; reaction intermediates. BoK: NS. Credit Level: U. Credit Hrs: 4.00

15CHEM351**Organic Chemistry for Engineers II**

The second part of a two-course sequence. The fundamentals of bonding, structure, and stereochemistry of organic compounds: reaction mechanisms and synthetic utility of reactions involving unsaturated compounds, aromatic compounds, alkyl halides and alcohols, carbonyl compounds, and nitrogen-containing compounds; reaction intermediates. Prereq: 15CHEM350. BoK: NS. Credit Level: U. Credit Hrs: 4.00

15CHEM352**Organic Chemistry Laboratory for Engineers I**

An introduction to microscale laboratory techniques or organic chemistry, including isolation, purification, chromatography, extraction and distillation of organic compounds. Prereq: 15CHEM113. Coreq: 15CHEM350. BoK: NA. Credit Level: U. Credit Hrs: 2.00

15CHEM353**Organic Chemistry Laboratory for Engineers II**

The second part of a two-part laboratory sequence. An introduction to microscale laboratory techniques of organic chemistry, including isolation, purification, chromatography, extraction and distillation of organic compounds. Prereq: 15CHEM350, 15CHEM352. Coreq: 15CHEM351. BoK: NA. Credit Level: U. Credit Hrs: 2.00

15CHEM361**Physical-Analytical Measurements I**

Treatment of experimental data involving the use of computer techniques; elementary physicochemical laboratory instruments and techniques. BoK: NS. Credit Level: U. Credit Hrs: 3.00

15CHEM362**Physical-Analytical Measurements II**

A course involving titration, electrochemical, and spectroscopic experiments. Prereq: 15CHEM381, 15CHEM342. BoK: NA. Credit

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Chemistry**15CHEM362****Physical-Analytical Measurements II**

Level: U. Credit Hrs: 2.00

15CHEM381**Physical Chemistry I**

Chemical Kinetics. Prereq: 15CHEM203, 15PHYS103, 15PHYS203, 15MATH227, 15MATH253. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

15CHEM382**Physical Chemistry II**

Equilibrium and nonequilibrium thermodynamics; solutions. Prereq: 15CHEM381. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

15CHEM383**Physical Chemistry III**

Quantum Chemistry. Prereq: 15CHEM381. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

15CHEM384**Survey of Physical Chemistry**

Survey of topics in physical chemistry, including thermodynamics and properties of solutions, for students working toward the BA degree in Chemistry. Not to be taken by students working toward a BS in Chemistry. Prereq: 15CHEM381. BoK: NS. Credit Level: U. Credit Hrs: 3.00

15CHEM421**Introduction to Biochemistry**

An introductory course for chemistry undergraduates describing the physical properties biological molecules. The function & role of these and functions of biological molecules; the function and role of these molecules during important cellular processes and pathways such as metabolism, oxidative phosphorylation and others. BoK: NS. Credit Level: U. Credit Hrs: 4.00

15CHEM441**Inorganic Chemistry I**

Atomic and molecular structure, acid-base theories, oxidation-reduction phenomena, coordination compounds, symmetry, organometallic chemistry. Prereq: 15CHEM381. BoK: NS. Credit Level: U. Credit Hrs: 3.00

15CHEM442**Inorganic Chemistry II**

Atomic and molecular structure, acid-base theories, oxidation-reduction phenomena, coordination compounds, symmetry, organometallic chemistry. The second offering of a two-part course sequence. Prereq: 15CHEM441. BoK: NS. Credit Level: U. Credit Hrs: 3.00

15CHEM444**Inorganic Synthesis**

Preparation and characterization of inorganic and organometallic compounds. Prereq: 15CHEM441, 15CHEM442. BoK: NA. Credit Level: U. Credit Hrs: 2.00

15CHEM480**Senior Capstone Series for Majors**

Seminar series for senior chemistry majors, including final capstone presentations. Prereq: 15CHEM499, 15CHEM562, 15CHEM612. BoK: NA. Credit Level: U. Credit Hrs: 1.00

15CHEM498**ACADEMIC INTERNSHIP IN CHEMISTRY**

Supervised professional experience in an industrial or government laboratory on a project with significant chemistry content. Repeatable two times for a maximum total of nine credits. Permission of instructor and Director of Undergraduate Studies is required. Perm of Instructor. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15CHEM499**Undergraduate Research in Chemistry**

Under direction of Chemistry faculty. Areas include analytical,

Chemistry**15CHEM499****Undergraduate Research in Chemistry**

biochemistry, inorganic, organic, physical (designated by section number, i.e., Analytical 001; Biochemistry 002; etc., for internal bookkeeping purposes). No class standing requirements. Hrs. to be arranged. Perm of Instructor. BoK: NA. Credit Level: U. Credit Hrs: 1.00-6.00

15CHEM521**History of Chemistry**

A historical survey of the development of modern chemistry from the 18th century to the present. Prereq: 15CHEM383. BoK: HP, NS. Credit Level: U, G. Credit Hrs: 3.00

15CHEM544**Organic Structural Analysis**

An introduction to spectroscopic methods, applied to organic compounds, with emphasis on nmr, ir, uv, and mass spectroscopy. Prereq: 15CHEM203. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

15CHEM545**Intermediate Organic Chemistry**

Advanced topics in the theory, reaction mechanism and stereochemistry of organic compounds. Prereq: 15CHEM203. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

15CHEM546**Intermediate Organic Chemistry II**

Modern synthetic organic chemistry, with emphasis on designing rational synthetic strategies for complex molecules. Prereq: 15CHEM203. BoK: NS. Credit Level: U. Credit Hrs: 3.00

15CHEM562**Instrumental Measurements II**

The application of modern chemical instrumentation to analysis and measurement. Prereq: 15CHEM362. BoK: NA. Credit Level: U, G. Credit Hrs: 2.00

15CHEM563**Instrumental Measurements III**

The application of modern chemical instrumentation to analysis and measurement. The second offering in a two-part course sequence. Prereq: 15CHEM562. BoK: NA. Credit Level: U, G. Credit Hrs: 2.00

15CHEM590**Biophysical Chemistry**

A survey and introductory course covering physical methods typically used in the study of biochemical molecules. Prereq: 15CHEM601, 15CHEM382. BoK: NS. Credit Level: U, G. Credit Hrs: 4.00

15CHEM601**Biochemistry**

Structure and function relationships of biologically important macromolecules and supramolecular assemblies, intermediary metabolism including pathways, regulation and methods of study, and molecular biology are topics that will be covered. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

15CHEM602**Biochemistry**

See 15-035-601. Prereq: 15CHEM601. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

15CHEM603**Biochemistry**

See 15-035-601. Prereq: 15CHEM602. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

15CHEM604**Biochemical Methods**

Contemporary techniques for studying the structures and interactions of biological macromolecules. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

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Chemistry**15CHEM611****Biochemistry Laboratory**

Laboratory techniques for modern biochemical research. BoK: NA.

Credit Level: U, G. Credit Hrs: 3.00

15CHEM612**Biochemistry Laboratory**

Laboratory techniques for modern biochemical research. The second offering in a two-part course sequence. BoK: NA. Credit Level: U, G.

Credit Hrs: 3.00

15CHEM621**Polymer Configurations and Rubberlike Elasticity**

Statistical properties of chain molecules, including chain distribution functions; experimental and theoretical studies of rubberlike elasticity; stain-induced crystallization and ultimate properties of polymer networks. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

15CHEM622**Preparation and Reactions of Polymers**

Condensation polymerizations; chain polymerizations (radical and ionic); emulsion, suspension, and interfacial polymerizations; chemical reactions of polymers. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

15CHEM623**Polymer Properties Laboratory II**

Modern laboratory techniques used in the characterization of polymeric materials. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

15CHEM624**Solution Properties of High Molecular Weight Polymers**

Thermodynamic and hydrodynamic properties of polymer molecules in solution. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

15CHEM651**Biochemistry**

Structure and function relationships of biologically important macromolecules and supramolecular assemblies, intermediary metabolism including pathways, regulation and methods of study, and molecular biology are topics that will be covered. Prereq: 15CHEM203. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

15CHEM652**Biochemistry**

Structure and function relationship of biologically important macromolecules and supra- molecular assemblies, intermediary metabolism including pathways, regulation and methods of study, and molecular biology are topics that will be covered. The second offering in a three-part course sequence. Prereq: 15CHEM651. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

15CHEM653**Biochemistry**

Structure and function relationships of biologically important macromolecules and supra- molecular assemblies, intermediary metabolism including pathways, regulation and methods of study, and molecular biology are topics that will be included. The third offering of a three-part course sequence. Prereq: 15CHEM652. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

15CHEM721**Advanced Physical Chemistry I**

Quantum chemistry. Credit Level: G. Credit Hrs: 3.00

15CHEM722**Advanced Physical Chemistry II**

Thermodynamics and statistical mechanics. Credit Level: G. Credit Hrs: 3.00

15CHEM723**Advanced Physical Chemistry III**

Chemical kinetics and reaction dynamics. Credit Level: G. Credit Hrs: 3.00

Chemistry**15CHEM724****Molecular Spectroscopy and Group Theory**

3 gr. cr. Prereq: 15CHEM721. Credit Level: G. Credit Hrs: 3.00

15CHEM741**Chemical Separations**

Discussion of analytical separations, especially solvent extractions, and gas and liquid chromatographic methods. Credit Level: G. Credit Hrs: 3.00

15CHEM742**Analytical Spectroscopy**

Discussion of spectroscopy as related to analytical chemistry covering such topics as ultraviolet-visible spectroscopy, fluorimetry and phosphorimetry, plasma emission and atomic spectroscopy. Credit Level: G. Credit Hrs: 3.00

15CHEM743**Electroanalytical Chemistry**

Basic principles of electroanalytical techniques; potentiometry, voltammetry, polarography, coulometry, spectroelectrochemistry. Credit Level: G. Credit Hrs: 3.00

15CHEM744**Fundamentals of Modern Mass Spectrometry**

The basics of modern mass spectrometry. Topics include theory of ion formation & dissociation, sample introduction, ionization sources, mass analyzers, detection & data processing, quantitative mass spectrometry, hybrid instrument design including coupling to chromatographic systems, tandem mass spectrometry, and gas-phase ion-molecule chemistry. Perm of Instructor. Credit Level: G. Credit Hrs: 3.00

15CHEM751**Advanced Inorganic Chemistry I**

Review of atomic wave functions, periodic table, ionization potential, electron affinity, Lewis octets, resonance. Symmetry and group theory; definition of symmetry operations, groups, identify point groups for molecules. Matrix notation, representations, reduction to irreducible reps. Review of molecular orbital theory and hybridization, using group theory. Review of VSEPR "theory." Application of group theory to IR, Raman and NMR spectra for various Credit Level: G. Credit Hrs: 3.00

15CHEM752**Advanced Inorganic Chemistry II**

Continuation of classical transition metal chemistry. Crystal field theory, complex structures, splitting diagrams, magnetism, spectroscopy, Orgel diagrams, Tanabe-Sugano diagrams, spin-orbit coupling. Reactions, kinetics and mechanisms. Transition state stabilization. Credit Level: G. Credit Hrs: 3.00

15CHEM753**Selected Topics in Inorganic Chemistry**

Special topics in inorganic chemistry. Some topics which may be presented at the choice of the instructor: structural methods, radiochemistry, bioinorganic, representative elements, applied industrial inorganic, metal-based drugs and imaging agents, advanced organometallic. Credit Level: G. Credit Hrs: 3.00

15CHEM754**Physical Methods in Inorganic Chemistry**

Covers the theory and practice of various spectroscopic, magnetic and other methods employed for the investigation of inorganic compounds and reactions. Prereq: 15CHEM751. Credit Level: G. Credit Hrs: 3.00

15CHEM761**Organic Spectroscopy**

Organic spectroscopy including HMR, IR, and Mass Spectrometry. Credit Level: G. Credit Hrs: 3.00

15CHEM762**Advanced Synthetic Organic Chemistry**

(Day/Eve.) Modern synthetic organic chemistry, with emphasis on designing rational synthetic strategies for complex molecules. Credit Level: G. Credit Hrs: 3.00

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Chemistry**15CHEM762****Advanced Synthetic Organic Chemistry**

(Day/Eve.) Modern synthetic organic chemistry, with emphasis on designing rational synthetic strategies for complex molecules. Credit Level: G. Credit Hrs: 3.00

15CHEM763**Physical Organic Chemistry**

Fundamental principles and theories of physical organic chemistry. Credit Level: G. Credit Hrs: 3.00

15CHEM764**Advanced Organic Chemistry: Special Topics**

First year graduate course dealing with a variety of subjects of central importance in Organic Chemistry Prereq: 15CHEM761. Credit Level: G. Credit Hrs: 3.00

15CHEM771**Introduction to Research**

Only for students in the PhD program for a maximum of 7 credits. Credit Level: G. Credit Hrs: 1.00-7.00

15CHEM800**Scientific Writing**

Emphasizes the need for written scientific language that is clear, direct, accurate, simple, concise and vigorous. Students will learn to recognize poor writing, and how to correct and improve it. Study samples will come from the literature, and the students' own efforts in assorted formats (journal articles, abstracts, overheads/Powerpoint slides, posters). Credit Level: G. Credit Hrs: 1.00-3.00

15CHEM801**Advanced Computational Chemistry I**

Discusses the chemistry, biophysics, and statistics behind computational methods used to predict the structure and function of proteins and RNA molecules from sequence information. Applications of bioinformatic packages to biophysics problems and development of analysis tools will be emphasized. Credit Level: G. Credit Hrs: 3.00

15CHEM802**Advanced Computational Chemistry II**

Focuses on the application of computer simulations to the study of biological systems. discusses concepts in classical mechanics, thermodynamics and statistical mechanics and their application to Monte Carlo and molecular dynamics methods. The use of molecular modeling programs will be illustrated using specific biomolecular systems. Credit Level: G. Credit Hrs: 3.00

15CHEM803**Special Topics in Computational Chemistry**

Introduction to the uses of computational theory in chemistry. Will cover the fundamentals of computational chemistry and focus on correlating chemical calculations with experimental results. Credit Level: G. Credit Hrs: 3.00

15CHEM831**Chemical Sensors I**

Fundamentals of chemical and biochemical sensing including electrochemical and optical sensing, mechanisms of transduction and sensing devices. Prereq: 15CHEM743. Credit Level: G. Credit Hrs: 3.00

15CHEM832**Chemical Sensors II**

Fundamentals of chemical and biochemical sensing including electrochemical and optical sensing, mechanisms of transduction and sensing devices. Perm of Instructor. Credit Level: G. Credit Hrs: 3.00

15CHEM833**Chemical Sensors III**

Current topics in the development of materials for chemical sensors and devices. Perm of Instructor. Credit Level: G. Credit Hrs: 3.00

Chemistry**15CHEM859****Structural Biochemistry**

Theory and use of NMR, X-ray crystallography and Mass Spectrometry for the structural characterization of biomolecules. Credit Level: G. Credit Hrs: 1.00-3.00

15CHEM864**Bioorganic Chemistry**

Latest methods in bioorganic chemistry are presented and discussed. Credit Level: G. Credit Hrs: 3.00

15CHEM865**The Organic Chemistry of Drug Discovery and Development**

Emphasizes the application of organic chemistry principles to the design and development of drugs. The discovery and optimization of lead compounds and their progression to clinical candidates is discussed using basic principles and case histories. Prereq: 15CHEM203. Credit Level: G. Credit Hrs: 3.00

15CHEM872**Special Topics: Inorganic Chemistry**

Advanced treatment of special topics. Content varies yearly at the discretion of the instructor. Perm of Instructor. Credit Level: G. Credit Hrs: 3.00

15CHEM875**Special Topics In Inorganic Chemistry**

Current problems in inorganic chemistry. Content varies each term. May be taken multiple times for credit. Credit Level: G. Credit Hrs: 3.00

15CHEM880**Surface Characterization**

Analysis of techniques currently available for the detailed characterization of well-defined surfaces. Credit Level: G. Credit Hrs: 3.00

15CHEM884**Electronics and Instrumentation for Chemists**

Introduction to analog and digital circuitry and laboratory automation. Credit Level: G. Credit Hrs: 4.00

15CHEM888**Asymmetric Synthesis**

Organic chemistry course focusing on asymmetric synthesis. New methodology presentations of current literature and brief description of kinetics and analytical techniques. Credit Level: G. Credit Hrs: 3.00

15CHEM890**Advanced Electroanalytical Chemistry**

Advanced topics in electroanalytical techniques. Mathematical simulations, recent advances and other specialized subjects. Prereq: 15CHEM743. Credit Level: G. Credit Hrs: 3.00

15CHEM895**Photochemistry**

An overview of excited chemistry: Methods for the generation of excited states, excited state dynamics (energy transfer, quenching, intersystem crossing), excited state transformations and their synthetic applications. Credit Level: G. Credit Hrs: 1.00-3.00

15CHEM971**Research**

Credit according to amount of work elected. Credit Level: G. Credit Hrs: 1.00-18.00

15CHEM981**Special Study Topics**

Modern developments in physical organic chemistry. Credit Level: G. Credit Hrs: 1.00-15.00

15CHEM983**Life After Graduate School**

Discusses the types of careers available to PhD chemists, the skills needed to be successful on the job, and the skills needed to find a job after graduate school. Perm of Instructor. Credit Level: G. Credit Hrs:

H=University Honors course.

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Chemistry**15CHEM983****Life After Graduate School**

1.00

15CHEM995**Seminar**

Required of all full-time graduate students in chemistry. Credit Level: G. Credit Hrs: 2.00

15CHEM999**Laboratory Teaching Practice**

Theory and practice of chemistry laboratory instruction. Required of all first-year graduate assistants involved in teaching. Credit Level: G. Credit Hrs: 1.00

Chinese Languages and Cultures**15CHIN101****Basic Chinese I**

1st quarter in the 3-quarter sequence that fulfills the A&S language requirement. Intro. to Chinese language and culture. BoK: HU., DC. Credit Level: U. Credit Hrs: 5.00

15CHIN102**Basic Chinese II**

Introduction to Chinese Language and culture. Second quarter in the three-quarter sequence that fulfills the A&S language requirement. Prereq: 15CHIN101. BoK: HU, DC. Credit Level: U. Credit Hrs: 5.00

15CHIN103**Basic Chinese III**

Introduction to Chinese language and culture. Third quarter in the three quarter sequence that fulfills the A&S language requirement. Prereq: 15CHIN102. BoK: HU, DC. Credit Level: U. Credit Hrs: 5.00

15CHIN111**Extended Basic Chinese 1**

Basic Chinese language and culture. First qtr. in the extended 6-quarter sequence to fulfill the A&S language requirement. BoK: DC., HU. Credit Level: U. Credit Hrs: 3.00

15CHIN112**Extended Basic Chinese 2**

Basic Chinese language and culture. Second quarter in the extended 6-quarter sequence to fulfill the A&S language requirement. Prereq: 15ASIA104. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15CHIN113**Extended Basic Chinese 3**

Basic Chinese language and culture. Third quarter in the extended 6-quarter sequence to fulfill the A&S requirement. Prereq: 15ASIA105. BoK: DC, HU. Credit Level: U. Credit Hrs: 3.00

15CHIN114**Extended Basic Chinese 4**

Basic Chinese language and culture. Fourth quarter in the extended 6-quarter sequence to fulfill the A&S language requirement. Prereq: 15ASIA106. BoK: DC, HU. Credit Level: U. Credit Hrs: 3.00

15CHIN115**Extended Basic Chinese 5**

Basic Chinese language and culture. Fifth quarter in the extended 6-quarter sequence to fulfill the A&S language requirement. BoK: DC., HU. Credit Level: U. Credit Hrs: 3.00

15CHIN116**Extended Basic Chinese 6**

Basic Chinese language and culture. Sixth quarter in the extended 6-quarter sequence to fulfill the A&S language requirement. BoK: HU., DC. Credit Level: U. Credit Hrs: 3.00

15CHIN201**Second Year Chinese I**

Intermediate Chinese language and culture. First quarter in an intensive three-quarter second year sequence. Prereq: 15CHIN113.

Chinese Languages and Cultures**15CHIN201****Second Year Chinese I**

BoK: HU, DC. Credit Level: U. Credit Hrs: 5.00

15CHIN202**Second Year Chinese II**

Intermediate Chinese language and culture. Second quarter in an intensive three-quarter second year sequence. Prereq: 15CHIN201. BoK: HU, DC. Credit Level: U. Credit Hrs: 5.00

15CHIN203**Second Year Chinese III**

Intermediate Chinese language and culture. Third quarter in the intensive three quarter second year sequence. Prereq: 15CHIN202. BoK: HU, DC. Credit Level: U. Credit Hrs: 5.00

Classical Civilization**15CLAS101****Introduction to Ancient History**

The political, social, economic, and cultural history of the ancient Near East and early Greece from about 3000 BCE to the middle of the fifth century BCE. Introduces students to the problems and techniques of historical analysis. The first in a three-part sequence. Transfer Module. BoK: HP. Credit Level: U. Credit Hrs: 3.00

15CLAS102**Introduction to Ancient History**

Classical Greece and the Hellenistic World to the coming of the Romans from the mid-fourth century BCE to the mid-second century BCE. The course will explore the emergence of new political forms in the Greek world and its expansion into the Near East. The second in a three-part series. Transfer Module. BoK: HP. Credit Level: U. Credit Hrs: 3.00

15CLAS103**Introduction to Ancient History**

Rome to the age of Constantine. This course will focus on the transformation of Rome from a republic to an empire as well as the problems that this transformation entailed. The third in a three-part course sequence. Transfer Module. BoK: HP. Credit Level: U. Credit Hrs: 3.00

15CLAS105**History of Ancient Egypt**

This introductory survey covers the history of ancient Egypt from the predynastic period through the Old, Middle and New Kingdoms, and ends by examining the roles of Egypt in the empires of Alexander the Great (Hellenistic Greece) and of Rome. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15CLAS110**Introduction to Classical Civilization**

Early Greek civilization, interpreted through its history, literature, and archaeology. The first in a three-part course sequence. Transfer Module. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15CLAS110H**Introduction to Classical Civilization**

Honors section. Transfer Module. BoK: HU. Credit Level: U. Credit Hrs: 4.00

15CLAS111**Introduction to Classical Civilization II**

Classical Greek civilization, interpreted through its history, literature and archaeology. The second in a three-part course sequence. Transfer Module. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15CLAS111H**Introduction to Classical Civilization**

Honors section. Transfer Module. BoK: HU. Credit Level: U. Credit Hrs: 4.00

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Classical Civilization**15CLAS112****Introduction to Classical Civilization III**

Roman civilization, interpreted through its history, literature and archaeology. The third in a three-part course sequence. Transfer Module. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15CLAS112H**Introduction to Classical Civilization**

Honors section. Transfer Module. BoK: HU. Credit Level: U. Credit Hrs: 4.00

15CLAS151**Greek Civilization**

Ancient Greek civilization from the Archaic period up to the Peloponnesian War in the late 5th century BC. BoK: HP. Credit Level: U. Credit Hrs: 3.00

15CLAS152**Greek Civilization**

Continuation of 15CLAS151. Ancient Greek civilization from the Peloponnesian War in the late 5th century BC through the Hellenistic and Roman periods to the Byzantine era. BoK: HP. Credit Level: U. Credit Hrs: 3.00

15CLAS153**Roman Civilization**

Ancient Rome civilization from the founding of Rome through the late Republic in the 1st century BC. BoK: HP. Credit Level: U. Credit Hrs: 3.00

15CLAS154**Roman Civilization**

Continuation of 15CLAS153. Ancient Roman civilization from the early Roman empire through the reign of Justinian. BoK: HP. Credit Level: U. Credit Hrs: 3.00

15CLAS170**Etiquette Ancient and Modern**

Perspectives from Classical Antiquity and the modern world on etiquette. Similarities and differences between Greek and Roman and modern views help question the principles upon which etiquette is built. BoK: SE., HP. Credit Level: U. Credit Hrs: 3.00

15CLAS188**Mortals, Myth and Magic in the Ancient World**

Magical practices and beliefs of four different cultures - Egypt, Greece, Rome, and the Celts - are investigated by studying both archaeological remains and textual evidence such as Pyramid Texts, magical papyri, curse tablets, and tales of magic and sorcery. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15CLAS201**Art and Archaeology of Ancient Mesopotamia and Egypt**

Introduction to the material remains of these ancient cultures. Monumental cultures of ancient Sumeria and Egypt, from the earliest prehistoric periods through the end of the Old Kingdom. Architecture, sculpture and paintings are analyzed, as are smaller works such as pottery, jewelry and utensils, with a view toward understanding what these material remains reveal about the people who produced them. BoK: FA., HP. Credit Level: U. Credit Hrs: 3.00

15CLAS202**Art and Archaeology of Ancient Greece**

Introduction to the material culture of ancient Greece and Crete, from the Bronze Age through the Classical and Hellenistic periods. Architecture, sculpture and paintings are analyzed, as are smaller works of pottery, jewelry and utensils, with a view toward understanding what these materials remains reveal about the people who produced them. BoK: FA., HP. Credit Level: U. Credit Hrs: 3.00

15CLAS203**Art and Archaeology of Ancient Rome**

Introduction to the material cultures of Rome and her colonies, from the early Etruscan settlements in Italy through the far reaches of the Roman

Classical Civilization**15CLAS203****Art and Archaeology of Ancient Rome**

empire in Britain, Asia and Africa. Architecture, sculpture and paintings are analyzed, as are smaller works of pottery, jewelry and utensils, with a view toward understanding what these material remains reveal about the people who produced them. BoK: FA., HP. Credit Level: U. Credit Hrs: 3.00

15CLAS221**The Art and Archaeology of the Ancient World**

A survey of the culture of ancient Egypt through a study of its art and architecture. Students will learn about monuments such as the great pyramids and how they reflect the beliefs of the ancient Egyptian people. Transfer Module. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15CLAS222**The Art and Archaeology of the Ancient World**

A survey of the culture of ancient Greece circa 2000BC-31BC through the study of history, art, and architecture. Explore religious, civic, and private life of the culture that invented democracy. Transfer Module. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15CLAS223**The Art and Archaeology of the Ancient World**

A survey of the culture of ancient Rome circa 800BC-AD400 through a study of its history, art, and architecture. Explores the development of the Roman empire and activities of daily life. Transfer Module. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15CLAS238**Greek and Latin Elements in Medical Terminology**

Basic vocabulary of some 1000 words, together with materials for formation of compounds, enabling students to build working vocabulary of several thousand words. Designed for those intending to specialize in medicine, nursing, dentistry, microbiology and medical technology. (Does not count toward major in Classical Civilization.) BoK: HU. Credit Level: U. Credit Hrs: 3.00

15CLAS333**Egyptian and Mesopotamian Mythology**

Ancient myth and religion are presented through readings in ancient texts, depictions in ancient art, and the study of religious sites and temples. Where applicable, modern theories about the significance of myth are analyzed. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15CLAS335**Celtic and Norse Mythology**

Ancient myth and religion are presented through readings in ancient texts, depictions in ancient art, and the study of religious sites and temples. Where applicable, modern theories about the significance of myth are analyzed. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15CLAS345**Mythology**

Classical Greek myths as products of Greek culture. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15CLAS346**Greek and Roman Myth and Religion**

A general account of Greek and Roman mythology and religion. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15CLAS350**Palaces of the Bronze Age Aegean**

Examines the emergence, development and decline of complex societies on Crete and mainland Greece (2000 - 1200 BC) through material and textual evidence. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15CLAS355**Prostitutes, Slaves and Scoundrels in Ancient Athens**

Social attitudes, interests and obsessions of the ancient Athenians come to life in often convoluted legal disputes. The more intriguing and racy courtroom speeches that survive from ancient Athens reveal laws,

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Classical Civilization**15CLAS355****Prostitutes, Slaves and Scoundrels in Ancient Athens**

ethics, lifestyles, pretensions and politics of the ancient Athenians. BoK: HP. Credit Level: U. Credit Hrs: 3.00

15CLAS356**Gender and Sexuality in Ancient Greece**

Examines the roles of women and men in a society where these roles were very different. Topics include family, work, and daily lives of men and women, as well as sexuality and homosexuality; marriage and adultery; misogynist and other portrayals of women. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15CLAS357**The Athenian Acropolis**

An exploration of the most important religious site of ancient Athens from the Neolithic period to the modern period. Will focus on Greek religious practice, art and architecture, and the Acropolis's historical significance in antiquity and today. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15CLAS360**Tales of Heroes: Homeric Epic**

Detailed study of Homeric epic poetry in translation. Readings comprise Epic of Gilgamesh (as background); Iliad; Odyssey; some secondary literature. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15CLAS365**Seven Wonders of the Ancient World**

A survey of the most important sites and monuments of ancient Greece, Mesopotamia, Israel, Turkey and Egypt. Critical thinking and oral communication skills will be applied in assessing the archaeological and textual evidence for the Seven Wonders of the Ancient World. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15CLAS366**Opera and Classical Antiquity**

Readings of classical texts serve as a starting point for the analysis of opera by diverse composers and from different periods. The topics include: 1) Greek and Roman epic (e.g. Virgil's "Aeneid" - Opera: "Les Troyennes", "Ascanio in Alba", etc.) 2) Greek tragedy; 3) Roman history. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15CLAS368**Pompeii**

The eruption of Mt. Vesuvius in 79AD completely buried the Roman city of Pompeii. We will rediscover Pompeii's temples, theaters, baths, streets, and her many houses, humble and haughty, to understand the operation of this ancient city. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15CLAS370**Life in the Roman City**

We will read from historians, orators, satirists, and poets to explore reactions of ancient Romans to city life. Topics include: the development of Rome and Roman colonies; urban planning and policing; public services and street life; entertainment and spectacle; and death and burial. BoK: HP. Credit Level: U. Credit Hrs: 3.00

15CLAS373**Tour of Rome: The Art and Archaeology of the Ancient City**

We will explore the art and archaeology of Rome with a focus on its monuments, buildings, and neighborhoods. Our investigation of these will shed light on the various historic, social, and cultural developments that shaped the city with an aim to recreate ancient daily life in Rome. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15CLAS375**Survey of the Topography of Rome From Its Origins Through the Baroque**

A survey of the history of Rome from its foundation until the flowering of the baroque as seen through its monuments, buildings, and public art. Rome, the Eternal City, through 2500 years of continuous inhabitation. BoK: FA., HP. Credit Level: U. Credit Hrs: 3.00

Classical Civilization**15CLAS381****Women and Men, Sex and Gender in Antiquity**

An overview of the textual and material evidence pertaining to women's lives in four ancient cultures. Students synthesize and evaluate this information, weighing the limitations of different types of evidence and considering any possible gender biases of previous scholars. Perm of Instructor. BoK: HU, SE. Credit Level: U. Credit Hrs: 3.00

15CLAS400**Roman Archaeology I**

In-depth examination of the first Romans and the Roman Republic (circa 800-100BC) and its scholarship. Meets with CLAS700. Prereq: 15CLAS223. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15CLAS401**Roman Archaeology II**

In-depth examination of the art and archaeology of the late Roman Republic to the early Roman Empire (circa 100BC-AD100) and its scholarship. Meets with CLAS701. Prereq: 15CLAS223. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15CLAS402**Roman Archaeology III**

In-depth examination of the art and archaeology of the High and later Roman Empire (AD100-400) and its scholarship. Meets with CLAS702. Prereq: 15CLAS223. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15CLAS403**Advanced Greek Archaeology**

In-depth examination of the art and archaeology of Iron Age and Archaic Greece (1000-500BC) and its scholarship. Meets with CLAS703. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15CLAS404**Advanced Greek Archaeology**

In-depth examination of the art and archaeology of Classical Greece (500-323BC) and its scholarship. Meets with CLAS703. Prereq: 15CLAS222. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15CLAS405**Advanced Greek Archaeology**

In-depth examination of the art and archaeology of the ancient Greek Hellenistic World (323-31BC) and its scholarship. Meets with CLAS705. Prereq: 15CLAS222. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15CLAS406**Aegean Prehistory**

The art and archaeology of Prehistoric Greece. Perm of Instructor. BoK: HU, SS. Credit Level: U. Credit Hrs: 3.00

15CLAS407**Greek Archaeology IV**

Survey of Greek material culture. This course follows 15CLAS405 in years when the Greek archaeology survey is taught as a 4-course sequence. Prereq: 15CLAS222. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15CLAS411**Archaeology of Israel**

Focuses on the material remains of Israel, from prehistory to the Roman period. Prereq: 15ANTH201, 15CLAS221, 15CLAS222, 15CLAS223. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15CLAS471**Special Topics**

A special topic is chosen by student with approval of adviser as the subject of study in the capstone experience. BoK: NA. Credit Level: U. Credit Hrs: 1.00-15.00

15CLAS475**Introduction to Classical Studies**

Survey of the various areas of classical studies and their methodologies. BoK: HU. Credit Level: U. Credit Hrs: 1.00

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Classical Civilization**15CLAS475****Introduction to Classical Studies**

Survey of the various areas of classical studies and their methodologies. BoK: HU. Credit Level: U. Credit Hrs: 1.00

15CLAS481**History of Rome: Early Rome to the Middle Republic**

Early Roman history from the origins of Rome, the monarchy and the early Republic through the Middle Republic. BoK: HP. Credit Level: U. Credit Hrs: 3.00

15CLAS482**History of Rome: Late Republic to Its Fall**

History of the Roman Republic from the time of the Gracchi to that of Julius Caesar. Emphasis is placed on the causes of the fall of the Republic. BoK: HP. Credit Level: U. Credit Hrs: 3.00

15CLAS483**History of Rome: Early Empire**

Political, social and economic history of the Roman Empire from Augustus to the Antonines. BoK: HP. Credit Level: U. Credit Hrs: 3.00

15CLAS484**Early Greece**

The history of Greece in the Dark Age and the Archaic period. The emergence of the city-state, colonization, and the constitutional development of Sparta and Athens to the end of the sixth century B.C. BoK: HP. Credit Level: U. Credit Hrs: 3.00

15CLAS485**Greece: Pericles**

The Age of Pericles and the 4th century B.C. The social and political history of Greece in the 5th and 4th centuries B.C. BoK: HP. Credit Level: U. Credit Hrs: 3.00

15CLAS486**Greece: Hellenistic**

Alexander the Great and the Hellenistic World. The social and political history of the Greek world in the 4th to the 2nd centuries B.C. BoK: HP. Credit Level: U. Credit Hrs: 3.00

15CLAS488**Greek and Roman Warfare**

A study of Greek and Roman tactical methods and army structure. This course was formerly known as 15HIST442. BoK: HP. Credit Level: U. Credit Hrs: 3.00

15CLAS490**Bread and Butter Course on Food Production and Consumption in the Ancient World**

Survey of food production and consumption in the ancient world, with a special focus on the social organization of the agriculture (leases, estates) and the development of entitlements (taxes, doles) BoK: HP. Credit Level: U. Credit Hrs: 3.00

15CLAS499**Independent Study in Classics**

Please complete and submit an Independent Application form available from the college office. BoK: NA. Credit Level: U. Credit Hrs: 1.00-12.00

15CLAS741**The Minoans**

Description not available. BoK: HP. Credit Level: U, G. Credit Hrs: 3.00-4.00

15CLAS742**The Minoans**

Description not available. BoK: HP. Credit Level: U, G. Credit Hrs: 3.00-4.00

15CLAS743**The Mycenaeans**

The first of a two-part course sequence. A graduate survey class dealing with the archaeology society, economy, history and art of the Greek mainland from the Paleolithic period to the end of the Bronze

Classical Civilization**15CLAS743****The Mycenaeans**

Age and the beginning of the Dark Ages. BoK: HP. Credit Level: U, G. Credit Hrs: 3.00-4.00

15CLAS700**Roman Archaeology I**

The art and archaeology of the Early Roman Republic. Credit Level: G. Credit Hrs: 4.00

15CLAS701**Roman Archaeology II**

Problems in Roman archaeology from the Julio-Claudian through Trojan period. Credit Level: G. Credit Hrs: 4.00

15CLAS702**Roman Archaeology III**

The art and archaeology of the later Roman Empire. Credit Level: G. Credit Hrs: 4.00

15CLAS703**Greek Archaeology I**

The art and archaeology of Iron Age and Archaic Greece. Credit Level: G. Credit Hrs: 4.00

15CLAS704**Greek Archaeology II**

The art and archaeology of Classical Greece. Prereq: 15CLAS703. Credit Level: G. Credit Hrs: 4.00

15CLAS705**Greek Archaeology III**

The art and archaeology of the Hellenistic World. Prereq: 15CLAS704. Credit Level: G. Credit Hrs: 4.00

15CLAS706**Aegean Prehistory**

The art and archaeology of Prehistoric Greece. Perm of Instructor. Credit Level: G. Credit Hrs: 4.00

15CLAS707**Greek Archaeology IV**

Survey of Greek material culture. This course follows 15CLAS705 in years when the Greek archaeology survey is taught as a 4-course sequence. Credit Level: G. Credit Hrs: 4.00

15CLAS710**Mediterranean World of the Early Iron Age: 1100- 600 BC**

Emphasis is placed on Greek and Italic social development and their interaction with other cultures such as the Phoenician. An examination of both archaeological and literary evidence follows the development of social institutions that culminate in the emergence of the state. Credit Level: G. Credit Hrs: 4.00

15CLAS711**Archaeology of Israel**

Focuses on the material remains of Israel, from prehistory to the Roman period. Credit Level: G. Credit Hrs: 4.00

15CLAS725**Information Technology in Archaeological Research**

Prepares students to effectively use computers in archaeological research, including database design and integration with spatial data through GIS. Credit Level: G. Credit Hrs: 4.00

15CLAS731**Bronze Age Cyprus**

The archaeology of Cyprus from the c. 3000 to the beginning of the 10th century BC, dealing the geography, natural resources, land use, state formation and culture; An overview of the eastern Aegean with emphasis on excavations at Episkopi-Bamboula. Credit Level: G. Credit Hrs: 4.00

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Classical Civilization**15CLAS744****The Myceneans**

The second of a two-part course sequence. A graduate survey class dealing with archaeology, society, economy, history and art of the Greek mainland from the Paleolithic period to the end of the Bronze Age and the beginning of the Dark Ages. Credit Level: G. Credit Hrs: 4.00

15CLAS781**Roman History: Early Rome**

Early Roman history from the origins of Rome, the monarchy and the early Republic through the Middle Republic. Credit Level: G. Credit Hrs: 4.00

15CLAS782**Roman History: Late Republic**

History of the Roman Republic from the time of the Gracchi to that of Julius Caesar. Emphasis is placed on the causes of the fall of the Republic. Credit Level: G. Credit Hrs: 4.00

15CLAS783**Roman History: Empire**

Political, social and economic history of the Roman Empire from Augustus to Antonines. Credit Level: G. Credit Hrs: 4.00

15CLAS784**Archaic Greece**

The history of Greece in the Dark Age and the Archaic period. The emergence of the city-state, colonization, and the constitutional development of Sparta and Athens to the end of the sixth century B.C. Credit Level: G. Credit Hrs: 4.00

15CLAS785**Greece: Pericles**

The Age of Pericles and the 4th century B.C. The social and political history of Greece in the 5th and 4th centuries B.C. Credit Level: G. Credit Hrs: 4.00

15CLAS786**Greece: Hellenistic**

Alexander the Great and the Hellenistic World. The social and political history of the Greek world from the 4th to the 2nd centuries. B.C. B.C. Credit Level: G. Credit Hrs: 4.00

15CLAS788**Greek and Roman Warfare**

A study of Greek and Roman tactical methods and army structure. This course was formerly known as 15HIST442. Credit Level: G. Credit Hrs: 4.00

15CLAS790**Bread and Butter Course on Food Production and Consumption in the Ancient World**

Survey of food production and consumption in the ancient world, with a special focus on the social organization of agriculture (leases, estates) and the development of entitlements (taxes, doles). Credit Level: G. Credit Hrs: 4.00

15CLAS841**Art History and Ancient Art**

This seminar will examine art historical approaches to the material culture of ancient Greece and Rome. We will consider both the history of art historical interpretation and the application of recent theoretical approaches to ancient art. Credit Level: G. Credit Hrs: 4.00

15CLAS852**Cincinnati Art Museum Internship**

Deals with problems in exhibition design, conservation, and cataloguing, and includes research on works of ancient art in the collection of the Cincinnati Art Museum. Credit Level: G. Credit Hrs: 4.00-12.00

Classical Civilization**15CLAS868****Greek and Roman Warfare**

A detailed look at weaponry, tactics, and logistics, and the interaction of societies and armies. Credit Level: G. Credit Hrs: 4.00

15CLAS871**Master's Thesis Research**

Offered ea. qtr. Credit Level: G. Credit Hrs: 1.00-15.00

15CLAS872**Roman Architecture**

Description not available. Credit Level: G. Credit Hrs: 4.00

15CLAS873**Roman Painting**

Description not available. Credit Level: G. Credit Hrs: 4.00

15CLAS874**Prehistoric Macedonia**

Survey of the prehistory of Macedonia from the beginning of the Neolithic to the Archaic period. Discussion of major sites by period. Presentation of archaeological and historical evidence. Credit Level: G. Credit Hrs: 4.00

15CLAS875**Introduction to Graduate Studies**

1 gr. cr. Credit Level: G. Credit Hrs: 1.00

15CLAS877**Pompeii and Herculaneum**

This course examines the methods, motives and results of the excavations of Pompeii and Herculaneum over their 250 year history. Special attention to urban development. Credit Level: G. Credit Hrs: 4.00

15CLAS878**Roman Sculpture**

The history of Roman historical reliefs and coinage from the beginning of the Republic through the reign of Augustus. Second quarter continues the study through the Julio-Claudian to the Constantine era. (Two quarter sequence.) Credit Level: G. Credit Hrs: 4.00

15CLAS879**Roman Sculpture**

Second quarter sequence. See 15-007-878. Credit Level: G. Credit Hrs: 4.00

15CLAS882**Greek Sanctuaries I**

Description not available. Credit Level: G. Credit Hrs: 4.00

15CLAS883**Greek Sanctuaries II**

Description not available. Credit Level: G. Credit Hrs: 4.00

15CLAS901**Ptolemaic Empire**

A study of the papyrological, epigraphic, numismatic and archaeological evidence for the Ptolemaic empire. Formerly 15HIST901. Credit Level: G. Credit Hrs: 4.00

15CLAS902**Seleucid Empire**

A study of the papyrological, epigraphic, numismatic and archaeological evidence for the Seleucid empire. Formerly 15HIST902. Credit Level: G. Credit Hrs: 4.00

15CLAS903**Roman Religion**

The historical development of priesthood cult practices with particular emphasis placed on the religious practices of Roman public life. Formerly 15HIST903. Credit Level: G. Credit Hrs: 4.00

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Classical Civilization**15CLAS905****State Origins**

A comparative study in the origins and evolution of state institutions of ancient Greece and Rome. Formerly 15HIST905. Credit Level: G. Credit Hrs: 4.00

15CLAS915**Homeric Archaeology**

Relevance of Homeric texts to understanding the Aegean Bronze Age. Integration of textual and archaeological approaches through application to specific case studies. Credit Level: G. Credit Hrs: 4.00

15CLAS919**Aegean Bronze Age Iconography in Context**

A seminar on visual representation in the prehistoric Aegean placing special emphasis on late Bronze Age media (frescoes, seals, stone and clay vases, figurines) discussed in relation to their archaeological context. Credit Level: G. Credit Hrs: 4.00

15CLAS920**Crete and Cyprus in the Late Medieval and Early Modern Period**

Society & economy of Crete & Cyprus c.1200-c.1600 with particular reference to settlement patterns and land use. Consideration given to integration of archaeological & historical material to reconstruct history of the landscape. Credit Level: G. Credit Hrs: 4.00

15CLAS921**The Religious Context of Early Christianity**

Surveys religions in the Roman world, including Christianity. Discusses approaches to religion, especially the "Religious History School." Compares public and private religion. Explores the boundaries of religions, where they meet, parted, and stopped being religions. Evaluates the contribution of other religions to early Christianity. Credit Level: G. Credit Hrs: 4.00

15CLAS922**Roman North Africa**

Detailed survey of Roman North Africa from the Republic through late antiquity. Credit Level: G. Credit Hrs: 4.00

15CLAS923**Archaeology of Colonization**

Approaches to the study of colonization through examination of material culture. Case studies from the Greek world with special attention to Illyria, the Black Sea, and southern France. Perm of Instructor. Credit Level: G. Credit Hrs: 4.00

15CLAS925**Gender and Theory in Archaeology**

Theories and methods by which archaeologists can trace gender distinctions in past societies from material remains. Credit Level: G. Credit Hrs: 4.00

15CLAS927**Archaeology of Hadrian's Empire**

Combines the study of ancient historical sources with a full examination of the archaeological evidence to illumine the reign of Hadrian and his influence across the Mediterranean world. Credit Level: G. Credit Hrs: 4.00

15CLAS928**Pausanias' Greece**

Explores Pausanias; Perigesis as a resource for understanding concepts of the past, place and identity in the ancient world. Perm of Instructor. Credit Level: G. Credit Hrs: 4.00

15CLAS929**Landscape Archaeology in Kea, Greece**

Integration of textual evidence and results of archaeological research to reconstruct the long-term history of the Greek island of Kea. Focus on 7th through 1st centuries B.C. Perm of Instructor. Credit Level: G. Credit Hrs: 4.00

Classical Civilization**15CLAS930****Pots and Potters**

Analysis and discussion of the latest tools, theoretical approaches, and methodological perspectives available to archaeologists for the study of ceramics. Credit Level: G. Credit Hrs: 4.00

15CLAS931**Applied Techniques in Archaeological Field Research**

Application of techniques developed in the physical and biological sciences to archaeological field research. Perm of Instructor. Credit Level: G. Credit Hrs: 4.00

15CLAS932**Neolithic and Early Cycladic Archaeology**

A detailed analysis of earliest settlement in the Aegean islands of Greece as revealed by archaeological investigations in the past century. Includes consideration of relevant theory and method. Credit Level: G. Credit Hrs: 4.00

15CLAS933**Archaeology of Troy**

A survey of recent archaeological discoveries at the site of Troy in northwestern Turkey. The seminar will deal also with problems in the interpretation of gaps in habitation, cult activity, and domestic architecture. Perm of Instructor. Credit Level: G. Credit Hrs: 4.00

15CLAS935**Social Complexity**

A survey of the archaeological and related literature (1940s-present) on the processes that lead to and sustain complex socio-political organizations. Examples from Old and New World. Credit Level: G. Credit Hrs: 4.00

15CLAS937**Sexuality in Greece and Rome**

This seminar examines the cultural construction of sexuality in ancient Greece and Rome. The emphasis is on hermeneutics: problems of interpretation, cultural poetics, past and present biases. We will examine both literary and visual sources. Class meets with 15Grk937. Credit Level: G. Credit Hrs: 4.00

15CLAS940**Evolution of Ancient Athens**

History of the economic, social and urban development of the city of Athens and its interrelationship with Greek urban development. Credit Level: G. Credit Hrs: 4.00

15CLAS942**Seminar: Classical Architecture**

Description not available. Credit Level: G. Credit Hrs: 4.00

15CLAS943**Houses and Households in Ancient Greece**

Examination of archaeological and literary evidence for ancient Greek domestic life. Will include discussion of architecture, material culture, iconography, women's roles in the home, and the "family." Credit Level: G. Credit Hrs: 4.00

15CLAS944**Archaeological Theory**

Seminar in classical and pre-classical archaeology. Review and critique of modern archaeological theory as relevant to Mediterranean archaeology. Credit Level: G. Credit Hrs: 4.00

15CLAS945**Archaeological Field Methods**

Principles of archaeological fieldwork in the Mediterranean, both excavations and survey. Credit Level: G. Credit Hrs: 4.00

15CLAS946**Regional Studies and Prehistory**

This seminar examines the development of techniques of surface archaeological survey and other methods of regional reconnaissance, as they come to be practiced in Greece. Participants in the seminar

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Classical Civilization**15CLAS946****Regional Studies and Prehistory**

evaluate the success of these research programs as they pertain to the study of Greek history. What have they contributed to our understanding of the Paleolithic, Neolithic, and Bronze Age of Greece? Perm of Instructor. Credit Level: G. Credit Hrs: 4.00

15CLAS947**Roman Warfare**

A seminar dealing with various topics on the development of Roman warfare such as tactics, strategy, social and economic effects, and institutional development. Credit Level: G. Credit Hrs: 4.00

15CLAS950**Greek Sculpture I**

Description not available. Credit Level: G. Credit Hrs: 4.00

15CLAS951**Greek Sculpture II**

Description not available. Credit Level: G. Credit Hrs: 4.00

15CLAS952**Problems in Greek Dark Age Archaeology**

Designed for graduate students interested in studying the Early Iron Age and Early Archaic periods in Greece and Rome. Questions involve change and continuity from the Late Bronze Age; problems in the reconstruction of social history; pre-polis evolution. Credit Level: G. Credit Hrs: 4.00

15CLAS954**Seminar: Bronze Age, Cyprus**

Description not available. Credit Level: G. Credit Hrs: 4.00

15CLAS955**Seminar: Mycenaeans Abroad**

Description not available. Credit Level: G. Credit Hrs: 4.00

15CLAS956**Coming of the Greeks**

Research seminar examining the Greek Early Bronze Age including archaeological and linguistic evidence for cultural continuity. Credit Level: G. Credit Hrs: 4.00

15CLAS957**The Symposium and Symposium Literature**

Archaic and Classical poetry and its metasymphotic elements; archaeological material and visual evidence in Archaic and Classical Greece with a focus on the socio-cultural function of communal drinking. Credit Level: G. Credit Hrs: 4.00

15CLAS958**Seminar: The Aegean**

Description not available. Credit Level: G. Credit Hrs: 4.00

15CLAS959**Phoenicians, Italians and Greeks**

An examination of the interaction between Phoenicians, Greeks and Italian peoples in the Western Mediterranean during the first half of the first millennium B.C. We will explore cultural exchanges in the areas of religion, social institutions and artistic and craft traditions. Credit Level: G. Credit Hrs: 4.00

15CLAS960**Greek Architecture**

Intensive study of 5th-4th century temple construction techniques from the archaeological and epigraphical evidence. Credit Level: G. Credit Hrs: 4.00

15CLAS961**Art and Myth**

Description not available. Credit Level: G. Credit Hrs: 4.00

Classical Civilization**15CLAS962****South Italy: Greek Colonists and Their Neighbors**

An examination of the evidence for interactions between Greeks and indigenous populations in Italy during the 5th to 3rd centuries BCE. A particular focus will be on figure decorated pottery, its iconography and markets. Credit Level: G. Credit Hrs: 4.00

15CLAS963**Mediterranean Landscape Archaeology**

Purpose of this seminar is to examine critically the assumptions of Landscape Archaeologists, as well as the history of this subdiscipline. Case studies will focus particularly on the archaeology of historical periods, particularly of Roman times. Credit Level: G. Credit Hrs: 4.00

15CLAS964**Pompeian Archaeology**

An intensive study of the art and archaeology of Pompeii and other sites around the Bay of Naples, with a concentration on cultural and urban development. Credit Level: G. Credit Hrs: 4.00

15CLAS968**Greek and Roman Warfare**

A detailed look at weaponry, tactics, and logistics, and the interaction of societies and armies. Credit Level: G. Credit Hrs: 4.00

15CLAS970**Seminar: The Greek House**

Description not available. Credit Level: G. Credit Hrs: 4.00

15CLAS971**Doctoral Dissertation Research**

Offered ea. qtr. Credit Level: G. Credit Hrs: 1.00-15.00

15CLAS972**Readings in Ancient History**

Directed readings on various topics in ancient history with either an exam or paper. Perm of Instructor. Credit Level: G. Credit Hrs: 1.00-15.00

15CLAS984**Roman Constitution**

A study of the history of Roman Public Law dealing with the historical development of magistracy, Senate, and assemblies. Formerly 15HIST984. Credit Level: G. Credit Hrs: 4.00

15CLAS986**Early Roman Empire**

Concentration on the Julio-Claudian period with special emphasis on the reign of Augustus and the formation of the new political and social structures that accompanied the inception of the empire. Formerly 15HIST986. Credit Level: G. Credit Hrs: 4.00

15CLAS988**Late Roman Empire**

Intellectual and institutional history from the time of Commodus to Theodosius; emphasis is given to source criticism and methodological problems. Formerly 15HIST988. Credit Level: G. Credit Hrs: 4.00

15CLAS990**Ancient Numismatics**

History of coinage in the Greco-Roman world. Credit Level: G. Credit Hrs: 4.00

15CLAS991**Topics in Roman History**

Seminar dealing with Republican and Imperial Roman history such as political development and changing economic and social structure. Formerly 15HIST990. Credit Level: G. Credit Hrs: 4.00

15CLAS992**Hellenistic World**

Discussion and examination of the epigraphic, papyrological, and numismatic evidence for the Hellenistic Near East. Formerly 15HIST992. Credit Level: G. Credit Hrs: 4.00

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Classical Civilization**15CLAS993****Hellenistic Syria**

An intensive study of the literary, epigraphic, papyrological and numismatic evidence for Syria in the Hellenistic period. Formerly 15HIST993, Credit Level: G. Credit Hrs: 4.00

15CLAS994**Hellenistic Palestine**

Examines the available evidence - literary, epigraphic, papyrological, archaeological - for Hellenistic Palestine. Formerly 15HIST994. Credit Level: G. Credit Hrs: 4.00

15CLAS995**Hellenistic Bactria and India**

Examines the literary, numismatic and archaeological evidence for the history of Bactria and India in the Hellenistic period. Credit Level: G. Credit Hrs: 4.00

15CLAS999**Directed Readings in Archaeology**

Offered ea. qtr. Variable credit. Credit Level: G. Credit Hrs: 1.00-15.00

Communication**15COMM171****Effective Public Speaking**

Principles of and practice in composition and presentation of speeches. BoK: HU., SS. Credit Level: U. Credit Hrs: 3.00

15COMM176**Introduction to Interpersonal Communication**

Introduction to theory and practice in interpersonal communication. Focus on the impact of culture on communication style and the development of communication skills. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15COMM176H**Introduction to Interpersonal Communication Honors**

Introduction to the theory and practice of Interpersonal Communication. Focus on the development of communication skills and survey of current interpersonal research. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15COMM188**Careers in Communication**

Communication professionals discuss career goals, planning, and internships. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15COMM201**Professional Speaking**

Analysis, composition, and delivery of speeches, in business and professional settings. Prereq: 15COMM171. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15COMM202**Persuasive Speaking**

Analysis, composition, and delivery of persuasive speeches. Principles of attention and motivation. Prereq: 15COMM171. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15COMM221**Communication in Problem Solving Groups**

Study and analysis of group research, process variables, decision making methods, and experience in developing group problem solving skills and leadership. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15COMM237**Topics in Media Literacy**

Survey of issues related to public understanding of politics and the media. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15COMM242**Introduction to Public Relations**

The study of principles and ethical practice of public relations in business and not-for-profit organizations. BoK: NA. Credit Level: U.

Communication**15COMM242****Introduction to Public Relations**

Credit Hrs: 3.00

15COMM243**Public Relations Writing**

Theory and practice of public relations in various writing situations; writing and editing of several types of documents, specific audience concerns, and research issues. Attention is given to both informative and advocacy documents. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15COMM245**Interviewing**

Probing, selection, and persuasive interviews. Role-playing interviews on videotape. Prereq.: 176. Prereq: 15COMM176. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15COMM281**Business Communications**

Theory and practice in group and conference leadership, persuasive techniques, occasional speaking. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15COMM300**Public Relations Research**

An introduction to qualitative and quantitative social science research methods with an emphasis on their application to solving public relations and supporting public relations objectives. Students will develop research projects individually and in groups. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15COMM302**Theories of Argument**

Theory and structure of argument, propositions of fact, value, and policy; evidence, reasoning, refutation, and rebuttal. Prereq: 15COMM171. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15COMM303**Public Debate**

Case construction; principles, methods, and types of debate. Includes in-class debates. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15COMM306**Introduction to Rhetorical Theory**

A survey of the theoretical foundations of rhetorical studies. Emphasis is on the philosophical assumptions of the study of public discourse. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15COMM307**Introduction to Communication Theory**

A survey of the theoretical foundations of the scientific study of human communication. Emphasis is on the philosophical assumptions of studying human communication from a scientific perspective. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15COMM308**Communication in Organizations**

Introduction to the role of communication in shaping organizations. Primary emphasis is on internal organizational processes. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15COMM326**Introduction to Mass Communication**

Introduction to the development, characteristics and functions of mass media in society. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15COMM344**Public Relations Case Studies**

Students read and discuss PR case studies to gain applied knowledge of theories and principles applicable across various PR situations. Prereq: 15COMM242. BoK: DC, SE. Credit Level: U. Credit Hrs: 3.00

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Communication**15COMM348****Nonverbal Communication**

Study and analysis of non-linguistic and paralinguistic communication, introduction to nonverbal communication research and the experimental method. Prereq: 15COMM176. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15COMM349**Intercultural Communication**

Introduction to theories and principles of intercultural communication: attention to how cultures are constructed from a communication perspective and the role of perception, verbal and nonverbal behaviors, and conflict in intercultural communication. Prereq: 176. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15COMM349H**Cincinnati, Poverty and Intercultural Communication**

To provide honors students with an introduction to current intercultural communication theory through experiential involvement with local marginalized communities (those living in poverty). BoK: DC. Credit Level: U. Credit Hrs: 3.00

15COMM350**Public Relations**

(Formerly 30JOUR274.) A general introduction to the theory and practice of public relations, including analysis, planning, implementation and evaluation. Participants will review public relations as a career and as a communications process. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15COMM351**Managing the Public Relations Campaign**

Introduction to the planning, implementation and evaluation of the public relations campaign. Review of case studies from a variety of contexts, utilizing an array of media. Prereq: 30JOUR301. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15COMM352**Public Relations for Non-Profit Organizations**

Survey of the practice of public relations in a non-profit environment. Integration of public relations with the practice of fund raising and audience development. Prereq: 30JOUR301. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15COMM371**Communication Criticism**

Study of standards of basic criticism of speeches and methods for the application of these standards for analysis and evaluation. Prereq: 15COMM202. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15COMM391**Interning in Communication**

A position related to communication providing professional experience under faculty guidance. Prereq: 15COMM188. BoK: NA. Credit Level: U. Credit Hrs: 1.00-3.00

15COMM392**Project in Communication**

Students, under faculty guidance, will develop and pursue a historical, critical, empirical, or experimental project in communication. Prereq: 15COMM306, 15COMM307. BoK: NA. Credit Level: U. Credit Hrs: 1.00-3.00

15COMM395H**Appalachian Culture and Intercultural Communication**

Students will explore local, regional and national issues germane to Appalachian culture and explore intercultural Communication theories relevant to the culture. Participation with an alternative spring break is a required element of this course. (Travel cost will be incurred). BoK: HU., SS. Credit Level: U. Credit Hrs: 3.00

15COMM401**Rhetorical Theory**

Study and critique of classical, British and contemporary rhetorical

Communication**15COMM401****Rhetorical Theory**

theories. Prereq: 15COMM306. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15COMM402**Family Communication**

Study of family relationships and the role of communication in their development. BoK: DC. Credit Level: U. Credit Hrs: 3.00

15COMM403**Gender Communication**

Study of the gender variable as it influences communication between men and women, including topics of self-concept and identity, sex roles and stereotypes, interpersonal perception and attraction, leadership and differences in male/female verbal and nonverbal codes. Prereq: 15COMM176. BoK: DC. Credit Level: U. Credit Hrs: 3.00

15COMM404**Health Communication**

Communication theory, concepts, and research within the health care context. Examines the changing relationship of health care consumers and medical practitioners in our society and communication issues in illness, stress, coping, social support, media health campaigns, cultural factors, and the use of technology in health care within the U.S. BoK: SE. Credit Level: U. Credit Hrs: 3.00

15COMM405**Communication and Health Politics**

This course examines the role of rhetoric and culture in the realm of health care, including public health, medical care, and research. We will examine the ways in which multiple interest groups shape public discourse in advocating their position, and the influence of health. BoK: SE. Credit Level: U. Credit Hrs: 3.00

15COMM406**Organizational Diversity: Race and Gender in the Workplace**

In this course, gender and race in organizations will be examined from a macro (organizational) and micro (individual) perspective. BoK: DC. Credit Level: U. Credit Hrs: 3.00

15COMM407**Communication Theory**

Examination of the process of theory construction in communication studies. Examines philosophical issues, genres of theory, and current theoretical trends. Prereq: 15COMM307. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15COMM408**Leadership Communication**

An analysis of leadership as a process and from the standpoint of discourse and communication. Topics include communication styles, power and influence, and leadership in terms. Prereq: 15COMM308. BoK: SE. Credit Level: U. Credit Hrs: 3.00

15COMM409**Organizational Identity, Image, and Issue Management**

Integrated theories of organizational communication, public relations, and issue management, strategic communication aimed at managing organizational identity and image with internal and external audiences. Students are expected to think critically about the ethical and political implications of organizational discourse for democratic practices. BoK: SE., SS. Credit Level: U. Credit Hrs: 3.00

15COMM411**Non-Traditional Rhetorical Theories**

Non-traditional and non-Western rhetorical theories including African-American, Native American, Chinese, Islamic and Feminist rhetorics; distinctive characteristics of selected rhetorical theories and how they differ from traditional or Western theories. BoK: DC., HU. Credit Level: U. Credit Hrs: 3.00

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Communication**15COMM416****Children and Media**

An examination of the impact of media on children and their families, how children use different media, in what context and what effect different media messages and platforms have on children. Topics include: research methods used in the industry and in academia to provide evidence of media influence; what kind of impact different types of programming may have on children; what kind of public exists for children's media; how formative and evaluative research can impact the effectiveness of programming. BoK: SS., SE. Credit Level: U. Credit Hrs: 3.00

15COMM418**Gender and New Media**

The relationship between gender and new media. What constitutes gender and new media; the ways in which gender and new media help "produce" each other; the ways in which gender roles and inequities based on them are perpetuated in the promotion of new media; the context- culture, historical, ideological, and economic--- in which new media and gender produce each other. BoK: SE., HU. Credit Level: U. Credit Hrs: 3.00

15COMM426**Media and Public Opinion**

In-depth and fundamental understanding of public opinion and the mass media, both for individuals and societies. The nature of public opinion historical development, "rationality", and levels of analysis), (groups, industry, the press, and technology), social and psychological contexts (cognitive, social-psychological, social-reality based perspectives), cross-level processes (agenda-setting, issue framing, conflict and consensus, opinion origins and consequences, journalistic narrative) and public opinion and policy (public discourse, rationality claims, public judgments and influence of polling on democratic institutions and processes). BoK: SS., SE. Credit Level: U. Credit Hrs: 3.00

15COMM427**Mediated Communication**

Examines the nature of mass media regulation and public policy and explores the nature of media regulation and how it has an impact on individuals, media organizations and the public. BoK: SE., HU. Credit Level: U. Credit Hrs: 3.00

15COMM428**Women in Politics**

An examination and analysis of the campaign communication strategies used by and for women who have sought or who are seeking elective office in the United State. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15COMM429**Communication and Technology**

Investigates the relationship between human communication and technology from critical, historical, feminist and other humanistic perspectives. BoK: SE., HU. Credit Level: U. Credit Hrs: 3.00

15COMM437**Topics in Communication**

Selected topics in communication for undergraduate majors. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15COMM439**Research in Communication**

An introduction to research methods in communication studies. Students work toward designing an original project. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15COMM440**Senior Honors Project**

Independent research project for students in Honors Program. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15COMM442**Public Relations Campaigns**

Students work in groups to design a PR campaign for local clients. Strategic thinking and planning will be emphasized. Prereq:

Communication**15COMM442****Public Relations Campaigns**

15COMM242, 15COMM243. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15COMM443**Theories of Interpersonal Communication**

Examination of interpersonal communication theories and research. Prereq: 15COMM176. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15COMM446**Theories of Mediated Communication**

An extended understanding of the influence of mass communication and the individual, with particular emphasis on media effects. Covers such questions as who is affected, what effects occur and how much, what different media content is involved, what situations make effects more or less likely and the role of audience member's activity. BoK: SS., SE. Credit Level: U. Credit Hrs: 3.00

15COMM447**Mediated Communication and Society**

Provides grounding in mediated communication theory and is designed to explain the role of contemporary media for individuals and society at large in a changing environment. BoK: SE., HU. Credit Level: U. Credit Hrs: 3.00

15COMM448**Media and Culture**

Examines the relationship between media and culture, with particular focus on key topics of the day using perspectives that integrate history, politics, class, race, ethnicity, and gender. BoK: SE., HU. Credit Level: U. Credit Hrs: 3.00

15COMM449**Advanced Intercultural Communication**

Application of intercultural theories and principles and in-depth analysis of specific cultures. Experiential work in economically marginalized communities. Formerly 15COMM549. Prereq: 15COMM349. BoK: DC, SE. Credit Level: U. Credit Hrs: 3.00

15COMM450**Interpersonal Influence**

Survey of recent research on Interpersonal persuasion and compliance gaining. Prereq: 15COMM176. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15COMM463**The Rhetorical Presidency**

An examination and analysis of the rhetorical genres of the contemporary American presidency. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15COMM464**Studies in Protest and Reform Rhetoric**

Case studies of rhetorical protest and reform activities in U.S. and/or abroad. BoK: HP. Credit Level: U. Credit Hrs: 3.00

15COMM465**The Rhetoric of Presidential Debates**

Case studies of contemporary persuasive campaigns by individuals and/or organizations. BoK: HP. Credit Level: U. Credit Hrs: 3.00

15COMM466**Rhetorical Dimensions of Terrorism**

Provides students with an understanding of the communication dimensions of terrorism. Topics include definitions and historical overview of terrorism, social-psychological and cultural understandings of terrorists and terrorist acts, terrorism as a communication process, rhetorical responses to terrorism, and media coverage of terrorism. Prereq: 15COMM401. BoK: DC, SE. Credit Level: U. Credit Hrs: 3.00

15COMM467**Environmental Communication**

Investigation of environmental communication, focusing on efforts by individuals, institutions, corporations, movement leaders, scientific

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Communication**15COMM467****Environmental Communication**

experts and politicians to describe and influence human interactions with the environment. Prereq: 15COMM306. BoK: HU, SE. Credit Level: U. Credit Hrs: 3.00

15COMM468**Rhetoric of Science**

Key theories and concepts of science have also been at the heart of public debate. This class will examine the rhetoric used around these issues in multiple contexts to identify and evaluate the persuasive strategies being utilized. BoK: HU., SE. Credit Level: U. Credit Hrs: 3.00

15COMM470**Interpersonal Conflict**

Examination of the conflict process; theories and models of conflict resolution. Prereq: 15COMM176. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15COMM478**Mass Media Ethics**

To develop critical reasoning in the analysis of current moral questions as they relate to mass communication. Ethical theories will be studied and applied to issues and problems uniting theory and practice. BoK: SE. Credit Level: U. Credit Hrs: 3.00

15COMM508**Organizational Cultures**

The culture metaphor is used to view the way organizations are communicatively constructed. Problems of culture change, subcultures, language, leadership. Prereq: 15COMM308. BoK: DC. Credit Level: U, G. Credit Hrs: 3.00

15COMM543**Advanced Interpersonal Communication**

Examination of interpersonal communication theories and research. Prereq: 15COMM176. BoK: SS. Credit Level: U, G. Credit Hrs: 3.00

15COMM549**Advanced Intercultural Communication**

Application of intercultural theories and principles and in-depth analysis of specific cultures. Prereq: 15COMM349. BoK: SE. Credit Level: U, G. Credit Hrs: 3.00

15COMM557**Communication and the Presidential Campaign**

An examination and analysis of the campaign communication strategies and techniques used by modern presidential candidates. BoK: HP. Credit Level: U, G. Credit Hrs: 3.00

15COMM579**Seminar in Media Literacy**

Advanced study of issues related to media coverage of environmental and health controversies. BoK: SS. Credit Level: U, G. Credit Hrs: 3.00

15COMM605**Rhetoric of Social Movements**

Study of the evolution of social movements and the role rhetoric plays in social movements. Prereq: 15COMM401. BoK: HU. Credit Level: U, G. Credit Hrs: 3.00

15COMM638**Seminar in Analysis of Media**

Qualitative content analysis of comedy, drama, children's programs, advertising, and news. BoK: SS. Credit Level: U, G. Credit Hrs: 3.00

15COMM639**Communication and Technology**

Consideration of theoretical approaches to technological innovation, especially in the cable and telephone industries. BoK: SS. Credit Level: U, G. Credit Hrs: 3.00

15COMM643**Interpersonal Communication Theory**

This graduate level course is designed to overview the major theories,

Communication**15COMM643****Interpersonal Communication Theory**

concepts, and methodological approaches that are used in interpersonal communication theory and research in the communication discipline. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

15COMM657**Health Communication: Meaning, Culture, and Power**

The course examines the role of language and persuasion in the politics of health care, including public health, medical care and research. The course examines the ways in which multiple interest groups shape public discourse about health. Students gain knowledge of the relationships between language, social knowledge, power, and politics. Credit Level: G. Credit Hrs: 4.00

15COMM702**Seminar in Mass Communication**

Provides an indepth understanding of how mass communication influences individuals through media effects, research, theories and concepts. Students apply this knowledge through an original research project. Credit Level: G. Credit Hrs: 4.00

15COMM703**Seminar in Mass Communication: Social Systems Approaches**

An examination of current theories and research regarding the role of mass media and other forms of communication in varied types of social systems. Credit Level: G. Credit Hrs: 3.00

15COMM705**Persuasion Theory**

An examination and analysis of the major social-scientific theories and relevant research on persuasive communication. The women's suffrage movement serves as a case-study throughout the course. Credit Level: G. Credit Hrs: 4.00

15COMM725**Advanced Interpersonal Communication Research**

Designed to undertake an advanced level of study of interpersonal communication theories, concepts, and research. The course explores under-studied or "dark side" issues in interpersonal communication and ways relationships may overcome issues in the processes of relational maintenance. Credit Level: G. Credit Hrs: 4.00

15COMM741**Empirical Research Methods**

This graduate level course is designed to teach the principles, issues, and methodological approaches used in conducting empirical quantitative research from the scientific method perspective. Credit Level: G. Credit Hrs: 4.00

15COMM742**Rhetorical Communication Research**

Introduces students to research methods for rhetorical scholarship; addresses critical methods and perspectives in rhetoric and public address as well as current research concepts and approaches. Credit Level: G. Credit Hrs: 4.00

15COMM743**Applied Research Methods**

Survey of applied research methods in communication; quantitative and qualitative methods are explored. Credit Level: G. Credit Hrs: 3.00

15COMM801**Advanced Rhetorical Theory**

An in-depth look at contemporary rhetorical theory of the "nuclear communication" literature; addresses symbolic dimensions of nuclear weapons and theoretical constructs that accompany a critical perspective on nuclear arms and the communication that surround them. Credit Level: G. Credit Hrs: 4.00

15COMM807**Advanced Communication Theory**

Examines the role of theory at an advanced level within the field of communication. Students gain a wide understanding of how meta-

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Communication**15COMM807****Advanced Communication Theory**

theoretical assumptions influence the study and practice of communication, and the process of building, applying, testing, and critiquing theories within and across different research traditions. Credit Level: G. Credit Hrs: 4.00

15COMM808**Seminar in Organizational Communication**

An advanced approach to analyzing concepts of organizational communication through applying Giddens Structuration Theory. Issues such as technology appropriation, corporate climate, leadership, downsizing, organizational identity and change are critiqued from a structuration perspective. Credit Level: G. Credit Hrs: 4.00

15COMM809**Interpretive Approaches to Organizational Communication**

Seminar in critical and interpretive approaches to organizational communication. Credit Level: G. Credit Hrs: 3.00

15COMM857**Topics in Communication**

Various topics in communication are covered, and change by quarter. Credit Level: G. Credit Hrs: 3.00

15COMM861**Directed Problems in Communication**

Projects are to be developed by student in consultation with faculty prior to registration. Credit Level: G. Credit Hrs: 1.00-6.00

15COMM891**Practicum in Communication**

Projects are to be developed by student in consultation with faculty prior to registration. Credit Level: G. Credit Hrs: 1.00-12.00

15COMM893**Teaching Communication**

Introduction to communication discipline and research areas of department faculty. Credit Level: G. Credit Hrs: 1.00-3.00

15COMM941**Master's Thesis in Communication**

Non-transferable to other options. Credit Level: G. Credit Hrs: 3.00-12.00

15COMM981**Seminar in Current Research**

Reserved for individualized programs of investigation by graduate students developing publishable papers. Perm of Instructor. Credit Level: G. Credit Hrs: 1.00-3.00

Economics**15ECON101****Introduction to Microeconomics**

Economic principles basic to behavior of individuals, firms, markets; pricing for resource allocation and decision-making. Includes topics such as opportunity cost and comparative advantage, supply and demand and their applications, elasticity, costs and production, competition, monopoly, public goods and externalities. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15ECON101H**Introduction to Economics Honors**

3 ug. cr. MICROECONOMICS (Honors) Honors students only. Transfer Module. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15ECON102**Introduction to Macroeconomics**

Economic analysis of national income, money and banking, fiscal and monetary policy. Economics in a political decision making context. Transfer Module. BoK: SS. Credit Level: U. Credit Hrs: 3.00

Economics**15ECON102H****Introduction to Economics (Honors)**

3 ug cr MACROECONOMICS (Honors). Honors students only. Transfer Module. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15ECON103**Contemporary Economic Issues**

Economic issues in a political environment; international trade, labor, income distribution, welfare, growth, alternative economic systems. Transfer Module. BoK: SS, SE. Credit Level: U. Credit Hrs: 3.00

15ECON103H**Introduction to Economics (Honors)**

Departmental approval required. The third offering in a three-part course sequence. Transfer Module. BoK: SS, SE. Credit Level: U. Credit Hrs: 3.00

15ECON105**Introduction to the Global Economy**

Introduces international trade and finance. Topics include comparative advantage trade theories, protectionism, exchange rates and issues to globalization. Prereq: 15ECON101, 15ECON102. BoK: SS, DC. Credit Level: U. Credit Hrs: 3.00

15ECON171**Entertainment Economics**

Explores the modern entertainment industry, with particular emphasis on professional sports, the motion picture industry, and television. The course sheds light on the billions of dollars spent by these industries and the public's demand/willingness to pay for the entertainment they provide. A freshman seminar. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15ECON271**Microeconomics**

Theory of demand, production and cost as applied to the operation of business firms. (Not open to Econ. majors.) Prereq: 15ECON101. BoK: SS, QR. Credit Level: U. Credit Hrs: 4.00

15ECON298**Directed Study - Economics**

This course is designed for students who require individualized instruction in Economics. Perm of Instructor. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15ECON301**Economic Thought and Literacy**

Historical development and main tenets of schools of economic thought; analytical economic approaches to issues; appraising economic literature. BoK: HP., SS. Credit Level: U. Credit Hrs: 3.00

15ECON320**Statistics for Economists**

4 ug cr Introduction to statistics and its applications in economics. Topics include descriptive statistics, the concepts and application of probability theory, random variables, distributions, statistical inference, and an introduction to regression. No previous knowledge of statistics will be assumed but the use of formulae and the ability to perform basic algebraic manipulations will be necessary. Prereq Math 225, 226, 227, or equivalent BoK: NA. Credit Level: U. Credit Hrs: 4.00

15ECON321**Introduction to Applied Econometrics**

4 ug cr Introduction to econometrics with an emphasis on interpretation and applications. Econometrics is concerned with the connection between economic concepts, theories and hypotheses on the one hand, and 'real world' economic data on the other. Typical econometric tasks include, for example, the quantification of economic relationships (such as demand curves), and testing of hypotheses derived from theory. Covers the fundamental econometric technique of regression analysis and a variety of model specification issues. A central goal is to provide students with the necessary skills and knowledge to use and to correctly interpret the output from econometrics software. Prereq Econ 320 Prereq: 15ECON320. BoK: NA. Credit Level: U. Credit Hrs: 4.00

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Economics**15ECON321****Introduction to Applied Econometrics**

4 ug cr Introduction to econometrics with an emphasis on interpretation and applications. Econometrics is concerned with the connection between economic concepts, theories and hypotheses on the one hand, and 'real world' economic data on the other. Typical econometric tasks include, for example, the quantification of economic relationships (such as demand curves), and testing of hypotheses derived from theory. Covers the fundamental econometric technique of regression analysis and a variety of model specification issues. A central goal is to provide students with the necessary skills and knowledge to use and to correctly interpret the output from econometrics software. Prereq Econ 320 Prereq: 15ECON320. BoK: NA. Credit Level: U. Credit Hrs: 4.00

15ECON341**Microeconomic Theory**

Exposition of the general principles and analytical tools of microeconomic theory. Topics include theory of consumer choice, intertemporal choice, and choice under uncertainty. Prereq: 15ECON101. BoK: SS, QR. Credit Level: U. Credit Hrs: 4.00

15ECON342**Microeconomic Theory**

Exposition of the general principles and analytical tools of microeconomic theory. Topics include the analysis of competitive and monopoly markets, oligopoly, pricing, externalities and public goods, and welfare. Prereq Econ 341 Prereq: 15ECON341. BoK: SS, QR. Credit Level: U. Credit Hrs: 4.00

15ECON343**Microeconomic Theory**

Exposition of the general principles and analytical tools of micro theory. Topics include the economics of information, market failure, general equilibrium analysis, externalities, property rights, and government. Prereq Econ 341 and 342 or permission of instructor Prereq: 15ECON342. BoK: SS, QR. Credit Level: U. Credit Hrs: 4.00

15ECON371**Money, Banking and the Economy**

Demand for and supply of money, and roles of commercial banks, other financial intermediaries, and Federal Reserve System in determining the supply of money and its impact on the economy. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15ECON372**Macroeconomics**

Measures of aggregate economic performance, determination of aggregate output, employment, the price level and income, inflation, business fluctuations, impacts of monetary policy, effects of government taxation, spending and the national debt. Prereq Econ 101 and 102 Prereq: 15ECON101, 15ECON102. BoK: SS, QR. Credit Level: U. Credit Hrs: 4.00

15ECON422**Teaching Assistant Practicum for Undergraduate Students**

Supervised experience as teaching assistant for undergraduate courses. Can take for three quarters. Economics GPA of 3.0 or better and at least 21 credit hours in advanced economic courses. Student T.A.s for Econ. 101 or 271 must have a grade of B or better in Econ. 341 and 342. Student T.A.s for Econ. 102 must have a grade of B or better in Econ.s 371 and 372. Maximum of 6 credits. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15ECON431**Honors Seminar**

Analytical study of a current economic issue. Writing of the senior thesis. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15ECON432**Honors Seminar**

Continuation of 431. Prereq Econ 431 BoK: SS. Credit Level: U. Credit Hrs: 3.00

Economics**15ECON482****Public Economics: Expenditures**

Analysis of topics in public choice, social goods, welfare economics, theory of the state, distribution, expenditure evaluation. Prereq Econ 342 or equivalent BoK: SS., QR. Credit Level: U. Credit Hrs: 3.00

15ECON483**Public Economics: Taxation**

Evaluation of alternative tax bases, tax incidence, efficiency effects, burden of the debt, fiscal federalism. Prereq Econ 342 or equivalent BoK: SS., QR. Credit Level: U. Credit Hrs: 3.00

15ECON498**Internship Practicum for Undergraduate Student**

Supervised professional experience in projects involving significant economic analysis. Maximum of a total of nine credits in Econ 422 and Econ 498 combined. Prior approval of the Director of Undergraduate Studies is required. Perm of Department. BoK: NA. Credit Level: U. Credit Hrs: 1.00-9.00

15ECON504**Economy of Cincinnati**

A survey of techniques analyzing the industrial, commercial, and financial activities of the Cincinnati Metropolitan Area. Perm. of instr.; Center for Econ. Educ. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

15ECON506**Urban Economic Problems**

Forces affecting metropolitan growth, resulting spatial patterns, and economic problems of congestion, environment, labor markets, and public finance in metropolitan areas. Prereq Econ 101, 102 and 341 BoK: SS., SE. Credit Level: U, G. Credit Hrs: 3.00

15ECON508**Economic Theory of Population**

Study of mutual relationships between changes in population and changes in economic efficiency and well-being. Prereq Econ 341 BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

15ECON509**Development of Economic Ideas**

A survey of the main schools of economic thought. This course provides a background on the history of doctrine for economics majors and other interested persons. Prereq Econ 101, 102 BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

15ECON510**Strategic Thinking: Business Applications to Game Theory**

Theory: Static games, Nash Equilibrium, repeated games, folk theorem, Bayesian games. Applications: output and pricing decisions by large firms, efficiency wages, insurance policies, marketing new products, credit rationing, cartel enforcements, the Coase Theorem. Prereq Econ 101 BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

15ECON511**Mathematical Analysis for Economists**

Survey of mathematical applications to economic theory and analysis. Designed for students with limited mathematical background. Prereq: 15ECON341. BoK: SS, QR. Credit Level: U, G. Credit Hrs: 3.00

15ECON512**Mathematical Analysis for Economists**

Continuation of 511. Prereq Econ 511 Prereq: 15ECON400. BoK: SS, QR. Credit Level: U, G. Credit Hrs: 3.00

15ECON513**Mathematical Analysis for Economists**

Continuation of 512. Prereq Econ 512 Prereq: 15ECON512. BoK: SS, QR. Credit Level: U, G. Credit Hrs: 3.00

15ECON521**Economic Data Analysis II**

A continuation of Econ 520. Topics include: regression diagnostics, analyzing time series and cross section data, statistical model selection

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Economics**15ECON521****Economic Data Analysis II**

and assessment. Students will design and conduct an applied economics research project using statistical and econometric techniques. BoK: SS., QR. Credit Level: U, G. Credit Hrs: 3.00

15ECON529**Economics Teaching Materials**

Teachers will examine the economic content and how to use various instructional methods in teaching them in grades K-12. This course does not satisfy requirements for a graduate degree in Economics. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-8.00

15ECON531**Implementing Economic Curriculum**

Experienced-based economics curriculum units appropriate for elementary and secondary classrooms. This course does not satisfy requirements for a graduate degree in Economics. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-8.00

15ECON533**Basic Economic Concepts for Teachers**

Focus on basic economic concepts and specific strategies for teaching of economics, analysis of economic concepts appropriate for K-12 curriculum, methods of instruction and materials, review of research in economic education; application of basic concepts to current issues. This course does not satisfy requirements for graduate degree in Economics. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-9.00

15ECON534**Microeconomic Principles for Teachers**

Continuation of 15-080-533. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-9.00

15ECON535**Macroeconomics for Teachers**

Continuation of 15-080-534. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-9.00

15ECON536**Money and Banking for Teachers**

Study of the structure and functions of the Federal Reserve, banks, and non-bank institutions, monetary policy and economic stabilization. This course does not satisfy requirements for graduate degree in Economics. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-3.00

15ECON537**Economics of Health**

Role and economic significance of health in the U.S., health expenditures as investments in human capital, determination of price and output in health services market, problem of possible monopolization and unfair trade practices in health field, role of government in provision of health care. BoK: SS., SE. Credit Level: U, G. Credit Hrs: 3.00

15ECON538**Study of American Industry for Teachers**

A study of American industries including production and distribution processes. Attention will be given to economic, social, and political factors influencing the operation of the industry. This course does not satisfy requirements for graduate degree in Economics. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-8.00

15ECON539**Topics in Economic Education**

Analysis of economic topics such as labor, competition, productivity, decision-making, and government regulation. Teachers will develop economic analysis skills. This course does not satisfy requirements for graduate degree in economics. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-8.00

15ECON541**Economies of China and Vietnam: Transition**

A detailed analysis of the economic reforms that occurred in China and

Economics**15ECON541****Economies of China and Vietnam: Transition**

Vietnam which led to the adoption of market systems. Theories of economic transition are used for the basis of the analysis, focusing on the institutions necessary to operate a market system which are absent in a planned economy. The structure of and current problems in these economies is also be discussed. Prereq: 15ECON101, 15ECON102. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

15ECON542**Contemporary Japanese Economy and Business**

A review of Japan's economic performance from the end of WWII to the present using the major theories of economics fluctuations. Special attention is paid to the institutions particular to the Japanese economy and their influence on economic decisions. BoK: SS., DC. Credit Level: U, G. Credit Hrs: 3.00

15ECON543**East Asian Economies: Development and Crisis**

A study of growth of the four Asian Tigers (Singapore, S. Korea, Taiwan, and Hong Kong) and other East Asian countries (Thailand, Malaysia, etc.). Also analyzes the Asian financial crisis (which adversely affected these economies) and trade associations (ASEAN, etc.) making the area a force in the global economy. Prereq: 15ECON101, 15ECON102. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

15ECON551**International Economics**

Trade and capital movements, balance of payment problems, operation of exchange systems, determination of exchange rates. Prereq: 15ECON372. BoK: SS, QR. Credit Level: U, G. Credit Hrs: 3.00

15ECON552**International Economics**

Gains from trade and the theory of comparative advantage. Welfare effects of growth and income transfers. Income distribution effects in the specific factor and Heckscher-Ohlin model. Trade when markets are imperfectly competitive. Trade policies: welfare effects of tariffs and non - tariff barriers. Tariff arguments and the political economy of tariffs. Prereq Econ 341 BoK: SS., QR. Credit Level: U, G. Credit Hrs: 3.00

15ECON557**Economics of Work and Family**

Theoretical and empirical methods for the analysis of issues related to work and family with special reference to economics of household production, joint labor supply, economics of marriage and divorce, economics of fertility, economics of family child care, household occupational differentiation, household structure and labor market outcomes. Many applications including leave policies, divorce laws, tax policies, etc. Prereq: 15ECON341. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15ECON558**Labor Market Analysis**

Theoretical and empirical methods for the analysis of labor markets with special reference to areas such as labor supply, labor demand, wage determination, and compensating wage differentials. Many applications including effects of taxation, income maintenance programs, technological change, minimum wages, etc. Prereq Econ 341 Prereq: 15ECON341, 15ECON342. BoK: SS, QR. Credit Level: U, G. Credit Hrs: 3.00

15ECON559**Labor Market Issues**

Analytical, empirical and institutional approach in analyzing issues in selected areas such as human capital theory, internal labor markets, economics of discrimination, economics of trade unions, economics of sports, and economics of immigration. Covering applications such as effects of affirmative action, on the job training, and bilateral monopoly. Prereq Econ 341 Prereq: 15ECON341, 15ECON342. BoK: SS, QR. Credit Level: U, G. Credit Hrs: 3.00

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Economics**15ECON565****Industrial Organization**

3 ug cr Market Structures. Monopoly, Oligopoly, Business Strategy, Monopoly Power, Collusion and Cartel, Mergers, Vertical Restraints, Advertising, R&D, Network Externalities. Prereq Econ 342 BoK: SS., QR. Credit Level: U, G. Credit Hrs: 3.00

15ECON567**Politics and Economics**

The government in a market economy. Reasons for market failures. Forms of government intervention. Welfare criteria for policy choices. Economic policy formation in a democracy. BoK: SS., QR. Credit Level: U, G. Credit Hrs: 3.00

15ECON569**Anti-Trust Policy and Trade Regulation**

The history, laws, and economics of the anti-monopoly and trade regulation policies of the government. Prereq Econ 342 BoK: SS. Credit Level: U, G. Credit Hrs: 3.00

15ECON570**Regional Economics**

Uses microeconomic analysis to investigate how local/regional areas evolve and how public policies may affect patterns of growth and change, identify inefficiencies in location choices and analyze alternative public policies promoting efficient regional resource allocation choices. Prereq: 15ECON341. BoK: SS. Credit Level: U, G. Credit Hrs: 3.00-4.00

15ECON571**Stabilization Policy**

A study of economic functions including measurement, history, and theory. Major theories of economic fluctuations are surveyed along with a historical review of global fluctuations and their causes. Statistical measurement of cycles and a survey of forecasting techniques are also included. BoK: SS., QR. Credit Level: U, G. Credit Hrs: 3.00

15ECON575**Economic Development**

Considers the economic challenges facing the world's developing nations. Focuses on possible economic policies to encourage economic development. BoK: SS., SE. Credit Level: U, G. Credit Hrs: 3.00

15ECON578**Law and Economics**

An examination of the areas of mutual concerns in law and economics including property, contracts, torts, and antitrust policy. Prereq Econ 341 BoK: SS., SE. Credit Level: U, G. Credit Hrs: 3.00

15ECON580**Economic Contract Law**

An examination of the economic basis for contracts and of the economics of remedies for breach of contract. Prereq: 15ECON101. BoK: SS, SE. Credit Level: U, G. Credit Hrs: 3.00

15ECON581**The Economics of Tort Law**

An examination of the economics of tort law including an analysis of negligence and its defenses and an analysis of product liability. Prereq: 15ECON101. BoK: SS, SE. Credit Level: U, G. Credit Hrs: 3.00

15ECON585**Stock Markets and Investments I**

Operation of the stock market and behavior of traders. Rules and regulations governing behavior in the market. BoK: SS., QR. Credit Level: U, G. Credit Hrs: 3.00

15ECON592**Economics and the Environment**

Analysis of how consumption and production choices impact upon the environment and the conditions under which market outcomes can be made consonant with environmental quality. Analysis of economic instruments and market incentives to promote environmental quality with applications to all environmental media. Issues of sustainability.

Economics**15ECON592****Economics and the Environment**

Prereq Econ 101 BoK: SS., SE. Credit Level: U, G. Credit Hrs: 3.00

15ECON593**Economics of Natural Resources and Sustainability**

Problem of natural resource overuse and sustainability of living standards. Human behaviors causing problem. Effectiveness of protection measures. Prereq Econ 101, 102 BoK: SS., SE. Credit Level: U, G. Credit Hrs: 3.00

15ECON594**Economics of Transportation**

Highway, rail, air, water transportation; rate making, service, security issuance; combination, regulation, policy, and economic effects. Prereq: 15ECON101. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

15ECON598**Guided Independent Research**

Guided independent research with a faculty member resulting in a scholarly paper. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15ECON599**Economics Capstone**

Application of economic analysis to current economic topics. Prereq Econ 342, 372 BoK: NA. Credit Level: U. Credit Hrs: 3.00

15ECON650**Microeconomic Theory**

Study of the interactions of households and firms in perfectly and imperfectly competitive markets, under certainty and uncertainty, with symmetric and asymmetric information, in a static world and over time as encountered in the real world. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

15ECON651**Microeconomic Theory**

Continuation of 15-080-650. Prereq: 15ECON650. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

15ECON655**Macroeconomic Theory**

Aggregate income and employment theory. Classical and Keynesian models; theories of inflation, growth and problem of external equilibrium. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

15ECON666**Game Theory for Economists**

Theory and applications of Game Theory in economic decision making. Covers static games, dynamic games, and games with incomplete information. Prereq: 15ECON650. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

15ECON667**Theory of Incentives**

Theory and applications of principal-agent relationships in the presence of asymmetric information. Optimal contract design in 'adverse selection' and 'moral hazard' situations. Prereq: 15ECON651. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

15ECON671**Economic Data Analysis I**

Using a variety of computer programs this course will teach the student (1) how to locate secondary sources of economic data; (2) methods that have been used to compile economic data; (3) how to transform, summarize and display economic data and (4) simple statistical techniques to analyze economic data. Prereq Econ 521 or equivalent BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

15ECON672**Economic Data Analysis II**

An introduction to applied econometric methods for data analysis. The course covers methods of statistical inference and hypothesis testing with a regression-analysis framework. Application from economics.MA

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Economics**15ECON672****Economic Data Analysis II**

standing only. Prereq: 15ECON671. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

15ECON673**Economic Data Analysis III**

Continuation of 672. Topics include regression diagnostics, analyzing time-series and cross-sectional data, statistical model selection and assessment. Students will conduct applied economic research projects using statistical and econometric techniques. MA standing only. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

15ECON674**Survey Methods in Economics**

(cross listed with Political Science 751) Methodological aspects of survey design and analysis. MA standing only. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

15ECON675**Regional Data Analysis**

A survey of theoretical and empirical techniques for analyzing the industrial, commercial and financial activities of the Cincinnati Metropolitan area. MA standing only. Prereq: 15ECON674. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

15ECON676**Applied Benefit-Cost Analysis**

A high-level introduction to the major issues and techniques in evaluation of programs and projects with the tools of applied microeconomics. Topics include measurement of benefits and costs, discounting, project ranking criteria, and uncertainty analysis. MA standing only. Prereq: 15ECON650, 15ECON651. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

15ECON677**Applied Economic Forecasting**

This course covers the standard forecasting techniques used by professional economists in business and government. Topics include properties of time-series data, trend-line fitting, ARIMA models, and autoregressions. MA standing only. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

15ECON678**Applied Qualitative and Limited Dependent Variable Models**

Models of choice in which the dependent variable is discrete rather than continuous. The models are applied to describe the choice behavior of firms and consumers. Prereq: 15ECON321, 15ECON671. BoK: SS. Credit Level: G, U. Credit Hrs: 3.00

15ECON679**Applied Economics Practicum**

Under the guidance of the instructor, teams of students will apply their quantitative skills toward the analysis of current economic issues, and present reports on their findings. MA standing only. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

15ECON689**Special Problems in Economics**

By prior arrangement with the department. For students desiring individual work. Offered ea. qtr. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-8.00

15ECON670**SAS for Economists**

Introduces students to the elements of the SAS programming language particularly relevant for economics. Students will learn how to create SAS datasets and create and manipulate data, and run SAS procedures and conduct analysis using the SAS programming language. Credit Level: G. Credit Hrs: 3.00

15ECON680**Spatial Econometrics**

Covers the use of exploratory spatial data analysis techniques as well

Economics**15ECON680****Spatial Econometrics**

as the use of spatial regression models and appropriately define estimators for spatial data. Credit Level: G. Credit Hrs: 3.00

15ECON705**MA Thesis Research**

MA Thesis Research Perm of Instructor. Credit Level: G. Credit Hrs: 1.00-15.00

15ECON711**Economics for Managers**

Opportunity cost, price, demand theory, firm and market behavior, pricing practices and policies, and factor markets. Credit Level: G. Credit Hrs: 4.00

15ECON931**Advanced Individual Work in Economics**

One or more gr. cr. Departmental approval required. Perm of Instructor. Credit Level: G. Credit Hrs: 1.00-15.00

15ECON971**Research**

Description not available. Perm of Instructor. Credit Level: G. Credit Hrs: 1.00-15.00

15ECON981**Doctoral Dissertation Research**

PhD Candidates only. Perm of Instructor. Credit Level: G. Credit Hrs: 1.00-15.00

English - British Literature**15ENGB250****Shakespeare's Plays**

A survey of Shakespeare's major plays for the non-major. Prereq: 15ENGL102. Transfer Module. BoK: LT. Credit Level: U. Credit Hrs: 3.00

15ENGB256**Modern Drama**

An exploration of the diverse forces which shape modern drama in Europe and America, such as realism, expressionism, and theatre of the absurd. Prereq: 15ENGL102. BoK: LT. Credit Level: U. Credit Hrs: 3.00

15ENGB259**Myth and Literature**

An examination of myth as it provides the fundamental building blocks for literature. Both the ancient myths and their modern incarnations will be studied. Prereq: 15ENGL102. Transfer Module. BoK: LT. Credit Level: U. Credit Hrs: 3.00

15ENGB306**Introduction to Shakespeare**

This course gives students the skills for the further study and enjoyment of Shakespeare. Through an intensive study of five plays, the course will highlight the variety of genres, characters, styles, and problems that characterize Shakespeare's work. Prereq: 15ENGL300. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15ENGB307**Shakespeare**

The comedies, histories, and early tragedies to 1600. Prereq: 15ENGL300. Transfer Module. BoK: LT. Credit Level: U. Credit Hrs: 1.00-3.00

15ENGB308**Shakespeare**

The major tragedies, "problem" comedies, and romances. Prereq: 15ENGL300. Transfer Module. BoK: LT. Credit Level: U. Credit Hrs: 3.00

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English - British Literature**15ENGB314****History of the Novel**

Birth of the novel in satire, sentiment, and realism; Defoe, Fielding, Austen, and others. Prereq: 15ENGL300. Transfer Module. BoK: LT. Credit Level: U. Credit Hrs: 3.00

15ENGB315**History of the Novel**

Growth of the novel in social criticism and psychological depth; Bronte, Dickens, Eliot, Hardy, and others. Prereq: 15ENGL300. Transfer Module. BoK: LT. Credit Level: U. Credit Hrs: 3.00

15ENGB316**History of the Novel**

New directions for the novel in the 20th century; Conrad, Joyce, Lawrence, Woolf, and others. Prereq: 15ENGL300. Transfer Module. BoK: LT. Credit Level: U. Credit Hrs: 3.00

15ENGB317**Nineteenth Century Gothic**

Novels at the edge of the mainstream, exposing unspeakable truths about parent and child, man and woman: Frankenstein, Dracula, Wilkie Collins, Oscar Wilde. Prereq: 15ENGL300. BoK: LT. Credit Level: U. Credit Hrs: 3.00

15ENGB331**Milton**

The minor poems, major prose, and Samson Agonistes. Prereq: 15ENGL300. BoK: LT. Credit Level: U. Credit Hrs: 3.00

15ENGB334**Survey of English Literature**

A survey of British literature from Beowulf to 1600. This course is primarily for majors in English. Prereq: 15ENGL300. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15ENGB335**Survey of English Literature**

A survey of British literature from 1600 to 1800. This course is primarily for majors in English. Prereq: 15ENGL300. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15ENGB336**Survey of English Literature**

A survey of British literature from 1800 to the present. This course is primarily for majors in English. Prereq: 15ENGL300. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15ENGB348**Renaissance Drama**

Readings in the major non-Shakespearean dramas of Tudor England. Prereq: 15ENGL300. BoK: LT. Credit Level: U. Credit Hrs: 3.00

15ENGB349**Renaissance Drama**

Readings in the major non-Shakespearean drama of Stuart England. Prereq: 15ENGL300. BoK: LT. Credit Level: U. Credit Hrs: 3.00

15ENGB352**The Age of Donne**

Poetry and prose of the first half of the 17th century. Prereq: 15ENGL300. BoK: LT. Credit Level: U. Credit Hrs: 3.00

15ENGB356**Age of Sensibility**

An examination of selected literary works in their historical contexts, the second half of the English 18th century, reading Dr. Johnson and a selection of works by Sterne and Gray, Collins, Goldsmith, Smart, Cowper, Crabbe and several of the enchanted poets of the Age of Sensibility. Prereq: 15ENGL300. BoK: LT. Credit Level: U. Credit Hrs: 3.00

15ENGB361**Romantic Literature**

Readings in the first generation of English Romantic poets: Blake,

English - British Literature**15ENGB361****Romantic Literature**

Wordsworth, and Coleridge and their circles. Prereq: 15ENGL300. BoK: LT. Credit Level: U. Credit Hrs: 3.00

15ENGB362**Romantic Literature**

The second generation: Byron, Shelley, and Keats. Prereq: 15ENGL300. BoK: LT. Credit Level: U. Credit Hrs: 3.00

15ENGB365**The Age of Dickens**

Readings in the literature of the mid-Victorian period. Prereq: 15ENGL300. BoK: LT. Credit Level: U. Credit Hrs: 3.00

15ENGB366**The Age of Hardy**

Readings in the literature of the late Victorian period. Prereq: 15ENGL300. BoK: LT. Credit Level: U. Credit Hrs: 3.00

15ENGB367**Modern British Poetry**

From Yeats to the present. Prereq: 15ENGL300. BoK: LT. Credit Level: U. Credit Hrs: 3.00

15ENGB369**Modern British Drama**

The great traditional and experimental dramas of the 20th century. BoK: LT. Credit Level: U. Credit Hrs: 3.00

15ENGB370**Modern Irish Literature**

A selection of Irish writers (in English) from the period 1800 to the present. Prereq: 15ENGL300. BoK: LT. Credit Level: U. Credit Hrs: 3.00

15ENGB374**Contemporary British Fiction**

British fiction since World War II, from the works of Greene, Golding, Drabble, among others. Prereq: 15ENGL300. BoK: LT. Credit Level: U. Credit Hrs: 3.00

15ENGB375**Contemporary British Poetry**

Reactions and counter-reactions to Modernism from WW II to the present: Dylan Thomas, Philip Larkin, Thom Gunn, Ted Hughes, Seamus Heaney, and others. Prereq: 15ENGL300. BoK: LT. Credit Level: U. Credit Hrs: 3.00

15ENGB401**Seminar: British Literature**

An examination in depth of a major author, historical period, genre, mode, topic, or theme in the literature written in England, Scotland, or Wales. Prereq: 15ENGL300. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15ENGB402**Seminar: British Literature**

An examination in depth of a major author, historical period, genre, mode, topic, or theme in the literature written in England, Scotland, or Wales. Prereq: 15ENGL300. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15ENGB403**Seminar: British Literature**

An examination in depth of a major author, historical period, genre, mode, topic, or theme in the literature written in England, Scotland, or Wales. Prereq: 15ENGL300. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15ENGB423**Jane Austen**

A study of major issues in Austen scholarship. The recent focus has been on the ironies and complex perspectives of *Pride and Prejudice*, *Emma*, *Mansfield Park* and *Persuasion*. Prereq: 15ENGL300. BoK: NA. Credit Level: U. Credit Hrs: 3.00

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English - British Literature**15ENGB439****The City in English Literature**

Representations of the city in English literature of the 18th, 19th, and 20th centuries. Prereq: 15ENGL300. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15ENGB475**Victorian Poetry**

This course will be on poets Tennyson, Browning, and Arnold. Prereq: 15ENGL300. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15ENGB518**Chaucer I**

Studies in the major works. Prereq: 15ENGL300. BoK: LT. Credit Level: U, G. Credit Hrs: 3.00-4.00

15ENGB519**Chaucer II**

Studies in the major works. Prereq: 15ENGL300. BoK: LT. Credit Level: U, G. Credit Hrs: 3.00-4.00

15ENGB560**English Drama**

A mixed graduate and undergraduate course which may focus on drama written in English from any era or nation from medieval to contemporary or post-colonial works by such dramatists as Wole Soyinka or Athol Fugard. It could include Australian, Canadian, Irish, Scottish, Indian, African, Caribbean or American dramatists. Prereq: 15ENGL300. BoK: LT. Credit Level: U, G. Credit Hrs: 3.00-4.00

15ENGB651**Old English Prose**

The introductory course in our Old English sequence: those elements of the language needed to read the language and understand it. We will learn something about the sound of Old English, reading short pieces of edited prose to become accustomed to the look and feel of the language. Finally, we will spend a good bit of time reading from the Anglo-Saxon Chronicle, from Alfred and Aelfric, and from other writers of Old English prose. By the end of the quarter, students will be ready to read the poetry in the winter quarter course. There will be some modern critical readings, a midterm and final exam for all, and a medium-length paper for those students enrolled for four graduate credits. Prereq: 15ENGL300. BoK: HU. Credit Level: U, G. Credit Hrs: 3.00-4.00

15ENGB652**Old English Poetry**

The second course in Old English: more emphasis on the literature and less on the language. The important shorter poems will be read with excerpts from longer poems such as "Judith." The quarter ends with a reading of the first few hundred lines of Beowulf. In this course there is more time for a study of Old English metrics, literary criticism and a closer look at Anglo-Saxon culture. Prereq: 15ENGB651. BoK: LT. Credit Level: U, G. Credit Hrs: 3.00-4.00

15ENGB653**Beowulf**

The third offering of the Old English sequence: a close retelling of the epic poem. The critical approach to the seminar will have dual foci. First, the single Beowulf manuscript will be examined in terms of its original production and later transmission. The second focus will be on important critical writings about Beowulf examined chronologically, from 19th century criticism through those of today. This will take place in the context of reading and translating most of the poem. Prereq: 15ENGB652. BoK: LT. Credit Level: U, G. Credit Hrs: 3.00-4.00

15ENGB735**Approaches to British Medieval Literature**

Reciprocal gender formation in medieval literature investigating the culture and literary presentational processes that seek to define men and women interdependently. Credit Level: G. Credit Hrs: 4.00

English - British Literature**15ENGB737****Approaches to 16th Century Literature**

An examination of central aesthetic, cultural, and critical issues through close study of a few works and the critical discussions they have inspired, typically including Wyatt's poetry, More's Utopia, Sidney's sonnets, Spenser's Faerie Queene, a Shakespeare comedy. Designed for graduate students ready to apply theoretically informed criticism to texts. Credit Level: G. Credit Hrs: 4.00

15ENGB742**REN DRAMA TO 1640**

Readings from Renaissance drama to 1640. Credit Level: G. Credit Hrs: 4.00

15ENGB748**Shakespeare Survey I**

Intensive, advanced surveys of William Shakespeare's works. Designed for M.A. students. Credit Level: G. Credit Hrs: 4.00

15ENGB751**Approaches to 17th Century Literature**

An examination of a small selection of texts and recent critical discussions surrounding them, typically including Donne's poetry, Jonson's Alchemist, Milton's Paradise Lost, Behn's Oroonoko, poetry of Katherine Phillips and Margaret Cavendish. Designed for graduate students ready to apply theoretically-informed criticism to texts. Credit Level: G. Credit Hrs: 4.00

15ENGB755**Approaches to 18th Century Literature I**

A survey of critical approaches to the key texts of the "long" 18th century (1660-1789). Focus is on British literature. Credit Level: G. Credit Hrs: 4.00

15ENGB765**Approaches to Romantic Literature**

An introductory survey of the major writers of the period (Blake, Wordsworth, Coleridge, Byron, Shelley and Keats) taking a cultural studies approach. No prior experience with Romanticism is necessary. Credit Level: G. Credit Hrs: 4.00

15ENGB766**Romanticism**

An introduction to the British Romantic movement, focusing on the major writers of the time but also examining so-called minor writers, cultural developments and the evolution of our concept of Romanticism over time. Credit Level: G. Credit Hrs: 4.00

15ENGB771**Approaches to Victorian Literature**

Survey of Victorian fiction and contemporary criticism in the field. Credit Level: G. Credit Hrs: 4.00

15ENGB772**Approaches to Victorian Literature II**

See 15-002-771. Credit Level: G. Credit Hrs: 4.00

15ENGB790**Modern & Contemporary British Fiction**

A study of British fiction written after the Great War. Texts may be chosen from several sub-genres and be examined from a variety of theoretical perspectives. Credit Level: G. Credit Hrs: 4.00

15ENGB880**Problems in Victorian Literature**

An examination of Victorian literature exploring some issues that are focal in contemporary scholarship. Credit Level: G. Credit Hrs: 4.00

15ENGB882**Joseph Conrad**

An examination of the literary career of Joseph Conrad, considering his work within the context of the late 19th and early 20th centuries as well as from the standpoint of relevant literary criticism. The course is intended primarily for doctoral-level students, secondarily for master's-

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English - British Literature**15ENGB882****Joseph Conrad**

level students who already have a strong background in modern literature. Credit Level: G. Credit Hrs: 4.00

English - Comparative Literature**15ENGC204****Readings in Literature**

An introductory literature course focusing on the interpretive problems within a selected literary topic. Prereq: 15ENGL102. BoK: LT. Credit Level: U. Credit Hrs: 3.00

15ENGC205**Readings In Literature**

An introductory literature course focusing on the interpretive problems within a selected literary topic. Prereq: 15ENGL102. BoK: LT. Credit Level: U. Credit Hrs: 3.00

15ENGC206**Readings In Literature**

An introductory literature course focusing on the interpretive problems within a selected literary topic. Prereq: 15ENGL102. BoK: LT. Credit Level: U. Credit Hrs: 3.00

15ENGC215**Human Values in Literature**

Introduces non-majors to the literary discussion of such ethical concerns as justice, war and peace, the cost of individual happiness, and acknowledging difference. Prereq: 15ENGL102. BoK: LT, SE. Credit Level: U. Credit Hrs: 3.00

15ENGC240**Topics in Drama**

A study of issues raised by and about drama, focusing on texts from many possible nations and time periods. Prereq: 15ENGL102. BoK: LT. Credit Level: U. Credit Hrs: 3.00

15ENGC265**Literature and Technology**

A study of the implications of technology in a colonialist context in modern literature. Prereq: 15ENGL102. BoK: LT. Credit Level: U. Credit Hrs: 3.00

15ENGC266**Topics in Cultural Studies**

This course introduces students to the critical analysis of some aspect of popular or mass culture. Possible topics include consumerism, television, popular literature, life on-line, museums, the news, celebrity, and youth subcultures, etc. Please see instructor for specific details. Prereq: 15ENGL102. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15ENGC304**Development of the Drama**

Dramatic literature of ancient Greece and the English Renaissance. Prereq: 15ENGL300. BoK: LT. Credit Level: U. Credit Hrs: 3.00

15ENGC305**Development of the Drama**

European dramatic literature from the 17th through the 19th centuries. Prereq: 15ENGL300. BoK: LT. Credit Level: U. Credit Hrs: 3.00

15ENGC306**Development of the Drama**

Dramatic literature of the 20th century. Prereq: 15ENGL300. BoK: LT. Credit Level: U. Credit Hrs: 3.00

15ENGC321**Humanities and Human Rights**

Course examines the importance of human rights for the humanities, specifically analyzing the intersections of literature, film, and documentaries in representing rights and rights violations within 20th-21st century contexts. BoK: HU., SE. Credit Level: U. Credit Hrs: 3.00

English - Comparative Literature**15ENGC325****Introduction to Critical Theory**

This survey of contemporary theory introduces students to major schools and movements that have shaped the study of literature and culture, such as New Criticism, Structuralism, Post-Structuralism, Deconstruction, Feminist Theory, Psychoanalysis, Marxism, New Historicism, Cultural Studies, Postcolonial Theory, Race Studies, and Queer Theory. Prereq: 15ENGL300. BoK: LT, DC. Credit Level: U. Credit Hrs: 3.00

15ENGC326**Approaches to Cultural Studies**

Examines theoretical approaches to a specific aspect of popular or mass culture, or a specific problem posed by the study of culture. Each section may focus on a different aspect of culture (e.g. globalization, online youth cultures, museum culture, reality television, celebrity culture, news & entertainment, popular literature). Prereq: 15ENGL300. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15ENGC327**Topics in Literary Theory**

This course examines specialized topics or themes relating to literary theory. Sections may focus on major theoretical schools or movements, key questions or debates taken up by literary theorists, or approaches to studying works of a particular genre or by a particular author. Please see instructor for specific details. Prereq: 15ENGL300. BoK: LT. Credit Level: U. Credit Hrs: 3.00

15ENGC334**Folk Humor**

Humor from the point of view of orally collected folk materials: the joke, the jest, the comic folk tale, and comic word play. Prereq: 15ENGL300. BoK: HU, SS. Credit Level: U. Credit Hrs: 3.00

15ENGC338**Introduction to Medieval Literature I**

A survey of epic, lyric, and dramatic works from the Continent and Britain. Prereq: 15ENGL300. BoK: LT. Credit Level: U. Credit Hrs: 3.00

15ENGC342**Third World Literature**

Writing by significant figures on the world literary stage, including prize-winning and influential authors from Africa, the Middle East, Asia, the Americas, Australia, etc. Prereq: 15ENGL300. BoK: LT, DC. Credit Level: U. Credit Hrs: 3.00

15ENGC357**The Western Tradition in Literature**

Intellectual, literary, and cultural backgrounds to literature. Classical and Biblical. Prereq: 15ENGL300. BoK: LT. Credit Level: U. Credit Hrs: 3.00

15ENGC358**The Western Tradition in Literature**

Renaissance and Enlightenment. Prereq: 15ENGL300. BoK: LT. Credit Level: U. Credit Hrs: 3.00

15ENGC359**The Western Tradition in Literature**

Industrial and modern. Prereq: 15ENGL300. BoK: LT. Credit Level: U. Credit Hrs: 3.00

15ENGC363**African Literature I: Introduction**

Contemporary African literature from Nigeria, Ghana, Kenya, Zimbabwe, and Senegal, reflecting both traditional and post-colonial subjects and form. Prereq: 15ENGL300. BoK: LT, DC. Credit Level: U. Credit Hrs: 3.00

15ENGC364**African Literature II: Topic**

A study of topics, themes, genres, or regions in contemporary African literature reflecting both traditional and post-colonial subjects and form. Prereq: 15ENGL300. BoK: LT, DC. Credit Level: U. Credit Hrs: 3.00

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English - Comparative Literature**15ENGC365****African Literature III: Drama**

This course focuses on plays written in South Africa, Kenya, Nigeria, and Ghana. They deal with the consequences of colonialism and racism and problems of political cultural, personal and linguistic identity. Prereq: 15ENGL300. BoK: LT, DC. Credit Level: U. Credit Hrs: 3.00

15ENGC366**Caribbean Literatures**

Survey of Caribbean literatures organized by genres (such as slave narratives, autobiography, fiction, or drama), historical periods, or central themes (such as colonialism or the environment). Prereq: 15ENGL300. BoK: LT, DC. Credit Level: U. Credit Hrs: 3.00

15ENGC370**Modern Poetry**

The work of major 20th century poets from various cultures. Prereq: 15ENGL300. BoK: LT. Credit Level: U. Credit Hrs: 3.00

15ENGC371**Modern Fiction I: Late Nineteenth Century**

The novels of such Continental, British, and American novelists as Flaubert, Dostoevsky, Melville, Tolstoy and James. Prereq: 15ENGL300. Transfer Module. BoK: LT. Credit Level: U. Credit Hrs: 3.00

15ENGC372**Modern Fiction II: Early Twentieth Century**

The novels of such Continental, British, and American writers as Mann, Kafka, Faulkner, and Joyce. Prereq: 15ENGL300. Transfer Module. BoK: LT. Credit Level: U. Credit Hrs: 3.00

15ENGC373**Modern Fiction III: Mid-Twentieth Century**

Continental, British, and American novelists such as Solzhenitsyn, Camus, Borges, Robbe-Grillet, Fowles, and Hemingway. Prereq: 15ENGL300. Transfer Module. BoK: LT. Credit Level: U. Credit Hrs: 3.00

15ENGC383**Celtic Myth and Epic**

An exploration of Celtic literature in translation with a particular focus on myth and epic. Prereq: 15ENGL300. BoK: LT, DC. Credit Level: U. Credit Hrs: 3.00

15ENGC384**Celtic Romance and Lyric**

An exploration of Celtic literature in translation with a particular focus on romance and lyric. Prereq: 15ENGL300. BoK: LT, DC. Credit Level: U. Credit Hrs: 3.00

15ENGC386**Modern Celtic Literatures, 1900-2000**

Irish, Welsh, and Scottish Gaelic are still living languages. This course reads some of the best recent Celtic authors in translation, including poetry of Sorley Maclean and Saunders Lewis, and fiction by Kate Roberts and Liam O'Flaherty. Prereq: 15ENGL300. BoK: LT. Credit Level: U. Credit Hrs: 3.00

15ENGC390**Senior Honors Project**

Students with a 3.3 GPA and 27 major hours completed are invited to take this course as a trailer or annex to another major-level course they have completed. The starting place is typically a paper produced for that course, whose professor becomes project director and first reader. Perm of Department. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15ENGC401**Seminar: Comparative Literature**

An examination in depth of authors, periods, genres, modes, topics, or themes in literature from a comparative perspective. Prereq: 15ENGL300. BoK: NA. Credit Level: U. Credit Hrs: 3.00

English - Comparative Literature**15ENGC402****Seminar: Comparative Literature**

An examination in depth of authors, periods, genres, modes, topics, or themes in literature from a comparative perspective. Prereq: 15ENGL300. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15ENGC403**Seminar: Comparative Literature**

An examination in depth of authors, periods, genres, modes, topics, or themes in literature from a comparative perspective. Prereq: 15ENGL300. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15ENGC421**The Female Bildungsroman**

Novels of maturation or education written in English by women between the late 18th century and the early 20th century. Prereq: 15ENGL300. BoK: LT. Credit Level: U. Credit Hrs: 3.00

15ENGC474**Body Politics 2: Misogyny, Homophobia and Disease**

This course will discuss the fear of, and fascination with, same-sex desire governing some well-known heterosexual male-authored texts and social practices of the modern era. There will be particular focus on their links to misogyny and to male fears of bodily disintegration. Critical and theoretical works by Judith Butler, Paula Treichler, Eve Sedgwick, Martha Vicinus, David Miller and others who have contributed to the emergence of Gay and Lesbian Studies. Prereq: 15ENGL300. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15ENGC479**Orature to Literature**

This class examines some of the different ways in which oral traditions within various cultures such as African or Native American relate to and merge with the written traditions and conventions that we more commonly use to define literature. Prereq: 15ENGL300. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15ENGC500**Uncanny Legends**

The nature and scholarship surrounding the study of folk legends of all sorts but emphasizing the contemporary or urban legend. Prereq: 15ENGL300. BoK: HU, SS. Credit Level: U, G. Credit Hrs: 3.00-4.00

15ENGC504**Introduction to Folklore**

A survey of the forms and content of folklore with emphasis on oral, traditional narrative. Proverbs to folk drama. Prereq: 15ENGL300. BoK: HU, SS. Credit Level: U, G. Credit Hrs: 3.00-4.00

15ENGC505**Introduction to Folklore**

Myth and epic. Prereq: 15ENGL300. BoK: HU, SS. Credit Level: U, G. Credit Hrs: 3.00-4.00

15ENGC506**Introduction to Folklore**

Folk tale, legend, and ballad. Prereq: 15ENGL300. BoK: HU, SS. Credit Level: U, G. Credit Hrs: 3.00-4.00

15ENGC549**Dante's Divine Comedy**

A survey of Dante's masterpiece presenting a selection of Canti from Inferno, Purgatorio, and Paradise. The course will be organized in three parts. Prereq: 15ENGL300. BoK: LT. Credit Level: U, G. Credit Hrs: 3.00-4.00

15ENGC581**Exile and Displacement in Postmodern Literature**

A study of the theme of exile in international literature during the modernist and postmodern periods. Prereq: 15ENGL300. BoK: LT. Credit Level: U, G. Credit Hrs: 3.00-4.00

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English - Comparative Literature**15ENGC664****Modern Irish I**

A three-part sequence designed to introduce students to Irish or Gaelic, the official language of Ireland. Students should develop a reading knowledge of standard Irish with attention paid to pronunciation abilities. Perm of Instructor. BoK: HU, DC. Credit Level: U, G. Credit Hrs: 3.00-4.00

15ENGC665**Modern Irish II**

A three-part sequence designed to introduce studies to Irish or Gaelic, the official language of Ireland. Students should develop a reading knowledge of standard Irish with attention paid to pronunciation abilities. The second offering of a three-part course sequence. Prereq: 15ENGC664. BoK: HU, DC. Credit Level: U, G. Credit Hrs: 3.00-4.00

15ENGC666**Modern Irish III**

A three-part sequence designed to introduce studies to Irish or Gaelic, the official language of Ireland. Students should develop a reading knowledge of standard Irish with attention paid to pronunciation abilities. The third offering in a three-part course sequence. Prereq: 15ENGC665. BoK: HU, DC. Credit Level: U, G. Credit Hrs: 3.00-4.00

15ENGC700**Issues in Modern and Contemporary Literary Study**

Introduces a range of issues and theoretical approaches focal to the contemporary study of literature. Credit Level: G. Credit Hrs: 4.00

15ENGC701**Introduction to Graduate Study**

This course is an informative introduction to graduate study in English at the University of Cincinnati, as well as the profession as a whole. In this course, students find out about the various programs and resources available through the Department of English and get suggestions and advice about planning their overall program of study. Students also learn about many of the wider concerns of the profession, such as strategies for applying for a job or a research grant or for placing an article in a journal. Credit Level: G. Credit Hrs: 2.00

15ENGC704**Approaches to European Literature**

Continental Authors in translation. Credit Level: G. Credit Hrs: 4.00

15ENGC706**Approaches to Literary Theory**

This class will survey several contemporary trends in literary theory. Credit Level: G. Credit Hrs: 4.00

15ENGC715**Critical Writing in English Studies**

Develops a rhetoric of critical writing that is general, heuristic, and portable. Time is split between discussion of critical readings (Foucault, Burke, Tompkins) and workshoping student writing. Credit Level: G. Credit Hrs: 4.00

15ENGC730**Teaching College Writing**

A composition readings course designed to introduce students to "teaching college writing" from historical, cultural, and socio/political perspectives. In addition to reading some of the important studies in composition scholarship, students work with issues embedded in the phase "multiple literacies" and focus on the significance and negotiation of critical literacy. Credit Level: G. Credit Hrs: 4.00

15ENGC731**Teaching Practicum I**

A course preparing graduate assistants to teach undergraduate courses in writing. Required of all first-year Graduate Teaching Assistants and Student Lecturers. Credit Level: G. Credit Hrs: 2.00

English - Comparative Literature**15ENGC732****Teaching Practicum II**

A weekly seminar to discuss pedagogical and curricular issues as they emerge in the teaching of Freshman English. Required of all first-year Graduate Teaching Assistants and Student Lecturers. Credit Level: G. Credit Hrs: 2.00

15ENGC733**Scholarship of Teaching and Learning**

The study and practice of better teaching begins with exploring the differences between teaching and learning. Teachers will learn to focus on assessing student outcomes and to use their classrooms as a resource for enhancing the scholarly understanding of teaching. Credit Level: G. Credit Hrs: 4.00

15ENGC735**Methods of Teaching Literature**

This class studies an anthology of contemporary pieces about literary theory (some from the burgeoning field of theory-in-a-classroom, and some not), and an anthology of works that might be typically taught in lower-level English courses. We then spend the quarter exploring the theoretical implications--and the classroom implications--of the activities we and our students perform in reading and writing about literature. Credit Level: G. Credit Hrs: 4.00

15ENGC736**Methods of Teaching Creative Writing**

This seminar examines and experiments with various approaches to teaching creative writing workshops: first, by reading and responding to works by a wide range of writer-teachers; second, by developing and presenting writing exercises; third, by conducting actual workshops with advanced undergraduate poets. Credit Level: G. Credit Hrs: 4.00

15ENGC738**Topics in Composition**

Intensive 60-hr seminar for H.S. teachers on theory and practice of teaching composition, focusing on writing processes, peer response, assignment development, reading-writing connections, critical reflection & assessment. Credit Level: G. Credit Hrs: 4.00-6.00

15ENGC740**Approaches to Literacy**

Studies a variety of issues in the social, stylistic, rhetorical, and artistic consequences of the acquisition of reading and writing skills. May focus on particular populations or periods, or critical perspectives. Credit Level: G. Credit Hrs: 4.00

15ENGC744**Approaches to Contemporary Poetry**

Survey of recent trends and significant figures in contemporary poetry. Credit Level: G. Credit Hrs: 4.00

15ENGC747**Theorizing Authorship**

Explores how theory help to create and respond to the death of authorial authority; where meaning is to be found, including in the text itself or the reader. Credit Level: G. Credit Hrs: 4.00

15ENGC751**Experimental Drama**

Experimental drama since modernism, starting with Artaud, Brecht, and Beckett. Explores between experiment and the avant-garde, and looks at performance artists and collaborative work. Pays particular attention to women playwrights, some provocative European writers, and Latin and South American playwrights. Explores the question "How has dramatic experiment edged into the American mainstream?" Credit Level: G. Credit Hrs: 4.00

15ENGC755**Theories of Fiction**

Explores how we know that a work is fictional, and how fiction's rules are created and followed; the author's relationships and their fictions; alternative explanations of fictions from a variety of historical, social, and theoretical frameworks. Credit Level: G. Credit Hrs: 4.00

H=University Honors course.

BoK (Breadth of Knowledge) Coding. DC: Diversity & Culture. EC: English composition. FA: Fine Arts. HP: Historical Perspectives. HU: Humanities. LT: Literature. NS: Natural Sciences. QR: Quantitative Reasoning. SE: Social & Ethical Issues. SS: Social Sciences.

English - Comparative Literature**15ENGC755****Theories of Fiction**

Explores how we know that a work is fictional, and how fiction's rules are created and followed; the author's relationships and their fictions; alternative explanations of fictions from a variety of historical, social, and theoretical frameworks. Credit Level: G. Credit Hrs: 4.00

15ENGC756**Theorizing the Short Story**

The short story is one of the most recent and popular genres to develop. This seminar surveys some of the ways artists and scholars have placed it in a theoretical context. Credit Level: G. Credit Hrs: 4.00

15ENGC760**Approaches to Cultural Studies**

Introduction to the interdisciplinary study of culture. The course uses both literary and non-literary texts to understand literature and mass communications in their broadest contexts. Theory starts with Lukacs and includes Raymond Williams, Adorno, Althusser. Credit Level: G. Credit Hrs: 4.00

15ENGC766**Approaches to Diasporic Studies**

Introduction to the interdisciplinary field of diasporic studies, focusing on the impact of diasporic literatures and other forms of cultural production. We will connect literature, film, television and webzines to questions of labor, gender, sexuality, race, transnational activism, and global capitalism. Credit Level: G. Credit Hrs: 4.00

15ENGC776**Approaches to Biblical Literature**

Contemporary topics in the study of the Bible from a literary and theoretical point of view. Credit Level: G. Credit Hrs: 4.00

15ENGC780**Approaches to Modernism**

A survey of poetic, fictional, autobiographical and critical texts central to issues in literary Modernism from 1900-1945. The course may focus specifically on either American or British Modernism, or may offer a cross-cultural selection of texts from American and British authors both. Credit Level: G. Credit Hrs: 4.00

15ENGC781**Modern Poetry**

An exploration of the origins and development of modern poetry in its international context. The course includes the work of the French Symbolist poets. Students also examine some major movements of 20th century poetry, including surrealism, imagism and the poetics of Negritude. Texts are read in translation, with originals available. Modern Poetry is an introductory graduate course; no previous knowledge of the poets' work or the original languages is required. Credit Level: G. Credit Hrs: 4.00

15ENGC786**Modern Celtic Literature, 1900-2000**

Irish, Welsh, and Scottish Gaelic are still living languages. This course reads some of the best recent Celtic authors in translation, including poetry of Sorley Maclean and Saunders Lewis, and fiction by Kate Roberts and Liam O'Flaherty. Credit Level: G. Credit Hrs: 4.00

15ENGC800**Contexts for 20th Century Literary Study**

A survey of intellectual issues that underlie modernism and postmodernism, including ideas of the self, history, and culture. Credit Level: G. Credit Hrs: 4.00

15ENGC806**Problems in Literary Theory**

An examination in depth of either the concerns of a particular critic's approach or a specific problem which cuts across different literary theories--such as the nature of authorship, the subjectivity of the reader, determinacy of meaning. Students should have previously taken at least a survey of literary theory. Credit Level: G. Credit Hrs: 4.00

English - Comparative Literature**15ENGC813****Psychoanalytic Theory and Criticism**

Beginning with a study of several of Freud's major papers, an historical and critical investigation of contemporary psychoanalytic theory, namely, of both French psychoanalysis (Lacan and Kristeva) and British and American rational approaches. Credit Level: G. Credit Hrs: 4.00

15ENGC820**International Modernism**

Investigates how "modernity" is constituted and received in the prose and poetry of the early 20th century, in English, American, and Continental literary traditions. Credit Level: G. Credit Hrs: 4.00

15ENGC840**Problems in Comparative Literature**

Consideration of varying topics dealing with 20th century literatures in more than one linguistic community. The specific topic is to be chosen by the instructor and will change from seminar to seminar. Credit Level: G. Credit Hrs: 4.00

15ENGC855**Problems in Modern Criticism**

A careful examination of one or two of the issues around which criticism of the last 40 years has revolved. The contexts and evolution of the debates will be highlighted. Students should have previously taken at least a survey of literary theory. Credit Level: G. Credit Hrs: 4.00

15ENGC866**Problems in Diasporic Studies**

Explores specific problems in the field of diasporic studies, such as intersections of transnational media and diasporic culture, or the impact of gender, race, sexuality, or class on diasporic literatures. Credit Level: G. Credit Hrs: 4.00

English**15ENGL101****English Composition I**

A composition course emphasizing critical reading, writing, and analysis of texts. Students are introduced to research methods. Students must attain a C- or better before moving to the next course in the first year composition sequence, 15ENGL102. Transfer Module. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15ENGL101H**Honors English Composition I**

A composition course emphasizing critical reading, writing, and analysis of texts. Designed for students accepted into the Honors program, this version of ENGL101 has a special emphasis on experiential learning. Transfer Module. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15ENGL102**English Composition II**

A composition course emphasizing critical reading, writing, and analysis of texts with particular attention to research methods and writing. Students must attain a C- or better to pass the course. Completes the second course in the first-year composition sequence. Prereq: 15ENGL101. Transfer Module. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15ENGL102H**Honors English Composition II**

A composition course emphasizing critical reading, writing, and analysis of texts with particular attention to research methods and writing. Designed for students accepted into the Honors Program, this version of ENGL102 has a special focus on experiential learning. Prereq: 15ENGL101H. Transfer Module. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15ENGL112**Advanced English Composition I**

A limited enrollment course in composition, emphasizing critical reading, writing, analysis, and research. Admission based on the English Placement Test. Transfer Module. BoK: NA. Credit Level: U.

H=University Honors course.

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English**15ENGL112****Advanced English Composition I**

Credit Hrs: 3.00

15ENGL117**Beauty: Dissecting and Debating an Enigma**

Designed for males and females, this course will examine the ways in which physical beauty is depicted in representative literature and films. Students will use the works to analyze varying attitudes about its nature and significance and will explore and debate whether perceptions of beauty are subjective and culturally determined or objective and influenced by biology and evolution. This is a freshman seminar course. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15ENGL118**Complex Choices/Complex Lives: Moral Conflicts in Popular Literature and Film**

Students in this course will analyze popular novels/films in which characters are faced with ambiguous moral choices. As means of clarifying their own ethical standards, students will examine the reasoning and value systems underlying characters' decisions and will discuss and debate which they consider more principled. This is a freshman seminar course. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15ENGL201**Topics in Literature**

Selected readings chosen to highlight specific literary problems of theme, technique, literary and social heritage. Individual topics are described in listings available from the English office each term. Prereq: 15ENGL102. BoK: LT. Credit Level: U. Credit Hrs: 3.00

15ENGL202**Topics in Literature**

Selected readings chosen to highlight specific literary problems of theme, technique, literary and social heritage. Individual topics are described in listings available from the English office each term. Prereq: 15ENGL102. BoK: LT. Credit Level: U. Credit Hrs: 3.00

15ENGL203**Topics in Literature**

Selected readings chosen to highlight specific literary problems of theme, technique, literary and social heritage. Individual topics are described in listings available from the English office each term. Prereq: 15ENGL102. BoK: LT. Credit Level: U. Credit Hrs: 3.00

15ENGL207**American Writers**

Selected works in American literature from the colonial period to 1865. Prereq: 15ENGL102. Transfer Module. BoK: LT. Credit Level: U. Credit Hrs: 3.00

15ENGL208**American Writers**

Selected works in American literature from 1865 to 1915. Prereq: 15ENGL102. Transfer Module. BoK: LT. Credit Level: U. Credit Hrs: 3.00

15ENGL209**American Writers**

Selected works in American literature from 1915 to the present. Prereq: 15ENGL102. Transfer Module. BoK: LT. Credit Level: U. Credit Hrs: 3.00

15ENGL210**Writing the Informal Essay**

Writers in the 19th and 20th centuries have demonstrated that the informal essay can be aesthetically pleasing and as individualized as a poem or short story. In this course students can learn through reading and writing assignments how to shape the essay for personal expression. Prereq: 15ENGL102. BoK: NA. Credit Level: U. Credit Hrs: 3.00

English**15ENGL211****Creative Writing: Fiction**

Writing of short story; examination and discussion in class of student's work; assigned readings for history, theory of the short story, and critical analysis. Limited to 20 students. Prereq: 15ENGL102. BoK: FA. Credit Level: U. Credit Hrs: 3.00

15ENGL212**Creative Writing: Fiction**

Writing a short story; examination and discussion in class of student's work; assigned readings for history, theory of the short story, and critical analysis. Limited to 20 students. The second offering in a three-part course sequence. Prereq: 15ENGL102. BoK: FA. Credit Level: U. Credit Hrs: 3.00

15ENGL213**Creative Writing: Fiction**

Writing of short story; examination and discussion in class of student's work; assigned readings for history, theory of the short story, and critical analysis. Limited to 20 students. The third offering in a three-part course sequence. Prereq: 15ENGL102. BoK: FA. Credit Level: U. Credit Hrs: 3.00

15ENGL217**Creative Writing: Poetry**

Writing of poetry; examination and discussion in class of each student's work. Limited to 20 students. Prereq: 15ENGL102. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15ENGL218**Creative Writing: Poetry**

Writing of poetry; examination and discussion in class of each student's work. Limited to 20 students. The second offering in a three-part course sequence. Prereq: 15ENGL102. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15ENGL219**Creative Writing: Poetry**

Writing of poetry; examination and discussion in class of each student's work. Limited to 20 students. The third offering in a three-part course sequence. Prereq: 15ENGL102. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15ENGL221**World Literature**

A comparative study of ancient and modern classics of the western world as well as Third World literature. Each term will focus on a particular literary genre: tragedy, comedy, epic, and romance. Prereq: 15ENGL102. Transfer Module. BoK: LT. Credit Level: U. Credit Hrs: 3.00

15ENGL222**World Literature**

A comparative study of ancient and modern classics of the western world as well as Third World literature. Each term will focus on a particular literary genre: tragedy, comedy, epic and romance. The second offering in a three-part course sequence. Prereq: 15ENGL102. Transfer Module. BoK: LT. Credit Level: U. Credit Hrs: 3.00

15ENGL223**World Literature**

A comparative study of ancient and modern classics of the western world as well as Third World literature. Each term will focus on a particular literary genre: tragedy, comedy, epic, and romance. The third offering in a three-part course sequence. Prereq: 15ENGL102. Transfer Module. BoK: LT. Credit Level: U. Credit Hrs: 3.00

15ENGL227**Creative Writing: Drama**

A study of the limits and potentialities of the dramatic medium. Students will exercise their talents within this framework. Prereq: 15ENGL102. BoK: HU. Credit Level: U. Credit Hrs: 3.00

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English**15ENGL236****Contemporary World Literature: The Short Story**

European and Asian short masterpieces expressing the anxieties and hopes of modern man; exploration of new literary techniques. Prereq: 15ENGL102. Transfer Module. BoK: LT. Credit Level: U. Credit Hrs: 3.00

15ENGL237**Contemporary World Literature: Poetry**

Sample the best poetry being written today as poets from America, Europe, and the Third World grapple with personal and political issues, and work to evolve new art forms for new audiences. Prereq: 15ENGL102. BoK: LT. Credit Level: U. Credit Hrs: 3.00

15ENGL244**Introduction to Language Science**

Human language: what it is and how it works. The way we learn language, produce and understand it; language change and dialects; models of language. Prereq: 15ENGL102. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15ENGL246**Themes in American Literature: Gender Roles**

American authors' treatments of the theme of male-female gender stereotyping. Prereq: 15ENGL102. Transfer Module. BoK: LT. Credit Level: U. Credit Hrs: 3.00

15ENGL251**Outrageous Writings by Women**

Women writers are attracted to certain literary forms scorned by conventional academic critics -- Brown, Rubyfruit Jungle; Wittig, Les Guerilliers; Didion, Play It As It Lays; LeGuin, The Dispossessed; poetry by Judy Grahn; journals by May Sarton, Anais Nin. Prereq: 15ENGL102. Transfer Module. BoK: LT, DC. Credit Level: U. Credit Hrs: 3.00

15ENGL256**Mothers and Daughters in Literature**

Women base a large part of their self image upon how they view their mothers. Symbols of motherhood powerfully affect culture. Concepts mothers have of their daughters will be explored. Prereq: 15ENGL102. Transfer Module. BoK: LT. Credit Level: U. Credit Hrs: 3.00

15ENGL257**Our Lives: Twentieth-Century Women's Autobiographies**

Through five novels and a collection of diaries, this course will study the lives and achievements of well-known 20th century women from their teen years through old age. Prereq: 15ENGL102. Transfer Module. BoK: LT, DC. Credit Level: U. Credit Hrs: 3.00

15ENGL261**Fantasies of Children's Literature**

Classic and contemporary works of children's fantasy. Focus is sources of appeal, recurrent issues. Prereq: 15ENGL102. BoK: LT. Credit Level: U. Credit Hrs: 3.00

15ENGL267**Topics in Film**

An introduction for non-majors to the study of film as a mode of visual and verbal story-telling. Topics include significant genres (westerns, horror films, film noir), issues (representations of race and gender, film adaptations), or artists (Capra, Ford). Prereq: 15ENGL102. BoK: LT. Credit Level: U. Credit Hrs: 3.00

15ENGL274**Censorship in Literature and the Arts**

Censored literature and other works of art examined in light of arguments for and against censorship. Prereq: 15ENGL102. BoK: LT. Credit Level: U. Credit Hrs: 3.00

15ENGL275**Ethnic Literatures of the United States**

An introduction to the literature of selected ethnic groups (Black, Native American, Appalachian, Chinese, Jewish, Latino, etc.). Students will

English**15ENGL275****Ethnic Literatures of the United States**

study ethnic cultures and literary forms. Prereq: 15ENGL102. Transfer Module. BoK: LT. Credit Level: U. Credit Hrs: 3.00

15ENGL289**Intermediate Composition**

Using specific themes drawn from broad disciplinary fields, this course builds upon and enhances the writing and reading skills developed in English Composition. The General Education course emphasizes critical reading and writing, more advanced research and argumentative skills, and rhetorical understanding of discourse as it is used in different disciplines and discourse communities. Students must have earned 45 credit hours to register for the course. Prereq: 15ENGL102. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15ENGL289H**Intermediate Composition**

Using specific themes drawn from broad disciplinary fields, this course builds upon and enhances writing and reading skills developed in English Composition. The General Education course emphasizes critical reading and writing, more advanced research and argumentative skills, and rhetorical understanding of discourse as it is used in different disciplines and discourse communities. Designed for students accepted into the Honors Program, this version of English 289 has a special focus on experiential learning. Students must have earned 45 credit hours to register for the course. Prereq: 15ENGL102H. BoK: SE. Credit Level: U. Credit Hrs: 3.00

15ENGL300**Introduction to English Studies**

Introduces students to the diverse discipline of English, with course texts ranging from literary works to film, workplace writing, and public discourse. Special focus on understanding and applying critical terms and on integrating research into interpretive/analytical writing. This course is primarily for majors in English. Prereq: 15ENGL102. BoK: LT. Credit Level: U. Credit Hrs: 3.00

15ENGL301**Survey of American Literature**

A survey of American literature from Puritan and Colonial times to 1865. This course is primarily for majors in English. Prereq: 15ENGL300. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15ENGL302**Survey of American Literature**

A survey of American literature from 1865 to 1915. This course is primarily for majors in English. Prereq: 15ENGL300. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15ENGL303**Survey of American Literature**

A survey of American literature from 1915 to the present. This course is primarily for majors in English. Prereq: 15ENGL300. BoK: LT. Credit Level: U. Credit Hrs: 3.00

15ENGL305**Writing for English Majors**

A workshop focused on the analytic writing expected of English majors. Examines what is a researchable question. Emphasis on formulating a position and providing effective, persuasive support, and revising for clarity coherence, and correctness. This course is primarily for majors in English. Prereq: 15ENGL300. BoK: LT. Credit Level: U. Credit Hrs: 3.00

15ENGL310**American Fiction: 1860-1910**

The early realists and naturalists; selections from Twain, James, Crane, and others. Prereq: 15ENGL300. Transfer Module. BoK: LT. Credit Level: U. Credit Hrs: 3.00

15ENGL311**Literature of American Colonies and the Early United States**

A study of the literature of Colonial North America and the early United States (1585-1820). Prereq: 15ENGL300. BoK: LT. Credit Level: U.

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English**15ENGL311****Literature of American Colonies and the Early United States**

Credit Hrs: 3.00

15ENGL312**American Fiction: 1910-1950**

The major novelists of the early 20th century. Hemingway, Faulkner, Fitzgerald, Wright, and others. Prereq: 15ENGL300. Transfer Module. BoK: LT. Credit Level: U. Credit Hrs: 3.00

15ENGL313**The American Renaissance**

Readings in the major figures of the mid-19th century, with special emphasis on the Transcendentalists. Prereq: 15ENGL300. BoK: LT. Credit Level: U. Credit Hrs: 3.00

15ENGL317**Nineteenth-Century American Poets**

The major poets of the century, with emphasis on Whitman and Dickinson. Prereq: 15ENGL300. BoK: LT. Credit Level: U. Credit Hrs: 3.00

15ENGL318**Twentieth-Century American Poetry**

The major poets of the earlier half of the century: Frost, Stevens, Williams, Pound, Lowell, Plath, and others. Prereq: 15ENGL300. BoK: LT. Credit Level: U. Credit Hrs: 3.00

15ENGL319**Contemporary American Poetry**

Poetry of poets still writing, such as Ashbery, Rich, Ammons, Levertov, and others. Prereq: 15ENGL300. BoK: LT. Credit Level: U. Credit Hrs: 3.00

15ENGL320**Contemporary American Fiction**

Representative fictions since 1950: realistic, absurdist, experimental. Writers include O'Connor, Ellison, Heller, Barth, Pynchon, Vonnegut and others. Prereq: 15ENGL300. Transfer Module. BoK: LT. Credit Level: U. Credit Hrs: 3.00

15ENGL335**Films of John Huston**

Selected films by director John Huston, such as The Maltese Falcon, The Treasure of the Sierra Madre, Moby Dick, and The Dead. Course may also examine the novels on which the films are based. Prereq: 15ENGL300. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15ENGL336**Classic Film Comedies**

Focuses on the history and development of film comedy from the days of the Keystone Cops to contemporary comedies such as Dr. Strangelove (1964), Start the Revolution Without Me (1970), and Blazing Saddles (1974). Prereq: 15ENGL300. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15ENGL337**American Literature and Film**

Problems and opportunities presented by the conversion of prose fiction into film, usually centered around a specific theme. Prereq: 15ENGL300. BoK: LT. Credit Level: U. Credit Hrs: 3.00

15ENGL338**Film And Neo Noir**

A VARIETY OF CRITICAL APPROACHES AND METHODOLOGIES - MARXIST, FEMINIST, NEO-HISTORICAL AND OTHERS - BROUGHT TO BEAR ON REPRESENTATIVE EXAMPLES OF A HOLLYWOOD GENRE, THE CRIME MOVIE. FILMS VIEWED INCLUDE DOUBLE INDEMNITY, TOUCH OF EVIL, CHINATOWN, BODY HEAT, BLUE VELVET, THE GRIFTERS, Mulholland Drive, and others. Definitions, characteristics, cultural theme and implications are thoroughly discussed. Prereq: 15ENGL300. BoK: SE, LT. Credit Level: U. Credit Hrs: 3.00

English**15ENGL340****Introduction to the Study of Language**

The basic concepts for linguistics, especially as they apply to the study of literature. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15ENGL341**American Ethnic Literature I**

Introduction to the ethnic literature of the United States. Prereq: 15ENGL300. BoK: LT, DC. Credit Level: U. Credit Hrs: 3.00

15ENGL342**Topics in American Ethnic Literature**

Ethnic women writers of the United States. Contemporary African-American, Native-American, Chinese-American, and Chicana women writers' use of myth and orature, and the issues of gender, class, and identity that unite or divide them. Prereq: 15ENGL300. BoK: LT, DC. Credit Level: U. Credit Hrs: 3.00

15ENGL343**Issues of Race in African American Literature**

An examination of those African American writers whose creative vision focuses on issues of race. A look at those writers and their treatment of race in selected fiction, poetry, and exposition. Prereq: 15ENGL300. BoK: LT, DC. Credit Level: U. Credit Hrs: 3.00

15ENGL344**Interracialism in America**

Uses literature, legal documents, essays, and film to examine the peculiar phenomenon known as race in America, focusing specifically on how race impacts relationships. Prereq: 15ENGL300. BoK: DC, LT. Credit Level: U. Credit Hrs: 3.00

15ENGL346**English Grammar**

This course will work inductively to establish the actual rules of the language as it is practiced and thus to develop methods for analyzing and understanding English syntax. Prereq: 15ENGL300. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15ENGL350**The Bible and Literature I**

Focus on a narrative from the Hebrew Bible and its reception/interpretation history. We will begin with a careful study of the text in question (Genesis 2-4, for instance, or Exodus) before shifting, first, to readings of that text in the works of major theologians, such as Augustine or Calvin, and then to literary appropriations of this biblical material from the Medieval period to today. Prereq: 15ENGL300. BoK: LT. Credit Level: U. Credit Hrs: 3.00

15ENGL351**The Bible and Literature II**

In this course we will focus on poetry from the Hebrew Bible and its reception/interpretation history. We will begin with a careful study of the text in question (Job, for instance, or Isaiah), before shifting, first to readings of that text in the works of major theologians, such as Augustine or Calvin, and then to literary appropriations of this biblical material from the Medieval period to today. Prereq: 15ENGL300. BoK: LT, SE. Credit Level: U. Credit Hrs: 3.00

15ENGL352**The Bible and Literature III**

In this course we will focus on material from the New Testament and its reception/interpretation history. We will begin with a careful study of the text in question (the Gospel of Mark, for instance, or Revelation), before shifting, first, to readings of that text in the work of major theologians, such as Augustine or Calvin, and then to literary appropriations of this biblical material from the Medieval period to today. Prereq: 15ENGL300. BoK: LT. Credit Level: U. Credit Hrs: 3.00

15ENGL356**Feminist Critical Readings**

In-depth readings of classic feminist works. This course will focus on developing students' critical reading skills as well as on works by classical feminist thinkers. BoK: SE., DC. Credit Level: U. Credit Hrs:

H=University Honors course.

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English**15ENGL356****Feminist Critical Readings**

3.00

15ENGL357**Gender, Sexuality and Culture**

Focuses on the political, cultural, familial production of sexualities and on the complex relatives between gender and sexuality, including the way in which gender and sex regulate identity and how that regulation might be contested. BoK: SE., HU. Credit Level: U. Credit Hrs: 3.00

15ENGL358**Second Wave Feminisms**

Analyzes and historicizes the multiple and interconnecting strands of feminist theory and praxis that constituted the second wave of feminism and their continuing impact on contemporary feminist identification, debates and movements. BoK: SE., DC. Credit Level: U. Credit Hrs: 3.00

15ENGL359**Introduction to Rhetoric and Writing**

Introduction to the study of rhetoric, including classical and modern theories. Emphasis on the use of rhetorical principles in the written, visual, and digital texts of popular culture, mass media, and education. Goal is to develop students' critical understanding and use of rhetorical strategies in text production and reception. Prereq: 15ENGL102. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15ENGL360**Discourse Communities**

An introduction to the language conventions in such areas as journalism, law, business, the arts, the sciences, and the social sciences. We will examine not only the surface elements of these conventions but also the underlying values that they may embody and perpetuate. Prereq: 15ENGL102. BoK: HU, SE. Credit Level: U. Credit Hrs: 3.00

15ENGL368**Topics in Rhetoric and Professional Writing**

Explores theoretical and practical issues in rhetoric and professional writing, such as ethics, environmental writing, project management, and intercultural communication. Prereq: 15ENGL102. BoK: HU, SE. Credit Level: U. Credit Hrs: 3.00

15ENGL370**Desktop and Online Publishing**

This course introduces students to fundamental principles and techniques of designing and producing print and online documents. Prereq: 15ENGL102. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15ENGL376**Writing with Style**

Students consider the relation of style to audience, purpose, and genre and experiment with different writing styles to refine and diversify their own writing. Prereq: 15ENGL102. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15ENGL377**Visual Rhetoric**

Analyzes ways in which visual information and design are used to influence viewers' opinions, beliefs, attitudes, and behaviors (the art of rhetoric) with an added component of creating visually rhetorical texts. Prereq: 15ENGL102. BoK: HU, SE. Credit Level: U. Credit Hrs: 3.00

15ENGL378**Films of Alfred Hitchcock**

An in depth look at the life and career of one of the greatest film directors of all time. Prereq: 15ENGL300. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15ENGL382**Gay and Lesbian Literature**

An exploration of important themes (eg., childhood and growing up, coming out and finding community, families, oppression and resistance,

English**15ENGL382****Gay and Lesbian Literature**

bisexuality, relationships and friendships, AIDS and aging) in lesbian and gay literature using literary materials as the primary focus (novels, poetry, plays). Prereq: 15ENGL300. BoK: LT. Credit Level: U. Credit Hrs: 3.00

15ENGL385**Forms of Poetry**

Introduces students to poetic theory, terminology, and practices to help them develop their skills as readers and writers of poetry. This is a reading/discussion-based course (not a workshop) that includes imitations as well as papers and exams. Required for English majors/cert. students in the CW-poetry track; other English majors welcome. Prereq: 15ENGL217, 15ENGL218. BoK: LT. Credit Level: U. Credit Hrs: 3.00

15ENGL386**Forms of Fiction**

Introduces students to the structural possibilities of fiction by examining texts about narrative and a variety of narrative forms. This is a reading/discussion-based course (not a workshop) that includes imitations as well as analytical papers and exams. Required for English majors/cert. students in the CW-Fiction track; other English majors welcome. Prereq: 15ENGL211, 15ENGL212. BoK: LT. Credit Level: U. Credit Hrs: 3.00

15ENGL388**American Women Writers to 1900**

Poems, plays, novels, short stories, and essays written by American women authors to 1900. Prereq: 15ENGL300. BoK: LT, DC. Credit Level: U. Credit Hrs: 3.00

15ENGL389**American Women Writers -- 1900 to present**

Poems, plays, novels, short stories, and essays written by American women authors from 1900 to the present. Prereq: 15ENGL300. BoK: LT, DC. Credit Level: U. Credit Hrs: 3.00

15ENGL397H**Charleston to Hilton Head: Exploring the Low Country in Fiction and Personal Experience**

This course offers an opportunity for students in all disciplines to experience the ecology and culture of the region from Hilton Head to Charleston, South Carolina, in person and in selected readings by popular author Pat Conroy. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15ENGL398H**Faces of the Future: Challenges and Costs of Battered Youth**

Designed for male and female students in all majors. This course employs fiction, films, essays, speakers, and experiential learning to examine the crisis of battered youth and organizational attempts at intervention. Included in the course is a required weekend service trip to an Eastern Kentucky non-profit residential facility for abused young people ages ten to eighteen. BoK: SE., DC. Credit Level: U. Credit Hrs: 3.00

15ENGL399H**Law, Literature, and Society**

Examines the law, its origins, its representations in literature and popular culture, and its influence on how we perceive ourselves and society. Students will explore texts including literature, court documents, news articles, and television shows. Will (re)create laws, propose arguments on current hot topics, and present and decide cases to practice critical thinking, argumentation, and compromise. BoK: LT., SE. Credit Level: U. Credit Hrs: 3.00

15ENGL401**Seminar: American Literature**

An examination in depth of a major author, historical period, genre, mode, topic, or theme in literature written in America. Prereq: 15ENGL300. BoK: NA. Credit Level: U. Credit Hrs: 3.00

H=University Honors course.

BoK (Breadth of Knowledge) Coding. DC: Diversity & Culture. EC: English composition. FA: Fine Arts. HP: Historical Perspectives. HU: Humanities. LT: Literature. NS: Natural Sciences. QR: Quantitative Reasoning. SE: Social & Ethical Issues. SS: Social Sciences.

English**15ENGL402****Seminar: American Literature**

An examination in depth of a major author, historical period, genre, mode topic, or theme in literature written in America. Prereq: 15ENGL300. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15ENGL403**Seminar: American Literature**

An examination in depth of a major author, historical period, genre, mode, topic, or theme in literature written in America Prereq: 15ENGL300. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15ENGL405**Mark Twain**

Students read and discuss A Connecticut Yankee, Letters from the Earth, Pudd'n'head Wilson, The Adventruers of Huckleberry Finn, and selected pieces by Samuel Clemens, in an attempt to understand both his artistic accomplishment and to contextualize his work within the artistic, philosophical, political, and literary movements of the 19th century in the United States. Prereq: 15ENGL300. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15ENGL406**Thoreau and His Tradition**

A study of the pastoral and philosophical backgrounds to Thoreau's work as well as his influence on later writers. Prereq: 15ENGL300. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15ENGL409**The City in African-American Literature**

Examines the Black Urban Experience in 20th century fiction and explores how post-Harlem Renaissance writers conceive of the modern city. Includes service learning component. Prereq: 15ENGL300. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15ENGL411**Advanced Creative Writing: Fiction**

Theory and practice of contemporary fiction with seminar study of relevant contemporary materials and criticism of student work in class and conference. Limited to 20 students. Prereq: 15ENGL211, 15ENGL212. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15ENGL412**Advanced Creative Writing: Fiction**

Theory and practice of contemporary fiction with seminar study of relevant contemporary materials and criticism of student work in class and conference. Limited to 20 students. Second offering in a two-part course sequence. Prereq: 15ENGL211, 15ENGL212. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15ENGL413**Advanced Creative Writing Fiction**

Theory and practice of contemporary fiction with seminar study of relevant contemporary materials and criticism of student work in class and conference. The third offering in a three-part sequence. Prereq: 15ENGL211, 15ENGL212. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15ENGL417**Advanced Creative Writing: Poetry**

A course in the theory and practice of contemporary poetry with seminar study of relevant contemporary materials and criticism of student work in class and conference. Limited to 20 students. Prereq: 15ENGL217, 15ENGL218. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15ENGL418**Advanced Creative Writing: Poetry**

A course in the theory and practice of contemporary poetry with seminar study of relevant contemporary materials and criticism of student work in class and conference. Limited to 20 students. The second offering in a two-part course sequence. Prereq: 15ENGL217, 15ENGL218. BoK: NA. Credit Level: U. Credit Hrs: 3.00

English**15ENGL419****Advanced Creative Writing: Poetry**

Theory and practice of contemporary poetry with seminar study of relevant contemporary materials and criticism of student work in class and conference. The third offering in a three-part sequence. Prereq: 15ENGL217, 15ENGL218. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15ENGL431**Playwriting I**

The fundamental elements of the playwriting process: plot, character, dialogue, setting, theme. Standard script form, marketing, production rewriting. Previous writing experience or drama study highly desirable. Prereq: 15ENGL300. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15ENGL432**Play Writing II**

An intermediate class to further the craft of play writing, including: the development of an outline for a full length play script. Students will also examine critical essays on the subject of play writing and will become familiar with various contemporary playwrights. Prereq: 15ENGL300. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15ENGL459**Hemingway**

The works of Ernest Hemingway in their social, literary, and aesthetic contexts. Prereq: 15ENGL300. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15ENGL460**Seminar: Twentieth-Century American Literature**

An advanced seminar focusing on some aspect of twentieth-century American literature. Prereq: 15ENGL300. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15ENGL465**William Faulkner**

Students read the major fictions of this great American author, including The Sound and the Fury, As I Lay Dying, Sanctuary, Light in August, Absalom, Absalom!, The Hamlet, and Go Down, Moses. Prereq: 15ENGL300. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15ENGL466**Seminar: The Fitzgeralds**

A seminar on the lives and writings of american authors Zelda and F. Scott Fitzgerald. Prereq: 15ENGL300. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15ENGL489**Advanced Composition**

A writing workshop designed to develop flexible use of traditional and modern forms of discourse; critical, research, and stylistic skills. Satisfies state requirement for Composition for certification for teachers of English in secondary schools. Prereq: 15ENGL102. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15ENGL491**Writing for Business**

Practice in solving actual communication cases in common business situations requiring written communications. Prereq: 15ENGL102. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15ENGL492**Technical Writing**

An introduction to the theory and practice of writing in technical and scientific disciplines. It is not intended as a review of basic composition skills or as a basic course in English as a second language. Prereq: 15ENGL102. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15ENGL499**Internship in Writing and Editing**

On-the-job experience supervised by an academic advisor. Perm of Instructor. BoK: NA. Credit Level: U. Credit Hrs: 3.00

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English**15ENGL500****Internship in Writing and Editing**

On-the-job experience supervised by an academic adviser. Perm of Instructor. BoK: NA. Credit Level: U. Credit Hrs: 1.00-3.00

15ENGL501**Internship in Writing and Editing**

On-the-job experience supervised by an academic adviser. Perm of Instructor. BoK: NA. Credit Level: U. Credit Hrs: 1.00-3.00

15ENGL580**Writing Cincinnati**

A writing course about the history, people, and architecture of Cincinnati. Includes field research on some in-depth aspects of the city. Prereq: 15ENGL102. BoK: HU. Credit Level: U, G. Credit Hrs: 3.00-4.00

15ENGL585**Screenwriting**

Screenwriting is the art of telling stories in words and images. This class focuses on formats, character development, plot, and dialogue. Movies will be studied to illustrate genre, fixed and fluid characters, development of protagonist and antagonist, and other screen elements. Prereq: 15ENGL300. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00-4.00

15ENGL586**Screenwriting II**

A continuation of the screenwriting workshop. Storytelling on screen, effective dialogue and character development, and understanding genres. Special emphasis on rethinking and revising, and preparing a script for an audience. Prereq: 15ENGL300. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00-4.00

15ENGL589**Rhetoric and Professional Writing Capstone**

Applying what they have learned in the Rhetoric and Professional Writing track, English majors will collaborate with Professional Writing and Editing master's student to complete real projects for a client organization. Prerequisite of at least two advanced standing writing courses in the Rhetoric and Professional Writing track for English majors. Perm of Instructor. BoK: HU, SE. Credit Level: U, G. Credit Hrs: 3.00-4.00

15ENGL590**Advanced Playwriting**

This course is intended for students who have successfully completed a course in beginning playwriting or for students who have completed a playscript. Emphasis will be on the completion of a stageworthy work and on readying a work for submission to a theater for possible production. Prereq: 15ENGL300. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00-4.00

15ENGL591**Individual Work**

A course in guided readings which must be negotiated in writing with individual faculty members and approved by the director of undergraduate studies. Perm of Department. BoK: NA. Credit Level: U. Credit Hrs: 1.00-3.00

15ENGL592**Individual Work**

A course in guided readings which must be negotiated in writing with individual faculty members and approved by the director of undergraduate studies. Perm of Department. BoK: NA. Credit Level: U. Credit Hrs: 1.00-3.00

15ENGL593**Individual Work**

A course in guided readings which must be negotiated in writing with individual faculty members and approved by the director of undergraduate studies. Perm of Department. BoK: NA. Credit Level: U. Credit Hrs: 1.00-3.00

English**15ENGL611****Senior Writing Seminar: Fiction**

Students write and critique stories at an advanced level, looking at the various elements of fiction as they interact in the work. Perm of Instructor. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00-4.00

15ENGL612**Senior Writing Seminar: Fiction**

Students write and critique stories at an advanced level, looking at the various elements of fiction as they interact in the work. Perm of Instructor. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00-4.00

15ENGL613**Senior Writing Seminar: Fiction**

This will be a fiction workshop with peer critique of student work with brief lectures on elements of fiction. Students read many short story masterpieces and analyze their structures from the writer-rather-than-the theoretical perspective. Perm of Instructor. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00-4.00

15ENGL615**Seminar in Linguistics**

Given that all members of homo sapiens have language and that no other species has language, and given that all languages are, at the most basic units of structure, virtually identical, we can raise the question of how and when our remote ancestors evolved language. To what extent can humans be said to possess a separate language faculty? Is there a "language instinct," to use Steven Pinker's term? Are humans born genetically programmed to structure language in a certain way? Or are the observed regularities due to more general brain structures? Or are these regularities created by regularities in communication situations across individuals? Why did humans, and apparently only humans, evolve language in the first place? What linguistic faculties, if any, did the more remote ancestors of homo sapiens possess? Prereq: 15ENGL300. BoK: HU. Credit Level: U, G. Credit Hrs: 3.00-4.00

15ENGL616**Seminar: History of the English Language**

This seminar will begin with a short introduction to Old English and follow the language through the 20th century, using the methods of historical linguistics. Prereq: 15ENGL340. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00-4.00

15ENGL617**Senior Writing Seminar: Poetry**

Writing of poetry or fiction with practical training in publication. Perm of Instructor. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00-4.00

15ENGL618**Senior Writing Seminar: Poetry**

Emphasis will be placed on reading and criticizing student poetry. Students also read and discuss books by visiting poets. Perm of Instructor. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00-4.00

15ENGL619**Senior Writing Seminar: Poetry**

Writing of poetry with emphasis placed on reading and criticizing student poetry. Students also read and discuss books by visiting poets. Perm of Instructor. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00-4.00

15ENGL621**Writing Seminar: Professional and Technical Writing**

This seminar introduces student to principles of verbal and visual design as they apply to instructional materials, both in print and on-line. It teaches how to analyze audiences, design reader-based documents, deal with organizational constraints, and test results. Perm of Instructor. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00-4.00

15ENGL622**Writing Seminar: Professional and Technical Writing**

This course introduces students to the theory and practice of writing promotional copy for print and broadcast media. Reading focus is on theories of social psychology as they apply to attitude formation and on

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English**15ENGL622****Writing Seminar: Professional and Technical Writing**

demographic and psychographic variables among audiences. Students write copy for radio, television, and display ads, for news releases, and for direct-mail promotion. This course ends with a major project written collaboratively for a real public or private client who is committed to publication of the project materials. Past clients for such projects include the Kidney Foundation, the UC School of Education, Anderson Publishing Company, the UC Medical Center, ORSANKO, and the Taft Museum, among others. Perm of Instructor. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00-4.00

15ENGL623**Writing Seminar: Professional and Technical Writing**

Advanced work in professional and technical writing. The third offering in a three-part course sequence. Perm of Instructor. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00-4.00

15ENGL630**Verse-Writing Workshop**

Workshop with the Elliston Poet-in-Residence. Enrollment in this workshop is only by permission of the instructor. Perm of Instructor. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00-4.00

15ENGL642**English Syntax**

The leading edge of language research begins with questions like these: how can we constantly create and understand new sentences--ones we have never heard before? How do languages allow us to construct meaning in sentences? What does it mean to say you know English? These questions have been asked and answered first in the area of syntax - the part of language that involves producing and interpreting sentences. Students look at the most recent of Noam Chomsky's models of syntax, the minimalist approach, as it applies to English sentences. This approach, and the text we will use to discover it, is simpler than earlier ones. Students should learn a great deal about the process of language, and quite a lot about the way English works. Perm of Instructor. BoK: HU, NS. Credit Level: U, G. Credit Hrs: 3.00-4.00

15ENGL703**Research and Bibliography for Professional Writing Editing and Publishing**

For MA students in the Professional Writing and Editing and Publishing tracks. Introduces students to research theories and methods as well as their underlying assumptions. Credit Level: G. Credit Hrs: 4.00

15ENGL705**MA in English Capstone Course**

Readings are taken from a list of texts that survey literary genres from a variety of historical periods. The writing assignments ask students to show their breadth of knowledge through their ability to discuss relationships among the range of assigned texts. Required of all MA students. Credit Level: G. Credit Hrs: 4.00

15ENGL711**Graduate Fiction Workshop**

These fiction-writing workshops usually focus on short stories by class members, occasionally on novels in progress, with the aim of producing publishable work. Students who have been admitted to the graduate program in fiction writing may take the course; others must receive permission from the instructor. Credit Level: G. Credit Hrs: 4.00

15ENGL712**Graduate Fiction Workshop**

These fiction-writing workshops usually focus on short stories by class members, occasionally on novels in progress, with the aim of producing publishable work. Students who have been admitted to the graduate program in fiction writing may take the course; others must receive permission from the instructor. Credit Level: G. Credit Hrs: 4.00

English**15ENGL713****Graduate Fiction Workshop**

These fiction-writing workshops usually focus on short stories by class members, occasionally on novels in progress, with the aim of producing publishable work. Students who have been admitted to the graduate program in fiction writing may take the course; others must receive permission from the instructor. Credit Level: G. Credit Hrs: 4.00

15ENGL716**Literary Translation**

A course in the theory and practice of literary translation, including workshops on individual translation projects in poetry and prose, discussion of theories and techniques of translation, and comparison of English translations of foreign works. Students should have basic proficiency in a foreign language; no previous experience with translation expected. Credit Level: G. Credit Hrs: 4.00

15ENGL717**Graduate Poetry Workshop**

A poetry workshop, often supplemented by extensive reading in contemporary poetry, that emphasizes generating and revising poems, experimenting with poetic forms and techniques, and developing a voice. Students who have been admitted to the graduate program in poetry writing may take the course; others must receive permission from the instructor. Credit Level: G. Credit Hrs: 4.00

15ENGL718**Graduate Poetry Workshop**

A poetry workshop, often supplemented by extensive reading in contemporary poetry, that emphasizes generating and revising poems, experimenting with poetic forms and techniques, and developing a voice. Students who have been admitted to the graduate program in poetry writing may take the course; others must receive permission from the instructor. Credit Level: G. Credit Hrs: 4.00

15ENGL719**Graduate Poetry Workshop**

A poetry workshop, often supplemented by extensive reading which emphasizes the generation and revision of poetry. Students who have been admitted to the graduate program in poetry writing may take the course; others must receive permission from the instructor. Credit Level: G. Credit Hrs: 4.00

15ENGL723**The Literary Essay**

Literary essays by (mostly) American writers of the last hundred years who have combined being fiction writers and essayists: Trilling, Mary McCarthy, Toni Morrison, Vladimir Nabokov, Ralph Ellison, Susan Sontag. The purpose is to distinguish (and see intersections) between the literary essay, essays on craft, and academic criticism. With a workshop component. Credit Level: G. Credit Hrs: 4.00

15ENGL728**Online Documentation**

Introduces students to the principles and practices of designing online documentation. Credit Level: G. Credit Hrs: 4.00

15ENGL730**Internship: Professional Writing**

Formal recognition for professional work completed as an intern. Students doing an internship at any time during the coming year must meet with their adviser during fall quarter. Credit Level: G. Credit Hrs: 1.00-12.00

15ENGL735**Professional Writing Theory**

A seminar exploring the theoretical foundations of professional writing (particularly technical and scientific communication) as a discipline, as a process and as a product. Credit Level: G. Credit Hrs: 4.00

15ENGL740**Rhetoric of Written Discourse**

Intensive introduction to classical rhetorical theory and its later developments, particularly as a background for contemporary theories

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English**15ENGL740****Rhetoric of Written Discourse**

of research in written discourse. Credit Level: G. Credit Hrs: 4.00

15ENGL741**Rhetorics of Emotion**

Starts with the premise that emotions are embodied and performed; they are things we do, rather than things we have. They therefore can be said to have a rhetoric, mediated by language, body, and culture. Goal is to develop a theoretical framework that allows us to position emotion as a category of analysis. Credit Level: G. Credit Hrs: 4.00

15ENGL743**Science and Medical Writing**

Introduces students to conventions of science and medical writing, and engages them in critical analysis of these fields of discourse. Requirements include several kinds of writing assignments targeted toward print and electronic media. Credit Level: G. Credit Hrs: 4.00

15ENGL744**Principles and Practices in Desktop Publishing**

Computer applications and important design principles used in common desktop publishing genres, such as brochures and newsletters. Credit Level: G. Credit Hrs: 4.00

15ENGL745**Principles and Practices in Web Design**

Computer applications and important principles for web page design. Credit Level: G. Credit Hrs: 4.00

15ENGL750**Race Gender and Culture**

Focuses on a short list of texts of the global literature of colonialism, slavery, diaspora and immigration, and reads them through the critical lenses of cultural studies; specifically, post-colonial theory, Afro-American ethnic theory and feminism, and psychoanalysis. Credit Level: G. Credit Hrs: 4.00

15ENGL752**Approaches to American Romanticism**

Primarily an introduction to some of the major writers, the critical issues, and the main themes involved in American writing between 1810-1860. Among the authors who might be included are Poe, Hawthorne, Cooper, Melville, Emerson, Thoreau and Irving. Some lesser writers who were also influential and might therefore be studied are William Gilmore Simms, John Pendleton Kennedy and Robert Montgomery Bird. Genres could include or encompass prose non-fiction, fiction, and poetry. Credit Level: G. Credit Hrs: 4.00

15ENGL754**Approaches to American Realism**

An examination of writings from the period after the Civil War to 1920, focusing on the literary historical terms realism and naturalism, though there are some readings that do not easily fit those designations. Credit Level: G. Credit Hrs: 4.00

15ENGL756**Approaches to 20th Century American Poetry**

Selected poems of five or more 20th century American poets, along with selected criticism, with emphasis on the innovative techniques and approaches of the poets. Credit Level: G. Credit Hrs: 4.00

15ENGL760**American Women Writers: The Novel I**

Focuses on the domestic and/or sentimental novel by 19th century american women writers: its beginnings in the turn of the century seduction novel, its mid-century popularity, its use by African American women to criticize both slavery and post-bellum racism, its relationship to the sensation novel and to the Kunstlerroman. Credit Level: G. Credit Hrs: 4.00

English**15ENGL777****Versification**

This seminar examines versification and prosody from both a descriptive and historical perspective. We shall consider the various descriptive approaches to versification and prosody including the "classical" system of the 19th century, generative metrics, and more recent efforts to describe both metrical and non-metrical verse patterns; theories of prosody from the Renaissance to the present day. Credit Level: G. Credit Hrs: 4.00

15ENGL778**Narratology**

An introduction to the study of narrative from a variety of critical and theoretical viewpoints. Theory is read alongside landmark works in the history of fictional technique. Credit Level: G. Credit Hrs: 4.00

15ENGL779**The Novel and Society in Modern Day America**

The course examines classics--such as Absalom Absalom!, Uncle Tom's Children, Noon Wire, Slaughterhouse Five--that tell stories of crisis in modern U.S. history. Credit Level: G. Credit Hrs: 4.00

15ENGL781**Approaches to American Ethnic Literature**

Theory and contemporary issues in the literature of African-American, Native American, Asian- American and Chicano authors. Credit Level: G. Credit Hrs: 4.00

15ENGL783**Ethnic Women Writers**

The themes, cultural forms, language, and historical context (especially the immigration laws) that shaped the work of African American, Asian American, Hispanic, Native American, and European immigrant women writers. How their works express themselves as individuals, and how they help maintain a sense of group identity. Credit Level: G. Credit Hrs: 4.00

15ENGL791**Contemporary American Fiction**

A study of substantial novels, all written in the last 20 years, that represent various modes of realism and experimentalism. Credit Level: G. Credit Hrs: 4.00

15ENGL795**Professional Writing and Editing Capstone Course**

Capstone course for the MA track in Professional Writing and Editing. Students apply important readings in the field to a real world writing and editing project. Each student's body of work in the course will be judged by a faculty committee. Students must earn a pass on this work in order to be eligible for the MA degree Credit Level: G. Credit Hrs: 4.00

15ENGL854**Problems in American Realism and Naturalism**

An examination of a significant contemporary area of inquiry in the period of late 19th and 20th century fiction. It may focus on social, theoretical or textual matters in dispute. Credit Level: G. Credit Hrs: 4.00

15ENGL860**American Women Writers: The Novel II**

Draws connections between the sentimental novel of the 19th century and contemporary novels by American women. Credit Level: G. Credit Hrs: 4.00

15ENGL865**Feminist Poetics**

The new poetry by feminists from the 1970's through the 1990's addressing questions of genre, identity and identity politics, sexuality, race, literary and political traditions. Poems and prose by such writers as Adrienne Rich and Audre Lorde. Credit Level: G. Credit Hrs: 4.00

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English**15ENGL866****Modern American Film and Literature**

An examination of formal, thematic, and historical connections among texts in these media in the period from 1910-1950. Credit Level: G. Credit Hrs: 4.00

15ENGL867**Problems in Film Studies**

Explores a significant category of film studies, such as national cinema, movie genres, significant directors or movements, intersections between film and social forces, or a theoretical debate about the making, function, or viewing of movies. Credit Level: G. Credit Hrs: 4.00

15ENGL892**Black Writers, Modernism & Postmodernism**

An analysis of representative writing of the Harlem Renaissance by Richard Wright, Ralph Ellison, James Baldwin and Gwendolyn Brooks. Credit Level: G. Credit Hrs: 4.00

15ENGL895**The Production and Reception of Contemporary American Fiction**

A study of several contemporary American novelists within the context of the publishing industry. Credit Level: G. Credit Hrs: 4.00

15ENGL990**M.A. Thesis**

Formal recognition of work conducted to research and prepare the thesis. Credit Level: G. Credit Hrs: 1.00-15.00

15ENGL995**Teaching**

Formal recognition of the teaching done by graduate Teaching Assistants. Perm of Department. Credit Level: G. Credit Hrs: 4.00

15ENGL996**Professional Practice**

Formal recognition of work done by graduate students conducting projects under the terms of graduate Administrative/Research Assistantships. Perm of Department. Credit Level: G. Credit Hrs: 4.00

15ENGL997**Independent Readings**

A course of supervised reading arranged on an individual basis. (Proposals required during preregistration for the subsequent quarter.) Perm of Department. Credit Level: G. Credit Hrs: 1.00-5.00

15ENGL998**Independent Study**

A course of supervised reading arranged on an individual basis leading to a substantial paper. (Proposals required during preregistration for the subsequent quarter. Perm of Department. Credit Level: G. Credit Hrs: 1.00-5.00

15ENGL999**Research**

Formal recognition of work conducted to prepare critical paper, thesis, or dissertation. Perm of Department. Credit Level: G. Credit Hrs: 1.00-15.00

Entrepreneurship and Small Business Management**15ESBM131****The Basic Entrepreneur**

Examines the motivational and psychological make-up of a successful entrepreneur. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15ESBM132**Introduction to the New Business Venture**

A review of all the opportunities in buying a business, Franchises, dealers, distributorships, licensing, multi-level and direct sales, coin-operated, direct mail/publishing, retail sales and 900 numbers. BoK: NA. Credit Level: U. Credit Hrs: 3.00

European Studies**15EUST101****Introduction to European Studies**

An introduction to the European Studies certificate, with a goal of preparing students to develop a coherent program of courses in European studies suited to meet their needs and fit their interests. Includes European politics, culture, geography, and history. Emphasis on exploring the ways in which each of these disciplines approaches the topic of 'Europe' as a diverse and complex entity. BoK: DC., HU. Credit Level: U. Credit Hrs: 3.00

15EUST201**Introduction to European Studies**

An introduction to the European Studies certificate, with a goal of preparing students for the coherent program of courses in European studies. Course includes European politics, culture, geography, and history. Emphasis on exploring the ways in which each of these disciplines approaches the topic of "Europe" as a diverse and complex entity. BoK: DC., HU. Credit Level: U. Credit Hrs: 3.00

15EUST390**Capstone Seminar European Studies**

Capstone seminar introducing students to the study of Europe in various disciplines. Required in the Junior-Senior year for students obtaining the European Studies Certificate. Prereq: 15EUST101. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15EUST710**European Studies Workshop & Seminar I**

First quarter of a sequence of the European Studies Workshop and Seminar for graduate students. Topic to be determined by instructor. Credit Level: G. Credit Hrs: 3.00-6.00

15EUST711**European Studies Workshop & Seminar II**

Second quarter of a sequence of the European Studies Workshop and seminar for graduate students. Topic to be determined by instructor. Credit Level: G. Credit Hrs: 3.00-6.00

15EUST712**European Studies Workshop & Seminar III**

Third quarter of a sequence of the European Studies Workshop and Seminar for graduate students. Topic to be determined by instructor. Credit Level: G. Credit Hrs: 3.00-6.00

Environmental Studies**15EVST101****Environmental Science I**

Interdisciplinary introduction to basic ecological concepts; laws of thermodynamics, biogeochemical cycles; human impact upon biomes; economics and politics of pollution; risk assessment; the world population crisis. BoK: NS., SE. Credit Level: U. Credit Hrs: 3.00

15EVST102**Environmental Science II**

Interdisciplinary examination of water resources, use, and conservation; drinking water purification; wastewater treatment; air pollution sources and control; solid and hazardous waste; environmental law; global environmental problems. BoK: NS., SE. Credit Level: U. Credit Hrs: 3.00

15EVST103**Environmental Science III**

Interdisciplinary examination of endangered species, wildlife and wilderness; the energy crisis; perpetual, renewable, non-renewable energy resources; conservation, nuclear energy; pesticides; land-use planning; parks, refuges, wetlands; sustainable development; environmental ethics. BoK: NS., SE. Credit Level: U. Credit Hrs: 3.00

15EVST125**Freshman Seminar: Environment**

A freshman seminar focusing on current environmental issues and environmental problem-solving. The focal topic of the seminar will vary from year to year. Limited to freshmen. BoK: NS., QR. Credit Level: U.

H=University Honors course.

BoK (Breadth of Knowledge) Coding. DC: Diversity & Culture. EC: English composition. FA: Fine Arts. HP: Historical Perspectives. HU: Humanities. LT: Literature. NS: Natural Sciences. QR: Quantitative Reasoning. SE: Social & Ethical Issues. SS: Social Sciences.

Environmental Studies**15EVST125****Freshman Seminar: Environment**

Credit Hrs: 3.00

15EVST395H**Human Dimensions of Global Climate Change**

The goal of this course is an interdisciplinary examination of the human dimensions of climate change, the influences on climate and particularly the impacts on human societies (Developed to Indigenous Peoples). We will explore emerging technologies to conduct the course, focusing on the virtual world Second Life and Wiki/Blog spaces. BoK: NS., SE. Credit Level: U. Credit Hrs: 3.00

15EVST397H**Environmental Challenges in Modern India**

The emergence of modern India as an economic superpower, the world's largest democracy, and the second largest Muslim nation defies conventional understanding by Western norms. In the context of tremendous ongoing growth and even stronger positioning for future growth-the challenges of environmental degradation within India are severe. The objective of this course is to focus on environmental concerns while discussing the politics, identity, economy, education, youth culture, and future of modern India through critical review of selected readings. BoK: SS., SE. Credit Level: U. Credit Hrs: 3.00

15EVST398H**Ecology of Infectious Diseases**

Examines the ecological and evolutionary influences on the emergence and re-emergence of a variety of human infectious diseases across the globe. BoK: NS., QR. Credit Level: U. Credit Hrs: 3.00

15EVST399H**Sustainable Development: History, Concept and Practice.**

Traces sustainable development ideas from the 1950s to the present. Introduces ecological economics and its challenge to traditional thinking about growth and development. Examines different experiences with sustainable development strategies by organizations, low-income countries, selected high-income countries and states within the US. BoK: SE., SS. Credit Level: U. Credit Hrs: 3.00

15EVST400**Non-majors Environmental Internship**

Internship for non-Environmental Studies majors providing professional experience in an environmental position under guidance and supervision of Environmental Studies. Perm of Instructor. BoK: SE. Credit Level: U. Credit Hrs: 3.00

15EVST401**Seminar on Environment**

Seminar on current topics in environmental science and policy: research, approaches and problems. Topics vary. BoK: NA. Credit Level: U. Credit Hrs: 1.00-3.00

15EVST425**Readings in Environmental Studies**

Guided study of contemporary and/or historical readings on the environment. Perm of Instructor. BoK: SE. Credit Level: U. Credit Hrs: 1.00-6.00

15EVST475**Special Topics in Environment**

In-depth interdisciplinary study of current research and approaches to a selected environmental topic. BoK: NA. Credit Level: U. Credit Hrs: 1.00-5.00

15EVST500**Environmental Studies Internship**

Professional experience in an environmental position under program guidance. Perm of Instructor. BoK: NA. Credit Level: U. Credit Hrs: 3.00-12.00

Environmental Studies**15EVST501****Environmental Capstone**

First quarter of a two quarter, team-taught capstone sequence designed to examine a contemporary environmental issue from an interdisciplinary perspective, requiring the application and integration of principles from the various fields that contribute to modern environmental problem-solving. The focal topic of the capstone is variable. For senior EVST majors. BoK: NS., QR. Credit Level: U. Credit Hrs: 4.00

15EVST502**Environmental Capstone**

Second quarter of a two quarter, team-taught capstone sequence designed to examine a contemporary environmental issue from an interdisciplinary perspective, requiring the application and integration of principles from the various fields that contribute to modern environmental problem-solving. The focal topic of the capstone is variable. For senior EVST majors. BoK: NS., QR. Credit Level: U. Credit Hrs: 4.00

15EVST525**Undergraduate Research in Environmental Studies**

Supervised research experience in the environmental sciences. Variable credit set in consultation with research advisor, offered each quarter. Perm of Instructor. BoK: NA. Credit Level: U. Credit Hrs: 1.00-6.00

15EVST526**Undergraduate Research in Environmental Policy**

Supervised research experience in environmental policy and related areas. Variable credit set in consultation with research advisor, offered each quarter. Perm of Instructor. BoK: NA. Credit Level: U. Credit Hrs: 1.00-6.00

15EVST600**Environmental Law and Policy**

Examines the role of law and policy in the regulation, protection and management of natural resources and the environment. Provides an overview of the principal environmental laws at the federal and state level, regulatory policies and key judicial decisions in this area. BoK: SS., SE. Credit Level: U, G. Credit Hrs: 3.00

15EVST601**International Environmental Law & Policy**

This course introduces the major principles, treaties and institutions that influence and shape international environmental law and policy, and provides students with a solid understanding of the background principles, the key institutions, the disparate parties, and the current debates that shape international environmental law and policy. BoK: SE., SS. Credit Level: U, G. Credit Hrs: 3.00

15EVST602**Global Biodiversity: Law & Policy**

Seminar examining domestic and international policies and laws relating to biodiversity conservation and management. Addresses relevant laws and regulations (e.g., US Endangered Species Act), international conventions and treaties (e.g., Convention on Biological Diversity), and the key institutions (e.g., International Whaling Commission) involved in biodiversity protection. BoK: SE., SS. Credit Level: U, G. Credit Hrs: 3.00

15EVST610**Environmental Risk Analysis**

Introductory course in risk analysis and assessment with applications to environmental and health issues. Develops knowledge of modern analytical tools and approaches used in addressing and managing environmental risks. BoK: NS., QR. Credit Level: U, G. Credit Hrs: 3.00

15EVST620**Conservation & Economic Development: Developing Countries**

As nations of Africa, Asia and Latin America have gained independence they have attempted to combine economic development with environment protection in an effort to halt environmental degradation.

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Environmental Studies**15EVST620****Conservation & Economic Development: Developing Countries**

These efforts have ranged from community-based initiatives to National Environmental Action Plans. Course examines the lessons of these experiences and introduces the actors involved in international development and conservation. BoK: SE., SS. Credit Level: U, G. Credit Hrs: 3.00

15EVST626**Ecological Modeling**

An advanced undergraduate/graduate lecture class providing an overview of the many types and ways in which models are used in ecology. Investigate and develop models at all levels of organization from global climate models to individual behavioral models. Cross-listed with BIOL 626. Prereq: 15BIOL303. BoK: NS, QR. Credit Level: U, G. Credit Hrs: 3.00

Family Studies**15FAMS205****Intro to Family Studies**

Multi-disciplinary approach to the study of the family, introducing students to the many ways of analyzing and interpreting "family." Required course for FAMS students. BoK: SS., SE. Credit Level: U. Credit Hrs: 3.00

15FAMS405**FAMS Internship**

Supervised professional experience in community agencies and organizations serving or studying families or family-related activities. Must be arranged with FAMS faculty prior to registration. BoK: NA. Credit Level: U. Credit Hrs: 3.00-6.00

15FAMS505**FAMS Capstone**

Family Studies capstone is designed to enable FAMS seniors to integrate their multi-disciplinary coursework in the study of the family through portfolios and research activities. BoK: NA. Credit Level: U. Credit Hrs: 3.00

Finance**15FIN281****Personal Finance**

Planning and management of personal financial problems; personal finance plans, budgets. Credit and savings institutions in family financing; insurance, real estate, securities investments, estate planning. BoK: NA. Credit Level: U. Credit Hrs: 3.00

French**15FREN101****Basic French I**

Basic French language and culture. First quarter in the 3 quarter sequence that fulfills the A&S language requirement. BoK: HU., DC. Credit Level: U. Credit Hrs: 5.00

15FREN102**Basic French II**

Basic French language and culture. Second quarter in the 3-quarter sequence that fulfills the A&S language requirement. Prereq: 15FREN101. BoK: HU, DC. Credit Level: U. Credit Hrs: 5.00

15FREN102H**Basic French II Honors**

Honors section of Basic French 2. Prereq: 15FREN101. BoK: HU, DC. Credit Level: U. Credit Hrs: 5.00

15FREN103**Basic French III**

Basic French language and culture. Third quarter in the 3-quarter sequence that fulfills the A&S language requirement. Prereq: 15FREN102. BoK: HU, DC. Credit Level: U. Credit Hrs: 5.00

French**15FREN103H****Basic French III Honors**

Honors section of Basic French 3. Basic French language and culture. Third quarter in the three- quarter sequence that fulfills the A&S language requirement. Prereq: 15FREN102. BoK: DC, HU. Credit Level: U. Credit Hrs: 5.00

15FREN111**Extended Basic French 1**

Basic French language and culture. First quarter in the extended 6 quarter sequence that fulfills the A&S language requirement. BoK: DC., HU. Credit Level: U. Credit Hrs: 3.00

15FREN112**Extended Basic French 2**

Basic French language and culture. Second quarter in the extended 6-quarter sequence that fulfills the A&S language requirement. Prereq: 15FREN111. BoK: DC, HU. Credit Level: U. Credit Hrs: 3.00

15FREN113**Extended Basic French 3**

Basic French language and culture. Third quarter in the extended 6-quarter sequence that fulfills the A&S language requirement. Prereq: 15FREN112. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15FREN114**Extended Basic French 4**

Basic French language and culture. Fourth quarter in the extended 6 quarter sequence that fulfills the A&S language requirement. Prereq: 15FREN113. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15FREN115**Extended Basic French 5**

Basic French language and culture. Fifth quarter in the extended 6-quarter sequence that fulfills the A&S language requirement. Prereq: 15FREN114. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15FREN116**Extended Basic French 6**

Basic French language and culture. Sixth quarter in the extended 6-quarter sequence that fulfills the A&S language requirement. Prereq: 15FREN115. BoK: DC, HU. Credit Level: U. Credit Hrs: 3.00

15FREN180**World Cultures-French Speaking I**

General education course on issues of the French-speaking world. Taught in English. Satisfies content area requirement in American Diversity/World Cultures. Does not count toward major or minor in French. BoK: HU., DC. Credit Level: U. Credit Hrs: 3.00

15FREN181**World Cultures -- French Speaking II**

Continuation of 15-012-180, but may be taken independently. Study of the French-speaking world outside of France. Taught in English. BoK: HU., DC. Credit Level: U. Credit Hrs: 3.00

15FREN182**Traditions in French World Culture**

Survey of French cultural traditions. Topics vary. Taught in English. BoK: DC., HU. Credit Level: U. Credit Hrs: 3.00

15FREN184**French Civilization**

French civilization (literature, culture, history, etc.) from medieval times to 17th century. Conducted in English. BoK: HU., DC. Credit Level: U. Credit Hrs: 3.00

15FREN185**French Civilization**

French civilization (literature, culture, history, etc.) from 17th century to 1848. Conducted in English. BoK: HU., DC. Credit Level: U. Credit Hrs: 3.00

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French**15FREN186****French Civilization**

French civilization (literature, culture, history, etc.) from 1848 to present. Conducted in English. BoK: HU., DC. Credit Level: U. Credit Hrs: 3.00

15FREN214**Intermediate Reading in French**

Emphasis on reading and writing grammar; culture. BoK: HU., DC. Credit Level: U. Credit Hrs: 3.00

15FREN215**Intermediate Reading in French**

Emphasis on reading and writing grammar; culture. The second offering in a three-part course sequence. Prereq.: 111-12-13 or appropriate placement test score. BoK: HU., DC. Credit Level: U. Credit Hrs: 3.00

15FREN216**Intermediate Reading in French**

Emphasis on reading and writing grammar; culture. The second offering in a three-part course sequence. Prereq.: 111-12-13 or appropriate placement test score. BoK: HU., DC. Credit Level: U. Credit Hrs: 3.00

15FREN250**Valentine House Conversational French**

Conversational French for Valentine House residents BoK: DC. Credit Level: U. Credit Hrs: 1.00

15FREN251**Composition and Conversation**

This sequence uses a content-based cultural approach to the review of grammar and further development of reading, writing, speaking and listening skills. Materials introduce students to a variety of literary genres, contexts, functions and speech acts. Classroom focus is on small group activities, cooperative learning, discussion, debate and oral presentations. Students discuss, research and reflect upon daily living patterns, historical phenomena, political and economic situations and values. Readings include excerpts of works by contemporary and classical French and francophone writers. A process-approach to writing helps students improve their writing skills. BoK: HU., DC. Credit Level: U. Credit Hrs: 3.00

15FREN252**Composition and Conversation**

The second offering of a three-course sequence. This sequence uses a content-based cultural approach to the review of grammar and further development of reading, writing, speaking and listening skills. Materials introduce students to a variety of literary genres, contexts, functions and speech acts. Classroom focus is on small group activities, cooperative learning, discussion, debate and oral presentations. Students discuss, research and reflect upon daily living patterns, historical phenomena, political and economic situations and values. Readings include excerpts of works by contemporary and classical French and francophone writers. A process-approach to writing helps students improve their writing skills. Prereq: 15FREN251. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15FREN253**Composition and Conversation**

The third offering of a three-course sequence. This sequence uses a content-based cultural approach to the review of grammar and further development of reading, writing, speaking and listening skills. Materials introduce students to a variety of literary genres, contexts, functions and speech acts. Classroom focus is on small group activities, cooperative learning, discussion, debate and oral presentations. Students discuss, research and reflect upon daily living patterns, historical phenomena, political and economic situations and values. Readings include excerpts of works by contemporary and classical French and francophone writers. A process-approach to writing helps students improve their writing skills. Prereq: 15FREN252. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

French**15FREN271****The French-Speaking World**

This course will provide an overview of the French-speaking world, beginning in France, traveling through Africa to the Caribbean and ending in North America. BoK: HU., DC. Credit Level: U. Credit Hrs: 3.00

15FREN300**Grammar & Composition**

An intermediate/advanced course in French grammar and composition. Prereq: 15FREN253. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15FREN301**Speaking in French about France/Francophone culture**

Emphasizes grammar and conversation, as well as French syntax and for the development of students' speaking proficiency. BoK: HU., DC. Credit Level: U. Credit Hrs: 3.00

15FREN302**French Phonetics**

Designed to show how international French is pronounced and how to attain accuracy and fluency in pronunciation. Actual practice, both in specific contexts and in communication situations, forms the core of the class sessions. Prereq: 15FREN252. BoK: DC. Credit Level: U. Credit Hrs: 3.00

15FREN310**Introduction to Literature**

Systematic introduction to literary analysis. Selected texts of various genres (poetry, prose, narratives and theater). Conducted in French. Prereq: 15FREN252. BoK: LT, DC. Credit Level: U. Credit Hrs: 3.00

15FREN311**Modern French Literature**

An introduction to French literature of the 20th and 21st centuries. Taught in French. Prereq: 15FREN253. BoK: SE, LT. Credit Level: U. Credit Hrs: 3.00

15FREN312**The Francophone World**

An introduction to the literatures and cultures of the Francophone world. Taught in French Prereq: 15FREN300. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15FREN313**French Culture in Films**

An introduction to the culture of France through the study of French films. Taught in French. Prereq: 15FREN253. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15FREN314**France Today**

An introduction to the culture of contemporary France. Taught in French Prereq: 15FREN300. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15FREN335**Business French**

Composition, conversation, business correspondence, written and oral translation from and into French. Prereq: 15FREN253. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15FREN336**Business French**

Composition, conversation, business correspondence, written and oral translation from and into French. The second offering in a three-part course sequence. Prereq.: 106 or 116 or 216 or equiv. Prereq: 15FREN253. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15FREN337**Business French**

Composition, conversation, business correspondence, written and oral translation from and into French. The third offering in a three-part course sequence. Prereq.: 106 or 116 or 216 or equiv. Prereq: 15FREN253. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

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French**15FREN337****Business French**

Composition, conversation, business correspondence, written and oral translation from and into French. The third offering in a three-part course sequence. Prereq.: 106 or 116 or 216 or equiv. Prereq: 15FREN253. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15FREN341**Main Currents in Medieval French Literature**

An introduction to important literary issues in Medieval French literature. Prereq: 15FREN302. BoK: LT, HP. Credit Level: U. Credit Hrs: 3.00

15FREN342**Renaissance Literature**

Survey of French poetry and prose from the Renaissance, 1500-1600. Prereq: 15FREN302. BoK: LT, HP. Credit Level: U. Credit Hrs: 3.00

15FREN343**Main Currents in Seventeenth-Century French Literature**

An introduction to important literary issues in Seventeenth Century French Literature. Prereq: 15FREN302. BoK: LT, HP. Credit Level: U. Credit Hrs: 3.00

15FREN346**Twentieth-Century Literature**

Survey of 20th-century French literature, including short fiction, theater and poetry. Prereq: 15FREN302. BoK: LT, HP. Credit Level: U. Credit Hrs: 3.00

15FREN367**20th Century French Women Writers**

A study of themes and literary techniques in the works of major twentieth century authors; includes works by Colette, de Beauvoir, and Duras. (Conducted in English.) Prereq: 15FREN253. BoK: LT, DC. Credit Level: U. Credit Hrs: 3.00

15FREN371**French Civilization I**

Outstanding contributions French has made to Western civilization in the arts, philosophy, political thought, and the art of living. From Antiquity through the Renaissance. Conducted in English. Prereq: 15FREN253. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15FREN372**French Civilization II**

From the 17th century through the Revolution of 1848. Conducted in English. Prereq: 15FREN253. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15FREN373**French Civilization III**

From the Second Empire to the present. Conducted in English. Prereq: 15FREN253. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15FREN383**Francophone Culture: L'Afrique**

Literature, culture, and civilization of French-Speaking Africa. Close readings of depictions and analyses of traditional, colonial and contemporary Africa. Conducted in French. BoK: HU., DC. Credit Level: U. Credit Hrs: 3.00

15FREN384**Francophone Culture Quebec and the Antilles**

Literature, culture and civilization of Quebec and French-speaking Canada, and the Antilles. Conducted in French. BoK: HU., DC. Credit Level: U. Credit Hrs: 3.00

15FREN385**Caribbean Francophone Literature**

An introduction to the Francophone literature of the Caribbean. Taught in French. Prereq: 15FREN253. BoK: DC, LT. Credit Level: U. Credit Hrs: 3.00

French**15FREN391****Paris Today**

A cultural of Paris with emphasis upon the contemporary forms of art, architecture and institutions evolved from the past. Given in English with French phrases. BoK: HU., DC. Credit Level: U. Credit Hrs: 3.00

15FREN396**Tradition, Struggle for Independence and Gender Roles**

This course examines how novels, essays and films by North and West African artists depict, define and problematize women's and men's roles, concerns and powers. BoK: HU., DC. Credit Level: U. Credit Hrs: 3.00

15FREN396H**Tradition, Struggle for Independence and Gender Roles in North & West African Literature**

This course examines a selection of works by French-speaking North-African and African writers and film directors who raise the difficult issue of gender roles & expectations in their respective contemporary societies. We will identify and examine gender norms as represented in the works of eight prominent writers from the Maghreb (Morocco, Algeria and Tunisia) and West Africa (Senegal and Cameroon, especially) and two film makers (from Italy and Mali respectively). Prereq: 15ENGL341, 15ENGB300. BoK: LT, DC. Credit Level: U. Credit Hrs: 3.00

15FREN397**Fantasy, Myth and Legend in Medieval Literature**

Medieval fantasy, myth and legend. BoK: LT. Credit Level: U. Credit Hrs: 3.00

15FREN399**Literature, Science and Society in Enlightenment France**

Study of French Enlightenment literary texts in which science is central. (Honors) BoK: LT., DC. Credit Level: U. Credit Hrs: 3.00

15FREN424**Advanced Grammar & Composition**

An advanced course on French grammar and composition. Prereq: 15FREN300. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15FREN425**Advanced French Conversation**

A conversation workshop that develops speaking skills and more sophisticated use of oral French. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15FREN426**Advanced French Conversation II**

A continuation of Advanced French Conversation 425. Development of more sophisticated forms of conversational French; vocabulary building. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15FREN441**Topics I**

Study of specific texts, authors, genres, and issues in the French speaking world. Examples of topics: L'utopie au XVIIIe siècle, Molière, Camus et Sartre. Taught in French. Prereq: 15FREN343. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15FREN442**Topics II**

Study of specific texts, authors, genres and issues in the French-speaking world. Taught in French. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15FREN443**Topics in French**

Study of specific texts, authors, genres and issues in the French speaking world. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15FREN468**Contemporary Paris**

Interdisciplinary seminar exploring the city of Paris from the 19th century to the present. Study of literary, cultural and artistic materials

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French**15FREN468****Contemporary Paris**

as required reading. Original essay of each student will focus on an aspect of Paris today. Taught in English BoK: DC., HU. Credit Level: U. Credit Hrs: 3.00

15FREN481**French Capstone**

As a General Education capstone course, this allows students to complete an independent project in conjunction with their work in another 400-level course. Perm of Instructor. BoK: NA. Credit Level: U. Credit Hrs: 1.00

15FREN500**Service Learning**

A supervised learning experience based in service to the French speaking community in the Cincinnati area. Perm of Instructor. BoK: DC. Credit Level: U. Credit Hrs: 1.00-3.00

15FREN501**Business French**

Composition, conversation, business correspondence, written and oral translation from and into French. BoK: HU., DC. Credit Level: U, G. Credit Hrs: 3.00-4.00

15FREN502**Business French**

Composition, conversation, business correspondence, written and oral translation from and into French. The second offering in a three-part course sequence. Qualified undergraduates may be admitted by approval of undergraduate adviser and instructor. BoK: HU., DC. Credit Level: U, G. Credit Hrs: 3.00-4.00

15FREN503**Business French**

Composition, conversation, business correspondence, written and oral translation from and into French. The third offering in a three-part course sequence. Qualified undergraduates may be admitted by approval of undergraduate adviser and instructor. BoK: HU., DC. Credit Level: U, G. Credit Hrs: 3.00-4.00

15FREN515**Paris Today**

A cultural tour of Paris with emphasis on the contemporary forms of art, architecture, and institutions evolved from the past. Students participate in an organized trip to Paris. This is not a class taught on the UC campus. Instructor permission required. BoK: DC. Credit Level: U, G. Credit Hrs: 3.00-4.00

15FREN516**Study Tour Canada**

A tour of one or more francophone Canadian cities with emphasis on culture, art, architecture and institutions. Students participate in an organized trip. This is not a class taught on the UC campus. Instructor permission required. Perm of Instructor. BoK: DC. Credit Level: U, G. Credit Hrs: 3.00-4.00

15FREN517**Study Tour France**

A tour of one or more French cities with emphasis on culture, art, architecture and institutions. Students participate in an organized trip. This is not a class taught on the UC campus. Instructor permission required. Perm of Instructor. BoK: DC. Credit Level: U, G. Credit Hrs: 3.00-4.00

15FREN525**Advanced French Conversation**

A conversation workshop that develops speaking skills and more sophisticated use of oral French. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

15FREN550**French Study Abroad**

For students participating in an established exchange program in the

French**15FREN550****French Study Abroad**

French-speaking world. Permission of Department required. Perm of Department. BoK: DC. Credit Level: U, G. Credit Hrs: 12.00-18.00

15FREN561**French Composition and Conversation**

Course focuses on vocabulary enrichment and development of writing and speaking skills within the French context. BoK: HU., DC. Credit Level: U, G. Credit Hrs: 4.00

15FREN562**French Composition and Conversation**

Continuation of French 561. Prereq: 15FREN561. BoK: HU, DC. Credit Level: U, G. Credit Hrs: 4.00

15FREN563**French Composition and Conversation**

Continuation of French 562. Prereq: 15FREN562. BoK: HU, DC. Credit Level: U, G. Credit Hrs: 4.00

15FREN581**Elementary Conversational French**

For beginners, emphasis on speaking and listening; grammar; culture. BoK: HU., DC. Credit Level: U, G. Credit Hrs: 3.00

15FREN582**Elementary Conversational French**

For beginners, emphasis on speaking and listening; grammar; culture. The second offering in a three-part course sequence. Qualified undergraduates may be admitted by approval of undergraduate adviser and instructor. BoK: HU., DC. Credit Level: U, G. Credit Hrs: 3.00

15FREN583**Elementary Conversational French**

For beginners, emphasis on speaking and listening; grammar; culture. The third offering in a three-part course sequence. Qualified undergraduates may be admitted by approval of undergraduate adviser and instructor. BoK: HU., DC. Credit Level: U, G. Credit Hrs: 3.00

15FREN584**Intermediate Conversational French**

This is a continuation of Fr. 583. Emphasis on speaking and listening; grammar; culture. BoK: HU., DC. Credit Level: U, G. Credit Hrs: 3.00

15FREN585**Intermediate Conversational French**

This is a continuation of Fr. 583. Emphasis on speaking and listening; grammar; culture. The second offering in a three-part course sequence. Qualified undergraduates may be admitted by approval of undergraduate adviser and instructor. BoK: HU., DC. Credit Level: U, G. Credit Hrs: 3.00

15FREN586**Intermediate Conversational French**

This is a continuation of Fr. 583. Emphasis on speaking and listening; grammar; culture. The third offering in a three-part course sequence. Qualified undergraduates may be admitted by approval of undergraduate adviser and instructor. BoK: HU., DC. Credit Level: U, G. Credit Hrs: 3.00

15FREN591**Independent Study**

Previous written approval of instr. and undergraduate adviser required. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-15.00

15FREN592**Independent Study**

Description not available. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-15.00

15FREN593**Independent Study**

Previous written approval of instr. and undergraduate adviser required. The second offering in a three-part course sequence. BoK: NA. Credit

H=University Honors course.

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LT: Literature. NS: Natural Sciences. QR: Quantitative Reasoning. SE: Social & Ethical Issues. SS: Social Sciences.

French**15FREN593****Independent Study**

Level: U, G. Credit Hrs: 1.00-15.00

15FREN751**Twentieth-Century French Literature**

This survey treats major works of prose, theatre, & poetry by reading authors such as Sartre, Camus, Ionesco, Beckett, Butor, Apollinaire, Valéry & Prévert. In addition to some complete works, an anthology will be used. Given in French. Open to graduating seniors. BoK: NA. Credit Level: G, U. Credit Hrs: 4.00

15FREN701**French Language Teaching Practicum**

Practical issues in the French language classroom. Prereq: 15RLL750. Credit Level: G. Credit Hrs: 1.00

15FREN702**French Language Teaching Practicum**

Practical issues in the French language classroom. Prereq: 15RLL750. Credit Level: G. Credit Hrs: 1.00

15FREN703**French Language Teaching Practicum**

Practical issues in the French language classroom. Prereq: 15RLL750. Credit Level: G. Credit Hrs: 1.00

15FREN710**The Medieval Theater**

A survey of the major forms of medieval theater, both religious and popular. Credit Level: G. Credit Hrs: 4.00

15FREN711**Topics in 16th-Century French Literature**

A review of major works. Rabelais, Ronsard, Du Bellay, Montaigne. Credit Level: G. Credit Hrs: 4.00

15FREN721**French Revolution and Napoleon**

A survey of the French Revolution & Napoleon as depicted in nineteenth-century prose. Historical novels by Vigny, Hugo and France. Given in French. Open to seniors. Credit Level: G. Credit Hrs: 4.00

15FREN723**Seventeenth-century French Literature: Textual Analysis**

Training in "Explication of Text" through a survey of the Classical Period in French literature. Credit Level: G. Credit Hrs: 4.00

15FREN725**Fiction Narrative au 17e siècle**

A study of early French novels from L'Astree (1607-27) to La Princesse de Clèves (1678). Emphasis on themes and ideas as well as genre criticism and (structuralist) narratology. Credit Level: G. Credit Hrs: 4.00

15FREN727**Argent, Plaisir, et Pouvoir**

Following in the steps of the early Spanish novel, Sorel's *histoire comique de francion* (1623) brought the themes of money and power to the foreground of 17th-century French literature. In various ways, writers of fiction, drama, fables, moral sentences or treatises, problematized the relationships between wealth, power and pleasure. These thoughts were to lay the foundation for 18th-century theories about banking, lending, luxury. Credit Level: G. Credit Hrs: 4.00

15FREN730**Eighteenth-Century French Literature**

Representative novels of the 18th century. Credit Level: G. Credit Hrs: 4.00

15FREN731**Survey 18th Century**

SURVEY 18TH CENT Credit Level: G. Credit Hrs: 4.00

French**15FREN732****Voltaire and the Eighteenth Century**

Survey of Voltaire's works - plays, poetry, history, stories - and introduction to eighteenth-century France's literature and culture. Credit Level: G. Credit Hrs: 4.00

15FREN733**Eighteenth-Century Theater**

4 gr. cr. Credit Level: G. Credit Hrs: 4.00

15FREN734**Eighteenth-Century Novel**

An introduction to the novels of 18th-century France. Credit Level: G. Credit Hrs: 4.00

15FREN735**Radical Enlightenment**

A study of the philosophies of 18th-century France. Credit Level: G. Credit Hrs: 4.00

15FREN740**PARNASSIAN POETRY**

A survey of the verse between the Romantic and Symbolist periods. Credit Level: G. Credit Hrs: 4.00

15FREN741**Nineteenth-Century French Novel I**

19TH CENTURY FRENCH NOVEL Credit Level: G. Credit Hrs: 3.00-4.00

15FREN742**Nineteenth-Century Novel II**

A survey of major works from Balzac to Zola, Romantic-Realism to Naturalism, with emphasis on archetype, myth, and phenomenology. Given in French. Credit Level: G. Credit Hrs: 4.00

15FREN743**Nineteenth-Century Lyric Poetry**

4 gr. cr. Credit Level: G. Credit Hrs: 4.00

15FREN744**Nineteenth-Century Short Story**

4 gr. cr. Credit Level: G. Credit Hrs: 4.00

15FREN749**Nineteenth-Century Theater**

4 gr. cr. Credit Level: G. Credit Hrs: 4.00

15FREN750**Nineteenth-Century Short Story**

Study of generative theory, narrative technique, and period style in selected short prose. Credit Level: G. Credit Hrs: 4.00

15FREN752**Twentieth-Century Avant-Garde Theatre**

A survey of modern theatre in France (Jarry, Apollinaire, Camus, Tardieu, Ionesco, Beckett and Genet). The break with traditional humanism through the absurd, existential anguish, and the deconstruction of language and material reality. Credit Level: G. Credit Hrs: 4.00

15FREN753**Twentieth-Century Poetry**

4 gr. cr. Credit Level: G. Credit Hrs: 4.00

15FREN754**Modern French Poetry: Baudelaire to 1950s**

The course will contain poems from 1850 to 1950. This century will see the waning of Romanticism as Baudelaire brings poetry to the modern world. We see Rimbaud's fractured verse, symbolism, and Valéry's synthesis. Movements in the 20th century are surrealism and personalism. Some critical work the 20th century are surrealism and personalism. about poetry will also be used. Texts: Brooms and Chesters, Appreciation of Modern Poetry, Anthology of Modern French

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French**15FREN754****Modern French Poetry: Baudelaire to 1950s**

Poetry. Credit Level: G. Credit Hrs: 4.00

15FREN755**INTRODUCTION TO FRANCOPHONE LITERATURE**

A survey of works by leading Francophone writers, focusing on African, Islamic, and French cultural contexts. Credit Level: G. Credit Hrs: 4.00

15FREN756**Traditions to Modernity in Francophone Literature**

A study of gender roles and communal spaces in the Francophone literature of sub-Saharan Africa. Credit Level: G. Credit Hrs: 4.00

15FREN757**Apollinaire and l'Esprit Nouveau**

Apollinaire studied in his role as poet-impresario in a synthesis of the arts just before World War I. Given in French. Credit Level: G. Credit Hrs: 4.00

15FREN758**Georges Perec**

An introduction to Perec's experiments and explorations as the relation between gaming and reality in select writings. Credit Level: G. Credit Hrs: 4.00

15FREN759**French Caribbean Literature: Les Antilles**

A graduate survey of contemporary francophone literature of the Antilles emphasizing women authors and creole identity. Given in French. Open to seniors. Credit Level: G. Credit Hrs: 4.00

15FREN760**Short Fict by Women**

SHORTFICT BY WOMEN Credit Level: G. Credit Hrs: 4.00

15FREN763**The History of French Literature**

An introduction to research skills and electronic resources through an analysis of the organizing concepts in French literature. Credit Level: G. Credit Hrs: 4.00

15FREN768**French Literary History**

A survey of the major literary movements, genres, and themes in French literature from the Middle Ages to modern times, covering poetry, drama, and narrative. Credit Level: G. Credit Hrs: 4.00

15FREN769**Introduction to Modern French Culture**

Survey of cultural studies from a feminist perspective - major museums, Impressionism and Cubism, consumer culture, women's magazines. Course packet. Given in French. Credit Level: G. Credit Hrs: 4.00

15FREN770**Introduction to French Civilization**

The theory of French civilization in its relation to the history of literature, research methods and teaching. Readings from historical works and literacy selections on Masters reading list. In French. Credit Level: G. Credit Hrs: 4.00

15FREN771**French Civilization I**

From Antiquity through the Renaissance. Conducted in French. Satisfies French Civilization requirement of candidates for MA degree in French Language and Civilization when followed by 772-3. Credit Level: G. Credit Hrs: 4.00

15FREN772**French Civilization II**

From the 17th century through the Revolution of 1848. Credit Level: G. Credit Hrs: 4.00

French**15FREN773****French Civilization III**

From the Second Empire to the present. Credit Level: G. Credit Hrs: 4.00

15FREN774**French Civilization Trnd.**

FRENCH CIV TRND Credit Level: G. Credit Hrs: 4.00

15FREN779**Professional Development and Pedagogy**

Learning how to conduct a job search and trends in pedagogy. Multi-media. Practical writing assignments and interview skills. Open to seniors and to teachers in Spanish, German, English. Credit Level: G. Credit Hrs: 4.00

15FREN780**Master's Thesis Research**

Credit according to the amount of work elected. Credit Level: G. Credit Hrs: 1.00-15.00

15FREN781**Lit Francophone**

LIT FRANCOPHONE Credit Level: G. Credit Hrs: 4.00

15FREN783**Special Topics in French Literature**

A special seminar devoted to a particular issue germane to French literature. Topics will vary. May be repeated for a total of 12.0 credits. Credit Level: G. Credit Hrs: 4.00

15FREN784**Speical Topics in Francophone Literature**

A special seminar devoted to a particular issue germane to French Francophone literature. Topics will vary. Credit Level: G. Credit Hrs: 4.00

15FREN785**French Culture: Films**

Contemporary French and Francophone cultures explored through the study of classics such as Hiroshima Mon Amour, La Bataille d'Alger, Au Revoir les Enfants, Hyenes, Conted'tiver. Credit Level: G. Credit Hrs: 3.00-4.00

15FREN786**African Feminisms**

An investigation of the various forms of Feminism in Francophone African Literature. Taught in French Credit Level: G. Credit Hrs: 4.00

15FREN787**Litterature du Maghreb: Seminaire**

This seminar is focused on the analysis of novels, short stories and essays by six major North- African writers: Albert Memmi, Frantz Fanon, Assia Djebar, Driss Chraïbi, Tahar Ben Jelloun and Abdelkebir Khatibi. Special areas of concentration will include the (mis)use and innovations these internationally-acclaimed creative writers have introduced into the representation of colonialism and the post-colonial era; the relationship between the various narrators and their real or implied readers. We will also explore the treatment of recurring themes and issues such as the complexity of the relationships between the North African and the European protagonists, the complexity of the relationships between the North African and the European protagonists, the educated and less-educated, the successful and those merely surviving. Credit Level: G. Credit Hrs: 4.00

15FREN789**Caribbean Literature**

An investigation of the varieties of contemporary Caribbean Literature. Written in both French and Spanish. Course taught in English Credit Level: G. Credit Hrs: 4.00

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French**15FREN790****Racine et la Critique**

An in-depth study of Racine's plays. We will especially locate and examine recurrent patterns, issues and metaphors, using Mauron's, Goldmann's and Barthes's approaches. We will analyze whether and how we can speak of Racine's subjective voice. Credit Level: G. Credit Hrs: 4.00

15FREN791**Lettres Volées**

An investigation of the motif of the Stolen Letter and its implications in French literature. Perm of Instructor. Credit Level: G. Credit Hrs: 4.00

15FREN799**Discours Amoureux**

An investigation of the discourse on love and its implications in French literature. Perm of Instructor. Credit Level: G. Credit Hrs: 4.00

15FREN800**Translation Workshop**

A workshop devoted to translating one text or the work of one author from French to English. Perm of Instructor. Credit Level: G. Credit Hrs: 4.00

15FREN805**Reading Old French**

Intensive practice in Old French. Credit Level: G. Credit Hrs: 4.00

15FREN806**Topics: Satire in Medieval France**

A survey of diverse forms of satire -- contes, fables, farces, satires with emphasis on the Roman de la rose and Villon's Testament. Modern French versions of all texts. Given in French. Credit Level: G. Credit Hrs: 4.00

15FREN807**Topics in Medieval Literature**

Topics in medieval literature. Credit Level: G. Credit Hrs: 4.00

15FREN809**Med Romance**

Med. romance. Credit Level: G. Credit Hrs: 4.00

15FREN826**Les Moralistes**

LES MORALISTES Credit Level: G. Credit Hrs: 4.00

15FREN830**18th Century Novel I**

18TH-CENT NOVEL I Credit Level: G. Credit Hrs: 4.00

15FREN835**The Philosophes of Eighteenth-Century France**

This course treats literary works by the French philosophes. Readings will include selections from Voltaire, Montesquieu, Diderot and Rousseau, and will be in French. Credit Level: G. Credit Hrs: 4.00

15FREN844**Parnassian Poetry**

Study and research on the poetry of Gautier, de Lisle and Heredia. Requirements include a weekly commentary, an oral presentation and a final paper. Given in French. Credit Level: G. Credit Hrs: 4.00

15FREN846**Seminar: Sand**

4 gr. cr. Credit Level: G. Credit Hrs: 4.00

15FREN849**Orientalism and Exchange in 19th Century French Literature**

This course will look at images of the Orient in 19th century French literature from aesthetic, political and commercial perspectives. Readings (in French) will include works by Loti, Bataille and Goux. Credit Level: G. Credit Hrs: 4.00

French**15FREN853****Seminar: Baudelaire**

The course is offered in French for PhD and MA graduate students. It requires a close textual analysis of the poems in Les Fleurs du Mal, a weekly critique, and a final research paper. Credit Level: G. Credit Hrs: 4.00

15FREN855**Seminar: Flaubert**

Study and research of major novels of Flaubert. Requirements to include weekly commentaries, an oral presentation and a final paper. Given in French for M.A. and Ph.D. students. Credit Level: G. Credit Hrs: 4.00

15FREN857**Topics in 20th Century French Literature**

This seminar selects from a variety of schools or issues with 20th century French literature, such as "Surrealism" or "Critical Currents." Conducted in French Credit Level: G. Credit Hrs: 4.00

15FREN863**Baudelaire**

Seminar on Baudelaire's Les Fleurs du Mal with emphasis on Textual Analysis using the approaches of psychology and philosophy. Weekly critiques an oral presentation, and a final paper. Given in French Credit Level: G. Credit Hrs: 4.00

15FREN870**Qu'est-ce que la Francophonie?**

The complex and multifaceted aspects of Francophonie. Through various readings of texts by African, Caribbean and Canadian francophone writers, an examination of the historical, institutional, literary and philosophical impact of Francophonie. Credit Level: G. Credit Hrs: 4.00

15FREN871**Canadian Francophone Literature**

A seminar in the francophone literature of Canada with attention to both historical and contemporary issues. Perm of Instructor. Credit Level: G. Credit Hrs: 4.00

15FREN872**Africa Today**

An introduction to the current state of Contemporary Africa including political, geographical, economic and cultural perspectives with special attention to arts and letters. Credit Level: G. Credit Hrs: 4.00

15FREN873**African Cultural Studies**

A focussed study of a variety of aspects of African cultural life including music, dance, theatre, film poetry and narrative. Credit Level: G. Credit Hrs: 4.00

15FREN893**Gender in French Literature**

Explains how certain literary texts challenge gender, literary and social notions of the time. This is a repeatable course that will focus on different periods during different quarters. Credit Level: G. Credit Hrs: 4.00-16.00

15FREN894**Gender Francophonie**

Explains how certain literary texts challenge gender, literary and social notions of the time. This is a repeatable course that will focus on different periods during different quarters. Credit Level: G. Credit Hrs: 4.00-16.00

15FREN895**Poetics and Politics in French Literature**

A seminar in the interaction, interference and influence of poetics and politics in French literature. Credit Level: G. Credit Hrs: 4.00-8.00

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French**15FREN896****Poetics and Politics in Francophone Literature**

A seminar in the interaction, interference and influence of poetics and politics in Francophone literature. Credit Level: G. Credit Hrs: 4.00-8.00

15FREN897**Reading French for Graduate Students I**

A sequence of three courses designed to prepare graduate students to read technical/professional materials in French. Credit Level: G. Credit Hrs: 4.00

15FREN898**Reading French for Graduate Students II**

A sequence of three courses designed to prepare graduate students to read technical/professional materials in French. Prereq: 15FREN897. Credit Level: G. Credit Hrs: 4.00

15FREN899**Reading French for Graduate Students III**

A sequence of three courses designed to prepare graduate students to read technical/professional materials in French. Prereq: 15FREN897, 15FREN898. Credit Level: G. Credit Hrs: 4.00

15FREN900**Graduate Teaching Internship in French**

The Graduate Teaching Internship offers doctoral students an opportunity to teach French majors in upper level courses under the careful supervision of a faculty mentor. Credit Level: G. Credit Hrs: 4.00

15FREN901**Graduate Teaching Internship in French**

The Graduate Teaching Internship offers doctoral students an opportunity to teach French majors in upper level courses under the careful supervision of a faculty mentor. Credit Level: G. Credit Hrs: 4.00

15FREN902**Graduate Teaching Internship in French**

The Graduate Teaching Internship offers doctoral students an opportunity to teach French majors in upper level courses under the careful supervision of a faculty mentor. Credit Level: G. Credit Hrs: 4.00

15FREN906**Independent Study**

Previous written approval of instructor and graduate adviser. Offered ea. qtr. Credit Level: G. Credit Hrs: 1.00-4.00

15FREN907**Independent Study**

See 15-012-906. Credit Level: G. Credit Hrs: 1.00-4.00

15FREN908**Independent Study**

See 15-012-906. Credit Level: G. Credit Hrs: 1.00-4.00

15FREN910**Seminar: Medieval Literature**

An in-depth study of a major work or author, such as Chr tien de Troyes, Christine de Pizan, or Le roman de la rose. Credit Level: G. Credit Hrs: 4.00

15FREN919**Professional Development**

PROF DEVELOPMENT Credit Level: G. Credit Hrs: 4.00

15FREN926**Montaigne Seminar**

A close reading of Montaigne's Essays in the context of the French Renaissance, the religious wars of the sixteenth century, humanism, and autobiographical literature. Given in French. Requirements: an oral presentation and a final paper. Credit Level: G. Credit Hrs: 4.00

15FREN927**Seminar: Rabelais**

Analysis of major selections within the context of humanism using eclectic methodology. In French. Credit Level: G. Credit Hrs: 4.00

French**15FREN927****Seminar: Rabelais**

Analysis of major selections within the context of humanism using eclectic methodology. In French. Credit Level: G. Credit Hrs: 4.00

15FREN942**Seminar: Voltaire**

Seminar: Voltaire Credit Level: G. Credit Hrs: 4.00

15FREN947**Special Topics in 18th Century**

This course will focus on Oderot's novel, Jacques le fataliste. Credit Level: G. Credit Hrs: 4.00

15FREN960**20th-Century French Novel**

Post-colonial, post-cold war Albert Camus. A seminar conducted in French on selected texts will reevaluate his work to address the problem of "cultural imperialism." Credit Level: G. Credit Hrs: 4.00

15FREN970**Seminar: French Culture/Civilization**

4 gr. cr. Credit Level: G. Credit Hrs: 4.00

15FREN971**Graduate Research**

Cr. according to the amount of work elected. Credit Level: G. Credit Hrs: 1.00-15.00

15FREN980**Doctoral Dissertation Research**

Cr. according to the amount of work elected. Credit Level: G. Credit Hrs: 1.00-18.00

Freshman Seminar**15FSEM101****Freshman Seminar: Introduction to Neuroscience: How The Brain Works**

Seminar/laboratory demonstration course introducing freshman to contemporary neuroscience. Team-taught by faculty of the Neuroscience Graduate Program. Topics include neuron structure and physiology, major brain systems, and an introduction survey of clinical, developmental, molecular, sensory, and behavioral neuroscience. Opportunities for continuing undergraduate research will be emphasized. BoK: NS. Credit Level: U. Credit Hrs: 3.00

15FSEM102**Religion and the Modern World**

A team-taught course which will develop knowledge of world religions and the academic study of religion, focusing on how religion relates to an understanding of world events today. Topics may include the US elections, teaching evolution, the Middle East, feminism, fundamentalism, anti-war activism, and the pro-life movement. BoK: DC., SE. Credit Level: U. Credit Hrs: 3.00

15FSEM103**Horror Films: Scholarship and Spectatorship**

Viewing of, and scholarship on, popular horror films to address questions such as: What pleasure do we take in seeing terror and carnage on screen? How do male and female viewers identify with victims and killers in these films? What is the social meaning of horror films? How might they express in altered forms, wider cultural anxieties and traumatic histories? BoK: HU. Credit Level: U. Credit Hrs: 3.00

15FSEM104**German Culture**

This course meets three hours a week with German 172(15-GRMN-172 001), which is open to students at all levels. A fourth hour is open only to first year students and is part of the first year experience. The course thus combines lectures and seminar-style discussions. This course offers an introduction to German and Austrian culture from the dawn of modernity to WWII. Readings from history, literature, and art. The fourth hour will be devoted to detailed discussions of specific literary

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Freshman Seminar**15FSEM104****German Culture**

and historical works, with an emphasis on how to approach different genres. BoK: DC., HP. Credit Level: U. Credit Hrs: 1.00-4.00

15FSEM105**Introduction to Film Studies**

This course meets three hours a week with German 189 (15-GRMN-189 001), which is open to students at all levels. A fourth hour is open only to first year students and is part of the first year experience. The course thus combines lectures and seminar-style discussions. This course offers an introduction to methods and issues of film studies. It introduces student to the techniques of film analysis, covering the social, cultural, economic, technological and aesthetic issues associated with motion pictures. It also introduces students to film history, focusing on important films and major film movements from 1895 to the present. The fourth hour will be devoted to detailed discussions of specific films and works of film theory. BoK: HU. Credit Level: U. Credit Hrs: 1.00-4.00

15FSEM106**Moving On: The High School in Film, Fiction, and the Search for Young Adult Identity**

This seminar will focus on the transition from adolescence to young adulthood and on the role the American education's social structure plays in that shift. Content will be composed primarily of literature and films that depict peer's families', teachers and the media's roles in identity formation. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15FSEM107**The Aggression Riddle**

Interdisciplinary seminar exploring the issues surrounding male/female aggression; the extent to which culture and biology shape aggressive behaviors; the differing ways in which the sciences and humanities depict aggressive behavior. Includes readings from science and social science as well as analysis of characters and themes in selected films and fiction. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15FSEM108**Thinking Through Photography**

How do photographs convey meaning? How do photographic images help to shape our sense of ourselves and others, the past and the world we live in? How does photography relate to writing? These questions are explored through consideration of photographers' work and through readings that range from the historical to the literary, the theoretical to the autobiographical. Students respond to this material as writers, researchers and producers or compilers of photographic images, ultimately creating photo-essays that engage ideas and issues raised over the quarter. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15FSEM109**Seeing Art Through Writing**

Examines how writers have theorized the act of seeing visual art, including but not limited to painting, sculpture, photography, video, and installation; how viewing art allows us to see that which is ordinarily not seen as art -- that is, the everyday world around us -- in different, thought-provoking ways; how critical and theoretical writings on art change the way we see artworks. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15FSEM110**Children's Literature and Film**

Traces the history of children's literature and film alongside the history of concepts of childhood from the Grimms' first collection of fairy tales in early 19th century to recent novels by J.K. Rowling and Lemony Snicket. Concentrates on classics of children's literature and discusses them alongside modern adaptations of these stories to illustrate how concepts of children's literature and concepts of childhood have interacted over the centuries. The central questions that the course addresses include: how does literature attempt to mold children into adults? How have conceptions of childhood changed over time and how have they differed among cultures? What is the status of children's

Freshman Seminar**15FSEM110****Children's Literature and Film**

literature and of ideas of childhood today? BoK: HU. Credit Level: U. Credit Hrs: 3.00

15FSEM111**Reading Cincinnati: From Slavery Times to the New Millennium**

The Ohio River Basin registers historically as one of the most important locales for the Underground Railroad. As such, it provided the venue for the liberation of many slaves. Though the Queen City's recent history has been marked at least in part by racial misunderstanding an historical view, gleaned from literature, museums and sites of interest, no doubt offers a more comprehensive perspective. This seminar aims to offer a profound reading of Cincinnati and its neighboring towns with Harriet Beecher Stowe's "Uncle Tom's Cabin," Toni Morrison's "Beloved," and Ann Hagedorn's "Beyond the River." BoK: LT. Credit Level: U. Credit Hrs: 3.00

15FSEM112**Etiquette: Everyday application and historical perspective.**

This course will provide students with a comprehensive introduction to etiquette and the principles that are the foundation of successful societal interaction. Students will practice the application of basic etiquette skills (e.g. interacting with those around us, dining etiquette etc.) while simultaneously exploring perspectives regarding behavior. The goal is to furnish the student with the skills necessary to not only embark on a successful collegiate career but also represent themselves and the university well into the future. (meets the A&S Historical Perspective requirement) Will require no additional resources. Will apply to A&S behavioral/social science requirement. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15FSEM113**Beauty: Dissecting and Debating an Enigma**

Designed for males and females, this course will examine the ways in which physical beauty is depicted in representative literature and films. Students will use the works to analyze varying attitudes about its nature and significance and will explore and debate whether perceptions of beauty are subjective and culturally determined or objective and influenced by biology and evolution. This is a freshman seminar course. BoK: HU., SS. Credit Level: U. Credit Hrs: 3.00

15FSEM114**Complex Choices/Complex Lives: Moral Conflicts in Popular Literature and Film**

Students in this course will analyze popular novels/films in which characters are faced with ambiguous moral choices. As means of clarifying their own ethical standards, students will examine the reasoning and value systems underlying characters' decisions and will discuss and debate which they consider more principled. This is a freshman seminar course. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15FSEM115**Ethical Values in Consumer Culture**

Since 1961, when Daniel J. Boorstin warned of "a crime of deception being committed in America" on its citizenry through the proliferation of "pseudo events, celebrities, and images," an increasing number of scholars and cultural critics have warned that life in the US is becoming increasingly "unreal," as everything from news and politics to food and religion becomes a market-driven form of entertainment. Everything from our immediate surroundings to our sense of who we are to our understanding of public life and world events is shaped by advertisements and other market-driven, corporate-controlled and highly mediated forms of infotainment. According to many commentators, this has had a devastating impact on our freedom, our psyches, and the values by which we live our lives and operate in the world. This course will ask students to respond to the course material in both a critical and personal capacity, relating the issues it raises to life experiences and the environment around them. BoK: SS. Credit Level: U. Credit Hrs: 3.00

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Freshman Seminar**15FSEM116****The Mass Media and Presidential Politics**

Examines the constantly changing intersections between mass media and politics. Historical campaigns and elections will serve as parallels to understanding the events in the current election. BoK: SS., HP. Credit Level: U. Credit Hrs: 3.00

15FSEM150**Freshman Seminar: Exploring Time**

An exploration in seminar form of the perception, properties and philosophy of time, based on readings and wide-ranging class discussion. Subjects considered will include the ancestral (cyclic), biblical(linear), geologic(sequential or absolute and "deep"), historic(regular and predictable), technical(exact), relativistic (mutable in space), energetic(entropic), eternal (timeless), and theoretical(non-existent) aspects of time. BoK: HP., NS. Credit Level: U. Credit Hrs: 3.00

Geography**15GEOG101****Climatology: Introduction to Environmental Geography I**

For majors and non-majors; fulfills the Natural Science requirement when taken with Geog. 111, 112, 113, or with an elementary course in another science. Weather and climate: Elements of meteorology including temperature, precipitation, pressure cells, and air masses. Global climatic patterns, controls, and mechanisms of climate change examined. Transfer Module. BoK: NS, SE. Credit Level: U. Credit Hrs: 3.00

15GEOG102**Geomorphology: Introduction to Environmental Geography II**

Landforms: Processes of formation and their significance, studied through maps and diagrams. Transfer Module. BoK: NS, SE. Credit Level: U. Credit Hrs: 3.00

15GEOG103**Biogeography: Introduction to Environmental Geography III**

The environment: soil forming processes and plant geography, man's impact on the biosphere. Transfer Module. BoK: NS, SE. Credit Level: U. Credit Hrs: 3.00

15GEOG104**Introduction to Human Geography**

Uses population distribution to demonstrate how geography as a social science defines and answers questions. Transfer Module. BoK: SS, DC. Credit Level: U. Credit Hrs: 3.00

15GEOG104H**Human Geography Honors**

Honors version of 15-041-104. Transfer Module. BoK: SS, DC. Credit Level: U. Credit Hrs: 3.00

15GEOG105**Introduction to Human Geography**

Introduction to geographic models used to describe, explain, and interpret political and cultural diversity. Transfer Module. BoK: SS, DC. Credit Level: U. Credit Hrs: 3.00

15GEOG105H**Honors Human Geography**

Honors version of 15-GEOG 105 Transfer Module. BoK: SS, DC. Credit Level: U. Credit Hrs: 3.00

15GEOG106**Introduction to Human Geography**

Introduction to different geographic models used to describe, explain, and interpret economic and urban diversity. Not open to students who have had 30-041-105. BoK: SS., DC. Credit Level: U. Credit Hrs: 3.00

15GEOG106H**Honors Human Geography**

Honors version of 15-041-106. BoK: SS., DC. Credit Level: U. Credit Hrs: 3.00

Geography**15GEOG107****Geography of Climate Change**

This course provides a succinct, one term summary of the distribution, magnitude, causes, effects and solutions with a combination of lectures and on-line laboratories. BoK: NS., QR. Credit Level: U. Credit Hrs: 3.00

15GEOG111**Introduction to Environmental Geography Laboratory**

Fulfills the Natural Science requirement when taken with Geog. 101, 102, 103. Practical analysis of weather and climate using meteorological data and charts; to supplement the lecture course Geog. 101. One lab, one recitation per week. Coreq: 15GEOG101. Transfer Module. BoK: NS. Credit Level: U. Credit Hrs: 2.00

15GEOG111H**Introduction to Environmental Geography Honors Laboratory**

Honors version of 15GEOG111. Fulfills the Natural Science requirement when taken with GEOG 101,102,103. Practical analysis of weather and climate using meteorological data and charts; to supplement the lecture course GEOG 101. One lab, one recitation per week. Coreq: 15GEOG101H. Transfer Module. BoK: NS. Credit Level: U. Credit Hrs: 2.00

15GEOG112**Introduction to Environmental Geography Laboratory**

Fulfills the Natural Science requirement when taken with GEOG 101, 102, 103. Practical analysis of landforms, using maps, aerial photos, digital data and working models to supplement lecture course 102. One lab, one recitation per wk. The second offering in a three-part course sequence. Coreq: 15GEOG102. Transfer Module. BoK: NS. Credit Level: U. Credit Hrs: 2.00

15GEOG112H**Introduction to Environmental Geography Honors Laboratory**

Honors version of 15GEOG112. Fulfills the Natural Science requirement when taken with GEOG 101, 102, 103. Practical analysis of landforms, using maps, aerial photos, digital data and working models to supplement lecture course 102. One lab, one recitation per wk. The second offering in a three-part course sequence. Coreq: 15GEOG102. Transfer Module. BoK: NS. Credit Level: U. Credit Hrs: 2.00

15GEOG113**Introduction to Environmental Geography Laboratory**

Practical analysis of environmental problems, including field work and laboratory analyses, to supplement the lecture course Geog. 103. The third offering in a three-part course sequence. Coreq: 15GEOG103. Transfer Module. BoK: NS. Credit Level: U. Credit Hrs: 2.00

15GEOG113H**Introduction to Environmental Geography Honors Laboratory**

Honors version of 15GEOG113. Practical analysis of environmental problems, including field work and laboratory analyses, to supplement the lecture course Geog. 103. The third offering in a three-part course sequence. Coreq: 15GEOG103. Transfer Module. BoK: NS. Credit Level: U. Credit Hrs: 2.00

15GEOG120**Power of Place: World Geography as a Natural Science**

The Power of Place, a geography telecourse, examines the many geographic forces currently at work in shaping the complex features of the world's environments. The course introduces the student to geography by exploring the eleven regions of the world from the perspective of an international team of educational broadcasters and geographers. The course will incorporate case studies to help characterize individual regions. BoK: NS. Credit Level: U. Credit Hrs: 3.00

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Geography**15GEOG121****World Regional Geography I**

Geographic perspectives on the problems of the developing world. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15GEOG122**World Regional Geography II**

Geographic perspectives on the problems of the developed world. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15GEOG123**AMERICAS: NAFTA NATIONS**

An analysis of the major regions comprising North America, the NAFTA nations; the physical geography, population trends, economic and cultural aspects of the U.S., Canada, and Mexico. BoK: SS., DC. Credit Level: U. Credit Hrs: 3.00

15GEOG123H**World Regional Honors**

Honors section of 15-041-123. BoK: SS., DC. Credit Level: U. Credit Hrs: 3.00

15GEOG124**World Regional Geography: Europe**

The physical environment and cultural structure of the continent. Rise of the contemporary political economy of Europe. BoK: SS., DC. Credit Level: U. Credit Hrs: 3.00

15GEOG124H**Honors World Regional Geography: Europe**

Honors version of 15-041-124. BoK: SS., DC. Credit Level: U. Credit Hrs: 3.00

15GEOG125**World Regional Geography: Africa**

Overview of landscapes and societies of the second largest continent. Political and historical geography of the 20th century to understand regional patterns. BoK: SS., DC. Credit Level: U. Credit Hrs: 3.00

15GEOG125H**Honors World Regional Geography: Africa**

Honors version of 15-041-125. BoK: SS., DC. Credit Level: U. Credit Hrs: 3.00

15GEOG126**World Regional Geography: Asia**

Western and Asian definitions and perceptions used to describe and analyze problems of economic and social development in Asia. BoK: SS., DC. Credit Level: U. Credit Hrs: 3.00

15GEOG126H**Honors World Regional Geography: Asia**

Honors version of 15-041-126. BoK: SS., DC. Credit Level: U. Credit Hrs: 3.00

15GEOG130**Great Earth Debates**

Major contemporary philosophical and political debates concerning earth and man with emphasis on physical geography and environmental sciences. Specific topics and debates (e.g. global warming vs. climate change) varies according to current human and environmental issues and world events. BoK: NS., SE. Credit Level: U. Credit Hrs: 3.00

15GEOG150**Prin Human Geog**

Why people live where they do, in global context. Geographical perspectives on ecological, demographics and social questions. Population problems and solutions. BoK: SS., DC. Credit Level: U. Credit Hrs: 3.00

15GEOG151**Prin Human Geog**

Spatial perspectives on patterns of cultural, economic, political and urban diversity. BoK: SS., DC. Credit Level: U. Credit Hrs: 3.00

Geography**15GEOG171****Freshman Seminar: The Skeptical Environment**

A close and critical review of Lomborg's The Skeptical Environmentalist, a book that challenges much of the veracity behind "bad" environmental news. First the issues of logical fallacies and complete explanations will be followed by an analysis of the author's methods of data selection and evaluation and by popular and professional reviews of the book. Debate over who is a scientist and who has the right and responsibility to speak for science will be included. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15GEOG172**Supersized: Geographical Implications of Corporate Fast Food**

Uses Eric Schlosser's Fast Food Nation: The Dark Side Of The All-American Meal as a springboard to launch into a multi-disciplinary introduction to the study of globalization, corporate industrialization, suburbanization, migration, and politics. Restricted to Freshman. BoK: SE. Credit Level: U. Credit Hrs: 3.00

15GEOG173**Freshman Seminar: Legacies and Landscapes of the Yucatan**

This freshman seminar/field trip is structured to take students through "space and time" from 300 AD to contemporary times. The primary theme is changes in the landscape or the "sequence occupation" of the region. Students will meet once a week in preparation for the winter break field trip to the Yucatan. The trip will explore Mayan archaeological sites from Uxmal (300 AD), Ek Balam, to Chichen Itza (1100 AD). The Colonial era will be highlighted with tours through Merida (1545), Ixamal, a salt plant operational since the 1700s, and a hacienda. Contemporary changes of the region are viewed with visits to an ejido, a henequen plant, a US manufacturing plant and experiences with the pros and cons of tourism - a government planned resort on the Caribbean (Cancun). The physical-environmental geography of the region will be introduced with an opportunity to swim in a Karst cave, visit a large flamingo sanctuary, and hike through a community-initiated nature preserve in Quintana Roo. Students also have free time for self-exploration, an important component of the educational experience. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15GEOG174**Freshman Seminar: A Year Without "Made in China"**

Seminar will explore the impact of globalization on the United States at the personal and national levels by analyzing China-USA trade patterns and relations. Will use Sara Bongiorni's 2007 book A Year Without "Made in China". BoK: SS., SE. Credit Level: U. Credit Hrs: 3.00

15GEOG175**Freshman Seminar: Mapping Climate Change and its Solutions with GIS, Aircraft and Satellites**

Students will map the causes and solutions to global climate change with GIS software, aircraft and satellites. This course focuses on finding the best locations and methods to reduce global warming in a user-friendly, hands-on manner. BoK: NS., QR. Credit Level: U. Credit Hrs: 3.00

15GEOG201**Geography of the United States and Canada**

Topical and regional analysis of North America stressing current resource use, location patterns, population trends, development, and cultural regions. Offered alt. yrs. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15GEOG203**Greater Cincinnati and the Tri-State**

The changing face of the city, traced over two hundred years. What to preserve, what to demolish, where to rebuild, where to grow? BoK: SS., DC. Credit Level: U. Credit Hrs: 3.00

15GEOG203H**Greater Cincinnati and the Tri-State**

This course follows the changing face of the city, traced over two hundred years. It asks the questions: what to preserve? what to

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Geography**15GEOG203H****Greater Cincinnati and the Tri-State**

demolish, where to rebuild, where to grow? BoK: SS., DC. Credit Level: U. Credit Hrs: 3.00

15GEOG211**Geography of Latin America**

Regional analysis of Central and South America; Andean and Amazonian environmental barriers; tourism in the Caribbean. BoK: SS., DC. Credit Level: U. Credit Hrs: 3.00

15GEOG216**Geography of Europe**

Introduction to the geography of economic, political, cultural, and physical processes that shape Europe. Urban and regional change and roots of contemporary issues are emphasized. BoK: SS., DC. Credit Level: U. Credit Hrs: 3.00

15GEOG226**Geography of Africa**

Land and livelihood south of the Sahara. Problems of development in traditional societies and economies. BoK: SS., DC. Credit Level: U. Credit Hrs: 3.00

15GEOG231**Geography of the Middle East**

Regional conflicts over resources, religion, and international boundaries, from the Maghreb to Iran. BoK: SS., DC. Credit Level: U. Credit Hrs: 3.00

15GEOG236**Geography of Eastern and Southern Asia**

Impact of modernization process on regional balances, environment, and role of Asia in the world economic system. BoK: SS., DC. Credit Level: U. Credit Hrs: 3.00

15GEOG237**Geography of China**

A systematic analysis of the elements of landscape resources, and socioeconomic characteristics of the geography of China. BoK: SS., DC. Credit Level: U. Credit Hrs: 3.00

15GEOG241**Geography of Australia and Southwest Pacific**

What happens when mad dogs and Englishmen go out in the noonday sun. BoK: SS., DC. Credit Level: U. Credit Hrs: 3.00

15GEOG261**People and the Environment I**

Alternative approaches to an interdisciplinary study of the environment, including a consideration of world-population dynamics and human adaptation to the environment. BoK: NS., SE. Credit Level: U. Credit Hrs: 3.00

15GEOG262**People and the Environment II**

Alternative approaches to an interdisciplinary study of the environment, including a consideration of world hunger and the relationship of food production to the environment. BoK: NS., SE. Credit Level: U. Credit Hrs: 3.00

15GEOG263**People and the Environment III**

Alternative approaches to an interdisciplinary study of the environment, including a consideration of the role of energy in human history and in a contemporary social context, as well as of the issues of pollution and technology. BoK: NS., SE. Credit Level: U. Credit Hrs: 3.00

15GEOG271**Geography of Latin America**

Regional analysis of Central and South America; Andean and Amazonian environmental barriers; tourism in the Caribbean. Offered alt. yrs. BoK: SS., DC. Credit Level: U. Credit Hrs: 3.00

Geography**15GEOG301****Elements of Climatology**

Meteorology: physical principles, instrumentation and modeling. Global climatic patterns: quantification, impact of natural events and human activities on climate change. BoK: NS., SE. Credit Level: U. Credit Hrs: 3.00

15GEOG302**Climate and Landforms**

Influence of climate on landform genesis. Global patterns of energy and water related to weathering processes and rates, mass movement and denudation. Polygenetic landscapes. BoK: NS., SE. Credit Level: U. Credit Hrs: 3.00

15GEOG303**Environmental Geography**

The physical environment: the nature, distribution and circulation of energy and elements in the biosphere; quantitative analyses of the dynamic plant/animal-environment relationships; environmental degradation and assessment. BoK: NS., SE. Credit Level: U. Credit Hrs: 3.00

15GEOG311**Resource Conservation**

Are the earth's resources on the verge of exhaustion? Discussion of the sustainability of human society and the biosphere. Innovative avoidance of resource crises. BoK: NS., SE. Credit Level: U. Credit Hrs: 3.00

15GEOG322**Cities and Globalization I**

Evolution of cities and urban networks, and urban aspects of contemporary globalization. BoK: SS., DC. Credit Level: U. Credit Hrs: 3.00

15GEOG322H**Cities and Globalization I**

Evolution of cities and urban networks, and urban aspects of contemporary globalization. BoK: SS., DC. Credit Level: U. Credit Hrs: 3.00

15GEOG323**Urban Geography**

Exploration of theoretical concepts that underlie the designs, functions, and economics of cities. Essential background for urban planning and neighborhood change. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15GEOG323H**Urban Geography**

Exploration of theoretical concepts that underlie the designs, functions, and economics of cities. Essential background for urban planning and neighborhood change. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15GEOG326**Sustainable Cities**

A sustainable city can be theorized as containing positive interactions and outcomes between the interrelated social, economic, and physical environments. This course will examine these complex and unpredictable interactions and present an opportunity to understand the intensification of poverty, inequality, and environmental degradation witnessed in our cities today. BoK: SE., DC. Credit Level: U. Credit Hrs: 3.00

15GEOG332**Historical Geography of the United States**

The where, when, and why of early settlements, and migration. Why preserve historical buildings and districts. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15GEOG333**Political Geography**

Explores the role of geography in the formation of political parties, social movements, political identities, and other forms of political alliance. The importance of space and place in political processes operating at a variety of geographical scales--from the local to the

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Geography**15GEOG333****Political Geography**

global—is examined. BoK: SS., SE. Credit Level: U. Credit Hrs: 3.00

15GEOG333H**Political Geography**

Explores the role of geography in the formation of political parties, social movements, political identities, and other forms of political alliance. The importance of space and place in political processes operating at a variety of geographical scales—from the local to the global—is examined. BoK: SS., SE. Credit Level: U. Credit Hrs: 3.00

15GEOG335**Geography of Religion**

Distribution, diffusion, and territorial conflicts of the major world religions. BoK: SS., DC. Credit Level: U. Credit Hrs: 3.00

15GEOG341**Economic Geography: The Geography of Consumption**

Analysis of historical and contemporary national and international spatial variations in political economies, urban economics, economic development and production. Includes: material on production-consumption linkages, service industries, capital circulation, international trade, and social and cultural influences on consumer behavior. BoK: SE., SS. Credit Level: U. Credit Hrs: 3.00

15GEOG342**Economic Geography: Geography of Production**

Focuses on the geography of manufacturing and agriculture, with emphasis on models of production, location rationale, and contemporary changes in the developed and less developed world. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15GEOG343**Industrial Location**

The location decision process. How manufacturers can make better location decisions and areas can enhance industrial development. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15GEOG351**Recreation Geography**

Games people play around the world. How to locate and manage parks, resorts, wilderness areas, and sporting facilities. Where sports professionals are recruited. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15GEOG353**Political Geography: Geopolitics**

Examines on the international and cross-national perspectives of political geography. It deals with the political, economic, cultural, historical, and social aspects of international relations from a geographical perspective and examines societies in transition in the post Cold War and the post 9-11 worlds. BoK: DC., SS. Credit Level: U. Credit Hrs: 3.00

15GEOG353H**Political Geography: Geopolitics**

Examines the international and cross-national perspectives of political geography. It deals with the political, economic, cultural, historical, and social aspects of international relations from a geographical perspective and examines societies in transition in the post-Cold War and the post- 9-11 worlds. BoK: DC., SS. Credit Level: U. Credit Hrs: 3.00

15GEOG376**Environmental Remote Sensing and Geographic Information Systems**

Lecture will emphasize practical applications of remote sensing and GIS to the environment. Labs use state-of-the-art software and near- real-time and historic geospatial data sets. Priority given to Environmental Studies majors. BoK: NS. Credit Level: U. Credit Hrs: 3.00

Geography**15GEOG380****Computer Applications in Geography**

Overview of computers and geographic applications, DOS and UNIX operating systems, word processing, statistical analysis, computer mapping, basic computer programming, hands-on experience in system integration and operation. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15GEOG390**Map Reading and Interpretation**

Theory and practice of map reading and interpretation of maps of different types and scales. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15GEOG398H**Feeding China**

Honors Special Topics Course. BoK: DC., SE. Credit Level: U. Credit Hrs: 3.00

15GEOG499**Independent Study in Geography**

Please complete and submit an Independent Application Form available from the College Office. BoK: NA. Credit Level: U. Credit Hrs: 1.00-12.00

15GEOG500**Geography Capstone I**

First course in capstone sequence. Required of all seniors. Review of basic issues involved in geographic research, including problem identification, hypothesis testing, data collection and processing, use of quantitative techniques and graphics. BoK: NA. Credit Level: U. Credit Hrs: 2.00

15GEOG501**Problems in Geography**

Individual research projects requiring prior faculty approval. Cr. and hrs. to be arranged. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-15.00

15GEOG502**Problems in Geography**

Individual research projects requiring prior faculty approval. Cr. and hrs. to be arranged. The second offering in a three-part course sequence. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-15.00

15GEOG503**Problems in Geography**

Individual research projects requiring prior faculty approval. Cr. and hrs. to be arranged. The third offering in a three-part course sequence. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-15.00

15GEOG504**Individual Work in Physical Geography**

Directed applied research projects, requiring prior faculty approval, dealing with geographic topics related to Earth Science such as meteorology, earth resources, and human impact on climate and resources. Credit and time to be arranged. BoK: NA. Credit Level: U. Credit Hrs: 1.00-3.00

15GEOG505**Individual Work in Physical Geography**

Directed applied research projects, requiring prior faculty approval, dealing with geographic topics related to Earth Science such as meteorology, earth resources, and human impact on climate and resources. Credit and time to be arranged. BoK: NA. Credit Level: U. Credit Hrs: 1.00-3.00

15GEOG506**Individual Work in Physical Geography**

Directed applied research projects, requiring prior faculty approval, dealing with geographic topics related to Earth Science such as meteorology, earth resources, and human impact on climate and resources. Credit and time to be arranged. BoK: NA. Credit Level: U. Credit Hrs: 1.00-3.00

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Geography**15GEOG507****Geography Capstone: Fieldtrip**

Field trip to selected foreign areas requiring readings before departure and completion of a research paper using data collected while in the field. Prereq: 15GEOG500. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15GEOG508**Geography Capstone: Senior Thesis**

Supervised preparation of a research project incorporating use of models and techniques learned in fulfilling the theory and techniques, and systematic requirements of the major. Prereq: 15GEOG500. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15GEOG509**Geography Capstone: Readings in the History of Exploration**

Selected readings in the history of exploration. Prereq: 15GEOG500. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15GEOG510**Internship in Geography**

Applied geography employment experience. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

15GEOG511**Internship in Geography**

Applied geography employment experience. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

15GEOG512**Internship in Geography**

Applied geography employment experience. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

15GEOG513**Internship in Geography**

Applied geography employment experience. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

15GEOG514**Geographic Explorations-Readings**

Selected readings on significant geographic discoveries from Everest to Antarctica. BoK: DC., HP. Credit Level: U. Credit Hrs: 3.00

15GEOG521**Urban Development**

Examines the spatial evolution of the American urban system from the late 1700s to the present. Emphasis is placed on the changing spatial organization of economic activities and how developments in economic structure, transportation, and communications have affected urban areas. BoK: DC., SS. Credit Level: U, G. Credit Hrs: 3.00

15GEOG521H**Urban Development**

Examines the spatial evolution of the American urban system from the late 1700s to the present. Emphasis is placed on the changing spatial organization of economic activities and how developments in economic structure, transportation, and communications have affected urban areas. BoK: DC., SS. Credit Level: U. Credit Hrs: 3.00

15GEOG522**Urban Problems**

Examination of contemporary urban problems from a geographical perspective. Issues include gentrification and displacement, urban sprawl, metropolitan fragmentation, urban environmental concerns. BoK: SS., SE. Credit Level: U, G. Credit Hrs: 3.00

15GEOG522H**Urban Problems**

Examination of contemporary urban problems from a geographical perspective. Issues include gentrification and displacement, urban sprawl, metropolitan fragmentation, urban environmental concerns. BoK: SS., SE. Credit Level: U. Credit Hrs: 3.00

Geography**15GEOG523****Niehoff Urban Studio**

The "Niehoff Urban Studio" is a new university- wide interdisciplinary research course dedicated to addressing urban issues that challenge the quality of life in Cincinnati. Faculty teams representing various UC colleges will lead graduate students and advanced undergraduates in coursework resulting in applied research and design proposals. The content of the Studio is derived from the identification of pressing urban issues, academic program goals, and the interests of participating community partners. Perm of Instructor. BoK: SE, SS. Credit Level: U, G. Credit Hrs: 4.00

15GEOG524**Niehoff Urban Studio**

The "Niehoff Urban Studio" is a new university- wide interdisciplinary research course dedicated to addressing urban issues that challenge the quality of life in Cincinnati. Faculty teams representing various UC colleges will lead graduate students and advanced undergraduates in coursework resulting in applied research and design proposals. The content of the Studio is derived from the identification of pressing urban issues, academic program goals, and the interests of participating community partners. Perm of Instructor. BoK: SE, SS. Credit Level: U, G. Credit Hrs: 4.00

15GEOG525**Niehoff Urban Studio**

The "Niehoff Urban Studio" is a new university- wide interdisciplinary research course dedicated to addressing urban issues that challenge the quality of life in Cincinnati. Faculty teams representing various UC colleges will lead graduate students and advanced undergraduates in coursework resulting in applied research and design proposals. The content of the Studio is derived from the identification of pressing urban issues, academic program goals, and the interests of participating community partners. Perm of Instructor. BoK: SE, SS. Credit Level: U, G. Credit Hrs: 4.00

15GEOG526**Urban Sustainability**

The current urban system institutionalized by urban restructuring at the turn of the twenty- first century has significantly contributed to intensification of poverty, inequality, poor levels of community participation, and environmental degradation. This class examines the theoretical underpinnings and policy formation of, and responses to, the issues surrounding sustainable communities. BoK: SE., DC. Credit Level: U, G. Credit Hrs: 3.00-4.00

15GEOG541**Contemporary Issues in Economic Geography**

Examination of issues in contemporary economic geography; exploration of the spatial distribution of economic activity; survey of historical and theoretical perspectives, current areas of inquiry and research approaches in the subdiscipline. Prereq: 15GEOG341. BoK: SE, SS. Credit Level: U, G. Credit Hrs: 3.00

15GEOG544**Geography of Transportation**

Relationship between transportation and spatial organization; selected analytical models dealing with traffic demand, network configuration, and allocation of transport facilities; application to selected problems. BoK: QR., SS. Credit Level: U, G. Credit Hrs: 3.00

15GEOG550**Geography International Field Trips**

Guided field trips to foreign locations (Yucatan, Cuba, Belize, etc.) with lectures and field experience. BoK: DC., SS. Credit Level: U, G. Credit Hrs: 2.00-5.00

15GEOG551**Environmental and Geoarchaeological Field Methods - Belize**

A two-week field methods course focusing on the application of environmental and geoarchaeological techniques in the study of past human-environment interactions. The course is taught in the Programme for Belize conservation area. Perm of Instructor. BoK: NS,

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Geography**15GEOG551****Environmental and Geoarchaeological Field Methods - Belize**

HP. Credit Level: U, G. Credit Hrs: 3.00-6.00

15GEOG569**Seminar: Landscape Ecology**

This course consists of a series of lectures, labs, readings, and group discussions on the effects of landscape patterns on ecological processes. Special attention will be given to GIS and remote sensing techniques involved in quantifying landscape pattern. Lab exercises will focus on the use of landscape pattern metric software such as Patch Analyst 2.0 and Fragstats. BoK: NA. Credit Level: G, U. Credit Hrs: 3.00-4.00

15GEOG570**Soils**

Examination of the factors determining spatial variability in pedogenesis and development. Soil classification. Soils as a factor in human land use. Mandatory field trips. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

15GEOG571**Approaches to Past Landscapes**

Introduction to the methods of environmental and geo-archaeology using case studies from around the world with an emphasis on soil analysis. Local field trip. BoK: NS., SS. Credit Level: U, G. Credit Hrs: 3.00

15GEOG573**The Urban Habitat**

The city as a physical environment; urban environment problems and management. BoK: SS., SE. Credit Level: U, G. Credit Hrs: 3.00

15GEOG574**Principles of Computer Cartography**

Lecture emphasizes cartographic principles which are implemented in computer lab to produce maps using standard software packages. Map reading, projections, data entry, and graphic design. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

15GEOG576**Principles of Remote Sensing**

Basic physical principles of electromagnetic radiation; remote sensing systems; interpretation of aerial photographs, thermal and radar imagery; digital analysis of multispectral satellite data; remote sensing applications. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

15GEOG577**Analytical Computer Cartography**

Analysis of spatial data and production of computer-generated thematic maps using cartographic/GIS software packages. Includes data transformations, image processing, and accessing on-line cartographic data sources through WWW. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

15GEOG578**History and Philosophy of Geography**

Growth of geographic thought stressing contemporary problems. The theories and aims of the discipline. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

15GEOG579**Field Work and Research Methods**

How to formulate hypotheses, gather geographical data (through field samplings, laboratory analyses and testings), and analyze data with multivariate statistical methods. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

15GEOG580**Introduction to Geographic Information Systems**

Essential elements of a GIS; hardware requirements; GIS software; data acquisition; data structures; spatial databases; methods of data analysis and spatial modeling; applications of GIS to a variety of environmental and urban economic problems. GIS packages such as ArcView and Idrisi are used in the course. BoK: NA. Credit Level: U, G.

Geography**15GEOG580****Introduction to Geographic Information Systems**

Credit Hrs: 4.00

15GEOG581**GIS, Environmental Applications**

The examination of selected problems relating to the application of geographic information systems to environmental and land use problems (e.g., habitat modeling, resource management). Attention will be given to complex environmental modeling at local to regional scales using robust GIS. Prereq: 15GEOG580. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

15GEOG582**GIS, Urban-Economic Applications**

The examination of selected problems relating to the successful application of geographic information system technology to urban-economic areas (e.g., marketing, urban transportation, industrial location). Explicit attention will be given to the issues encountered in the creation of new GIS applications and databases. Prereq: 15GEOG580. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

15GEOG583**Intermediate Remote Sensing**

Digital image processing of remotely sensed data: radiometric and geometric correction, image enhancement, image classification and digital change detection. Integration of remote sensing and geographic information systems. Prereq: 15GEOG576. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

15GEOG585**Geographic Methods: Quantitative Techniques**

Introduction to statistical inference with emphasis on areal statistics and applications to geographic problems. Prereq: 15MATH147, 15MATH148, 15MATH149. BoK: SS, QR. Credit Level: U, G. Credit Hrs: 4.00

15GEOG586**Advanced Spatial Statistics**

Introduction to statistical inference with emphasis on areal statistics and applications to geographic problems. The second offering in a two-part course sequence. Prereq: 15GEOG585, 15GEOG580. BoK: SS, QR. Credit Level: U, G. Credit Hrs: 4.00

15GEOG588**Medical Geography**

Geographic perspectives on disease, death, and health care systems. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

15GEOG589**Urban Geography: Inner City**

City Gentrification. Economic, social, and political processes that lead to, and result from, the influx of people and investment into inner city neighborhoods are examined from a variety of theoretical perspectives. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

15GEOG590**Introduction to GPS (Global Positioning Systems)**

The technology and applications of Global Positioning Systems (GPS). How to use GPS units, input location-specific data, create field maps, and transfer data from GPS units to a geographic information system. BoK: NS. Credit Level: U, G. Credit Hrs: 4.00

15GEOG591**Internet Mapping and Web GIS**

This course is designed to introduce the basic structure and capabilities of Internet mapping, Server-based GIS, and Web GIS. Students will apply the skills of Internet Mapping through lab exercises to "real-world" Internet Mapping GIS application problems. Students are also expected to build web-based GIS applications. Prereq: 15GEOG581, 15GEOG582. BoK: QR, SS. Credit Level: U, G. Credit Hrs: 4.00

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Geography**15GEOG601****Field Projects**

Off-campus research field studies requiring prior faculty approval. Cr. and hrs. to be arranged. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-15.00

15GEOG602**Field Projects**

Off-campus research field studies requiring prior approval. Cr. and hrs. to be arranged. The second offering in a three-part course sequence. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-15.00

15GEOG603**Field Projects**

Off-campus research field studies requiring prior approval. Cr. and hrs. to be arranged. The third offering in a three-part course sequence. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-15.00

15GEOG683**Advanced Remote Sensing**

Current problems, issues, and research in satellite remote sensing of the environment. Includes issues of scale resolution and accuracy of satellite and ancillary data. Prereq: 15GEOG583. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

15GEOG693**Advanced GIS**

A research seminar in geographic information systems. Topics include GIS design methodologies, GIS macro language programming, and others which may vary from term to term. Students are expected to develop and carry out a small research project which will result in a professional paper and a computer presentation. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

15GEOG701**Geographic Research**

Advanced research projects, pursued individually in the library or laboratories, requiring prior faculty approval. Cr. and hrs. to be arranged. Credit Level: G. Credit Hrs: 1.00-15.00

15GEOG702**Geographic Research**

Advanced research projects, pursued individually in the library or laboratories, requiring prior faculty approval. Cr. and hrs. to be arranged. The second offering in a three-part course sequence. Credit Level: G. Credit Hrs: 1.00-15.00

15GEOG703**Geographic Research**

Advanced research projects, pursued individually in the library or laboratories; requiring prior faculty approval. Cr. and hrs. to be arranged. The third offering in a three-part course sequence. Credit Level: G. Credit Hrs: 1.00-15.00

15GEOG704**Staff Seminar**

Forum for discussing research papers by visiting speakers, faculty, and graduate students. Credit Level: G. Credit Hrs: 1.00

15GEOG705**Staff Seminar**

Forum for discussing research papers by visiting speakers, faculty, and graduate students. The second offering in a three-part course sequence. Credit Level: G. Credit Hrs: 1.00

15GEOG706**Staff Seminar**

Forum for discussing research papers by visiting speakers, faculty, and graduate students. The third offering in a three-part course sequence. Credit Level: G. Credit Hrs: 1.00

15GEOG711**Seminar: Latin America**

A geographic approach to the study of Latin America. Credit Level: G. Credit Hrs: 4.00

Geography**15GEOG711****Seminar: Latin America**

A geographic approach to the study of Latin America. Credit Level: G. Credit Hrs: 4.00

15GEOG715**Introduction to Graduate Geography**

A common first term for all incoming graduate students; orientation to the geographic research problems, data, and techniques. Credit Level: G. Credit Hrs: 4.00

15GEOG716**Geographic Theory and Literature**

Major current ideas in research areas of student choosing, as reflected in the professional literature of the last decade. Credit Level: G. Credit Hrs: 4.00

15GEOG720**Seminar: Europe**

A geographic approach to the study of Europe. Credit Level: G. Credit Hrs: 4.00

15GEOG726**Seminar: Africa**

A geographic approach to the study of Africa. Credit Level: G. Credit Hrs: 4.00

15GEOG730**Seminar: Regional Geography**

Delimiting regions, disparities in regional growth and development, selected country case studies. Credit Level: G. Credit Hrs: 4.00

15GEOG731**Geographical Perspectives on the Physical Environment**

Development of theory and methods in physical geography. Credit Level: G. Credit Hrs: 4.00

15GEOG735**Seminar: Middle East**

A geographic approach to the study of the Middle East. Credit Level: G. Credit Hrs: 4.00

15GEOG736**Seminar: Asia**

A geographic approach to the study of Asia. Credit Level: G. Credit Hrs: 4.00

15GEOG740**Professional Practice I: New Course Preparation**

Design and creation of new courses including syllabus, text selection, examinations, exercises, and use of Blackboard as a course management system. Review of University policies and procedures regarding student code of conduct, disability services, and grading. Credit Level: G. Credit Hrs: 1.00

15GEOG741**Professional Practice II: Paper and Article Preparation**

Covers the mechanics of preparing papers for presentation at professional meetings and/or submitting finished papers for review by academic journals. Credit Level: G. Credit Hrs: 1.00

15GEOG742**Professional Practice III: Grant Preparation**

The process of identifying appropriate grant sources, budget preparation, narrative writing, and effective grant administration. Credit Level: G. Credit Hrs: 1.00

15GEOG758**Gender, Geography, and Science**

Gender perspectives and feminist analyses in the social and natural sciences. The future of scientific thought in light of these new perspectives, with emphasis on physical geography, human geography, and environmental science. Credit Level: G. Credit Hrs: 4.00

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Geography**15GEOG769****Seminar: Landscape Ecology**

This course consists of a series of lectures, labs, readings, and group discussions on the effects of landscape patterns on ecological processes. Special attention will be given to GIS and remote sensing techniques involved in quantifying landscape pattern. Lab exercises will focus on the use of landscape pattern metric software such as Patch Analyst 2.0 and Fragstats. Credit Level: G. Credit Hrs: 4.00

15GEOG770**Seminar in Environmental Locational Geography**

Environmental legislation, and the Environmental Impact Statement (EIS) process. Credit Level: G. Credit Hrs: 4.00

15GEOG771**Seminar in Urban Geography**

Current research in urban morphogenesis and settlement geography; spatial perspectives on urban activity patterns; townscape analysis. Credit Level: G. Credit Hrs: 4.00

15GEOG772**Seminar in Political Geography**

Global, national, regional and local processes affecting electoral politics, economic development politics, and social movement mobilization are examined. The intersection of different-scaled processes at the urban level is emphasized. Credit Level: G. Credit Hrs: 4.00

15GEOG773**Seminar in Cultural Geography Theory**

Geographical theory and methods for the study of the interconnectedness of people and environment, including cultural ecology, environmental perception and natural hazards research. Credit Level: G. Credit Hrs: 3.00-9.00

15GEOG774**Seminar: Physical Geography**

Current research in surficial and atmospheric processes including climate, denudation, tectonic effects, and hydrology. Emphasis on human impact on process rates and location in the Holocene. Credit Level: G. Credit Hrs: 4.00

15GEOG775**Seminar: Economic Geography**

Examines local and global political and social contexts that shape economic processes. Topics from historical economic geography concern labor production, uneven development and capital accumulation. Current impacts on the sub discipline including comparative economic systems. Consumption, regulation and cultural economy are also addressed. Credit Level: G. Credit Hrs: 4.00

15GEOG778**Seminar in Geographic Development**

Economic development and modernization of traditional societies. Agricultural reform, water resources development, industrialization policies, and manufacturing location. Credit Level: G. Credit Hrs: 4.00

15GEOG780**Seminar: Geographical Social Theory**

Contemporary developments in social theory related to urban, economic, political, and cultural geography. Credit Level: G. Credit Hrs: 4.00

15GEOG781**Research Seminar: Population Geography**

Examination of demographic components of regional change. Credit Level: G. Credit Hrs: 4.00

15GEOG782**Seminar: Urban Population Change**

Seminar: Urban population change. Intra-urban residential location and related issues are analyzed from a variety of theoretical perspectives. Credit Level: G. Credit Hrs: 4.00

Geography**15GEOG784****Seminar in Location Theory**

Introduction to classic ideas in urban-economic-transportation geography and as reflected in the professional literature of the last decade; movement, networks, nodes, hierarchies, surfaces; spatial decision making, agricultural, industrial, retail. Credit Level: G. Credit Hrs: 4.00

15GEOG785**Seminar in Location Analysis**

Discussion of location models (the P-median, P-center, covering); model formulation and solution strategies. Credit Level: G. Credit Hrs: 4.00

15GEOG786**Seminar: Economic Geography**

Survey of 20th century economic geography including classic location models and the "new" economic geography Credit Level: G. Credit Hrs: 4.00

15GEOG788**Seminar in Manufacturing Geography**

Classical and contemporary approaches to the issues of industrial location and industrial restructuring. Credit Level: G. Credit Hrs: 4.00

15GEOG792**Geographic Methods: Research Models**

Application of mathematical methods to relationships indicated by geographic theory. Construction and use of multivariate spatial models. Credit Level: G. Credit Hrs: 4.00

15GEOG793**Seminar on Geographic Information Science**

Latest developments on the theory, methodology and application of geographic information science, including spatial modeling, spatial database, exploratory data analysis, geographic visualization, spatial-temporal simulation, crime analysis, location based service, system integration, etc. Prereq: 15GEOG581, 15GEOG582. Credit Level: G. Credit Hrs: 4.00

15GEOG797**Graduate Research Advanced Seminar**

Fundamentals of research design; preparation of thesis, dissertation, or grant proposals. Credit Level: G. Credit Hrs: 4.00

15GEOG815**Interdisciplinary Seminar: Frontiers of Urban Research**

See 15-041-814. Credit Level: G. Credit Hrs: 3.00

15GEOG871**Thesis Research**

Preparation of the MA thesis, contingent upon faculty approval of a thesis proposal. Credits vary with the research accomplished. Credit Level: G. Credit Hrs: 1.00-15.00

15GEOG971**Dissertation Research**

Preparation of the PhD dissertation, following completion of Comprehensive Examinations and faculty approval of a dissertation proposal. Credits may vary with the research accomplished. Credit Level: G. Credit Hrs: 1.00-15.00

Geology**15GEOL101****Physical Geology I: Solid Earth**

A survey of solid Earth geology, emphasizing the central role of geologic time and plate tectonics. The structure and composition of Earth's core, mantle, and crust, and the formation and occurrence of minerals and rocks are described. Links among heat flow, plate movement, magmatism, metamorphism and mountain building are emphasized. BoK: NS., QR. Credit Level: U. Credit Hrs: 3.00

Geology**15GEOL102****Physical Geology II : Earth's Surface**

A survey of the processes that take place on Earth's surface that shape our landscapes. Major interconnected geosystems are described, including the oceans, atmosphere, and hydrosphere (including groundwater, glaciers, and rivers). Understanding links among surface processes, landscape development, tectonics, and climate is a major theme of the course. BoK: NS., QR. Credit Level: U. Credit Hrs: 3.00

15GEOL103**Historical Geology: Evolution of the Earth**

A survey of the formation and evolution of the Earth. Emphasis is placed on understanding the fact of Earth's ancient age and understanding how the absolute ages of minerals and rocks can be determined. Major events in the evolution of the continents and oceans are described. The fossil record and the evolution of life on Earth are also described. BoK: NS. Credit Level: U. Credit Hrs: 3.00

15GEOL104**Environment Geology I**

Selected cities are studied in detail to illustrate the effects of geology on the human environment. BoK: NS. Credit Level: U. Credit Hrs: 3.00

15GEOL105**Environment Geology II**

A survey based on illustrated lectures and text reading of selected national parks whose main features include geologic phenomena, e.g., Mammoth Cave, Yellowstone, and Hawaii. BoK: NS. Credit Level: U. Credit Hrs: 3.00

15GEOL106**Environment Geology III**

The geological record is used to illustrate how we learn about the global system. With these insights we can assess the future impact of human activities on the globe and formulate possible strategies of society action. Global warming is one example, but the exact topic in any year may change to reflect current global environmental concerns. BoK: NS. Credit Level: U. Credit Hrs: 3.00

15GEOL107**Field Geology of Cincinnati**

This course will introduce students to field geology, the geologic environment of Cincinnati and basic earth science concepts. The course will involve a field project that will familiarize students with basic techniques used in the collection and analysis of geologic data. BoK: NS. Credit Level: U. Credit Hrs: 3.00

15GEOL108**Geologic Environment of Cincinnati**

Fossils, rocks and sediments of Cincinnati and their relationships to the city as a place to live. BoK: SE., NS. Credit Level: U. Credit Hrs: 3.00

15GEOL109**Geologic Environmental Hazards**

Hazards from geological materials and geological processes relevant to the tri-state area are described and assessed. Local hazards are examined on field trips, including landslide prevention and remediation sites. BoK: SE., NS. Credit Level: U. Credit Hrs: 3.00

15GEOL111**Geology Laboratory**

Laboratory and field work with maps, rocks, minerals and fossils. Transfer Module. BoK: NS. Credit Level: U. Credit Hrs: 3.00

15GEOL112**Geology Laboratory**

Laboratory and field work with maps, rocks, minerals and fossils. This is the second offering of a three-course sequence. Transfer Module. BoK: NS. Credit Level: U. Credit Hrs: 3.00

15GEOL113**Geology Laboratory**

Laboratory and field work with maps, rocks, minerals and fossils. This is

Geology**15GEOL113****Geology Laboratory**

the third offering of a three-course sequence. Transfer Module. BoK: NS. Credit Level: U. Credit Hrs: 3.00

15GEOL134**The Earth Revealed: Introduction to Geology**

Comprehensive telecourse study of the earth's physical processes and properties with emphasis on understanding the scientific theories behind geological principles. BoK: NS. Credit Level: U. Credit Hrs: 3.00

15GEOL136**Earth in Upheaval**

The study of catastrophic events in recent and past earth history; causal mechanisms; consequences upon the matrix of life. Planetary evolution and the future of man: scientific and mythical evidence for a cosmic connection. BoK: NS. Credit Level: U. Credit Hrs: 3.00

15GEOL153**The Biodiversity Crisis**

Seminar for freshmen only. It will consider: a) whether we are experiencing a mass extinction in the present day; b) the mechanisms that cause present-day extinction; c) the habitats and ecosystems most threatened by extinction. BoK: NS., HP. Credit Level: U. Credit Hrs: 3.00

15GEOL161**Oceanography-Planet Earth**

The evolution of planet earth, its oceans and atmosphere; marine organisms and their environments; the ocean as a record of past and future climate. Transfer Module. BoK: NS. Credit Level: U. Credit Hrs: 3.00

15GEOL162**Evolution of Life: Planet Earth**

Examination of patterns and processes in the history and life on Earth, and the way in which scientists make these determinations. Transfer Module. BoK: HP, NS. Credit Level: U. Credit Hrs: 3.00

15GEOL163**Planet Earth: Reefs**

Introduction to geology and biology of coral reefs and their ecology and distribution through space and time, and human impact on this unique and endangered marine environment. Transfer Module. BoK: NS. Credit Level: U. Credit Hrs: 3.00

15GEOL171**Earth History, Life History: Earth's Record of Deep Time. A Freshman Seminar.**

Field-based study of principles of sedimentary rocks and fossils centered on the landscape and bedrock geology of southwestern Ohio, northern and central Kentucky, and southern Indiana. Includes five all-day field trips. First-hand observations further develop concepts of Earth history. A Freshman Seminar. BoK: HP., NS. Credit Level: U. Credit Hrs: 3.00

15GEOL172**Hard Rocks, Tall Mountains: How the Earth Works. A Freshman Seminar.**

Lab-based study of minerals, igneous and metamorphic rocks with an emphasis on how crystalline rocks form in the context of plate tectonics. Analysis of the fact of the ancient age of minerals and rocks. Includes field trips to local geoscience labs to see analytical instruments. A Freshman Seminar. BoK: QR., NS. Credit Level: U. Credit Hrs: 3.00

15GEOL173**A Trip to an Active Plate Margin: Experiencing Applied Geology in the Field. A Freshman Seminar.**

Field-based study of environmental and applied geology and landscapes of an active plate margin. Topics to be covered include seismic, flood, volcanic, and landslide hazards, water resources and groundwater pollution. Students will do field projects based on first-hand observations. Prereq: 15GEOL172. BoK: NS, SE. Credit Level: U. Credit Hrs: 2.00

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Geology**15GEOL173****A Trip to an Active Plate Margin: Experiencing Applied Geology in the Field. A Freshman Seminar.**

Field-based study of environmental and applied geology and landscapes of an active plate margin. Topics to be covered include seismic, flood, volcanic, and landslide hazards, water resources and groundwater pollution. Students will do field projects based on first-hand observations. Prereq: 15GEOL172. BoK: NS, SE. Credit Level: U. Credit Hrs: 2.00

15GEOL174**Natural Hazards, Human Engineers: Environmental Earth Science. A Freshman Seminar.**

Study of interaction of humans with geologic environment including atmosphere, biosphere, lithosphere and hydrosphere. Introduction to climate change. Includes field trips to local site of landslides, hillside creep, floods and landfills. Students will present a selected case study. A Freshman Seminar. BoK: NS., SE. Credit Level: U. Credit Hrs: 3.00

15GEOL175**Advanced Trip Through Time: A Culminating Experience of Earth History in the Field**

Field-based advanced study of geological materials and processes used to reconstruct Earth history. First-hand observation of rocks, fossils, structures, landforms, the geologic record of orogeny and deep geological time. Field trip will serve as a synthesis of concepts in Earth history. A Freshman Seminar. BoK: HP., NS. Credit Level: U. Credit Hrs: 2.00

15GEOL201**Igneous and Metamorphic Petrology**

Course will explore the origin and evolution of igneous and metamorphic rocks in the context of plate tectonics. Topics will include the mineralogy, petrology, geochemistry, and tectonics settings of igneous and metamorphic rocks. Students will develop skills in mineral and rock identification, optical mineralogy, reading geologic maps, and will solve quantitative problems using a spreadsheet. BoK: NS. Credit Level: U. Credit Hrs: 4.00

15GEOL202**Mineralogy**

Principles of mineral chemistry, crystal structure mineral stability and occurrence in Earth environments, coupled with practical experience in the identification of 100 important rock-forming minerals using their diagnostic physical properties. Prereq: 15CHEM101. BoK: NS. Credit Level: U. Credit Hrs: 4.00

15GEOL203**Geomorphic Processes**

Survey of the mechanics of the subaerial processes shaping Earth's surface with an emphasis on fluvial, weathering, mass-wasting, and soil-forming processes. Review of extant geomorphic processes and the formation of observed landforms. The course starts with a quantitative assessment of the significance of rare catastrophic events in shaping landscapes. Laboratories use online data resources and GIS (very basic GIS training is provided at the beginning of the course). BoK: NS., QR. Credit Level: U. Credit Hrs: 4.00

15GEOL204**Introduction to Structural Geology**

Stress, strain and rock behavior are discussed. Joints, faults, folds, and cleavage are described and analyzed. Structural laboratory exercises train the students in usage of the Brunton compass and the application of various techniques in solving structural geology problems in field/lab. BoK: NS. Credit Level: U. Credit Hrs: 4.00

15GEOL205**Paleontology and Sedimentary**

Intro to the sedimentary and fossil record; survey of fossil-forming organisms, concepts of evolution fossil preservation, and paleoecology, as well as principles of sedimentary geology are discussed. Application of fossils, trace fossils, and sedimentology, interpreting ancient environments, environmental change, geologic time will be emphasized.

Geology**15GEOL205****Paleontology and Sedimentary**

BoK: NS. Credit Level: U. Credit Hrs: 4.00

15GEOL206**Earth System History**

Concepts of stratigraphy, geochronology, tectonics and mountain-building applied to interpretation of the evolution of the Earth and its life; survey of the events of geologic history of North America and the Earth with an emphasis on the dynamic interactions of the lithosphere, hydrosphere, atmosphere, and biosphere. BoK: NS., HP. Credit Level: U. Credit Hrs: 4.00

15GEOL207**Earth Surface Processes**

Field-based studies to identify, describe, analyze weathering, transport and deposition of surface materials; geochemistry of soils and ground water; studies of Cincinnati-area glacial and Holocene deposits and landforms. Introduction to geochronology and the stratigraphic record of the Quaternary, including climate change. Course is intended as a project-based capstone to the core series. BoK: NS. Credit Level: U. Credit Hrs: 5.00

15GEOL208**Earth History Field Trip**

Week-long field excursion to examine and interpret aspects of earth and life history. Will examine evidence for ancient environments, sea-level, and climate changes, orogenesis (mountain building), paleoecology and evolution. Notebook required. Trip will be held in various locations. BoK: NS. Credit Level: U. Credit Hrs: 2.00

15GEOL213**Earth science I for CECH students**

Major topics in earth science, including minerals, rocks, plate tectonics, volcanoes, earthquakes, weathering, mass wasting, geological time, earth's history, weather and the solar system. Formerly 15GEOL513 BoK: NS. Credit Level: U. Credit Hrs: 3.00

15GEOL214**Earth Science Lab I for CECH students**

Exercises on major topics in Earth Science including minerals and rocks, volcanoes and earthquakes, the solar system, weather, Earth's history and maps. Formerly 15GEOL514 Coreq: 15GEOL213. BoK: NS. Credit Level: U. Credit Hrs: 2.00

15GEOL215**Earth Science II for CECH students**

Detailed information on topics in earth science, including rocks, plate tectonics, mountain building and geological hazards. Formerly 15GEOL515 Prereq: 15GEOL213. BoK: NS. Credit Level: U. Credit Hrs: 3.00

15GEOL216**Earth Science Lab II for CECH students**

Exercises on topics in Earth Science, including rocks, plate tectonics, mountain building, and geologic hazards. Formerly 15GEOL516 Coreq: 15GEOL215. BoK: NS. Credit Level: U. Credit Hrs: 2.00

15GEOL351**Age of Dinosaurs**

An exploration of the life, ancient habitats, and extinction of dinosaurs and their kin, as revealed by recent discoveries and research in geology and paleontology. BoK: NS. Credit Level: U. Credit Hrs: 3.00

15GEOL353**Gems and Precious Stones**

An introductory survey of the physical and visual properties, occurrences and origins of natural and synthetic gem stones and certain decorative rocks; gem identification and economics. BoK: NS. Credit Level: U. Credit Hrs: 3.00

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Geology**15GEOL361****Environmental Volcanology**

Volcanic hazards, volcanic gases, effect of volcanoes on the weather, biological activity around submarine volcanoes, mass extinctions and volcanoes, volcanic risks and rewards, prediction of eruptions. BoK: NS. Credit Level: U. Credit Hrs: 3.00

15GEOL362**Geology of the Tri-State**

Geology of the Cincinnati area for teachers, engineers, and architects. BoK: NS. Credit Level: U. Credit Hrs: 3.00

15GEOL374**Geology for Engineers and Architects**

Physical geology pertinent to engineering and design. BoK: NS. Credit Level: U. Credit Hrs: 4.00

15GEOL399**Global Climate Change - Future Greenhouse or Ice Age?**

This course will examine operation of global climate system, records of past and present climate change, and prospects for future change as a function of natural anthropogenic influences on climate. BoK: SE. Credit Level: U. Credit Hrs: 3.00

15GEOL399H**Global Climate Change - Future Greenhouse or Ice Age?**

A study of the global climate system, including the records of past and present climate change and the prospects for future change as a function of natural and anthropogenic influences on climate. BoK: SE. Credit Level: U. Credit Hrs: 3.00

15GEOL487**Individual Work in Geology**

Credit depends on amount of work done. May be entered any quarter. BoK: NA. Credit Level: U. Credit Hrs: 1.00-15.00

15GEOL488**Individual Work in Geology**

See 15-040-487. BoK: NA. Credit Level: U. Credit Hrs: 1.00-15.00

15GEOL489**Individual Work in Geology**

See 15-040-487. BoK: NA. Credit Level: U. Credit Hrs: 1.00-15.00

15GEOL499**Independent Study in Geology**

Please complete and submit an Independent Application Form available from the College Office. BoK: NA. Credit Level: U. Credit Hrs: 1.00-12.00

15GEOL500**Geology Field Camp**

Outdoor mapping, measuring, description of earth materials and processes; unraveling earth history. Can serve as a Geology Major's capstone experience. Hosted by another college/university. BoK: NS. Credit Level: U, G. Credit Hrs: 1.00-15.00

15GEOL501**Petrology and Geochemistry of Igneous Rocks**

This course deals with classification and thin section study of igneous rocks. Geochemistry of source region of magmas, their transport mechanisms and differentiation is analyzed using the MELTS software. Prereq: 15GEOL101, 15GEOL111, 15GEOL201. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

15GEOL502**Elementary Petrology: Sedimentary Petrology**

Hand specimen and thin section study of sedimentary rocks. Petrogenesis of sedimentary rocks. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

15GEOL503**Tectonic Environments and Crystalline Rocks**

Description of crystalline rocks in the context of plate tectonics and

Geology**15GEOL503****Tectonic Environments and Crystalline Rocks**

analysis of thermal and tectonic processes recorded by them. Emphasis on integrating mineralogic, petrologic, structural, geochronologic data to understand formation, uplift and exhumation of mountain belts. Prereq: 15GEOL101, 15GEOL111, 15GEOL201. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

15GEOL504**Geomorphic Processes**

Examination of the mechanics of geomorphic processes shaping the earth's surface. Prereq: 15GEOL101. BoK: NS. Credit Level: U, G. Credit Hrs: 4.00

15GEOL508**Volcanoes and Planetary Interiors**

How to study volcanoes to learn about the interior of planetary bodies. Application to Earth, Moon and Mars. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

15GEOL512**Guide to Graduate Research**

Seminar on scientific method and on current research. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

15GEOL521**Paleontology**

Fundamental concepts; paleobiology and the geologic occurrence and significance of fossil organisms. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

15GEOL522**Paleontology**

Fundamental concepts; paleobiology and the geologic occurrence and significance of fossil organisms. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

15GEOL523**Vertebrate Paleontology and Evolution**

Overview of fossil record and evolutionary history of Subphylum Vertebrata from jawless fish to mammals. Uses vertebrate examples to illustrate concepts of systematics, paleoecology, taphonomy, and evolution. Emphasizes key ecological- evolutionary challenges and functional morphology. Prereq: 15GEOL205, 15GEOL206. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

15GEOL524**Museum Curatorial Internship**

At the Cincinnati Museum of Natural History students learn procedures for proper collections, care, and the duties of a curator, including organization of a collection, preparation and identification of specimens and utilizing electronic databases for cataloguing. Grading is on pass/fail basis. BoK: NA. Credit Level: G, U. Credit Hrs: 2.00

15GEOL525**Global Biodiversity Through Time**

This course presents an overview of research on the history of global biodiversity, including quantitative evaluation of diversity through time, and possible links between diversity and physical transitions to the earth, especially during major diversity increases and mass extinctions. BoK: HP., NS. Credit Level: U, G. Credit Hrs: 3.00

15GEOL526**Advanced Geology and Biology of Coral Reefs**

This course provides an overview of geologic and biologic processes in living coral reef ecosystems, environmental problems occurring in reefs, and a survey of the evolutionary history of reefs through geologic time. BoK: NS. Credit Level: G, U. Credit Hrs: 4.00

15GEOL527**Petrology Seminar**

In this course, students will apply their skills in mineralogy and petrology to the solution of topical research problems using a variety of practical analytical approaches. Individual hands-on laboratory work, including

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Geology**15GEOL527****Petrology Seminar**

petrographic study of igneous and metamorphic rocks, manipulation of major element, trace element, and isotope data, and computer-assisted modeling, will be emphasized. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

15GEOL531**Stratigraphy and Sedimentation**

Physical and biological processes, environmental interpretation, facies analysis, stratigraphic analysis, basin analysis, and tectonics. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

15GEOL532**Stratigraphy and Sedimentation**

Physical and biological processes, environmental interpretation, facies analysis, stratigraphic analysis, and tectonics. The second offering of a two-course sequence. Prereq: 15GEOL531. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

15GEOL544**Geology of Ore Deposits**

GEOLOGY OF ORE DEPO BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

15GEOL551**Groundwater Geology**

Introduction to fundamental properties and characteristics of major aquifer/aquiclude systems and fluids contained therein, techniques of classifying these systems, and applied environmental geology problems in groundwater resources. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

15GEOL552**Groundwater Geology Modeling**

Case studies of groundwater occurrence and flow in glacial materials, desert basins, and other geologic terrains. Other topics of concern to engineering geologists. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

15GEOL553**Well-Head Protection**

Use of groundwater flow modeling and geochemical modeling in the development of strategies for delineation of well-head protection areas. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

15GEOL554**Geochemistry of Natural Waters**

Principles of geochemistry applied to surface and ground water. Emphasis on computer models of speciation. Applications to problems of groundwater contamination. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

15GEOL555**Organic Compounds of Natural Waters**

Organic chemistry applied to natural environments. Emphasizes hydrocarbons and chlorinated compounds in surface and ground waters. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

15GEOL572**Quaternary Geochronology**

The main principles, techniques and applicability of dating methods used in Quaternary Geology, Archaeology, Pedology and Biogeography. Lectures are followed by lab and field experience in newly developing dating techniques Prereq: 15GEOL201, 15GEOL206. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

15GEOL573**Glacial Field Methods**

Two-week field trip in late summer or early fall to study glacial features and deposits in a wide range of settings outside the Cincinnati area. Class meetings and report in autumn quarter. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

Geology**15GEOL574****Glacial Geology**

Glacial geologic processes, their products, results, and effects; focus on southwestern Ohio. Extensive field trips. BoK: NS. Credit Level: U, G. Credit Hrs: 2.00-5.00

15GEOL575**Glacial Field Methods**

Two-week field trip in late summer or early fall to study glacial features and deposits in a wide range of settings outside the Ohio Area. Class meetings and report in Autumn Quarter. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

15GEOL576**Advanced Geology Field Trip**

A two-week field excursion during September. Conferences and report in Autumn Quarter. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

15GEOL582**Organic Compounds in Natural Waters**

Organic chemistry applied to natural environments. Includes natural hydrocarbons and chlorinated compounds in surface and ground waters. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

15GEOL589**Fluid Dynamics of Geological Processes**

An analysis of the fluid dynamics occurring in geological processes such as magmas, magma chambers, and volcanism. Prereq: 15CHEM103, 15PHYS103, 15MATH227. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

15GEOL590**Geology of the Himalaya: Field and Research Methods**

Geologic processes that are currently shaping the Himalaya will be examined to provide a foundation for studying active and ancient mountain belts. Attention given to field training and investigating structural geology, petrology, stratigraphy and geomorphology while undertaking our traverse. Prereq: 15GEOL102, 15GEOL103, 15GEOL112, 15GEOL113. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

15GEOL601**Environmental Geology of Aquifer Systems**

The goals of this course are: to introduce students to the fundamental properties and characteristics of major aquifer/aquiclude systems and the fluids (gases) contained therein; to learn the techniques of studying and classifying aquifer/aquiclude systems; and to solve applied environmental geology problems in groundwater resources and subsurface contamination. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

15GEOL603**Geochemistry of Natural Waters**

Principles of geochemistry applied to surface and groundwater. Emphasis on equilibrium models of speciation, with some attention to kinetic models. Applications to problems of groundwater contamination. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

15GEOL604**Carbonate Depositional Environments**

Survey of sediments, depositional processes, and biota of modern and ancient carbonate environments including tidal flats, lagoons, reefs, and basins. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

15GEOL611**Stable Isotope Systematics**

Isotopic theory and application to geologic problems including geothermometry, paleoclimate, and stratigraphy, secular variation in stable isotopes through time, and geochemical mass fluxes. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

15GEOL628**Solution Geochemistry**

Principles of solution chemistry as applied to sedimentary, hydrothermal and solid state processes. The second offering in a two-part course

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Geology**15GEOL628****Solution Geochemistry**

sequence. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

15GEOL631**Clay Mineralogy**

Structural mineralogy, X-ray identification, and geologic characteristics of the major groups of clay minerals. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

15GEOL632**Clay Mineralogy**

Seminar on current topics in clay mineralogy. Prereq: 15GEOL631. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

15GEOL648**Thermodynamics in Geological Processes**

Principles of equilibrium and non-equilibrium thermodynamics and their applications to mineral-fluid equilibria at low and high temperatures and pressures. Specific geological examples and their solutions using thermodynamics are covered to develop a working knowledge of thermodynamics. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

15GEOL683**Metamorphism and Deformation**

Analysis of the tectono-thermal evolution of crystal rocks exposed in the internal parts of mountain chains. Topics include development of microstructures and rock fabrics, connections between tectonics and the evolution of mineral assemblages, geochronology, and regional geology of mountain belts. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

15GEOL685**Seminar -- Petrology**

Critical reading of current research papers, hands-on use of microcomputer software, and discussion of current research of participants, topics to be covered include fluid-rock interactions, diffusion, kinetics, thermobarometry, and mechanisms of mineral growth and reaction. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

15GEOL686**Seminar: Petrology**

Seminar on current topics in igneous and metamorphic petrology. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

15GEOL687**Seminar: Petrology**

Seminar on current topics in igneous and metamorphic petrology. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

15GEOL693**Modern Concepts in Oceanography**

Water masses, surface and thermohaline circulation, oceanic-atmospheric interactions, productivity and marine life, deep-sea sediments and geological implications. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

15GEOL694**Paleoceanography**

Lecture and seminar approach. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

15GEOL695**Ancient Marine Environments**

Characterization of parameters of modern and ancient marine environments, physical, chemical, and sedimentological, and tools for their interpretation from the geological record; field based studies examine aspects of one or more ancient environments. Prereq: 15GEOL205, 15GEOL206. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

15GEOL696**Paleoautecology**

Relationships between fossil organisms and their physical and biotic environments at the level of species and populations; taphonomic

Geology**15GEOL696****Paleoautecology**

(preservational) potential of species and populations. Prereq: 15GEOL695. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

15GEOL697**Community and Evolutionary Paleoeecology**

Review of the theoretical underpinning and methodology important in the study of communities in the fossil record. The importance of paleoecology to macro evolutionary patterns and processes is also explored. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

15GEOL698**Quantitative Methods in Paleobiology**

A "hands-on" course on the use of numerical methods as they apply in paleobiological analyses including multivariate techniques, models of diversification, and bootstrapping. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

15GEOL699**Geology Colloquium**

Required of all graduate students majoring in geology. Restricted to Geology students only. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00

15GEOL705**Geology of the Mid-Continent**

Department Fall field trip. Credit Level: G. Credit Hrs: 1.00

15GEOL712**Paleoceanography -- Paleoclimatology**

Description not available. Credit Level: G. Credit Hrs: 3.00

15GEOL713**Paleoclimatology Seminar**

Continental and Marine Quaternary Chronostratigraphy; problems of dating techniques; correlation of Quaternary events, marine record, and possible correlation to continental events. Credit Level: G. Credit Hrs: 3.00

15GEOL714**Paleoclimatology Seminar**

Geologic Climatic Record and Forcing Mechanism; integrated view of global climatic patterns throughout geologic time and understanding of forcing mechanisms. Credit Level: G. Credit Hrs: 3.00

15GEOL751**Glacial Processes Seminar**

Examination of field and theoretical bases for various glacial processes. An understanding of the physical and chemical processes associated with glaciers has increased considerably in the past few years. Glacial flow is the best understood of these but the mechanics of erosion and deposition are still unresolved. Course provides theoretical basis for interpretation of field relationships. Prereq: 15GEOL575. Credit Level: G. Credit Hrs: 3.00

15GEOL763**Advanced Metamorphic Petrology**

Advanced study of the origin and evolution of metamorphic rocks with emphasis on metamorphic processes and detailed petrography. Field trip. May be taken concurrently with Geol. 503. Credit Level: G. Credit Hrs: 3.00

15GEOL776**Seminar in Sedimentology of Stratigraphic Systems: Seismic and Sequence Stratigraphy**

Concepts of sequence stratigraphy based on analysis of exploration seismic records. Credit Level: G. Credit Hrs: 3.00

15GEOL780**Methods of Geological Instruction**

Offered ea. qtr. Credit Level: G. Credit Hrs: 1.00-12.00

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Geology**15GEOL821****Paleontology Seminar**

A graduate seminar dealing with many facets of paleontology; principles, organisms, methods. Credit Level: G. Credit Hrs: 3.00

15GEOL822**Paleontology Seminar**

A graduate seminar dealing with many facets of paleontology; principles, organisms, methods. The second offering in a three-part course sequence. Credit Level: G. Credit Hrs: 3.00

15GEOL823**Paleontology Seminar**

A graduate seminar dealing with many facets of paleontology; principles, organisms, methods. The third offering in a three-part course sequence. Credit Level: G. Credit Hrs: 3.00

15GEOL861**Basaltic Volcanism**

Petrology and geochemistry of basaltic rocks at mid-ocean ridges, ocean islands, and continents. Credit Level: G. Credit Hrs: 3.00

15GEOL862**Silicic Volcanic Systems**

Geology and geochemistry of rhyolitic volcanoes. Mechanics and fluid dynamics of magmatic systems, transport of magma and explosive eruption of felsic magma. Prereq.: Geol. 501. Credit Level: G. Credit Hrs: 3.00

15GEOL863**Subduction Zone Volcanism**

Geology and geophysics of subduction zone volcanoes. Major, minor, trace element and isotope systematics of subduction zone volcanic rocks. Modeling of magmatic processes. Credit Level: G. Credit Hrs: 3.00

15GEOL881**Research -- Special Problems in Geology**

Offered ea. qtr. Credit Level: G. Credit Hrs: 1.00-15.00

15GEOL893**Master's Thesis Research**

Offered ea. qtr. Credit Level: G. Credit Hrs: 1.00-15.00

15GEOL971**Doctoral Dissertation Research**

Offered ea. qtr. Credit Level: G. Credit Hrs: 1.00-15.00

Greek**15GRK101****Elementary Greek**

Introduction to Attic grammar and the reading of simple prose. The first in a three-part course sequence. BoK: HU., DC. Credit Level: U. Credit Hrs: 5.00

15GRK102**Elementary Greek**

Introduction to Attic grammar and the reading of simple prose. The second in a three-part course sequence. Prereq: 15GRK101. BoK: HU, DC. Credit Level: U. Credit Hrs: 5.00

15GRK103**Elementary Greek**

Introduction to Attic grammar and the reading of simple prose. The third in a three-part course sequence. Prereq: 15GRK102. BoK: HU, DC. Credit Level: U. Credit Hrs: 5.00

15GRK301**Attic Prose**

Intensive review of basic Attic grammar combined with readings from selected dialogues of Plato. BoK: HU. Credit Level: U. Credit Hrs: 3.00

Greek**15GRK302****Greek Epic, Homer: Iliad**

Contact department. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15GRK303**Greek History: Herodotus**

Contact department. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15GRK305**Homer: Odyssey**

Contact department. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15GRK306**Xenophon**

Contact department. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15GRK401**Greek Plato**

Contact department. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15GRK402**Advanced Greek Epic, Homer: Iliad**

Contact department. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15GRK403**Advanced Greek History: Herodotus**

Contact department. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15GRK405**Homer: Odyssey**

Contact department. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15GRK406**Advanced Tragedy: Xenophon**

Contact department. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15GRK471**Special Topics, Greek**

A special topic is chosen by a student with the approval of an advisor as the subject of study in the capstone experience. BoK: HU. Credit Level: U. Credit Hrs: 1.00-15.00

15GRK540**Linear B**

Linear B is the most ancient form of Greek, written on Late Bronze Age clay tablets found at Pylos, Knossos, Mycenae, Thebes, Tiryns, etc. It is very important as a background for the study of Homeric Greek and for Greek linguistics. BoK: HP. Credit Level: G, U. Credit Hrs: 4.00

15GRK571**Elegiac Lyric**

Readings in the principal Greek lyric and elegiac poets, including Archilochus, Alcman, Solon, Sappho, Alcaeus, Theognis, and Simonides. All readings in the original Greek. BoK: LT. Credit Level: U, G. Credit Hrs: 3.00-4.00

15GRK573**Greek Thucydides**

Close study of Thucydides' History of the Peloponnesian War. All readings in the original Greek. BoK: LT. Credit Level: U, G. Credit Hrs: 3.00-4.00

15GRK577**History of Greek Prose**

Readings in the early witness to the development of Greek literary prose, up to and including the Attic orators. All readings in the original Greek. BoK: LT. Credit Level: U, G. Credit Hrs: 3.00-4.00

15GRK581**Sophocles**

Close study of two plays of the tragic poet Sophocles. All readings in the Greek original. BoK: LT. Credit Level: U, G. Credit Hrs: 3.00-4.00

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Greek**15GRK583****Euripides**

Close study of two plays of the comic poet Euripides. All readings in the Greek original. BoK: LT. Credit Level: U, G. Credit Hrs: 3.00-4.00

15GRK584**Aristophanes**

Close study of two plays of the comic poet Aristophanes. All readings in the Greek original. BoK: LT. Credit Level: U, G. Credit Hrs: 3.00-4.00

15GRK585**Greek Epic Poetry**

Readings in epic hexameter literature, selected from the Homeric poems, Homeric Hymns, Hesiod, and later epics. All readings in the Greek original. BoK: LT. Credit Level: U, G. Credit Hrs: 3.00-4.00

15GRK586**Hellenistic Poetry**

Select readings in Hellenistic poetry, including Callimachus, Theocritus, and Appollonius, with attention to the innovations of the era in genre, style, and theme. BoK: LT. Credit Level: U, G. Credit Hrs: 3.00-4.00

15GRK587**Philosophical Prose**

Readings in early Greek philosophical prose, such as Plato and/or other Socratic writers. All readings in the Greek original. Perm of Instructor. BoK: LT. Credit Level: U, G. Credit Hrs: 3.00-4.00

15GRK601**Special Readings in Greek**

Contact department. BoK: HU. Credit Level: U, G. Credit Hrs: 3.00-4.00

15GRK602**Special Readings in Greek**

Contact department. BoK: HU. Credit Level: U, G. Credit Hrs: 3.00-4.00

15GRK603**Special Readings in Greek**

Contact department. BoK: HU. Credit Level: G, U. Credit Hrs: 3.00-4.00

15GRK701**Latin-Greek Grammar**

Contact department. Credit Level: G. Credit Hrs: 4.00

15GRK850**Greek Dialects**

Readings in Greek dialects emphasizing literary dialects with a view toward Linear B. Credit Level: G. Credit Hrs: 4.00

15GRK870**Greek Historical Sources**

A study of the major sources and problems in Greek history with emphasis on the epigraphic and papyrological evidence. Credit Level: G. Credit Hrs: 4.00

15GRK871**Master's Thesis Research**

Offered ea. qtr. Credit Level: G. Credit Hrs: 1.00-15.00

15GRK892**Topics in Greek Literature**

Contact department. Credit Level: G. Credit Hrs: 4.00

15GRK895**Ecphrasis**

Analysis of Greek ecphrasis (texts that ask the audience to visualize a work of art) from Homer to Philostratus. Credit Level: G. Credit Hrs: 4.00

15GRK921**Greek Literary Papyri**

Introduction to the Greek literary papyri, with detailed examination of selected topics, requiring good facility in ancient Greek and its literature. Credit Level: G. Credit Hrs: 4.00

Greek**15GRK921****Greek Literary Papyri**

Introduction to the Greek literary papyri, with detailed examination of selected topics, requiring good facility in ancient Greek and its literature. Credit Level: G. Credit Hrs: 4.00

15GRK922**Seminar: Hesiod**

Study of the text and scholarship of Hesiod's poetry. Credit Level: G. Credit Hrs: 4.00

15GRK923**Theocritus**

A study of the poetry of Theocritus with particular regard to the formation of the pastoral genre and the connections between Theocritus' pastoral poems and other Idylls. Credit Level: G. Credit Hrs: 4.00

15GRK925**Greek Lyric Poetry**

Graduate Seminar: The new papyrus discoveries and new literary approaches to the Lyric Age of Greece. Credit Level: G. Credit Hrs: 4.00

15GRK927**Libraries in Greece and Rome**

Detailed examination of current topics in the study of ancient libraries and readers. Requires good facility in Greek and Latin. Credit Level: G. Credit Hrs: 4.00

15GRK930**Greek New Comedy**

Study of Menander plays and comic technique, with comparison to other Hellenistic performance forms. Credit Level: G. Credit Hrs: 4.00

15GRK931**Documentary Papyri From Alexandria**

Reading of contracts and letters surviving on papyri found in Alexandria and elsewhere in Egypt. Subjects in these documents range from debt to divorce among Alexandrian Jews and Christians. Credit Level: G. Credit Hrs: 4.00

15GRK933**Ancient Literary Criticism**

Readings and discussion of selections from Plato, Aristotle's, Poetics, Dionysius of Halicarnassus, "Longinus," and other works of literary criticism. Credit Level: G. Credit Hrs: 4.00

15GRK937**Sexuality in Greece and Rome**

This seminar examines the cultural construction of sexuality in ancient Greece and Rome. The emphasis is on hermeneutics: problems of interpretation, cultural poetics, their biases and ours. We will examine both literary and visual sources. Class meets with 15Clas937. Credit Level: G. Credit Hrs: 4.00

15GRK939**Seminar: Homeric Poems**

Scholarly research on the Homeric poems Credit Level: G. Credit Hrs: 4.00

15GRK941**Greek Epigraphy**

Introduction to ancient Greek texts preserved on stone. Students learn how to read the physical objects and their representations, how to record and publish the texts, and how to write documentary history. Focus is on site in the "classical" Greek world of 4th & 3rd century BC. Credit Level: G. Credit Hrs: 4.00

15GRK949**The Pre-Socratics**

Study of the fragments, queries, and doctrines of selected Pre-Socratic thinkers, in the context of their own times, the ancient traditions which preserved our evidence, and modern research. Credit Level: G. Credit Hrs: 4.00

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Greek**15GRK949****The Pre-Socratics**

Study of the fragments, queries, and doctrines of selected Pre-Socratic thinkers, in the context of their own times, the ancient traditions which preserved our evidence, and modern research. Credit Level: G. Credit Hrs: 4.00

15GRK950**Seminar: Plato**

Analysis of several Platonic dialogues with an emphasis on the intersection between philosophic and literary problems. Credit Level: G. Credit Hrs: 4.00

15GRK953**Seminar: Prometheus**

The controversy over Aeschylus' Prometheus will be used to explore the tragic genre as a whole; reading will involve the Prometheus as well as the Persians and one other non-Aeschylean play. Credit Level: G. Credit Hrs: 4.00

15GRK955**Aeschylus Seminar**

The seminar will involve the study of Aeschylus' drama Agamemnon. Topics to be discussed may include textual problems, the use of the chorus and lyric, management of actors' roles, dramatic structure, imagery, and stage presentation. Credit Level: G. Credit Hrs: 4.00

15GRK957**The Symposium and Symposium Literature**

Archaic and Classical poetry and its metasymphotic elements; archaeological material and visual evidence in Archaic and Classical Greece with a focus on the socio-cultural function of communal drinking. Credit Level: G. Credit Hrs: 4.00

15GRK971**Doctoral Dissertation Research**

Offered ea. qtr. Credit Level: G. Credit Hrs: 1.00-15.00

15GRK975**Greek Prose Composition**

Study of Attic prose style and practice in writing prose in various styles. Credit Level: G. Credit Hrs: 4.00

15GRK979**Seminar: Herodotus**

Emphasis will be on issues of historiography in Herodotus. Credit Level: G. Credit Hrs: 4.00

15GRK980**Apollonius**

Reading and advanced study of Apollonius' Argonautica. Credit Level: G. Credit Hrs: 4.00

15GRK985**Seminar: Greek Literature**

Contact department. Credit Level: G. Credit Hrs: 4.00

15GRK999**Directed Readings in Greek**

Offered ea. qtr. Credit Level: G. Credit Hrs: 1.00-15.00

German**15GRMN101****Basic German I****(former Accelerated****Elementary German I)**

Basic German language and culture. First quarter in the three-quarter sequence to fulfill A&S requirement. BoK: DC., HU. Credit Level: U. Credit Hrs: 5.00

15GRMN102**Basic German II****(former Accelerated****Elementary German II)**

Basic German language and culture. Second quarter in the 3-quarter

German**15GRMN102****Basic German II****(former Accelerated****Elementary German II)**

sequence that fulfills the A&S language requirement. Prereq: 15GRMN101. BoK: DC, HU. Credit Level: U. Credit Hrs: 5.00

15GRMN103**Basic German III****(former accelerated****Elementary German III)**

Basic German language and culture. Third quarter in the 3-quarter sequence that fulfills the A&S language requirement. Prereq: 15GRMN102. BoK: DC, HU. Credit Level: U. Credit Hrs: 5.00

15GRMN111**Extended Basic German 1****(former Elementary****German I)**

Basic German language and culture. First quarter in the extended 6-quarter sequence to fulfill the A&S language requirement. BoK: DC., HU. Credit Level: U. Credit Hrs: 3.00

15GRMN111H**Extended Basic German Honors**

Honors section of the 1st quarter in the extended basic German sequence. BoK: HU., DC. Credit Level: U. Credit Hrs: 3.00

15GRMN112**Extended Basic German 2****(formerly Elementary****German II)**

Basic German language and culture. Second quarter in the 6-quarter extended sequence that fulfills the A&S language requirement. Prereq: 15GRMN111. BoK: DC, HU. Credit Level: U. Credit Hrs: 3.00

15GRMN112H**Extended Basic German 2 Honors**

Honors section of the 2nd quarter in the extended basic German sequence. Prereq: 15GRMN111. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15GRMN113**Extended Basic German 3****(former Elementary****German III)**

Basic German language and culture. Third quarter in the extended 6-quarter sequence that fulfills the A&S language requirement. Prereq: 15GRMN112. BoK: DC, HU. Credit Level: U. Credit Hrs: 3.00

15GRMN113H**Extended Basic German 3 Honors**

Honors section of the 3rd quarter in the extended basic German sequence. Prereq: 15GRMN112. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15GRMN114**Extended Basic German 4****(former Intermediate****German I)**

Basic German language and culture. Fourth quarter in the extended 6-quarter sequence that fulfills the A&S language requirement. Prereq: 15GRMN113. BoK: DC, HU. Credit Level: U. Credit Hrs: 3.00

15GRMN114H**Extended Basic German 4 Honors**

Honors section of the 4th quarter in the extended basic German sequence. Prereq: 15GRMN113H. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15GRMN115**Extended Basic German 5****(former Intermediate****German II)**

Basic German language and culture. Fifth quarter in the extended 6-quarter sequence that fulfills the A&S language requirements. Prereq: 15GRMN114. BoK: DC, HU. Credit Level: U. Credit Hrs: 3.00

15GRMN115H**Extended Basic German 5 Honors**

Honors section of the 5th quarter in the extended basic German sequence. Prereq: 15GRMN114H. BoK: DC, HU. Credit Level: U. Credit

H=University Honors course.

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LT: Literature. NS: Natural Sciences. QR: Quantitative Reasoning. SE: Social & Ethical Issues. SS: Social Sciences.

German**15GRMN115H****Extended Basic German 5 Honors**

Hrs: 3.00

15GRMN116**Extended Basic German 6**

Basic German language and culture. Sixth quarter of the extended 6-quarter sequence that fulfills the A&S language requirement. Prereq: 15GRMN115. BoK: DC, HU. Credit Level: U. Credit Hrs: 3.00

15GRMN116H**Extended Basic German 6 Honors**

Honors section of the 6th quarter in the extended basic German sequence. Prereq: 15GRMN115H. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15GRMN117**Beginning German I**

First quarter in a 2 quarter sequence equivalent to 111, 112, and 113. BoK: DC., HU. Credit Level: U. Credit Hrs: 5.00

15GRMN118**Beginning German II**

Second Quarter in a 2-quarter sequence equivalent to 111, 112, 113. Prereq: 15GRMN117. BoK: DC, HU. Credit Level: U. Credit Hrs: 4.00

15GRMN119**Beginning German for E-Media Students**

Primarily online course with one on-campus meeting per week. Intensive introduction to German language and culture for E-Media students enrolled in the "Munich Summer curriculum" program. BoK: DC., HU. Credit Level: U. Credit Hrs: 3.00

15GRMN131**German American Experience**

This course is an introduction to German-American history, literature, and culture with particular reference to the Ohio Valley and the Greater Cincinnati area. Taught in English. Required for the German American Studies Certificate. BoK: HU., SS. Credit Level: U. Credit Hrs: 3.00

15GRMN132**Cincinnati and the German-American Experience**

An introduction to Cincinnati's German heritage, which examines German immigration, settlement, and life in the Greater Cincinnati area, from the 18th century to the present. In English BoK: HU., DC. Credit Level: U. Credit Hrs: 3.00

15GRMN161**Intensive German for International co-op program.**

Providing students with the fundamental knowledge of German to begin preparation for a five-month's co-op assignment in Germany. Emphasis is given to professional social issues, which provide an understanding of what students will experience living in Germany. BoK: HU., DC. Credit Level: U. Credit Hrs: 1.00-6.00

15GRMN171**Survey of German Culture I**

In English. The origin of German institutions, social structures, philosophical and religious thought through the Baroque. Transfer Module. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15GRMN171H**Honors German Culture**

An examination of the individual and collective contribution of Germany and the Germansto civilization. Transfer Module. BoK: HU, DC. Credit Level: U. Credit Hrs: 4.00

15GRMN172**Survey of German Culture II**

In English. German contributions to Western civilization from the Age of Enlightenment to 1918. Transfer Module. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

German**15GRMN172H****Survey of German Culture II Honors**

An examination of the individual and collective contributions of German and the Germans to civilization, from the courtly culture of Absolutism to Bismarck and the Second Reich. An Honors course, parallel to German 172. The second offering in a three-part course sequence. Prereq.: Honors; perm. of instr. Transfer Module. BoK: HU, DC. Credit Level: U. Credit Hrs: 4.00

15GRMN173**Survey of German Culture III**

In English. A cultural view of Germany from World War I to the present. Transfer Module. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15GRMN173H**Survey of German Culture III Honors**

An examination of the individual and collective contributions of Germany and the Germans to civilization, from 1900 to the present. An Honors course, parallel to German 173. The third offering in a three-part course sequence. Prereq.: Honors; perm. of instr. Transfer Module. BoK: HU, DC. Credit Level: U. Credit Hrs: 4.00

15GRMN174**Survey German Culture: Berlin**

Annual study tour to Berlin, Germany, in September to acquaint students with the history, culture & language. Length of trip - 10 days. BoK: HU. Credit Level: U. Credit Hrs: 1.00-6.00

15GRMN174H**Survey German Culture: Berlin**

A survey of the history of German culture from medieval times to the present as reflected in the art, architecture, and society of Berlin. The course consists of a ten-day fieldtrip to Berlin. Honors BoK: HU. Credit Level: U. Credit Hrs: 1.00-6.00

15GRMN185**Introduction to Film Studies**

Methods & issues of film studies: the techniques of film analysis, covering the social, cultural, economic, technological & aesthetic issues associated with motion pictures. Also introduces film history, focusing on important films and major film movements 1895 to present. BoK: HU., DC. Credit Level: U. Credit Hrs: 3.00

15GRMN201**Second Year German I**

Intermediate German language and culture. First quarter in a three-quarter sequence; continuation of the Basic German 5-hour course. BoK: DC., HU. Credit Level: U. Credit Hrs: 5.00

15GRMN202**Second Year German 2**

Intermediate German language and culture. Second quarter in a three-quarter sequence. Perm of Instructor. BoK: DC, HU. Credit Level: U. Credit Hrs: 5.00

15GRMN203**Second Year German 3**

Intermediate German language and culture. Third quarter in a three-quarter intensive sequence. Perm of Instructor. BoK: DC, HU. Credit Level: U. Credit Hrs: 5.00

15GRMN204**Munich Program: Intensive German Language and Culture**

A five week intensive language and culture course in Munich, Germany, for students who have completed at least one year of Basic German (or the equivalent). This course is the equivalent of an entire year of language study. In addition to expanding vocabulary, mastering advanced grammar techniques, and improving communication skills, students become well acquainted with Bavarian and German culture. Numerous excursions in Munich and beyond are an integral part of the course. Perm of Instructor. BoK: HU. Credit Level: U. Credit Hrs: 1.00-15.00

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German**15GRMN261****"The Cinema belongs to the City": Architecture, Film and Berlin.**

The course explores the cinematic and literary images of Berlin's architecture and the interaction of the city's inhabitants with their built environment. The course will analyze film aesthetics and narratives in regard to architecture. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15GRMN262**Nobel Laureates in German Literature**

Works by Paul Heyse, Gerhart Hauptmann, Thomas Mann, Hermann Hesse, Nelly Sachs, Heinrich Böll, Günter Grass, Franz Kafka, and Friedrich Dürrenmatt. Participants also have the opportunity to view the film versions of several of these works. No knowledge of German is required. BoK: LT. Credit Level: U. Credit Hrs: 3.00

15GRMN263**Germany Since the Fall of the Wall**

Examines the cultural production of post-Wende Germany as the basis for understanding the new, united Germany. Discussions will focus on literature, film, and other forms of cultural production. BoK: DC., SE. Credit Level: U. Credit Hrs: 3.00

15GRMN264**Berlin in the 1920's: Metropolis, Modernity, and Mass Culture**

This course will draw on films (Lang, Ruttmann, Pabst, Jutzi) architectural manifestos (Bauhaus), literature (Brecht, Döblin, Toller), sociology/ philosophy (Benjamin, Simmel), and investigates aspects of criminality in an attempt to understand Berlin in the 1920s. BoK: HU., DC. Credit Level: U. Credit Hrs: 3.00

15GRMN267**German Love and Conflict in the Middle Ages**

Selections from the German Middle Ages that speak to the ever-compelling topic of love and its ensuing conflicts. BoK: LT., DC. Credit Level: U. Credit Hrs: 3.00

15GRMN268**Multicultural Germany**

German literature as a striking reflection of the legacies of postwar and post-unification history, vibrant shifts in its ethnic populations, and artistic interest in understanding a changing society. All readings are in English. BoK: DC., LT. Credit Level: U. Credit Hrs: 3.00

15GRMN277**The Faust Myth in Germany**

Literature-in-translation course focusing on the 'Faust Book' (1587) and on Goethe's drama 'Faust' (1805). BoK: HU. Credit Level: U. Credit Hrs: 3.00

15GRMN280**German Fairy Tales: The Grimms and Beyond**

Examines representative tales such as "Snow White," "Sleeping Beauty," and "Hansel & Gretel", the oral tales collected and published by Jakob and Wilhelm Grimm, concentrating on the collecting methods & intentions of the Grimms and comparing some of the versions of specific tales since first publication BoK: LT. Credit Level: U. Credit Hrs: 3.00

15GRMN301**Introduction to German Studies**

Course covers a range of topics in German literature, culture, and film. It combines cultural analysis with advanced language instruction. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15GRMN302**Introduction to German Studies**

Continuation of 15GRMN301. Prereq: 15GRMN301. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15GRMN303**Introduction to German Studies**

This course is designed to introduce students to current events in German culture and society through study of the role of various media (incl. print media, radio, TV, online sources and film). Special attention

German**15GRMN303****Introduction to German Studies**

will be paid to differences in culture and media between the United States and Germany. The course serves two purposes: the students exposure to authentic German texts and media programs in order to (1) advance the students' active language skills and to (2) foster their cultural awareness. Successful completion of German 302 or comparable language proficiency is required. The course will be taught in German. Prereq: 15GRMN302. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15GRMN314**Jewish Women's Salons and Their Impact On Culture, Identity and Modernity**

This course will examine the significant role played by Jewish Women's Salons, as a radical liminal space where new trends were set in art, literature, music, theater, philosophy and politics, and as a frontier where a new, secular Jewish identity was negotiated. Through a close investigation of personal data, biographical material, familial arrangements, historical documents, and artistic representations of the salonieres, students will learn first hand about the changes in the Jewish-Gentile relationship, citizenship and gender from its usual site during during emancipation and up to the twentieth century. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15GRMN324**German for Business**

This course teaches students of German the fundamental communicative language and culture skills needed in today's business world. BoK: DC. Credit Level: U. Credit Hrs: 3.00

15GRMN325**German for Business II**

A continuation of German for Business 324, but may be taken separately. Offers students the opportunity to improve their reading comprehension and to share their opinions in open discussion. BoK: DC. Credit Level: U. Credit Hrs: 3.00

15GRMN361**Language and Cultural Immersion in Germany**

A three week intensive study and travel course in Munich, Germany, designed for undergraduate students who have completed the A&S language requirement. BoK: HU., DC. Credit Level: U. Credit Hrs: 6.00

15GRMN364**German Language and Culture I for International Co-op Program**

This course will continue building "survival language" skills. It will also provide an introduction to cross-cultural differences within the working world abroad; improve understanding of behaviors and social norms; prepare students to discuss educational and professional experience/goals, increase technical vocabulary and the ability to make professional presentations at work; improve phone and written communication skills, and provide an introduction to Germany's post war history and politics. Perm of Instructor. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15GRMN365**German Language and Culture II for International Co-op Program**

Continues building language skills and provides an understanding of Germany's political system and government structure; transportation system; arranging housing; cross-cultural differences concerning retail establishments, advertising and marketing. Perm of Instructor. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00-9.00

15GRMN387H**Focus Berlin**

Focus on Berlin, an honors seminar, will engage students in sixty critical years of historical and cultural change in Berlin. Experimental learning includes attendance at a conference and a trip to Berlin. BoK: HU. Credit Level: U. Credit Hrs: 3.00

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German**15GRMN396****Germanic Mythology**

An introduction to Germanic and Norse mythology from the Middle Ages to the most recent re-workings in literature and film. A major component of the course will focus on the use and abuse of Germanic mythology in the 20th century. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15GRMN401**Seminar in German Studies**

Advanced topics in German literature, film, and culture; advanced German language instructions. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15GRMN402**Seminar in German Studies**

Continuation of GRMN401. Prereq: 15GRMN401. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15GRMN403**Seminar in German Studies**

Continuation of GRMN402. Prereq: 15GRMN402. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15GRMN481**Honors Senior Thesis**

Contact department. BoK: NA. Credit Level: U. Credit Hrs: 1.00

15GRMN482**Honors Senior Thesis**

Contact department. BoK: NA. Credit Level: U. Credit Hrs: 1.00

15GRMN483**Honors Senior Thesis**

Contact department. BoK: NA. Credit Level: U. Credit Hrs: 1.00

15GRMN491**Senior Capstone**

Development and completion of senior capstone project. BoK: DC., HU. Credit Level: U. Credit Hrs: 3.00

15GRMN492**Senior Capstone**

Development and completion of senior capstone project. BoK: DC., HU. Credit Level: U. Credit Hrs: 3.00

15GRMN493**Senior Capstone**

Development and completion of senior capstone project. BoK: DC., HU. Credit Level: U. Credit Hrs: 3.00

15GRMN498**German Internship**

A learning opportunity external to the campus providing experience related to the major. Placement will be coordinated between the college and department, and department faculty will oversee internship activities. BoK: DC. Credit Level: U. Credit Hrs: 3.00

15GRMN499**Individual Projects**

Upon arrangement with Dept. Head. Hrs. to be arranged. BoK: NA. Credit Level: U. Credit Hrs: 1.00-6.00

15GRMN501**Survey of German Literature_I**

Readings and discussions of representative works by Wieland, Lenz, Lessing, and Goethe. BoK: HU. Credit Level: U, G. Credit Hrs: 3.00-4.00

15GRMN502**Survey of German Literature II**

Continuation of 15GRMN501. BoK: HU. Credit Level: U, G. Credit Hrs: 3.00-4.00

German**15GRMN503****Survey of German Literature III**

Continuation of 15GRMN502. BoK: HU. Credit Level: U, G. Credit Hrs: 3.00-4.00

15GRMN513**The German-American Experience**

History of German immigration, settlement and influences on American society. BoK: DC., HU. Credit Level: U, G. Credit Hrs: 3.00

15GRMN570**Beginning German I for Graduate Students**

Instruction in Beginning German for graduate students; linked to the undergraduate course German 111. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

15GRMN571**Beginning German II for Graduate Students**

Instruction in Beginning German for graduate students; linked to the undergraduate course German 112. Prereq: 15GRMN570. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

15GRMN561**Extended Basic German I for Graduate Students**

Graduate course number for students attending courses in the undergraduate Extended Basic German sequence. Linked to 15GRMN111. Credit Level: G. Credit Hrs: 3.00

15GRMN562**Extended Basic German II for Graduate Students**

Graduate number for students attending courses in the undergraduate Extended Basic German sequence. Linked to 15GRMN112. Prereq: 15GRMN561. Credit Level: G. Credit Hrs: 3.00

15GRMN563**Extended Basic German III for Graduate Students**

Graduate number for students attending courses in the undergraduate Extended Basic German sequence. Linked to 15GRMN113. Prereq: 15GRMN562. Credit Level: G. Credit Hrs: 3.00

15GRMN564**Basic German I for Graduate Students**

Graduate number for students attending courses in the undergraduate Basic German sequence. Linked to German 101. Credit Level: G. Credit Hrs: 5.00

15GRMN565**Basic German II for Graduate Students**

Graduate number for students attending courses in the undergraduate Basic German sequence. Linked to 15GRMN102. Prereq: 15GRMN564. Credit Level: G. Credit Hrs: 5.00

15GRMN566**Basic German III for Graduate Students**

Graduate number for students attending courses in the undergraduate Basic German sequence. Linked to 15GRMN103. Prereq: 15GRMN564. Credit Level: G. Credit Hrs: 5.00

15GRMN567**Extended Basic German IV for Graduate Students**

Graduate number for students attending courses in the undergraduate Extended Basic German sequence. Linked to 15GRMN114. Prereq: 15GRMN563. Credit Level: G. Credit Hrs: 3.00

15GRMN568**Extended Basic German V for Graduate Students**

Graduate number for students attending courses in the undergraduate Extended Basic German sequence. Linked to 15grmn115. Prereq: 15GRMN567. Credit Level: G. Credit Hrs: 3.00

15GRMN569**Extended Basic German VI for Graduate Students**

Graduate number for students attending courses in the undergraduate Extended Basic German sequence. Linked to 15GRMN116. Prereq: 15GRMN568. Credit Level: G. Credit Hrs: 3.00

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German**15GRMN701****Middle High German**

An introduction to MHG grammar and syntax. Keyed to selected literary texts. Credit Level: G. Credit Hrs: 4.00

15GRMN702**Film and Modernity: Weimar and Nazi Cinema**

Focuses on German cinema during the Weimar Republic and the Third Reich. It examines continuities and breaks between these two periods and emphasizes the ways in which filmmakers sought to come to grips with modernity via this most modern of media. Films include: The Cabinet of Dr. Caligari, Metropolis, People on Sunday, Triumph of the Will, Jud Süss, Muenchhausen and others. The most important scholarship on German film from the 1920s to the 1940s will also be discussed. Credit Level: G. Credit Hrs: 4.00

15GRMN704**Advanced Middle High German Readings**

Building upon course #701 (Introduction to Middle High German), this course will increase students' familiarity with the literature of the period ca. 1170-1450 by close study of selected major authors, works or groups of works. It will hone students' linguistic and analytical skills and will lead to a deeper understanding of the historical, cultural and intellectual background, from whence this literature sprang. Credit Level: G. Credit Hrs: 4.00

15GRMN710**Writing the Berlin Republic: German Literature after the Fall of the Wall**

Contemporary German literature that addresses the fall of the Berlin Wall and its aftermath; East and West German perspectives. Credit Level: G. Credit Hrs: 4.00

15GRMN714**Nature's Authority: Literary Approaches From Goethe to Sebald**

Examination of literary approaches to "nature's authority" in the works of Goethe & Sebald, and in the works of other writers & thinkers of the 19th and 20th centuries. Credit Level: G. Credit Hrs: 4.00

15GRMN715**Early Modern German Literary Culture: Texts and Contexts**

Issues of religion, society, politics, rhetoric, poetics, and representational art in the literary imagination of the early modern era (1500-1700). Perm of Department. Credit Level: G. Credit Hrs: 4.00

15GRMN716**Franz Kafka**

Examines the works of Franz Kafka (novels, short stories, diaries) as well as later adaptations of these texts in film and literature; explores a broad range of scholarship on Kafka and discusses very different ways in which he has been interpreted. Credit Level: G. Credit Hrs: 4.00

15GRMN717**Imagining Crime: The Case of Weimar Germany**

An investigation of ways in which Weimar Germany imagined itself in terms of the figure of the criminal. Credit Level: G. Credit Hrs: 4.00

15GRMN718**Topics Medieval**

Examination of issues pertinent to medieval literature. Credit Level: G. Credit Hrs: 4.00

15GRMN719**Literary Nationalism**

The fostering of "Germanness" and national identity in literary and cultural texts of the late 18th and the 19th centuries. Writers include Herder, Goethe, Schiller, von Arnim, Brentano, Fichte, Heine, and (Richard) Wagner. Credit Level: G. Credit Hrs: 4.00

15GRMN720**Cities: Space, Narrative, Representation**

Explores the city as one of modernism's most important sites and examines what transformations it undergoes in the age of globalization. Readings include major novels from the German and European tradition

German**15GRMN720****Cities: Space, Narrative, Representation**

as well as theoretical texts. Credit Level: G. Credit Hrs: 4.00

15GRMN725**The Classics in Contemporary German Theatre**

Addresses the reception, interpretation and performance of classical dramas on the contemporary German stage. After a general introduction to the plays under consideration, the course focuses on the history of reception of these pieces on the stage and in film. Examples are Lessing's Emilia Galotti, Schiller's Kabale und Liebe, Goethe's Faust I, and Kleist's Der Zerbrochene Krug. Credit Level: G. Credit Hrs: 4.00

15GRMN726**Turn-of-the-Century Literature and Culture**

Explores literature and culture of the turn of the century (1890-1910). Special emphasis on evolving notions of femininity and masculinity; psycho-analysis; and social concerns. Credit Level: G. Credit Hrs: 4.00

15GRMN727**"Do What You Please" - E. Jelinek & post-dramatic Theatre**

Elfriede Jelinek is considered the leading dramatist of the 1990's. The seminar focuses on selected recent plays by Jelinek, most of which can no longer be considered dramas in the conventional sense. The course explores how Jelinek expresses social criticism in her plays and asks if her political agenda contradicts the tendency of post-dramatic theater to deny the representability of the world. Credit Level: G. Credit Hrs: 4.00

15GRMN730**German Early Modern Literary Culture (1500-1730)**

Introduces graduate students to German-language literary culture during the early modern period (1500-1700). Credit Level: G. Credit Hrs: 4.00

15GRMN732**The Works of W G Sebald**

Examines the literary and stylistic writings of W. G. Sebald and discusses their place in and view of the European cultural tradition. Credit Level: G. Credit Hrs: 4.00

15GRMN733**Seminar I - Max Kade Distinguished****Visiting Professor**

Graduate seminar taught by the Max Kade Distinguished Visiting Professor. See departmental registration tips for details. Credit Level: G. Credit Hrs: 4.00

15GRMN734**Seminar II- Max Kade Distinguished****Visiting Professor**

Graduate seminar taught by the Max Kade Distinguished Visiting Professor. See departmental registration tips for details. Credit Level: G. Credit Hrs: 4.00

15GRMN739**Topics in 20th-Century Literature**

An interpretive evaluation of works by selected authors from the 20th-century. Credit Level: G. Credit Hrs: 4.00

15GRMN740**Topics in German Literature and Culture**

Contact department. Credit Level: G. Credit Hrs: 4.00

15GRMN744**German Mythology**

This course examines Germanic and Norse mythology. We will begin with the earliest recorded stories, continue through the 19th-century revival of mythology, and conclude with an examination of 20th-century mythological texts. In addition to understanding these texts as aesthetic objects, a major component of the course will focus on the ways in which mythology has been placed in the service of various ideologies. Credit Level: G. Credit Hrs: 4.00

German**15GRMN745****German Medievalism**

Explores modern literature with a medieval background or subject matter, and modern reworkings of medieval literature Credit Level: G. Credit Hrs: 4.00

15GRMN746**The Historical Novel**

The Historical Novel has made a come-back in contemporary German literature. Combining fact and fiction, the genre aspires to a higher degree of realism than other novel forms while at the same time taking literary license with historical events. This seminar offers an introduction to the Historical Novel and asks why and in what form it returns in recent literature. Participants will read Historical Novels from the early 19th to the early 21st century. Readings also include theoretical works on the subject. Credit Level: G. Credit Hrs: 4.00

15GRMN747**German Poetry (1800-2000)**

Focuses on German poetry of the 20th century with a necessary prelude on Goethe and 19th century developments. The survey will consider both thematic and formal aspects, even as the texts are discussed in terms of literary Kultur- geschichte. Credit Level: G. Credit Hrs: 4.00

15GRMN759**German Literature's Bestiary**

Examines the relationship between humans and animals as reflected in German literature from the 18th to the 20th century. Credit Level: G. Credit Hrs: 4.00

15GRMN771**Master's Thesis Research**

Offered ea. qtr. Credit Level: G. Credit Hrs: 1.00-9.00

15GRMN794**GTA Orientation in German**

Orients graduate teaching assistants to the German Studies Department's teaching policies, procedures, methods and materials. Meets for two or three weeks before fall classes begin. Credit Level: G. Credit Hrs: 4.00

15GRMN803**Contemporary German Literature I**

At some point between the late 1980s and the mid- 1990s, post-war German literature came to an end. A new generation of writers took the place of a relatively small group of canonical authors in both East and West Germany. In short sequence, the search for the "Wunderroman," the celebration of "Frauleinwunderliteratur," the advent of pop-literature, and the appearance of Germans as victims in literary texts occupied readers and critics. Credit Level: G. Credit Hrs: 4.00

15GRMN804**Contemporary German Literature II**

Over the course of two quarters, this research seminar will examine the paradigm shift from post- war literature to post-wall literature and investigate its conditions and assumptions. In addition to reading a representative range of primary texts, we will also immerse ourselves in some of the literary debates of the 1990s and beyond, including but not limited to the "Christa- Wolf-Debatte" and the question whether one can speak of GDR-literature after the fall of the wall. Credit Level: G. Credit Hrs: 4.00

15GRMN805**Literary Nationalism I**

The fostering of "Germanness" and national identity in literary and cultural texts of the late 18th and the 19th centuries. Writers include Herder, Goethe, Schiller, von Arnim, Brentano, Fichte, Heine, and (Richard) Wagner. Credit Level: G. Credit Hrs: 4.00

15GRMN806**Literary Nationalism II**

The fostering of "Germanness" and national identity in literary and

German**15GRMN806****Literary Nationalism II**

cultural texts of the late 18th and the 19th centuries. Writers include Herder, Goethe, Schiller, von Arnim, Brentano, Fichte, Heine, and (Richard) Wagner. Credit Level: G. Credit Hrs: 4.00

15GRMN807**Research Seminar: Film and History**

Survey of German film history from earliest cinema to the present, with emphasis on how film confronts (and avoids confronting) German history. Readings in major schools of film theory. Students practice research skills required of academics Credit Level: G. Credit Hrs: 4.00

15GRMN808**German Romanticism and its Legacy I**

The first quarter of this research seminar examines a number of literary and theoretical texts in order to distinguish some of the main themes typically associated with the different "schools" of Romanticism, such as the dedication to a decidedly "Romantic" form of Bildung in the works of the Jena group and an emphasis on themes such as Heimat, violence, the supernatural, nationalism and nature mysticism in those later groups. Credit Level: G. Credit Hrs: 4.00

15GRMN828**The City in Literature: Narrative Representation and Representative Space**

Cities are places where people live but they are also imagined in literature and film. This course explores the city as one of modernism's most important sites and examines what transformations it undergoes in the age of globalization. A major focus on Berlin. Credit Level: G. Credit Hrs: 4.00

15GRMN831**German-Jewish Literature**

Examination of the various positions that Jewish culture has occupied within modern German culture. Topics include: the holocaust, the question of a German-Jewish "symbiosis" and the complex relationship between gender and Jewish identity. Fiction, essays, films and recent scholarship. Credit Level: G. Credit Hrs: 4.00

15GRMN832**Approaches to G. Grass's "Die Blechtrommel."**

A close examination of what is often considered to be the most important novel in post-war Germany. Various methodologies will be applied, not only to gain an understanding of the novel's contents, but also to test the validity of interpretive approaches, to include intermedial (art & literature) techniques. Credit Level: G. Credit Hrs: 4.00

15GRMN833**G. Grass Short Prose**

As a follow-up to the prior quarter's focus on Grass's novel "The Tin Drum," this course evaluates Grass's short prose works (from "Katz und Maus" to "Im Krebsgang"), many of which are keyed to the motifs and issues introduced in "The Tin Drum." Each student will write an extended research paper and present his / her findings for peer critique. Credit Level: G. Credit Hrs: 4.00

15GRMN834**German Romanticism and Its Legacy I**

After several decades of relative neglect, the literature and culture of the early 19th century are attracting increased attention, and a consensus is developing that encompassing definitions are in most cases inadequate. In the first quarter of this seminar, we will examine a number of literary and theoretical texts in order to identify some of the main themes typically associated with the different 'schools' of Romanticism. Credit Level: G. Credit Hrs: 4.00

15GRMN835**German Romanticism and its Legacy II**

During the second quarter we will concentrate on texts from the twentieth century in which a 'romantic' legacy lives on. Credit Level: G. Credit Hrs: 4.00

H=University Honors course.

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LT: Literature. NS: Natural Sciences. QR: Quantitative Reasoning. SE: Social & Ethical Issues. SS: Social Sciences.

German**15GRMN897****German Readings**

An intensive course in reading for graduate students from other fields. Completion of three quarters of the sequence with grade B or better will be equivalent to Princeton test. Credit Level: G. Credit Hrs: 4.00

15GRMN898**German Readings**

An intensive course in reading for graduate students from other fields. Completion of three quarters of the sequence with grade B or better will be equivalent to Princeton test. The second offering in a three-part course sequence. Credit Level: G. Credit Hrs: 4.00

15GRMN899**German Readings**

An intensive course in reading for graduate students from other fields. Completion of three quarters of the sequence with grade B or better will be equivalent to Princeton test. The third offering in a three-part course sequence. Credit Level: G. Credit Hrs: 4.00

15GRMN971**Doctoral Research**

Cr. according to amount of work elected. Offered ea. qtr. Credit Level: G. Credit Hrs: 1.00-18.00

15GRMN988**Directed Readings**

Perm. of instr. and Graduate Director required. Credit Level: G. Credit Hrs: 1.00-8.00

15GRMN997**Special Problems in German**

1-6 gr. cr. Offered ea. qtr. Hrs. to be arranged. Perm. of Graduate Director. Credit Level: G. Credit Hrs: 1.00-12.00

History**15HIST104****Medieval and Renaissance.**

History of Europe and the Mediterranean world from 300 to 1500. Transfer Module. BoK: HP. Credit Level: U. Credit Hrs: 3.00

15HIST105**Medieval and Renaissance.**

History of Europe and the Mediterranean world from 300 to 1500. Transfer Module. BoK: HP. Credit Level: U. Credit Hrs: 3.00

15HIST106**Medieval and Renaissance.**

History of Europe and the Mediterranean world from 300 to 1500. Transfer Module. BoK: HP. Credit Level: U. Credit Hrs: 3.00

15HIST110**American History to 1848**

A survey of American history from colonial times to 1848. Transfer Module. BoK: HP, DC. Credit Level: U. Credit Hrs: 3.00

15HIST111**American History 1848-1929**

A survey of American history from 1848 to 1929. Transfer Module. BoK: HP, DC. Credit Level: U. Credit Hrs: 3.00

15HIST112**American History Since 1929**

A survey of American history from 1929 to the present. Transfer Module. BoK: HP, DC. Credit Level: U. Credit Hrs: 3.00

15HIST113**European Civilization, 1000-1500**

European history from the turn of the millenium to the eve of the Reformation. BoK: HP. Credit Level: U. Credit Hrs: 3.00

15HIST114**European Civilization, 1500-1800**

European history from the Renaissance to the French Revolution. BoK: HP. Credit Level: U. Credit Hrs: 3.00

History**15HIST115****European Civilization, 1800-Present**

European history from the era of the French Revolution to the present. BoK: HP. Credit Level: U. Credit Hrs: 3.00

15HIST119**Twentieth Century Europe to 1945**

An introductory survey of the history of Europe for the period 1900 to 1945. BoK: HP. Credit Level: U. Credit Hrs: 3.00

15HIST120**Twentieth Century Europe Post-1945**

An introductory survey of the history of Europe for the period 1945 to the present. BoK: HP. Credit Level: U. Credit Hrs: 3.00

15HIST121**Asian Civilizations: India**

Traces Indian history from the Vedas to the late 1990s with particular attention to the unity and diversity of Indian culture, the rise of centralized empires, the advent of Islam, British colonialism, Indian nationalism, and the creation of India, Pakistan and Bangladesh. Transfer Module. BoK: HP, DC. Credit Level: U. Credit Hrs: 3.00

15HIST122**Asian Civilizations: China**

Surveys Chinese history from prehistoric times to the Tiananmen Massacre of 1989. Emphasis will be on the evolution and interaction of the country's distinctive political, economic, social and cultural patterns. Transfer Module. BoK: HP, DC. Credit Level: U. Credit Hrs: 3.00

15HIST123**Asian Civilizations: Japan**

The first half focuses on ancient and medieval Japan, particularly the elegant world of the Heian court, the warrior-samurai class, and the reunification of Japan. The second half surveys the impact of western imperialism and the creation of a modern nation state. Transfer Module. BoK: HP, DC. Credit Level: U. Credit Hrs: 3.00

15HIST127**History of Jewish Civilizations I**

Traces the history of the Jewish people from its origins to late antiquity. Cross-Listing of JUDC 127 BoK: HP., DC. Credit Level: U. Credit Hrs: 3.00

15HIST128**History of Jewish Civilizations II**

Explores how the Jewish civilization is interpreted through Jewish historical, religious, literary, and cultural developments during the Medieval period. Cross-Listing of JUDC 128 BoK: HP., DC. Credit Level: U. Credit Hrs: 3.00

15HIST129**History of Jewish Civilization III**

This course charts the path of Jewish history from the dawn of the Modern era to the birth of Israel. Cross-listed with JUDC129 BoK: HU., DC. Credit Level: U. Credit Hrs: 3.00

15HIST130**World History I: Worlds Forming**

A survey of world history from the development of separate civilizations to the modern age of interdependence. Transfer Module. BoK: HP, DC. Credit Level: U. Credit Hrs: 3.00

15HIST131**World History II: Worlds Connecting**

The Medieval period. Transfer Module. BoK: HP, DC. Credit Level: U. Credit Hrs: 3.00

15HIST132**World History III: Worlds Interacting**

The Modern period. Transfer Module. BoK: HP, DC. Credit Level: U. Credit Hrs: 3.00

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History**15HIST145****The Emergence of Secular Jewish Identity and Culture**

Explores how Jewish life has evolved and changed over time. BoK: HP., DC. Credit Level: U. Credit Hrs: 3.00

15HIST153**History of Western Civilization**

A survey of Western civilization - prehistoric times to the contemporary world; a broad view of institutions, ideas and problems developing in Western societies. A three-part sequence. Transfer Module. BoK: HP. Credit Level: U. Credit Hrs: 3.00

15HIST170**Middle East/North Africa History 660-1258**

The political, intellectual, social, and economic history of the Middle East and North Africa between 650 and 1258, using a wide range of primary and secondary sources in standard and electronic format. BoK: HP., DC. Credit Level: U. Credit Hrs: 3.00

15HIST171**Middle East/North Africa History 1258-1850**

The political, intellectual, social, and economic history of the Middle East and North Africa between 1258 and 1850, using a wide range of primary and secondary sources in standard and electronic format. BoK: HP., DC. Credit Level: U. Credit Hrs: 3.00

15HIST172**Middle East/North Africa History 1850-Present**

The political, intellectual, social, and economic history of the Middle East and North Africa between 1850 and the present, using a wide range of primary and secondary sources in standard and electronic format. BoK: HP., DC. Credit Level: U. Credit Hrs: 3.00

15HIST224**Latin American History**

Clash between pre-Columbian Indian civilizations (Maya, Aztec, Inca) and the Spanish, and the resulting societies of conquest and of empire. Themes include: Indian conversion and exploitation, demographic disaster, colonial government, pirates and gold, racial mixture. Transfer Module. BoK: HP, DC. Credit Level: U. Credit Hrs: 3.00

15HIST225**Latin American History**

Latin America's search for political and economic independence. Themes include: Bourbon reform, independence movements, rise of caudillos, economic development (export crops), society (elite, women, Indians, poor). Transfer Module. BoK: HP, DC. Credit Level: U. Credit Hrs: 3.00

15HIST226**Latin American History**

Latin American responses to 20th century. Themes include: Mexican Revolution, Argentine Peronism, Cuban Revolution, Chilean socialism, Central America, militarism, multinationals. Transfer Module. BoK: HP, DC. Credit Level: U. Credit Hrs: 3.00

15HIST300**Introduction to Historical Thinking**

How Historians do history. Required of all majors and minors in History. BoK: HP. Credit Level: U. Credit Hrs: 3.00

15HIST301**Africa to 18th Century**

A study of ancient African history and civilization: Southern origins of Egyptian and the early empires of the Western Sudan. BoK: HP., DC. Credit Level: U. Credit Hrs: 3.00

15HIST302**Africa 1700-1935**

History of African social and political institutions before the European conquest. European settlements in Africa: The Atlantic slave trade. BoK: HP., DC. Credit Level: U. Credit Hrs: 3.00

History**15HIST303****African History 1945 to Present**

The partition and colonization of Africa by European countries. African response to European conquest. Colonial administration of Africa up to the end of World War II. BoK: HP., DC. Credit Level: U. Credit Hrs: 3.00

15HIST309**Human Rights and U.S. Foreign Relations II**

Investigates the roles that American people and institutions played in developing a modern regime of human rights as a way to respond to the international effects of mass warfare, genocide, persecution, and poverty since World War I. Topics include comparisons to human rights approaches of other countries and cultures. BoK: HP., SE. Credit Level: U. Credit Hrs: 3.00

15HIST310**The World Order in Crisis (1929-1945)**

This is the first quarter of a three quarter course under the general title of The Present in Perspective. The three quarters together are designed to explore from a global point of view major issues that have made, or are making, the world we live in. BoK: HP., DC. Credit Level: U. Credit Hrs: 3.00

15HIST311**The Breakup of the World Order**

This is the second quarter of a three quarter course under the general title of The Present in Perspective. The three quarters together are designed to explore from a global point of view major issues that have made, or are making, the world we live in. BoK: HP., DC. Credit Level: U. Credit Hrs: 3.00

15HIST312**Constructing the New World Order**

This is the third quarter of a three quarter course under the general title of The Present in Perspective. The three quarters together are designed to explore from a global point of view major issues that have made, or are making, the world we live in. BoK: HP., DC. Credit Level: U. Credit Hrs: 3.00

15HIST316**The Colors of Money: Cross-Cultural Attitudes Toward Wealth and Its Acquisition**

This course focuses on the changing attitudes toward wealth and its acquisition in different societies and cultures, and how these shaped our heritage. BoK: HP., DC. Credit Level: U. Credit Hrs: 3.00

15HIST362**American Jewish History**

Explores how the American Jewish experience developed and changed over time. BoK: HP., DC. Credit Level: U. Credit Hrs: 3.00

15HIST372**History of Technology**

Study of the interactions of technology and society from the 18th Century to the present from a global perspective. BoK: HP. Credit Level: U. Credit Hrs: 3.00

15HIST392**History of Ohio I: Pre-Historic to Civil War**

The history of the state and its relationship to the region and nation. This quarter starts with prehistoric and historic Indians, settlement and the struggle to control the land, statehood and Civil War. Urbanization is a unifying threat to our studies. BoK: HP. Credit Level: U. Credit Hrs: 3.00

15HIST393**History of Ohio II**

Ohio from the Civil War, focusing on pro and anti-slavery politics, Ohio's presidents, industrialization, and the challenges facing the state today. BoK: HP. Credit Level: U. Credit Hrs: 3.00

15HIST396H**Deconstructing the Greatest Generation: Reexamining America's Experience During WWII**

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History**15HIST396H****Deconstructing the Greatest Generation: Reexamining America's Experience During WWII**

Examines whether America's experiences on the home front and the fighting fronts was typical of the military tradition or extraordinary. This course will look beyond popular myths associated with "The Greatest Generation. BoK: HP. Credit Level: U. Credit Hrs: 3.00

15HIST397H**Giant Tsar: Russia in the Age of Peter the Great**

During the reign of Peter the Great, Russia experienced sweeping changes in everything from literature to economics and politics. This course examines Russian history under Peter, paying special attention to Peter's complicated legacy as the creator of modern Russia. The course will be followed by a week-long study trip to St. Petersburg open to all students. BoK: HP., DC. Credit Level: U. Credit Hrs: 3.00

15HIST398**Frontiers in World History**

Problems of settlement and interaction between diverse peoples along shared frontiers are a constant theme of human history. This course is designed to introduce upper-level undergraduate history majors to the complexities of frontiers and frontier societies from a comparative perspective. The course will review general questions about defining frontiers and the problems that historians face in studying them, and will then focus on a number of past frontier areas in different parts of the world, analyzing their social, cultural, and political aspects. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15HIST398H**A Study of Mussorgsky's Pictures at an Exhibition & the Changing Influence in Musical Composition**

Using a multidisciplinary approach, this honors seminar will explore two widely known pieces of classical music by Russian composers: Modest Mussorgsky's Pictures At an Exhibition (1874) and Pyotr Tchaikovsky's The Nutcracker Suite (1892), although the focus will be more on Pictures. Both composers used visual stimuli from folk and popular culture such as art exhibitions, stories, the fantastic and make believe, the carnival, dreams and dance as inspiration for their compositions and music. BoK: FA., HP. Credit Level: U. Credit Hrs: 3.00

15HIST399H**Clothing and Nakedness in Early America**

Clothing was an indicator of ethnicity, class and political ideology in early America. Analyzing visual imagery, artifacts and scholarly work, students will explore how costume affected relations between settlers. Indians and African Americans: how clothing became politicized in the Revolutionary era, and how fashion changed in the wake of the Revolution. BoK: HP., DC. Credit Level: U. Credit Hrs: 3.00

15HIST400**Junior Topics Seminar**

This is a guided research seminar that builds on research skills developed in History 300 and leads to the senior writing seminar. Students analyze primary documents and write a paper in teams of two or three. Prereq: 15HIST300. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15HIST407**Latin American Film & History to 1900**

Introduces students to Latin American History and culture through film, readings, class discussion and lectures. Goal is to explore significant influences which have molded Latin American history from the conquest to the twentieth century. BoK: HP., DC. Credit Level: U. Credit Hrs: 3.00

15HIST408**Latin American Film and History After 1900**

This course introduces students to the current history of Latin America through an exploration of contemporary revolutions. The term "revolution" is construed widely to encompass not only revolutions from the left, such as Cuba, but those movements that bring revolutions in mores, attitudes or gender roles. BoK: HP., DC. Credit Level: U. Credit Hrs: 3.00

History**15HIST410****The Origins of the Modern American Presidency to 1945**

This course would begin with a brief overview of the Constitutional Convention and the Founding Fathers views and intentions of what the Executive should constitute. The focus of the course would be the years 1896 to 1945. BoK: HP. Credit Level: U. Credit Hrs: 3.00

15HIST411**Modern American Presidency Since 1945**

To examine and evaluate the growth of the Modern American Presidency since 1945: understanding dynamics of presidential power including its uses, abuses, and limitations. BoK: HP. Credit Level: U. Credit Hrs: 3.00

15HIST413**History of the American City**

(Formerly American Urban History). The emergence, development, and role of the modern city. Offered alt. yrs. Prereq: 30ENGL103. BoK: HP. Credit Level: U. Credit Hrs: 3.00

15HIST414**The Tudors**

England's transition from Medieval to Modern. Personal lives of the Monarchs; centralization of governmental and judicial systems; Protestant Reformation, radicalization, return to Catholicism, and the Elizabethan Protestant Church. (Henry VII, Edward VI, Mary I and Elizabeth I). BoK: HP. Credit Level: U. Credit Hrs: 3.00

15HIST415**History of Cincinnati**

The study of Cincinnati's history using important articles and monographs. Particular attention is paid to industrial development, racial segregation, and suburbanization. BoK: HP., DC. Credit Level: U. Credit Hrs: 3.00

15HIST417**Slavery in America**

This course will examine the development of race-based chattel Slavery in British North America, its impact on Africa and African Americans, and its eventual demise in the United States. Prereq: 30ENGL103. BoK: HP, DC. Credit Level: U. Credit Hrs: 3.00

15HIST418**The American Frontier**

The conquest, settlement, and development of the frontier from a multicultural perspective: how frontier experiences shaped the development of the United States. BoK: HP., DC. Credit Level: U. Credit Hrs: 3.00

15HIST419**The Reformation: Reformation and Fanaticism**

The Reformation of the 16th century will be examined along with the religious, political, social, economic, and intellectual changes it spawned. Offered alt. yrs. BoK: HP. Credit Level: U. Credit Hrs: 3.00

15HIST420**The 1960s Experience**

Social, cultural and political aspects of one of America's most volatile and divisive decades are examined. What legacies did this generation leave to us. Prereq: 15ENGL102. BoK: HP. Credit Level: U. Credit Hrs: 3.00

15HIST421**Technology and Culture in American History**

Course provides an introduction to the history of technology in the United States and its social and cultural impact on the lives of Americans (Colonial to present). BoK: HP. Credit Level: U. Credit Hrs: 3.00

15HIST425**U.S. Women's History**

The history of women in the pre-Columbian era to 1890. BoK: HP., DC. Credit Level: U. Credit Hrs: 3.00

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History**15HIST426****U.S. Women's History**

15-075-425. From 1890 to present. BoK: HP., DC. Credit Level: U. Credit Hrs: 3.00

15HIST427**The American Experience in Vietnam**

This course acquaints students with the major issues concerning American involvement in Vietnam, focusing on the years 1954-1975. Prereq: 30ENGL103. BoK: HP, DC. Credit Level: U. Credit Hrs: 3.00

15HIST429**The United States and World War II**

This course focuses on America's entry and participation in World War II. Particular attention is devoted to the social history of America's home front and the war's enduring legacy. Prereq: 30ENGL103. BoK: HP. Credit Level: U. Credit Hrs: 3.00

15HIST431**Hilter and the Nazi Party**

The formation of the Nazi Party, the Beer Hall Putsch, the impact of the Depression. BoK: HP., DC. Credit Level: U. Credit Hrs: 3.00

15HIST432**Hilter and the Nazi Party**

The Hitler Chancellorship, the "Seizure of Power," the Nazi Party. BoK: HP., DC. Credit Level: U. Credit Hrs: 3.00

15HIST436**Roots of the Industrial Revolution**

A social and economic history course concentrating on the production of food and goods; the conditions that permitted the Industrial Revolution to occur in Great Britain; the lives of the workers. BoK: HP., DC. Credit Level: U. Credit Hrs: 3.00

15HIST437**Soldiers Fought: War and American Society I**

Draws material from selected disciplines of the humanities, exploring how and why America has gone to war beginning with the War for Independence to the age of terrorism. The course raises broader moral and ethical issues through the study of war and society. BoK: HP. Credit Level: U. Credit Hrs: 3.00

15HIST438**Soldiers Fought: War and American Society II**

Draws material from selected disciplines of the humanities, exploring how and why America has gone to war beginning with the War for Independence to the age of terrorism. The course raises broader moral and ethical issues through the study of war and society. BoK: HP. Credit Level: U. Credit Hrs: 3.00

15HIST440**History of the Civil Rights Movement**

This course will examine the history of the African American Civil Rights Movement from the late 19th century to the present with the greatest emphasis placed on the period from 1940 to 1968. BoK: HP., DC. Credit Level: U. Credit Hrs: 3.00

15HIST445**Poverty in America: The Historical Perspective**

In this seminar, we will consider the poor, attitudes toward poverty, and the significance of poverty in the United States from the founding of the nation to the present. BoK: HP., SE. Credit Level: U. Credit Hrs: 3.00

15HIST448**The Medieval West**

The course covers significant aspects of the period 500-1500 in Western Europe including trends in religious, political, intellectual, social and economic life. BoK: HP. Credit Level: U. Credit Hrs: 3.00

15HIST449**The Medieval West**

The course covers significant aspects of the period 500-1500 in Western Europe including trends in religious, political, intellectual, social and economic life. The second offering in a three-part course sequence.

History**15HIST449****The Medieval West**

BoK: HP. Credit Level: U. Credit Hrs: 3.00

15HIST450**The Medieval West**

The course covers significant aspects of the period 500-1500 in Western Europe including trends in religious, political, intellectual, social and economic life. The third offering in a three-part course sequence. BoK: HP. Credit Level: U. Credit Hrs: 3.00

15HIST451**History of Germany**

Legacy from the Middle Ages; impact of the Reformation; rise of Prussia and the problem of German particularism. BoK: HP., DC. Credit Level: U. Credit Hrs: 3.00

15HIST452**History of Germany**

Impact of the French Revolution; growth of nationalism, the German Confederation, Austro- Prussian struggle for supremacy; the Bismarckian Empire. BoK: HP., DC. Credit Level: U. Credit Hrs: 3.00

15HIST453**History of Germany**

History of Germany from 1900-1945. BoK: HP., DC. Credit Level: U. Credit Hrs: 3.00

15HIST454**History of Germany since 1945**

Post-World War II Germany; the two Germanies and reunification. BoK: HP., DC. Credit Level: U. Credit Hrs: 3.00

15HIST460**The African American Urban Experience in the 20th Century**

An examination of the forces that pushed and the motives that pulled African Americans from the rural South to cities throughout the nation, especially in the North and West during the Great Migration in the 20th Century. BoK: HP., DC. Credit Level: U. Credit Hrs: 3.00

15HIST462**Seminar for History Majors**

Small group study and use of historical research techniques to write an original research paper or papers. Each section will deal with a different topic. Students must remain in the same section for two quarters. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15HIST463**Seminar for History Majors**

15-Hist-462 BoK: NA. Credit Level: U. Credit Hrs: 3.00

15HIST465**Public History Internship**

Practical professional experience, under the guidance of specialists, at an institution whose purposes and activities are related to an area of public history (i.e. historic preservation, museums, archives). Terms and hours will be arranged with individual students, institutions, and faculty supervisors. BoK: HP. Credit Level: U. Credit Hrs: 1.00-6.00

15HIST466**Public History Internship**

Allows History students to gain experience through reality based learning. BoK: HP. Credit Level: U. Credit Hrs: 1.00-6.00

15HIST470**The Golden Age of Quackery: Alternative Health Care in Cincinnati**

The changing patterns of social, economic, political and cultural events in 19th Century medical history are examined. Perm of Instructor. BoK: HP. Credit Level: U. Credit Hrs: 3.00

15HIST471**History of Rome**

Early Rome, foundation of city-state, primitive monarchy, early and

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History**15HIST471****History of Rome**

middle Republic. BoK: HP. Credit Level: U. Credit Hrs: 3.00

15HIST472**History of Rome**

Late Roman Republic, 133-42 B.C. Emphasis is placed on the causes of the fall of the Republic and the major historical figures in the last generation of the Republic. BoK: HP. Credit Level: U. Credit Hrs: 3.00

15HIST473**The Early Empire**

Detailed treatment of the Julio-Claudian and Flavian dynasties with an emphasis on secondary scholarship. BoK: HP. Credit Level: U. Credit Hrs: 3.00

15HIST474**Early Greece**

Dark Age and Archaic: Emergence of city-state. The early history of Sparta and Athens. BoK: HP. Credit Level: U. Credit Hrs: 3.00

15HIST475**Greece: Pericles**

The Age of Pericles and the Fourth Century. The Persian Wars, the great age of Athens, the war between Sparta and Athens. Prereq: 15HIST101, 15HIST102, 15HIST103. BoK: HP. Credit Level: U. Credit Hrs: 3.00

15HIST476**Greece: Hellenistic**

Alexander the Great and the Hellenistic Age. The life and career of Alexander the Great. The kings that inherited his empire. BoK: HP. Credit Level: U. Credit Hrs: 3.00

15HIST484**World War I**

Examines the origins of the war, the impact of the Industrial Revolution on logistics and weapons, and the war plans of the Great Powers. Case studies will be used to examine the nature of Total War. In particular the class will examine the nature of leadership, some of the most prominent battles, as well as the long-term impacts of the war, such as the Russian Revolution and the Treaty of Versailles. Prereq: 15ENGL103. BoK: HP. Credit Level: U. Credit Hrs: 3.00

15HIST485**Film and History of World War II**

Propaganda; images of blacks, women, and Jews; newsreels. BoK: HP., DC. Credit Level: U. Credit Hrs: 3.00

15HIST486**Hollywood and History**

An in-depth introduction to the ways in which Hollywood has treated historical themes and how this has shaped popular ideas about history. Students learn the critical skills necessary for studying films as primary sources. BoK: HP., SE. Credit Level: U. Credit Hrs: 3.00

15HIST487**History of Christianity**

This course will concentrate on pivotal events or turning points in the history of Christianity which have had a profound influence -- both positive and negative-- on the formation of our civilization. BoK: HP., SE. Credit Level: U. Credit Hrs: 3.00

15HIST488**History of Christianity**

This course will concentrate on pivotal events or turning points in the history of Christianity which have had a profound influence -- both positive and negative -- on the formation of our civilization. BoK: HP., SE. Credit Level: U. Credit Hrs: 3.00

15HIST491**Making Rebellion: Revolution in the Modern Era**

A study of the causes, steps taken, and the results from the English, American, French and Russian revolutions with brief references to

History**15HIST491****Making Rebellion: Revolution in the Modern Era**

revolutionary changes elsewhere. BoK: HP. Credit Level: U. Credit Hrs: 3.00

15HIST497**Senior History Seminar I**

Writing, editing and final production of in-depth research paper. Students will also learn how to perform peer assessments of other student's work. This is a capstone course for the History Focus of LASS. Prereq: 30HIST201, 30HIST401, 30ENGL103. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15HIST500**Native American History, East of the Plains, 1500 - present**

This course surveys the history of the Native American peoples of the lands that became the United States and Canada, in the region east of the Great Plains. BoK: HP., DC. Credit Level: U, G. Credit Hrs: 3.00

15HIST501**Native American History, West from the Plains, 1500-present**

This course surveys the history of the Native American peoples of the lands that became the United States and Canada, in the region extending from the Great Plains to the Pacific Ocean. BoK: HP., DC. Credit Level: U, G. Credit Hrs: 3.00

15HIST502**The Coming of the American Revolution**

The British empire and the coming of the American Revolution. Why the revolution? Was it justified? BoK: HP. Credit Level: U, G. Credit Hrs: 3.00

15HIST503**Revolutionary America**

The American Revolution -- its development and consequences through the establishment of the United States Constitution. BoK: HP. Credit Level: U, G. Credit Hrs: 3.00

15HIST507**American Culture and Ideas to 1815**

The creation of an American culture by Europeans and Africans upon the American continent including religious beliefs, social values and political ideas. BoK: HP. Credit Level: U, G. Credit Hrs: 3.00

15HIST508**American Culture and Ideas: The 19th Century**

Examines the ideal of the American individual, the sentimentalization of religion and culture, the understanding of race, and the effects of the Civil War on culture. BoK: HP. Credit Level: U, G. Credit Hrs: 3.00

15HIST509**American Culture and Ideas: The 20th Century**

Examines the flourishing consumer culture, the criticism of religion and the rise of scientific values, the effects of World War II and anti-communism on thought, and challenges to traditional views on race and gender. BoK: HP. Credit Level: U, G. Credit Hrs: 3.00

15HIST512**America in the Sixties**

Civil rights, black power, the New Left, counterculture, Vietnam, feminism, and gay rights. BoK: HP., SE. Credit Level: U, G. Credit Hrs: 3.00

15HIST513**North America in the Atlantic World 1497-1688**

Concentrating on American colonial projects launched by English, Portuguese, French, Spanish, Scottish, Dutch and Swedish adventurers, a survey of the history of North America from the Mississippi valley to the Atlantic coast, from 1497 to 1688. BoK: HP., DC. Credit Level: U, G. Credit Hrs: 3.00

15HIST514**North America in the Atlantic World 1689-1763**

Concentrating on colonies maintained by the English, French, and Spanish empires, a survey of the history of North America from the

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History**15HIST514****North America in the Atlantic World 1689-1763**

Mississippi valley to the Atlantic coast, from 1689 to 1763. BoK: HP., DC. Credit Level: U, G. Credit Hrs: 3.00

15HIST515**Antisemitism**

Introduces students to the definitions, themes, and manifestation of Antisemitism from the Ancient World to the present. Cross-listing with JUDC510 BoK: HP., SE. Credit Level: U, G. Credit Hrs: 3.00

15HIST516**History of American National Security Policy**

A history of American foreign policy in the nineteenth century to the failure of the Treaty of Versailles including the conduct of American diplomacy and the development of appropriate supporting military and naval policies. BoK: HP. Credit Level: U, G. Credit Hrs: 3.00

15HIST517**History of American National Security Policy**

b BoK: HP. Credit Level: U, G. Credit Hrs: 3.00

15HIST518**History of American National Security Policy**

Investigation in depth of critical historical issues in American foreign policy. Individual research and group participation in class discussion required. Perm. of instr. required. BoK: HP. Credit Level: U, G. Credit Hrs: 3.00

15HIST519**Coming of the American Civil War, 1848-1860**

Ways of life among Americans of the Antebellum eras, slavery and anti-slavery, reasons for sectional conflict leading to secession and war. Prereq: 15HIST111. BoK: HP. Credit Level: U, G. Credit Hrs: 3.00

15HIST520**American Civil War, 1861-1865**

Comparison of the Union and Confederate governments; military, diplomatic, economic, and social factors leading to collapse of Confederacy; Black people in the War. BoK: HP. Credit Level: U, G. Credit Hrs: 3.00

15HIST521**U.S. Reconstruction**

Reunion of North and South after Civil War, failure of Southern Reconstruction, and Black people after slavery. How the limits of reunion shaped America to the present. BoK: HP., DC. Credit Level: U, G. Credit Hrs: 3.00

15HIST522**The Age of Jefferson**

Explores some of the major features of "Jeffersonianism" and its contributions, the relationship between various considerations in understanding the successes and failures of Jeffersonian's ideas as influences that persisted or disappeared in American life. BoK: DC., HP. Credit Level: U, G. Credit Hrs: 3.00

15HIST523**The New Nation: 1789-1819**

Federalists and Jeffersonians: origin of political parties; War of 1812. BoK: HP. Credit Level: U, G. Credit Hrs: 3.00

15HIST524**Age of Jackson**

Explores several important issues during the early American republic, from 1812 to about 1850, including rapid economic growth, expansion westward, democratization of politics, the reorganization of the workplace, religious revivalism, reform and slavery. BoK: HP., SE. Credit Level: U, G. Credit Hrs: 3.00

15HIST525**Space, Place and Things: The Material Culture of American History**

This course will focus on material culture of America's past, the objects and built environments that can serve as evidence of social trends, just

History**15HIST525****Space, Place and Things: The Material Culture of American History**

as diaries and letters do. These things will be examined as artifacts that were both products of the American past and, in their day, the means by which daily life and labor was made possible. BoK: HP. Credit Level: U, G. Credit Hrs: 3.00

15HIST526**Issues in Historic Preservation**

This capstone course considers issues confronted by preservation professionals and advocates. Through a series of case studies, students engage problems of historic interpretation, political meaning, and economic viability within the ethnic of historic preservation. Faculty from the several schools and departments that support the Certificate Program in historic preservation select case studies to reflect the diversity of challenges facing preservationists, with particular focus on contemporary, urban cases. Prereq: 23ARCH528. BoK: HP, SE. Credit Level: U, G. Credit Hrs: 3.00

15HIST527**History of Architecture in the Cincinnati Area**

Illuminates the history of metropolitan Cincinnati through the study of architectural developments, architects and engineers and their clients, landmarks, and districts. The extensive use if both old and recent images throws vivid light on the manmade environment. environment. BoK: HP. Credit Level: U, G. Credit Hrs: 3.00

15HIST528**Human Rights and US Foreign Relations**

Investigates the major ideologies, movements, and laws from the American Revolution through the Spanish-American Wars that both helped to define American foreign relations during this era and later gave rise to the modern human rights regimes of the 20th and 21st centuries. Topics include the growth of international and universal rights claims, protective personhood, anti-slavery movements, and the international humanitarian law of war. BoK: HP., SE. Credit Level: U, G. Credit Hrs: 3.00

15HIST529**Human Rights and U.S. Foreign Relations II**

Investigates the roles that American people and institutions played in developing a modern regime of human rights as a way to respond to the international effects of mass warfare, genocide, persecution, and poverty since World War I. Topics include comparisons to human rights approaches of other countries and cultures. BoK: HP., DC. Credit Level: U, G. Credit Hrs: 3.00

15HIST530**Exporting Humanitarian Aid**

Investigates the relief, rehabilitation, and development initiatives implemented by nongovernmental organizations, the U.S. government, and intergovernmental organizations in the "long" 20th century in response to humanitarian crises. While often related to parallel developments in the field of human rights, the phenomena covered in this course are more concerned with such "on-the-ground" issues as the mobilization of material resources, "public-private" governing strategies, and the "soft" power of foreign aid. BoK: HP., SE. Credit Level: U, G. Credit Hrs: 3.00

15HIST531**Women in India and China to 1800**

An examination of women's experiences in two countries which contain over half of the world's population and have richly complex civilizations that extend for over four millennia. al, religious, and literary sources. We will also explore women's roles as divinities and devotees in various traditions of Hinduism, Buddhism, and Taoism, BoK: HP., DC. Credit Level: U, G. Credit Hrs: 3.00

15HIST532**Women in China and India Since 1800**

See 15-075-531. Since 1900. BoK: HP., DC. Credit Level: U, G. Credit Hrs: 3.00

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History**15HIST533****Eastern Europe to 1918**

Nationalism, liberalism, and industrialization through World War I. BoK: HP., DC. Credit Level: U, G. Credit Hrs: 3.00

15HIST534**Eastern Europe: Since 1918**

National divisions, Fascism and Communism, World War II and its impact. BoK: HP., DC. Credit Level: U, G. Credit Hrs: 3.00

15HIST535**History of Byzantium**

Surveys the history of the distinct Byzantine civilization from 330 CE to the fall of Constantinople in 1453. During its existence, Byzantium preserved the heritage of classical antiquity and forged a new state, society and culture in the Eastern Mediterranean. BoK: HP. Credit Level: U, G. Credit Hrs: 3.00

15HIST536**History of the Balkans**

Major issues in the history of southeastern Europe from the middle ages to present, such as political organization before Ottoman conquest, preservation of national identity, resurrection in the 19th century, modernization, communism. BoK: DC., HP. Credit Level: U, G. Credit Hrs: 3.00

15HIST537**Medieval Society and Culture**

A series of quarter long investigations into topics including rise of cities, technology, church and state, social organization, culture and religion. BoK: HP. Credit Level: U, G. Credit Hrs: 3.00

15HIST538**Medieval Society and Culture**

A series of quarter long investigations into topics including rise of cities, technology, church and state, social organization, culture and religion. The second offering in a two-part course sequence. BoK: HP. Credit Level: U, G. Credit Hrs: 3.00

15HIST539**Topics in Medieval Society and Culture: Making ofThe Medieval Economy**

This course surveys the history of Medieval Europe from 1075 to 1400, with a focus on social and economic history. BoK: HP. Credit Level: U, G. Credit Hrs: 3.00

15HIST541**U.S. Economy and Society, 1604-1865**

3 ug. or gr. cr. BoK: HP. Credit Level: U, G. Credit Hrs: 3.00

15HIST542**U.S. Economy and Society, 1865-Present**

3 ug. or gr. cr. BoK: HP. Credit Level: U, G. Credit Hrs: 3.00

15HIST543**World War II Military History**

WWII MILITARY HIST BoK: HP. Credit Level: U, G. Credit Hrs: 3.00

15HIST544**The American South to 1865**

This course will explore the major developments in the history of the American South from its colonial origins through the Civil War. BoK: HP., DC. Credit Level: U, G. Credit Hrs: 3.00

15HIST545**The American South Since 1865**

This course will explore the major developments in the history of the American South from the end of the Civil War to the present. BoK: HP., DC. Credit Level: U, G. Credit Hrs: 3.00

15HIST546**Museums and Collecting**

What are museums for? Who do they serve? Where does their authority to make claims about the world come from? Explores

History**15HIST546****Museums and Collecting**

collecting and objects as a means for creating and organizing knowledge from the fifteenth century to the present, first in Europe and then in the United States. BoK: HP., DC. Credit Level: U, G. Credit Hrs: 3.00

15HIST547**Art/Race and Nation: Citizenship and Identity in the United States**

Will examine the construction of American identity and citizenship through a study of sculpture, painting, photography and emblematic imagery in social, cultural, political, and scientific contexts, from the early Republic to the 1990s. BoK: HP., DC. Credit Level: U, G. Credit Hrs: 3.00

15HIST548**Race and Science in the United States**

Examines the way scientific concepts and practices have defined racial difference in the US. Spanning the 19th and 20th centuries, the course seeks to better understand the multiple, shifting meanings and uses of race and the participation of the biological, medical and social sciences in constructing them. BoK: HP., DC. Credit Level: U, G. Credit Hrs: 3.00

15HIST549**American Labor History I**

Two-quarter course exploring the economic, social, political, and cultural significance of labor in American history, through a particular focus on the emergence and course of labor movements. The first quarter ends with the institutional legitimization of labor organizations in the twentieth century and the second continues to the present. BoK: HP., SE. Credit Level: U, G. Credit Hrs: 3.00

15HIST550**American Labor History II**

Two-quarter course exploring the economic, social, political, and cultural significance of labor in American history, through a particular focus on the emergence and course of labor movements. Continuation of 15HIST549. BoK: HP., SE. Credit Level: U, G. Credit Hrs: 3.00

15HIST551**The Reformation**

The Calvinist Reformation, the Religious Wars, religious orthodoxy and political absolutism, witchcraft, and the Scientific Revolution. The first of a two-quarter course. BoK: HP. Credit Level: U, G. Credit Hrs: 3.00

15HIST552**The Reformation**

The Calvinist Reformation, the Religious Wars, religious orthodoxy and political absolutism, witchcraft, and the Scientific Revolution. The second of a two-quarter course. BoK: HP. Credit Level: U, G. Credit Hrs: 3.00

15HIST553**United States, 1875-1900**

An analysis of the so-called Gilded Age, with an emphasis on its economics, politics, and the changing nature of society and its institutions in a period of massive economic change. BoK: HP. Credit Level: U, G. Credit Hrs: 3.00

15HIST554**United States, 1900-1920**

Economic, political and social developments, with particular emphasis upon the rise of progressivism, the emergence of interventionist foreign policy, the significance of American entrance into World War I, and the emergence of new movements of wage workers. BoK: HP. Credit Level: U, G. Credit Hrs: 3.00

15HIST555**U.S. in the Twentieth Century: 1912-1940**

From the Progressive Era through the New Deal, including World War I and the Great Depression. BoK: HP. Credit Level: U, G. Credit Hrs: 3.00

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History**15HIST556****The Great Depression in America 1929-1941**

The Great Depression touched all aspects of American life, from questions of class, race, and gender to the transformation of political power. Covering the years 1929 through 1941, this course will employ not only traditional historical sources, but will examine the period through its music, theatre, literature, and film. BoK: HP., SE. Credit Level: U, G. Credit Hrs: 3.00

15HIST557**U.S. in the Twentieth Century: 1960-Present**

From John Kennedy to the present; including the Civil Rights Revolution, the Vietnam War, and the economic dislocations of Post-Industrial America. BoK: HP. Credit Level: U, G. Credit Hrs: 3.00

15HIST558**Nationalism, Liberalism and the (Re) Making of Europe, 1815-1919**

Examines how the ideologies of nationalism and liberalism interacted to reshape the intellectual framework and ultimately the map of Europe through the long nineteenth century. BoK: HP., DC. Credit Level: U, G. Credit Hrs: 3.00

15HIST559**Fascism in Europe**

Examines different fascist and national socialist regimes in the period 1918-1945; their historical roots, their bases of support, their methods of gaining power and their ideologies in theory and practice. Concludes with an examination of extreme right-wing parties and movements in Europe today. BoK: HP., SE. Credit Level: U, G. Credit Hrs: 3.00

15HIST560**Communism in Europe**

Examines different communist and anarchist parties and regimes in Europe in the twentieth century; their historical roots, their bases of support, their methods of gaining power and influence and their ideologies in theory and practice. Concludes with an examination of extreme left-wing parties and movements in Europe today. BoK: HP., SE. Credit Level: U, G. Credit Hrs: 3.00

15HIST561**Women in European Society, 1600-1850**

Discussion of economic, political, social, and intellectual development in European women's history. Emphasis on women's role in the early modern economy, her place in the household, her limited educational opportunities, and early feminist appraisal of women's lives. BoK: HP., DC. Credit Level: U, G. Credit Hrs: 3.00

15HIST562**Women in European Society, 1850-present**

Concentrates on the effect of the Industrial Revolution on women's lives, the growth of an organized women's movement, and women's public activities and employment during the 20th century. BoK: HP., DC. Credit Level: U, G. Credit Hrs: 3.00

15HIST563**Film and India: Empire and Nationalism**

Explores how the past is recorded, reconstructed, and projected in films, newsreels, and documentaries about the British Empire in India, the evolution of Indian nationalism, and the efforts to create independent India. BoK: DC., HP. Credit Level: U, G. Credit Hrs: 3.00

15HIST565**Tudor England, 1488-1603**

An in-depth survey of the reigns of the Tudors from Henry VII through Elizabeth I. BoK: HP. Credit Level: U, G. Credit Hrs: 3.00

15HIST566**Stuart England, 1603-1714**

An in-depth survey of the reigns of the Stuarts from James I through Queen Anne. BoK: HP. Credit Level: U, G. Credit Hrs: 3.00

History**15HIST567****History of the Arab-Israeli Conflict**

This course traces the origins of the Arab-Israeli conflict from the end of the 19th century when the Palestinian province of the Ottoman Empire became the object of Jewish settlement. Review of the 1956, 1967, and 1973 conflicts. Will assess the prospects for a regional peace settlement. BoK: HP., DC. Credit Level: U, G. Credit Hrs: 3.00

15HIST568**Nationalist Conflict in the Former Russian and Ottoman Empires: 19th Century to the Present**

The course examines the process of state formation and the development of nationalist ideologies in the former Russian and Ottoman Empires. A comparative historical approach is used to explore the rise of nationalism in such diverse areas as Eastern Europe, the Balkans, Transcaucasia, Central Asia and the Near East -- all areas where nation-building occurred later than in Western Europe and the problems of artificial borders and polyglot societies have remained intractable until present. BoK: HP., DC. Credit Level: U, G. Credit Hrs: 3.00

15HIST570**The Making of the Modern Middle East**

War and peacetime developments in the Middle East from the mid-19th century to the present, primarily focusing on political, social, economic, and cultural sources. BoK: HP., DC. Credit Level: U, G. Credit Hrs: 3.00

15HIST571**Media and Middle East History**

How North Americans and Europeans learn about the Middle East, and how Middle East peoples present themselves to each other and to the outside world, through telegraph, photography, newspapers, magazines, radio, television, and the internet. Freedom of inquiry and censorship as themes in Middle East history. BoK: DC., HP. Credit Level: U, G. Credit Hrs: 3.00

15HIST572**Film and Middle East History**

Cinema about and from the Middle East and North Africa. Development of "Orient" as theme in modern Western cinema; creation of film industry in Middle East. Sources include film studies, newsreels, documentaries, and feature films from early 20th century to today. BoK: HP., DC. Credit Level: U, G. Credit Hrs: 3.00

15HIST574**India to 1526**

3 ug. cr. BoK: HP., DC. Credit Level: U, G. Credit Hrs: 3.00

15HIST575**Indian Empires: 1526-1905**

3 ug. cr. BoK: HP., DC. Credit Level: U, G. Credit Hrs: 3.00

15HIST576**20th Century South Asia**

3 ug. cr. BoK: HP., DC. Credit Level: U, G. Credit Hrs: 3.00

15HIST577**U.S. Immigration to 1880**

A discussion of the nature of migration and the role of immigrants and their descendants in United States history from colonial times to the present. Treats period to c. 1880. BoK: HP. Credit Level: U, G. Credit Hrs: 3.00

15HIST578**U.S. Immigration 1880-Present**

A continuation of Hist. 577. From c. 1880-present. BoK: HP. Credit Level: U, G. Credit Hrs: 3.00

15HIST579**Topics in African World Studies**

Introduces students to the history of the African presence in Europe 1440-1800. It begins with the Portuguese voyages down the West African coast, continuing with and to the end of the Atlantic slave trade.

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History**15HIST579****Topics in African World Studies**

Roles and places of Africans in European society will be examined.

BoK: DC., HP. Credit Level: U, G. Credit Hrs: 3.00

15HIST580**African American History to 1861**

Explores major themes in African American History up to 1861.

Beginning on the African continent, this course follows African captives across the Atlantic and examines their experience in bondage. Topics covered include development of African American culture and identity and resistance to slavery. BoK: SE., HP. Credit Level: U, G. Credit Hrs: 3.00

15HIST581**African American History 1861-1941**

Surveys the major themes in African American History from the Civil War to WWII. We will examine how freedom expanded and contracted for African Americans as well as how equality has been largely elusive. Topics explored include reconstruction, institution building, Harlem Renaissance, racial violence, and great migration. BoK: DC., HP. Credit Level: U, G. Credit Hrs: 3.00

15HIST582**African American History 1941-Present**

Intensive survey of major themes and ideology in African American history from WWII to the present. We will examine political, economic, and spiritual strategies African Americans used to combat racism and discrimination. We will study the contracted freedom struggles in their many forms, including the civil rights movement, the Black Power movement, and the Black Feminist movement. BoK: DC., HP. Credit Level: U, G. Credit Hrs: 3.00

15HIST583**African American History and Film**

We will examine and critique the ways African Americans and their history has been portrayed on film. We will use actual history and primary sources to critique how that history has been reimagined and reinvented by Hollywood for popular consumption. We will also examine how African Americans have been stereotyped and represented across time. BoK: DC., HP. Credit Level: U, G. Credit Hrs: 3.00

15HIST584**U.S. and the World: Civil War to WWII**

Examines the recent trend in U.S. historiography to "internationalize" wider swaths of American history than typically attempted in much previous scholarship. From the U.S. Civil War to WWII, topics considered include emancipation, U.S. imperialism, war, diplomacy, statecraft, race, gender, science, consumerism, labor, citizenship, and migration. BoK: HP., DC. Credit Level: U, G. Credit Hrs: 3.00

15HIST585**U.S. and the World: WWII to Present**

Examines the recent trend in U.S. historiography to "internationalize" wider swath of American history than typically addressed in much previous scholarship. From WWII to present, topics considered include U.S. global hegemony, war, diplomacy, protest, propaganda, gender, citizenship, and migration. BoK: HP., DC. Credit Level: U, G. Credit Hrs: 3.00

15HIST587**African American Women's History**

Chart black women's unique experience in America from slavery to the present. Examine how black women have confronted the multiple jeopardies of race, gender and class at various points in this history. Will deconstruct the various stereotypes that have shaped how society has perceived African American women across time. Topics include black women and work, black feminism, black women's activism, and black women's representations in modern media BoK: SE., DC. Credit Level: U, G. Credit Hrs: 3.00

History**15HIST588****Survey of Caribbean History**

An overview of Caribbean History 1492 to the present explores how distinctive cultural and colonial heritages (Spanish, British, French, Dutch, Danish, United States) shaped historical development. Topics include first contacts, piracy, sugar and slavery, de-colonization, the U.S. as a Caribbean power, revolutions (Cuba, Grenada). BoK: HP., DC. Credit Level: U, G. Credit Hrs: 3.00

15HIST591**Individual Work**

To be arranged. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-15.00

15HIST592**Individual Work**

To be arranged. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-15.00

15HIST593**Individual Work**

To be arranged. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-15.00

15HIST594**Italian Renaissance**

3 ug. cr. BoK: HP. Credit Level: U, G. Credit Hrs: 3.00

15HIST595**Renaissance in Europe, 1500-1600**

Course follows Italian Renaissance. Development of court culture; examination of courtly behavior; extensive reading in the literature of the European Renaissance. Prereq: 15HIST594. BoK: HP. Credit Level: U, G. Credit Hrs: 3.00

15HIST596**Comparative Working Class History**

Explores the comparative roles of labor movements in the United States, France, Germany, and other western societies. Focus is on the differing impacts of workers' organizations on the economic, social, and political lives of the wider societies from the eighteenth century through the First World War. BoK: HP., SE. Credit Level: U, G. Credit Hrs: 3.00

15HIST597**Terrorism and Counter-Terrorism in Europe, 1789- 1945**

This course will examine terrorism from a theoretical perspective and examine a range of terrorist groups and counter-terrorist methods from the French Revolution to the Allied occupation of Germany in 1945. BoK: HP. Credit Level: U, G. Credit Hrs: 3.00

15HIST598**Terrorism and Counter-Terrorism in the Modern Era, 1945-the Present**

This course examines how terrorism has emerged, evolved and expanded from a global perspective as well as providing a theoretical analysis. It will also examine specific case studies from 1945 to the present day. BoK: HP. Credit Level: U, G. Credit Hrs: 3.00

15HIST599**Introduction to Mediterranean History**

Familiarizes students with the role of the Mediterranean Sea as a connector and divisor of an array of civilizations that started and flourished along its coast from pre-classical to early modern times. Also explores problems defined in recent years related to this area. BoK: DC., HP. Credit Level: U, G. Credit Hrs: 3.00

15HIST600**Topics in Latin American History**

This course will concentrate on ten topics in Latin American history from the colonial period through the 19th century. Students will read intensively on each topic and engage in lengthy analysis and discussion. BoK: HP., DC. Credit Level: U, G. Credit Hrs: 3.00

15HIST601**Modern Mexico**

Examines the history of Mexico from independence to the present,

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History**15HIST601****Modern Mexico**

emphasizing Mexico's path to national consolidation, struggles for political and economic justice, both by diverse sectors of the population and as a country within the world economy. BoK: DC., HP. Credit Level: U, G. Credit Hrs: 3.00

15HIST602**Drugs and the Supernatural in the Americas**

This course will examine the roots of today's war on drugs from the 16th century to the present. Long standing links between drugs and understandings of the supernatural will be examined. BoK: SE., HP. Credit Level: U, G. Credit Hrs: 3.00

15HIST604**EUROPE 1790-1914**

EUROPE 1790-1914 BoK: HP. Credit Level: U, G. Credit Hrs: 3.00

15HIST605**EUROPE 1914-PRESENT**

EUROPE 1914-PRESENT BoK: HP. Credit Level: U, G. Credit Hrs: 3.00

15HIST607**The Revolutionary Tradition in France, 1789-1871**

For a century following the Revolution of 1789, France continually experimented with how to create a society based on republican principles and human rights. This course explores this French revolutionary tradition as it impacted both politics and social life. BoK: HP. Credit Level: U, G. Credit Hrs: 3.00

15HIST608**The Transformation of France, 1871-Present**

From 1871 to the present, France has faced the destruction of two world wars, the advent of a modern consumer society, the end of the French empire, and an inflow of immigrants from Africa and Asia. This course explores these important social and political changes and their repercussions on French national identity today. BoK: HP. Credit Level: U, G. Credit Hrs: 3.00

15HIST610**Public History Practicum**

Offers a practical orientation to and exploration of various fields encompassed under the rubric "public history." Guest lecturers and the instructor will discuss the possibilities and problems, strategies and skills associated with the wide range of historical practices dedicated to presenting the past to the public. BoK: HP., SE. Credit Level: U, G. Credit Hrs: 3.00

15HIST611**Cities in America, 1625-1900**

Examines the growth of American Cities and the development of an urban culture through the nineteenth century. BoK: HP. Credit Level: U, G. Credit Hrs: 3.00

15HIST612**History of Cincinnati**

Discusses Cincinnati's place among nation's cities internal form and structure, "neighborhoods", economy, institutions, and politics. BoK: HP. Credit Level: U, G. Credit Hrs: 3.00

15HIST614**Environmental History of North America to 1900**

A historical study of the changing relationships between human beings and the natural world, including; the effects of the natural world on culture and society; the effects of human activity on the environment; and the changing attitudes of different Americans toward nature. BoK: HP., SE. Credit Level: U, G. Credit Hrs: 3.00

15HIST615**Twentieth-Century American Environmental History and Policy**

A historical analysis of the changing American environment and the development of American environmentalism in the twentieth century. BoK: HP., SE. Credit Level: U, G. Credit Hrs: 3.00

History**15HIST615****Twentieth-Century American Environmental History and Policy**

A historical analysis of the changing American environment and the development of American environmentalism in the twentieth century. BoK: HP., SE. Credit Level: U, G. Credit Hrs: 3.00

15HIST616**Twentieth Century American Cities**

This course will focus on the changing structure of American urban society throughout the twentieth century. BoK: HP. Credit Level: U, G. Credit Hrs: 3.00

15HIST630**HIST RESCH&COMPUTE**

HIST RESCH&COMPUTE BoK: HP. Credit Level: U, G. Credit Hrs: 3.00

15HIST641**Eastern Europe**

3 ug. cr. BoK: HP., DC. Credit Level: U, G. Credit Hrs: 3.00

15HIST642**Eastern Europe**

3 ug. cr. BoK: HP., DC. Credit Level: U, G. Credit Hrs: 3.00

15HIST645**Eighteenth-Century Britain**

An examination of themes and topics in British society, culture, politics, and economics from the parliamentary creation of 'Great Britain' in 1707 to its newly negotiated relationship with Ireland and continental Europe during the French Revolutionary and Napoleonic wars. BoK: HP. Credit Level: U, G. Credit Hrs: 3.00

15HIST646**19TH CENT BRITAIN**

19TH CENT BRITAIN BoK: HP. Credit Level: U, G. Credit Hrs: 3.00

15HIST647**Twentieth-Century Britain**

Themes and topics in British society, culture, and policies during the twentieth century. BoK: HP. Credit Level: U, G. Credit Hrs: 3.00

15HIST648**Masculinities in Britain and America since 1850**

Explores what it was meant 'to be a man' in 19th and 20th century Britain and USA. Examines changes and continuities in configurations of masculinity as they have been manifested in the spheres of the home, the workplace, politics, militarism and sexuality, and represented in media of popular culture. The relational aspect of gender, with masculinity discussed consistently in relation to femininity. BoK: HP., DC. Credit Level: U, G. Credit Hrs: 3.00

15HIST650**WOMEN WRITERS OF THE RENAISSANCE**

Lecture/discussion course involving close reading and discussion of the humanist works of female writers working in Renaissance Europe, primarily Italian but others as well BoK: DC., HP. Credit Level: U, G. Credit Hrs: 3.00

15HIST659**European Diplomatic History: 1919-Present**

3 ug. cr. BoK: HP. Credit Level: U, G. Credit Hrs: 3.00

15HIST661**China from Prehistory to the Ninth Century**

This course covers the survey of Chinese history from the paleolithic period to early modern China. The focus is on how China evolved institutions, political philosophies, and an economy that gave rise to an imperial system dominated by a theoretical all-powerful emperor assisted by a centralized bureaucracy based on a competitive civil service examination system. BoK: HP., DC. Credit Level: U, G. Credit Hrs: 3.00

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History**15HIST662****China from the 9th to the 19th Century**

This course continues the survey of Chinese history from medieval China to the threshold of Modern China. The interpretive issues are how China achieved early "modernity" when compared to medieval Europe, and how it "stagnated". BoK: HP., DC. Credit Level: U, G. Credit Hrs: 3.00

15HIST663**Chinese History: Age of Revolution, 1874 to present**

Chinese efforts to modernize their state and society. BoK: HP., DC. Credit Level: U, G. Credit Hrs: 3.00

15HIST664**Rise of Modern Japan: 1830-Present**

A survey of Japan from the mid-eighteenth century to the present, with emphasis on how the Japanese society, culture, and economy underwent rapid transformation. Translation of Japanese works will be assigned as texts for discussion. BoK: HP., DC. Credit Level: U, G. Credit Hrs: 3.00

15HIST670**An Introduction to Roman Private Law**

A course in Roman Private Law. It is designed to introduce students to a complex and sophisticated legal system that is in many ways fundamentally different from our own, but which affords a valuable historical and philosophical perspective for students of modern law. Two lectures, one discussion section per wk. BoK: HP. Credit Level: U, G. Credit Hrs: 3.00-4.00

15HIST675**Russia**

The rise of Moscow as a new center of power. BoK: HP., DC. Credit Level: U, G. Credit Hrs: 3.00

15HIST676**Russia**

Russia in the 18th century. BoK: HP., DC. Credit Level: U, G. Credit Hrs: 3.00

15HIST677**Russia Under the Old Regime: 1800-1894**

Russia under the Old Regime from 1800-1894. BoK: HP., DC. Credit Level: U, G. Credit Hrs: 3.00

15HIST678**Russia between Reform and Revolution, 1855-1917**

This course provides an overview of Russia during the last decades of tsarist rule and focuses both on key issues relating to Russia's general social, economic, cultural, and political development as well as on the stories of prominent figures of the period such as Tolstoy, Dostoevsky, Lenin, and Russia's last tsar, Nicholas II. BoK: HP., DC. Credit Level: U, G. Credit Hrs: 3.00

15HIST679**Soviet Union Under Stalin and His Successors: 1924-Present**

Russia 1917 to present BoK: HP., DC. Credit Level: U, G. Credit Hrs: 3.00

15HIST680**History of Sexuality in American**

A social history of sexuality in the United States from the eighteenth century to the present. BoK: HP., DC. Credit Level: U, G. Credit Hrs: 3.00

15HIST683**Gender and Latin American History to 1900**

Explores relationships between men, women and in the family from precontact Latin America through the nineteenth century. Topics include gender in Pre-Columbian indigenous societies, in Spain, during the conquest. Other themes include gender and sexuality, illegitimacy, the family, and male and female occupations (priesthood, military, female religious, economic pursuits). BoK: HP., DC. Credit Level: U, G. Credit Hrs: 3.00

History**15HIST684****Gender and Latin American History After 1900**

Explores relationships between men, women and in the family during the twentieth century in Latin America. Topics include the gendered nature of popular culture, work, politics, suffrage, feminism, revolution and terrorism. BoK: HP., DC. Credit Level: U, G. Credit Hrs: 3.00

15HIST700**Language Intensive Reading**

Taken concurrently with a course numbered 500 or above and listed in the Department of History's Guide to History Courses as available for "language intensive credit." Two credit hours will be awarded to the student who, in his or her work in the concurrent course, conducts at least 50% of the reading in a language other than English. Credit Level: G. Credit Hrs: 2.00

15HIST703**U.S. Women's History**

To 1890. Work, sexuality, and family life; class, racial, and ethnic diversity; participation in politics, social reform and feminist movements. Additional reading and writing assignments for graduate students. Credit Level: G. Credit Hrs: 3.00

15HIST704**U.S. Women's History**

From 1890 to present. Additional reading and writing assignments for graduate students. Credit Level: G. Credit Hrs: 3.00

15HIST707**Latin American Film and History to 1900**

Introduces students to Latin American History and culture through film, readings, class discussion and lectures. Goal is to explore significant influences which have molded Latin American History from the conquest to the twentieth century. Credit Level: G. Credit Hrs: 3.00

15HIST708**Latin American Film and History After 1900**

Introduces students to the current history of Latin America through an exploration of contemporary revolutions. The term "revolution" is contoured widely to encompass not only revolutions from the left, such as Cuba, but those from the right (Argentina.) Also included are movements that bring revolutions in mores, attitudes or gender roles. Credit Level: G. Credit Hrs: 3.00

15HIST710**Fall Graduate Workshop in European Studies**

Introduces students to the methodologies and interdisciplinary approaches to the field of European Studies through a series of bi-weekly workshops (2 hours). Five faculty from three departments will present their work and lead discussion on a common theme. Credit Level: G. Credit Hrs: 6.00

15HIST711**Graduate Seminar in European Studies I**

This seminar will focus on common themes related to European Studies. Students will begin to develop a research topic to be written in Spring Quarter. This is the first part of a two-quarter sequence. Credit Level: G. Credit Hrs: 6.00

15HIST712**Graduate Seminar in European Studies II**

This seminar will focus on a common theme related to European Studies. Students will write a research paper on a topic of their choice and present it at a European Studies conference involving students and faculty. This is the second part of a two quarter sequence. Credit Level: G. Credit Hrs: 6.00

15HIST715**History of Cincinnati**

In this mixed lecture and discussion class students will study Cincinnati's history using important articles and monographs. Particular attention will be paid to industrial development, racial segregation, and suburbanization. Credit Level: G. Credit Hrs: 3.00

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History**15HIST716****Fall Graduate Workshop in European Studies**

Introduces students to the methodologies and interdisciplinary approaches to the field of European Studies through a series of bi-weekly workshops (2 hours). Five faculty from three departments will present their work and lead discussion on a common theme. Credit Level: G. Credit Hrs: 6.00

15HIST717**Graduate Seminar in European Studies I**

This seminar will focus on common themes related to European Studies. Students will begin to develop a research topic to be written in Spring Quarter. This is the first part of a two-quarter sequence. Credit Level: G. Credit Hrs: 6.00

15HIST718**Graduate Seminar in European Studies II**

This seminar will focus on a common theme related to European Studies. Students will write a research paper on a topic of their choice and present it at a European Studies conference involving students and faculty. This is the second part of a two quarter sequence. Credit Level: G. Credit Hrs: 6.00

15HIST720**Literature of Middle Eastern and North African History**

Surveys influential and recent scholarly literature on Middle Eastern and North African history. Students are introduced to the practice of reading scholarly works critically and assessing them. Credit Level: G. Credit Hrs: 6.00

15HIST721**Literature of American History 1607-1820**

Surveys influential and recent scholarly literature on American history from 1607 to 1820. Students are introduced to the practice of reading scholarly works critically and assessing them. Credit Level: G. Credit Hrs: 6.00

15HIST722**Literature of American History 1820-1920**

Surveys influential and recent scholarly literature on American history from 1820 to 1920. Students are introduced to the practice of reading scholarly works critically and assessing them. Credit Level: G. Credit Hrs: 6.00

15HIST723**Literature of American History 1920-Present**

This seminar surveys influential and recent scholarly literature on American history since 1920. The students are introduced to the practice of reading scholarly works critically and assessing them. Credit Level: G. Credit Hrs: 6.00

15HIST727**Colloquium in American History**

Surveys influential and recent scholarly literature on a specific topic in American history. Topics change from year to year. Students are introduced to the practice of reading scholarly works critically and assessing them. Credit Level: G. Credit Hrs: 6.00

15HIST728**Colloquium on World History**

Surveys of influential and recent scholarly literature on a specific topic in world history. Topics change from year to year. Students are introduced to the practice of reading scholarly works critically and assessing them. Credit Level: G. Credit Hrs: 6.00

15HIST729**Colloquium on European History**

Surveys recent and influential scholarly works on a specific topic in European history. Topics change from year to year. Students are introduced to the practice of reading scholarly works critically and assessing them. Credit Level: G. Credit Hrs: 6.00

History**15HIST730****Medieval West**

MEDIEVAL WEST Credit Level: G. Credit Hrs: 3.00

15HIST731**The Medieval West**

As an advanced survey, the course will cover significant aspects of the period 500-1500 in Western Europe including trends in religious, political, intellectual, social and economic life. Credit Level: G. Credit Hrs: 3.00

15HIST732**MEDIEVAL WEST**

MEDIEVAL WEST Credit Level: G. Credit Hrs: 3.00

15HIST735**Hitler -- Nazi Party**

Hitler and the founding of the Nazi Party to 1933. Credit Level: G. Credit Hrs: 3.00

15HIST736**Hitler -- Nazi Party**

Hitler and the Nazi Party from 1933-1945. Credit Level: G. Credit Hrs: 3.00

15HIST737**Colloquium on American History**

Surveys influential and recent scholarly literature on a specific topic in American history. Topics change from year to year. Students are introduced to the practice of reading scholarly works critically and assessing them. Credit Level: G. Credit Hrs: 6.00

15HIST738**Colloquium on World History**

Surveys influential and recent scholarly literature on a specific topic in world history. Topics change from year to year. Students are introduced to the practice of reading scholarly works critically and assessing them. Credit Level: G. Credit Hrs: 6.00

15HIST739**Colloquium on European History**

Surveys influential and recent scholarly literature on a specific topic in European history. Topics change from year to year. Students are introduced to the practice of reading scholarly works critically and assessing them. Credit Level: G. Credit Hrs: 6.00

15HIST740**Literature of European History 1000-1300**

Surveys influential and recent scholarly literature of European history from 1000 to 1300. Students are introduced to the practice of reading scholarly works critically and assessing them. Credit Level: G. Credit Hrs: 6.00

15HIST741**Literature of European History 1300-1500**

Surveys influential and recent scholarly literature on European history from 1300 to 1500. Students are introduced to the practice of reading scholarly works critically and assessing them. Credit Level: G. Credit Hrs: 6.00

15HIST742**Literature of European History 1500-1700**

Surveys influential and recent scholarly literature of European history from 1500 to 1700. Students are introduced to the practice of reading scholarly works critically and assessing them. Credit Level: G. Credit Hrs: 6.00

15HIST743**Literature of European History 1700-1870**

Surveys influential and recent scholarly literature of European history from 1700 to 1870. Students are introduced to the practice of reading scholarly works critically and assessing them. Credit Level: G. Credit Hrs: 6.00

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History**15HIST744****Literature of European History 1870 - Present**

Surveys influential and recent scholarly literature of European History since 1870. Students are introduced to the practice of reading scholarly works critically and assessing them. Credit Level: G. Credit Hrs: 6.00

15HIST746**Gender, Empire and War in Modern Europe**

Introduces students to major developments in gender roles which have taken place in Europe since mid-19th century. Focuses on how gender roles in Europe were profoundly linked to Europe's overseas empires and to the two world wars. Credit Level: G. Credit Hrs: 6.00

15HIST747**Literature of Ottoman History 1650-1918**

Surveys influential and recent scholarly literature of the history of the Ottoman Empire from 1650 to 1928. Students are introduced to the practice of reading scholarly works critically and assessing them. Credit Level: G. Credit Hrs: 6.00

15HIST748**Literature of Latin American History**

Surveys influential and recent scholarly literature on the history of Latin America. Students are introduced to the practice of reading scholarly works critically and assessing them. Credit Level: G. Credit Hrs: 6.00

15HIST749**Literature of Modern Indian History**

Surveys influential and recent scholarly literature on the history of modern India. Students are introduced to the practice of reading scholarly works critically and assessing them. Credit Level: G. Credit Hrs: 6.00

15HIST751**History of Germany: Rise of Modern Germany**

Legacy from the Middle Ages; impact of the Reformation; rise of Prussia and the problem of German particularism. Credit Level: G. Credit Hrs: 3.00

15HIST752**History of Germany: The Nineteenth Century**

Impact of the French Revolution; growth of nationalism, the German Confederation, Austro-Prussian struggle for supremacy; the Bismarckian Empire. Credit Level: G. Credit Hrs: 3.00

15HIST753**History of Germany: 1900-1945**

History of Germany from 1900-1945. Credit Level: G. Credit Hrs: 3.00

15HIST754**History of Germany since 1945**

Post-World War II Germany: the two Germanies and reunification. Credit Level: G. Credit Hrs: 3.00

15HIST755**Atrocities and Memory in the Middle East World War I**

Study of the evidence, the theoretical and comparative studies of atrocities and memory, evolution of human rights discourses, memory of history, and role of memory construction in forming national identities. Extensive primary and secondary source readings, discussions and essays. Credit Level: G. Credit Hrs: 6.00

15HIST756**History of the British Empire, 1763-1947**

Explores the social, cultural, political and economic history of the British Empire in America, Africa, and Asia through travel writings, memoirs, novels, parliamentary reports, newspapers and diplomatic records. Credit Level: G. Credit Hrs: 6.00

15HIST757**Topics in Latin American History I**

This course examines major historiographical themes in modern Latin American History. Credit Level: G. Credit Hrs: 6.00

History**15HIST758****Topics in Latin American History II**

This course examines major historiographical themes in modern Latin American History. Credit Level: G. Credit Hrs: 6.00

15HIST760**Historical Methodologies**

Introduces students to the theoretical and practical challenges intrinsic to historical research. Credit Level: G. Credit Hrs: 6.00

15HIST761**Colloquium on Comparative Historiography**

This required course will focus on feature of comparative historiography as a foundational element within the doctoral program in History, while also being available for MA students. Credit Level: G. Credit Hrs: 5.00

15HIST762**Comparative Colloquium**

Surveys influential and recent scholarly literature on a specific topic in a comparative perspective that involves two or more geographical areas or time periods. The topics will vary from year to year. Students are introduced to the practice of reading historical works critically and in comparative perspective. Credit Level: G. Credit Hrs: 6.00

15HIST764**Introduction to Public History: Presenting the American Past**

Examines the role of memory and commemoration, of past and present, in American society and the practice of history; the significance of place and material culture in presenting the past; the problem of how to represent past events, actors and ideas visually and textually; and the relationships between content, medium and audience in US History. Credit Level: G. Credit Hrs: 6.00

15HIST765**Public History Internship**

Practical professional experience, under the guidance of specialists, at an institution whose purposes and activities are related to an area of public history (i.e., historic preservation, museums, archives). Terms and hours will be arranged with individual students, institutions and faculty supervisors. Credit Level: G. Credit Hrs: 3.00-6.00

15HIST766**Public History Internship**

Allows history students to gain experience through reality-based learning. Credit Level: G. Credit Hrs: 1.00-6.00

15HIST771**Roman History: Early Rome**

Origin of the Roman state; evolution of public and social institutions; foreign policy and expansion through the period of the Middle Republic. Credit Level: G. Credit Hrs: 4.00

15HIST772**Roman History: Late Republic**

Internal and foreign affairs of the Roman state from the time of the Gracchi to that of Julius Caesar and the end of the Republic. Credit Level: G. Credit Hrs: 4.00

15HIST773**Roman History: Empire**

Political, social, economic history of the Roman Empire from Augustus to the Antonines. Credit Level: G. Credit Hrs: 4.00

15HIST774**Archaic Greece**

The collapse of Bronze Age civilization; the Dark Age; social differentiation and origin of the polis; colonization; the constitutional development of Sparta and Athens to the end of the sixth century. Credit Level: G. Credit Hrs: 4.00

15HIST775**Greece: Pericles**

Greece: The age of Pericles and the fourth century. The social and political history of Greece in the fifth and fourth centuries B.C. Prereq: 15HIST101, 15HIST102, 15HIST103. Credit Level: G. Credit Hrs: 4.00

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History**15HIST775****Greece: Pericles**

Greece: The age of Pericles and the fourth century. The social and political history of Greece in the fifth and fourth centuries B.C. Prereq: 15HIST101, 15HIST102, 15HIST103. Credit Level: G. Credit Hrs: 4.00

15HIST776**Greece: Hellenistic**

Greece: Alexander the Great and the Hellenistic Period. The social and political history of the Greek world in the fourth to the second centuries B.C. Credit Level: G. Credit Hrs: 4.00

15HIST777**Old World and New World Frontiers**

Readings course with focus on key questions relating to the history of frontier societies and cross-cultural contact in Europe, Asia, and the Americas between the late medieval and modern periods. Credit Level: G. Credit Hrs: 5.00

15HIST778**Literature of Modern Chinese History**

Surveys influential and recent scholarly works on modern Chinese History. Students are introduced to the practice of reading scholarly works critically and assessing them. Credit Level: G. Credit Hrs: 6.00

15HIST780**Land and Peasantry in Modern Europe**

Examines the changing and conflicting attitudes towards the land and the peasantry in Twentieth Century Europe from a political, economic and social-cultural perspective through literature and government legislation. Credit Level: G. Credit Hrs: 6.00

15HIST785**Film and History of World War II**

Propaganda; images of Blacks, women, and Jews; newsreels. Credit Level: G. Credit Hrs: 3.00

15HIST786**Hollywood and History**

An in-depth introduction to the ways in which Hollywood has treated historical themes and how this has shaped popular ideas about history. Students learn the critical skills necessary for studying films as primary sources. Credit Level: G. Credit Hrs: 3.00

15HIST787**History of Christianity**

This course will concentrate on pivotal events or turning points in the history of Christianity which have had a profound influence--both positive and negative-- on the formation of our civilization. Credit Level: G. Credit Hrs: 3.00

15HIST788**History of Christianity**

This course will concentrate on pivotal events or turning points in the history of Christianity which have had a profound influence -- both positive and negative--on the formation of our civilization. Credit Level: G. Credit Hrs: 3.00

15HIST789**History and Narrative: The Work of Paul Ricoeur**

Seminar comprising a close reading of Paul Ricoeur's three volume work, Time and Narrative. We will then use this work to explore some of the philosophical premises of writing history as a story which has meaning. Credit Level: G. Credit Hrs: 5.00

15HIST800**Cincinnati Seminar on the City**

Aims to bring together a diverse group of people (by age, gender, religion, occupation, ethnicity, and race) in informed discussions of the problems and promise of city life with special reference to the United States and Cincinnati. Prereq.: Masters and doctoral. Credit Level: G. Credit Hrs: 1.00

History**15HIST801****Cincinnati Seminar on the City**

Aims to bring together a diverse group of people (by age, gender, religion, occupation, ethnicity, and race) in informed discussions of the problems and promise of city life with special reference to the United States and Cincinnati. The second offering in a three-part course sequence. Prereq.: Masters and doctoral. Credit Level: G. Credit Hrs: 1.00

15HIST802**Cincinnati Seminar on the City**

Aims to bring together a diverse group of people (by age, gender, religion, occupation, ethnicity, and race) in informed discussions of the problems and promise of city life with special reference to the United States and Cincinnati. The third offering in a three-part course sequence. Prereq.: Masters and doctoral. Credit Level: G. Credit Hrs: 1.00

15HIST815**Interdisciplinary Seminar: Frontiers of Urban Research**

Current research trends and techniques in the shared urban aspects of geography, history, political science, and sociology. For advanced graduate students wanting early reactions to theses or dissertations. Admission only with faculty approval. The second offering in a three-part course sequence. Credit Level: G. Credit Hrs: 5.00

15HIST816**Interdisciplinary Seminar: Frontiers of Urban Research**

Current research trends and techniques in the shared urban aspects of geography, history, political science, and sociology. For advanced graduate students wanting early reactions to theses or dissertations. Admission only with faculty approval. The third offering in a three-part course sequence. Credit Level: G. Credit Hrs: 5.00

15HIST851**Masters Independent Readings**

Hrs. to be arranged. Credit Level: G. Credit Hrs: 1.00-8.00

15HIST872**Research**

Research for work on Master's thesis. Credit Level: G. Credit Hrs: 1.00-15.00

15HIST873**Seminar in Theory and Practice of Teaching**

Restricted to graduate assistants. Hrs. to be arranged. Credit Level: G. Credit Hrs: 4.00

15HIST881**Directed Readings**

Variable cr. Credit Level: G. Credit Hrs: 1.00-8.00

15HIST882**Directed Readings**

Variable cr. Credit Level: G. Credit Hrs: 1.00-8.00

15HIST883**Directed Readings**

Variable cr. Credit Level: G. Credit Hrs: 1.00-8.00

15HIST885**Independent Study**

Hrs. to be arranged. Credit Level: G. Credit Hrs: 1.00-8.00

15HIST886**Independent Study**

Hrs. to be arranged. Credit Level: G. Credit Hrs: 1.00-8.00

15HIST887**Independent Study**

Hrs. to be arranged. Credit Level: G. Credit Hrs: 1.00-8.00

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History**15HIST888****Preparation for Qualifying Examinations**

This course will allow doctoral students to have one quarter to synthesize the knowledge acquired through a wide variety of formats-lecture courses, colloquia, seminars, directed readings, and independent work in preparation for examinations which cover broad fields and not individual courses. Credit Level: G. Credit Hrs: 1.00-12.00

15HIST900**Preparing Future Faculty Seminar**

Practical and theoretical training for doctoral students who will be teaching at the post-secondary level. Credit Level: G. Credit Hrs: 4.00

15HIST922**Research Seminar in American History**

Introduces students to historical research. Students will conduct their own research toward completion of an article-length scholarly paper. Credit Level: G. Credit Hrs: 6.00

15HIST923**Research Seminar in American History**

Introduces students to historical research. Students will conduct their own research toward completion of an article-length scholarly paper. Credit Level: G. Credit Hrs: 6.00

15HIST924**Seminar in U S History**

Seminar in U.S. Historical issues. Credit Level: G. Credit Hrs: 6.00

15HIST935**Research Seminar in World History**

Introduces students to historical research. Students will conduct their own research toward completion of an article-length scholarly paper. Credit Level: G. Credit Hrs: 6.00

15HIST936**Research Seminar in World History**

Introduces students to historical research. Students will conduct their own research toward completion of an article-length scholarly paper. Credit Level: G. Credit Hrs: 6.00

15HIST952**Research Seminar in European History**

Introduces students to historical research. Students will conduct their own research toward completion of an article-length scholarly paper. Credit Level: G. Credit Hrs: 6.00

15HIST953**Research Seminar in European History**

Introduces students to historical research. Students will conduct their own research toward completion of an article-length scholarly paper. Credit Level: G. Credit Hrs: 6.00

15HIST972**Research**

RESEARCH Credit Level: G. Credit Hrs: 1.00-15.00

15HIST998**Dissertation Research**

1 or more gr. cr. Credit Level: G. Credit Hrs: 1.00-15.00

15HIST999**Research**

Projects not covered in courses 872 or 971. Credit Level: G. Credit Hrs: 1.00-15.00

Human Resources**15HUMR101****Introduction to Human Resource Statistics**

A basic introduction to the concepts of descriptive statistics, and statistical methods that may be used in the workplace (e.g., mean, medium, mode). How workplace issues are related to statistical procedures. Prereq: 30MATH121. BoK: NA. Credit Level: U. Credit Hrs:

Human Resources**15HUMR101****Introduction to Human Resource Statistics**

3.00

15HUMR252**Concepts of Human Resource Management II**

The continuation of Concepts of Human Resource Management. Performance appraisal, compensation, employee incentive and benefits, labor relations, and international human resource management are examined. Prereq: 30HUMR251. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15HUMR261**Introduction Human Resources**

(Formerly 30MGMT261). General introduction and overview of human resource functions, concepts and issues. Functions include: recruitment and selection of labor force; training and development, performance appraisal, compensation administration; EEO/Affirmative Action; labor relations; and government regulations. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15HUMR327**History of American Business**

Historical overview of development of commerce and management concepts in the United States. Course examines influences of U.S. Constitution, Supreme Court decisions, transportation, government regulations, social change, international competition in relation to contemporary American business Prereq: 30ENGL103, 30COMM171. BoK: HP. Credit Level: U. Credit Hrs: 3.00

15HUMR395**Health and Safety Issues**

An examination of the major health and safety issues that challenge contemporary organizations. Topics highlighted are OSHA, worker safety, workplace violence, alcoholism, AIDS, drugs, and stress management. Prereq: 30HUMR252. BoK: SE. Credit Level: U. Credit Hrs: 3.00

15HUMR423**Teaching Assistant Practicum for LER Students**

Supervised experience as teaching assistant for labor and employment relations courses. Can take for three quarters.(FORMERLY ECON423) BoK: NA. Credit Level: U. Credit Hrs: 3.00

15HUMR452**Employment Law II**

Continuation of the analysis of employment-related statutes and case holdings on the business environment. The focus will be on Federal and State laws affecting employment decisions, and how Human Resource managers must align organizational policies and practices accordingly. Prereq: 30HUMR451. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15HUMR476**Employment Law**

Principles which regulate, direct and protect management and labor. Rules, interpretations under the statutes, decisions; leading cases, landmark developments, National Labor Relations Act. (FORMERLY ECON 476) Prereq: 15ECON102, 15ECON103. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15HUMR481**Contemporary Issues in Organizational Behavior**

(Formerly 30MGMT481). The course focuses on current research on individual and group culture in organizations. The effects of corporate downsizing & reengineering on work group behavior will be examined. The course will also focus on developing assessment skills to better explain, predict, and control individual, group and organizational culture. BoK: SE. Credit Level: U. Credit Hrs: 3.00

15HUMR482**Contemporary Issues in Organizational Behavior II**

A continuation of 30HUMR481. Laboratory simulation and/or team

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Human Resources**15HUMR482****Contemporary Issues in Organizational Behavior II**

research projects are used to pursue advanced topics. BoK: SE. Credit Level: U. Credit Hrs: 3.00

15HUMR495**Collective Bargaining: Negotiation/Administration**

An analytical review of the impact the current Labor Relations and Collective Bargaining environment has on the business community as a whole, including the implications of the theoretical framework of administration and negotiating procedures. Prereq: 30HUMR252. BoK: NA. Credit Level: U. Credit Hrs: 3.00

Interdisciplinary**15INTR101****Environment Science I**

Interdisciplinary introduction to basic ecological concepts; laws of thermodynamics; biogeochemical cycles; human impact upon biomes; economics and politics of pollution; risk assessment; the world population crisis. BoK: NS., SE. Credit Level: U. Credit Hrs: 3.00

15INTR102**Environmental Science II**

Interdisciplinary examination of water resources, use, and conservation; drinking water purification; wastewater treatment; air pollution sources and control; solid and hazardous waste; environmental law; global environmental problems. BoK: NS., SE. Credit Level: U. Credit Hrs: 3.00

15INTR103**Environmental Science III**

Interdisciplinary examination of endangered species, wildlife and wilderness; the energy crisis; perpetual, renewable, non-renewable energy resources; conservation, nuclear energy; pesticides; land-use planning; parks, refuges, wetlands; sustainable development; environmental ethics. BoK: NS., SE. Credit Level: U. Credit Hrs: 3.00

15INTR300**Issues in Medicine and the Humanities**

Utilizes various genres of literature to explore social and ethical issues concerned with medical treatments, illnesses and disability. Taught in conjunction with a 300-level nursing course. Prereq: 15ENGL102. BoK: SE, HU. Credit Level: U. Credit Hrs: 3.00

15INTR301**SIFE Internship (Students in Free Enterprise)**

This experiential internship emphasizes leadership, communication and teamwork, and provides students with insight into the workings of a market economy. The supervised work experience must be approved by the SIFE Faculty Coordinator and must include a minimum of 90 supervised hours of work. The supervisor is required to submit an evaluation of the student's performance. This experience is limited to students enrolled in the AGS Students In Free Enterprise (SIFE) program in CECE. Prereq: 15ENGL103. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15INTR302**SIFE Internship (Students in Free Enterprise)**

This experiential internship emphasizes leadership, communication and teamwork, and provides students with insight into the workings of a market economy. The supervised work experience must be approved by the SIFE Faculty Coordinator and must include a minimum of 90 supervised hours of work. The supervisor is required to submit an evaluation of the student's performance. This experience is limited to students enrolled in the AGS Students In Free Enterprise (SIFE) program in CECE. Prereq: 15INTR301. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15INTR303**SIFE Internship (Students in Free Enterprise)**

This experiential internship emphasizes leadership, communication and teamwork, and provides students with insight into the workings of a

Interdisciplinary**15INTR303****SIFE Internship (Students in Free Enterprise)**

market economy. The supervised work experience must be approved by the SIFE Faculty Coordinator and must include a minimum of 90 supervised hours of work. The supervisor is required to submit an evaluation of the student's performance. This experience is limited to students enrolled in the AGS Students In Free Enterprise (SIFE) program in CECE. Prereq: 15INTR302. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15INTR333**Community Work I**

The nature of the self in relation to community development and design: a service-learning initiative. BoK: NA. Credit Level: U. Credit Hrs: 3.00-5.00

15INTR334**Community Work II**

A fieldsite extension of 15-995-333 into a community-oriented project. Prereq: 15INTR333. BoK: NA. Credit Level: U. Credit Hrs: 3.00-5.00

15INTR393H**Conroy Country and the Southern Experience**

Examines three works by author Pat Conroy and culminates in a four day study experience in Beaufort/Charleston, South Carolina area over Spring Break. BoK: HU., DC. Credit Level: U. Credit Hrs: 3.00

15INTR397H**Sex Differences: Insights from Biology, Film, and Literature**

This course will provide an overview of fundamental neurobiological differences between the sexes and their portrayals in representative film and literature. It will explore concerns about the objectivity and application of brain difference research and should serve as a basis for more in-depth study of gender issues in science and humanities. BoK: DC. Credit Level: U. Credit Hrs: 3.00

15INTR401**SIFE Internship (Students in Free Enterprise)**

This experiential internship emphasizes leadership, communication and teamwork, and provides students with insight into the workings of a market economy. The supervised work experience must be approved by the SIFE Faculty Coordinator and must include a minimum of 90 supervised hours of work. The supervisor is required to submit an evaluation of the student's performance. This experience is limited to students enrolled in the AGS Students In Free Enterprise (SIFE) program in CECE. Prereq: 15INTR303. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15INTR402**SIFE Internship (Students in Free Enterprise)**

This experiential internship emphasizes leadership, communication and teamwork, and provides students with insight into the workings of a market economy. The supervised work experience must be approved by the SIFE Faculty Coordinator and must include a minimum of 90 supervised hours of work. The supervisor is required to submit an evaluation of the student's performance. This experience is limited to students enrolled in the AGS Students In Free Enterprise (SIFE) program in CECE. Prereq: 15INTR401. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15INTR403**SIFE Internship (Students in Free Enterprise)**

This experiential internship emphasizes leadership, communication and teamwork, and provides students with insight into the workings of a market economy. The supervised work experience must be approved by the SIFE Faculty Coordinator and must include a minimum of 90 supervised hours of work. The supervisor is required to submit an evaluation of the student's performance. This experience is limited to students enrolled in the AGS Students In Free Enterprise (SIFE) program in CECE. Prereq: 15INTR402. BoK: NA. Credit Level: U. Credit Hrs: 3.00

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LT: Literature. NS: Natural Sciences. QR: Quantitative Reasoning. SE: Social & Ethical Issues. SS: Social Sciences.

Interdisciplinary**15INTR505****Interdisciplinary Capstone**

Course will provide a capstone experience for senior BIS/INTERDISCIPLINARY students. Students will develop individual capstone proposals in consultation with their BIS program advisors. BoK: NA. Credit Level: U. Credit Hrs: 3.00-6.00

15INTR561**Interdisciplinary Capstone Seminar I**

An interdisciplinary course built around a timely theme. Student is asked to write several short papers on topics related to the course theme and/or to their completion of the baccalaureate degree. The theme is explored through reading and group discussions. This course must be followed by INTR562. e BoK: NA. Credit Level: U. Credit Hrs: 3.00

15INTR562**Interdisciplinary Capstone Seminar II**

A continuation of 30INTR561. The primary objective is to complete and present a senior paper and/or project related to both the theme covered in INTR561 and to the student's major area of study. Prereq: 15INTR561. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15INTR774**Introduction to Literary Theory I**

Interdisciplinary course on literary theory. Taught in English. Emphasis on Aristotle's Poetics and the major essays by literary critics and aestheticians up to the twentieth century (Plato, Horace, Longinus, Sydney, Dryden, the Romantics, T.W. Eliot). The course focuses on both theoretical issues (such as imitation, the relationship between content and form, the sublime, the definition of genres) and practical exercises in criticism. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00-4.00

15INTR775**Literary Theory II**

A study formalism, structuralism, and post-structuralism. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00-4.00

15INTR776**Literary Theory III**

Interdisciplinary course on literary theory. Taught in English. Emphasis on literary psychoanalytical criticism, Marxist criticism, reader-response theories and gender studies. Practical exercises on various texts. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00-4.00

Irish Languages**15IRSH111****Modern Irish I**

Modern Irish language and culture. First quarter in a 6-quarter sequence. BoK: HU., DC. Credit Level: U. Credit Hrs: 3.00

15IRSH112**Modern Irish II**

Modern Irish language and culture. Second quarter in a 6-quarter sequence. Prereq: 15IRSH111. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15IRSH113**Modern Irish III**

Modern Irish language and culture. Third quarter in a 6-quarter sequence. Prereq: 15IRSH112. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15IRSH114**Intermediate Modern Irish 1**

Follow-up course to first year Irish with readings in Irish literature and folklore. BoK: HU., DC. Credit Level: U. Credit Hrs: 3.00

15IRSH115**Intermediate Modern Irish 2**

Intermediate Irish language and culture 5th qtr. in the 6-quarter sequence. Prereq: 15IRSH114, 15ENG667. BoK: HU, DC. Credit

Irish Languages**15IRSH115****Intermediate Modern Irish 2**

Level: U. Credit Hrs: 3.00

15IRSH116**Intermediate Modern Irish 3**

Intermediate Irish language and culture. 6th qtr in the 6-quarter sequence. Prereq: 15IRSH115, 15ENG669. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15IRSH501**Modern Irish I**

Students wishing to receive graduate credit for courses in Modern Irish must sign up for this number and attend the undergraduate section of 15IRSH111 Credit Level: G. Credit Hrs: 3.00

15IRSH502**Modern Irish II**

Students wishing to receive graduate credit for courses in Modern Irish sign up for this number and attend the undergraduate section of 15IRSH112. Prereq: 15IRSH111. Credit Level: G. Credit Hrs: 3.00

15IRSH503**Modern Irish III**

Students wishing to receive graduate credit for courses in Modern Irish sign up for this number and attend the undergraduate section of 15IRSH113. Prereq: 15IRSH112. Credit Level: G. Credit Hrs: 3.00

15IRSH504**Intermediate Modern Irish 1**

Follow-up course to first year Irish with readings in Irish literature and folklore. Graduate course linked to 15-IRSH-114. Credit Level: G. Credit Hrs: 3.00

15IRSH505**Intermediate Modern Irish 2**

Graduate number for students attending 15Irsh116 Prereq: 15IRSH504. Credit Level: G. Credit Hrs: 3.00

15IRSH506**Intermediate Modern Irish 3**

Graduate number for students attending 15IRSH116. Prereq: 15IRSH505. Credit Level: G. Credit Hrs: 3.00

Italian**15ITAL101****Basic Italian I**

Basic Italian language and culture. First quarter in the 3-quarter sequence that fulfills the A&S language requirement. BoK: DC., HU. Credit Level: U. Credit Hrs: 5.00

15ITAL102**Basic Italian II**

Basic Italian language and culture. Second quarter in the 3-quarter sequence that fulfills the A&S language requirement. Prereq: 15ITAL101. BoK: DC, HU. Credit Level: U. Credit Hrs: 5.00

15ITAL103**Basic Italian III**

Basic Italian language and culture. Third quarter in the 3-quarter sequence that fulfills the A&S language requirement. Prereq: 15ITAL102. BoK: HU, DC. Credit Level: U. Credit Hrs: 5.00

15ITAL111**Extended Basic Italian 1**

Basic Italian language and culture. First quarter in the extended 6-quarter sequence that fulfills the A&S language requirement. BoK: DC., HU. Credit Level: U. Credit Hrs: 3.00

15ITAL112**Extended Basic Italian 2**

Basic Italian language and culture. Second quarter in the extended 6-quarter sequence that fulfills the A&S language requirement. Prereq: 15ITAL111. BoK: DC, HU. Credit Level: U. Credit Hrs: 3.00

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Italian**15ITAL113****Extended Basic Italian 3**

Basic Italian language and culture. Third quarter in the extended 6-quarter sequence that fulfills the A&S language requirement. Prereq: 15ITAL112. BoK: DC, HU. Credit Level: U. Credit Hrs: 3.00

15ITAL114**Extended Basic Italian 4**

Basic Italian language and culture. Fourth quarter in the extended 6-quarter sequence that fulfills the A&S language requirement. Prereq: 15ITAL113. BoK: DC, HU. Credit Level: U. Credit Hrs: 3.00

15ITAL115**Extended Basic Italian 5**

Basic Italian language and culture. Fifth quarter in the extended 6-quarter sequence that fulfills the A&S language requirement. Prereq: 15ITAL114. BoK: DC, HU. Credit Level: U. Credit Hrs: 3.00

15ITAL116**Extended Basic Italian 6**

Basic Italian language and culture. Sixth quarter in the extended 6-quarter sequence that fulfills the A&S language requirements. Prereq: 15ITAL115. BoK: DC, HU. Credit Level: U. Credit Hrs: 3.00

15ITAL121**Elementary Italian**

Basic grammar and conversation; emphasis on pronunciation; study of selected texts set to music. Primarily for CCM students; open to others with departmental approval. BoK: HU., DC. Credit Level: U. Credit Hrs: 3.00

15ITAL122**Elementary Italian**

Basic grammar and conversation; emphasis on pronunciation; study of selected texts set to music. Primarily for CCM students; open to others with departmental approval. The second offering in a three-part course sequence. Prereq: 15ITAL121. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15ITAL123**Elementary Italian**

Basic grammar and conversation; emphasis on pronunciation; study of selected texts set to music. Primarily for CCM students; open to others with departmental approval. The third offering in a three-part course sequence. Prereq: 15ITAL122. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15ITAL251**Italian Composition and Conversation**

Review of grammar, improvement of writing skills; oral practice in Italian. BoK: HU., DC. Credit Level: U. Credit Hrs: 3.00

15ITAL252**Italian Composition and Conversation**

Italian Comp & Conv Prereq: 15ITAL251. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15ITAL253**Italian Composition and Conversation**

Italian Comp & Conv Prereq: 15ITAL252. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15ITAL314**Italian Film**

An introduction to the rich world of Italian film, film-makers, and cultural backgrounds BoK: DC. Credit Level: U. Credit Hrs: 3.00

15ITAL550**Italian Study Abroad**

For students participating in an established exchange program in the Italian-speaking world. Permission of Department required. Perm of Department. BoK: DC. Credit Level: U, G. Credit Hrs: 9.00-18.00

Italian**15ITAL571****Italian Culture**

Introduction to Italian Culture. Each student will research a specific topic such as Italian food-ways, folklore, art, music, architecture or popular culture in preparation for a study tour in Italy. Perm of Instructor. BoK: HU, DC. Credit Level: U, G. Credit Hrs: 3.00-4.00

15ITAL572**Andiamo in Italia**

Explorations of Italian culture through visits to a specific region of Italy, including artistic and culinary aspects of the region. Student research topics will be presented during the tour. Departure in early September, visit of 10-14 days. Perm of Instructor. BoK: HU, DC. Credit Level: U, G. Credit Hrs: 1.00-15.00

15ITAL581**Elementary Conversational Italian**

For beginners. Basic grammar and conversation; emphasis on pronunciation. BoK: HU., DC. Credit Level: U, G. Credit Hrs: 3.00

15ITAL582**Elementary Conversational Italian**

For beginners. Basic grammar and conversation; emphasis on pronunciation. The second offering in a three-part course sequence. Qualified undergraduates may be admitted by approval of undergraduate adviser and instructor. BoK: HU., DC. Credit Level: U, G. Credit Hrs: 3.00

15ITAL583**Elementary Conversational Italian**

For beginners. Basic grammar and conversation; emphasis on pronunciation. The third offering in a three-part course sequence. Qualified undergraduates may be admitted by approval of undergraduate adviser and instructor. BoK: HU., DC. Credit Level: U, G. Credit Hrs: 3.00

15ITAL584**Intermediate Conversational Italian**

Continuation of Ital. 583. Review of grammar; emphasis on reading and conversation. BoK: HU., DC. Credit Level: U, G. Credit Hrs: 3.00

15ITAL585**Intermediate Conversational Italian**

Continuation of Ital. 583. Review of grammar; emphasis on reading and conversation. The second offering in a three-part course sequence. Qualified undergraduates may be admitted by approval of undergraduate adviser and instructor. BoK: HU., DC. Credit Level: U, G. Credit Hrs: 3.00

15ITAL586**Intermediate Conversational Italian**

Continuation of Ital. 583. Review of grammar; emphasis on reading and conversation. Third offering in a three-part course sequence. Qualified undergraduates may be admitted by approval of undergraduate adviser and instructor. BoK: HU., DC. Credit Level: U, G. Credit Hrs: 3.00

15ITAL591**Independent Study**

Previous written approval of inst. and undergraduate advisor required. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-15.00

15ITAL592**Independent Study**

Previous written approval of inst. and undergraduate advisor required. Perm. of Dept. of RLL. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-15.00

15ITAL593**Independent Study**

Previous written approval of inst. and undergraduate advisor required. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-15.00

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Japanese Languages and Cultures**15JAPN101****Basic Japanese I**

Basic Japanese language and culture. 1st quarter in the 3 quarter sequence to fulfill the A&S language requirement. BoK: DC., HU. Credit Level: U. Credit Hrs: 5.00

15JAPN102**Basic Japanese II**

Basic Japanese language and culture. 2nd quarter of the 3 quarter sequence that fulfills the A&S language requirement. Prereq: 15JAPN101. BoK: DC, HU. Credit Level: U. Credit Hrs: 5.00

15JAPN103**Basic Japanese III**

Basic Japanese language and culture. 3rd quarter in the 3 quarter sequence that fulfills the A&S language requirement. Prereq: 15JAPN102. BoK: DC, HU. Credit Level: U. Credit Hrs: 5.00

15JAPN111**Extended Basic Japanese I**

Basic Japanese language and culture. First quarter in the extended 6-quarter sequence to fulfill the A&S language requirement. BoK: HU., DC. Credit Level: U. Credit Hrs: 3.00

15JAPN112**Extended Basic Japanese II**

Basic Japanese language and culture. Second quarter in the extended 6-quarter sequence to fulfill the A&S language requirement. Prereq: 15ASIA101. BoK: DC, HU. Credit Level: U. Credit Hrs: 3.00

15JAPN113**Extended Basic Japanese III**

Basic Japanese language and culture. Third quarter in the extended 6-quarter sequence to fulfill the A&S language requirement. Prereq: 15ASIA102. BoK: DC, HU. Credit Level: U. Credit Hrs: 3.00

15JAPN114**Extended Basic Japanese IV**

Basic Japanese language and culture. Fourth quarter in the extended 6-quarter sequence to fulfill the A&S language requirement. Prereq: 15ASIA103. BoK: DC, HU. Credit Level: U. Credit Hrs: 3.00

15JAPN115**Extended Basic Japanese V**

Basic Japanese language and culture. Fifth quarter in the extended 6-quarter sequence to fulfill the A&S language requirement. Prereq: 15ASIA201. BoK: DC, HU. Credit Level: U. Credit Hrs: 3.00

15JAPN116**Extended Basic Japanese VI**

Basic Japanese language and culture. Sixth quarter sequence to fulfill the A&S language requirement. Prereq: 15ASIA202. BoK: DC, HU. Credit Level: U. Credit Hrs: 3.00

15JAPN201**Second Year Japanese I**

Intermediate Japanese language and culture. First quarter in a three quarter sequence. Prereq: 15JAPN103. BoK: DC, HU. Credit Level: U. Credit Hrs: 5.00

15JAPN202**Second Year Japanese II**

Intermediate Japanese Language and culture. Second quarter in a 3-quarter sequence. Prereq: 15JAPN201. BoK: DC, HU. Credit Level: U. Credit Hrs: 5.00

15JAPN203**Second Year Japanese III**

Intermediate Japanese language and culture. Third quarter in a 2-quarter sequence. Prereq: 15JAPN202. BoK: DC, HU. Credit Level: U. Credit Hrs: 5.00

15JAPN301**Japanese Composition and Conversation 1**

Class conducted in Japanese, using readings from various subject

Japanese Languages and Cultures**15JAPN301****Japanese Composition and Conversation 1**

areas. Proficiency in reading and speaking Japanese will be stressed. The first offering in a three-part course sequence. Prereq: 15JAPN203. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15JAPN302**Japanese Composition and Conversation**

Class conducted in Japanese, using readings from various subject areas. Proficiency in reading and speaking Japanese will be stressed. The second offering in a three-part course sequence. Prereq: 15JAPN301. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15JAPN303**Japanese Composition and Conversation 3**

Advanced Japanese language and culture. Third quarter in the 3 quarter sequence. Prereq: 15JAPN302. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15JAPN364**Japanese Language and Culture I for International Co-op program**

This course follows the summer course and is designed for students who are visiting Japan to work and/or study in the future. The students will review the basic grammatical items and gradually develop their ability to comprehend authentic materials in listening and reading goals, increase technical vocabulary and the ability to make professional presentations at work and improve phone and written communication skills. BoK: HU., DC. Credit Level: U. Credit Hrs: 3.00

15JAPN365**Japanese Language and Culture II for International Co-op Program**

This course follows the fall course. It is designed to build the pre-advanced level of four language skills in Japanese -- listening, speaking, reading, and writing -- for students who are visiting Japan to work and/or study in the future. The opportunity to develop the ability to extract required information quickly will be provided. The course will also increase the student's understanding of Japanese business practices. Prereq: 15JAPN364. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15JAPN581**Japanese Independent Study**

Individual research projects requiring prior faculty approval. Cr. and hrs. to be arranged. BoK: DC. Credit Level: U, G. Credit Hrs: 1.00-5.00

15JAPN501**Basic Japanese I for graduates.**

For graduate beginners, emphasis on spoken modern Japanese; mastery of Hiragana and Katakana and up to 200 Japanese characters is also expected. The first offering of a three-part course sequence. Credit Level: G. Credit Hrs: 3.00

15JAPN502**Basic Japanese II for Graduates**

For graduate beginners, emphasis on spoken modern Japanese, mastery of Hiragana and Katakana and up to 200 Japanese characters is also expected. The second offering of a three-part course sequence. Credit Level: G. Credit Hrs: 3.00

15JAPN503**Basic Japanese III for Graduates.**

For graduate beginners emphasis on spoken modern Japanese; mastery of Hiragana and Katakana and up to 200 Japanese characters is also expected. The third offering of a three-part course sequence. Credit Level: G. Credit Hrs: 3.00

Journalism**15JOUR214****Introduction to Journalism**

Backgrounds to an understanding of the press and the principles of news writing. BoK: NA. Credit Level: U. Credit Hrs: 3.00

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Journalism**15JOUR215****News Writing and Reporting**

Introduction to contemporary journalism, concentrating on standards and techniques of reporting. May not be audited. Limited to 20 students. Prereq: 15ENGL102, 15JOUR214. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15JOUR216**Introduction to Photojournalism**

A foundation class in the history and aesthetic values of photojournalism with an emphasis on content and composition. Examines the legal and ethical issues involved in photojournalism. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15JOUR300**Precision Journalism**

Introduces advanced journalism students to technology-based news reporting techniques and instructs them in applying the principles of scientific method to the gathering and preparing of news stories. Emphasizes the use of computers, data bases and the internet to develop meaningful, complex stories. Students work in an internet-connected lab setting and practice how to find data sets, interpret and organize materials from multiple sources to write longer stories intended for publication. The course encourages critical thinking and the methodology of analyzing data as a journalistic tool and has a strong writing component. Prereq: 15JOUR215. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15JOUR301**Columns and Reviews**

A writing - intensive journalism course emphasizing columns and reviews in magazines and newspapers. Prereq: 15JOUR215. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15JOUR302**Feature Writing**

A journalism course focusing on the writing of magazine feature stories. Prereq: 15JOUR215. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15JOUR303**Copy Editing**

Techniques of copy editing with practical work on local publications. Prereq: 15JOUR215. BoK: NA. Credit Level: U. Credit Hrs: 2.00-3.00

15JOUR304**Journalism, Law and Ethics**

Ethical problems in reporting and editing with case study of communication law. Prereq: 15JOUR215. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15JOUR305**Journalism Ethics**

Reviews the development of major ethical systems and the history of American journalism before concentrating on the ethical standards affirmed by mainstream American reporters, photographers and editors, newspapers, news magazines, radio and TV news and internet sites that focus on news as opposed to commentary. Applies these standards to look at evolving community and professional perceptions of bias v objectivity, privacy v public interest, accuracy v demands of the 24/7 news cycle, truth v error and deception. Prereq: 15JOUR215. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15JOUR306**Photojournalism**

Introduction to the photographic techniques, tools and content issues in visual communication. Explores the methods for communication using photography as a language. Numerous photographic projects. Students are required to have a digital camera. Prereq: 15JOUR215, 15JOUR216. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15JOUR400**Digital Imaging**

Using the computer for digital alteration to edit, create composite, and alter photographic images. Prereq: 15JOUR306. BoK: NA. Credit Level:

Journalism**15JOUR400****Digital Imaging**

U. Credit Hrs: 3.00

15JOUR418**Advanced Photojournalism**

Advanced reportage with emphasis on the photographic essay. Finished projects incorporate the use of computer and/or scanned images for portfolio production. Prereq: 15JOUR306. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15JOUR421**Advanced Reporting: Topic**

A journalism course that focuses on researching and writing in-depth news stories for newspaper and magazine publication. Prereq: 15JOUR215. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15JOUR422**Advanced Reporting: Topic**

A journalism course that focuses on researching and writing in-depth news stories for newspaper and magazine publication. Prereq: 15JOUR215. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15JOUR423**Advanced Reporting: Topic**

A journalism course that focuses on researching and writing in-depth news stories for newspaper and magazine publication. See department for specific details. Prereq: 15JOUR215. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15JOUR426**Magazine Writing**

Writing and marketing of major length articles. Prereq: 15JOUR215. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15JOUR427**Advanced Magazine Writing**

Emphasizes core skills (structure, technique, magazine journalistic style, etc.) and the student writer's mature development of craft, voice and style. Prereq: 15JOUR215, 15JOUR426. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15JOUR428**Editing and Design**

Covers the fundamentals of editing and designs for print and web applications. Addresses print and web design principles, elements and layout forms, and pagination techniques for the use of typography and digital images, as well as basic HTML coding for creating, mapping, navigating and editing web pages. Prereq: 15JOUR215, 15JOUR303. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15JOUR499**Journalism Internship**

On-the-job experience supervised by an academic advisor. Perm of Department. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15JOUR500**Journalism Internship**

On-the-job experience supervised by an academic adviser. Perm of Department. BoK: NA. Credit Level: U. Credit Hrs: 1.00-3.00

15JOUR501**Journalism Internship**

On-the-job experience supervised by an academic adviser. Perm of Department. BoK: NA. Credit Level: U. Credit Hrs: 1.00-3.00

15JOUR502**Magazine Publishing**

Simulates real-world professional scenarios by challenging students to work in teams to create concepts for new magazines. Covers the magazine publishing industry: audience, editorial, circulation, and business plans. . Prereq: 15JOUR426. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00-4.00

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Journalism**15JOUR503****Photojournalism Workshop**

An introduction to photojournalism principles and applications including a historical study of documentary photography. Prereq: 15JOUR418. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00-4.00

15JOUR504**Photojournalism Workshop**

Reports advanced visual production work in print and new media photographic reportage. This documentary photojournalism class uses a wide range of media. Prereq: 15JOUR418. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00-4.00

15JOUR505**Photojournalism Workshop**

Advanced visual production work with particular emphasis on the picture story of photographic essay. Demands research, visual content focus, photography field research, writing, design, and production. Prereq: 15JOUR418. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00-4.00

15JOUR525**Narrative Nonfiction**

Students move beyond feature and magazine writing to work on longer narrative nonfiction. Class discussion, assisted by examples of recent nonfiction, focuses on the specific strategies involved in conducting saturation reporting and as well as the techniques involved in writing narrative nonfiction, including extended dialogue and scene-by-scene construction. Prereq: 15JOUR215, 15JOUR426. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00-4.00

15JOUR591**Individual Work**

A course in guided readings which must be negotiated in writing with individual faculty members and approved by the director of undergraduate studies. Perm of Department. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-3.00

15JOUR592**Individual Work**

A course in guided readings which must be negotiated in writing with individual faculty members and approved by the director of undergraduate studies. Perm of Department. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-3.00

15JOUR593**Individual Work**

A course in guided readings which must be negotiated in writing with individual faculty members and approved by the director of undergraduate studies. Perm of Department. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-3.00

15JOUR622**Editing Practices and Principles**

A workshop designed to teach the theory and practice of editing, including such important concepts as textuality, levels of edit, and top-down editing. Students become familiar with a variety of stylebooks, including the Associated Press, Chicago, MLA, APA, and the CBE. Students work with both print and electronic texts. Prereq: 15JOUR426. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00-4.00

15JOUR624**Journalism Seminar**

Journalistic writing with practical training in publication. Perm of Instructor. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00-4.00

15JOUR625**Journalism Seminar**

Journalistic writing with practical training in publication. The second offering in a three-part course sequence. Prereq.: Perm. of instr. Perm of Instructor. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00-4.00

15JOUR626**Journalism Seminar**

Journalistic writing with practical training in publication. The third

Journalism**15JOUR626****Journalism Seminar**

offering in a three-part course sequence. Prereq.: Perm. of instr. Perm of Instructor. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00-4.00

Judaic Studies**15JUDC101****Basic Hebrew I**

Introduction to Hebrew language and culture. First quarter in the 3-quarter sequence that fulfills the A&S language requirement. BoK: HU., DC. Credit Level: U. Credit Hrs: 5.00

15JUDC102**Basic Hebrew 2**

Introduction to Hebrew language and culture. Second quarter in the 3-quarter sequence that fulfills the A&S language requirement. Prereq: 15JUDC101. BoK: HU, DC. Credit Level: U. Credit Hrs: 5.00

15JUDC103**Basic Hebrew 3**

Introduction to Hebrew language and culture. Third quarter in the 3-quarter sequence that fulfills the A&S language requirement. Prereq: 15JUDC102. BoK: HU, DC. Credit Level: U. Credit Hrs: 5.00

15JUDC104**Language Laboratory**

Language laboratory for Extended Basic Hebrew 1 BoK: HU., DC. Credit Level: U. Credit Hrs: 1.00

15JUDC105**Language Laboratory**

Language Laboratory for Extended Basic Hebrew 2 BoK: HU., DC. Credit Level: U. Credit Hrs: 1.00

15JUDC106**Language Laboratory**

Language laboratory for Extended Basic Hebrew 3 BoK: HU., DC. Credit Level: U. Credit Hrs: 1.00

15JUDC107**Language Laboratory**

Language Laboratory for Extended Basic Hebrew 4 BoK: HU., DC. Credit Level: U. Credit Hrs: 1.00

15JUDC108**Language Laboratory**

Language laboratory for Extended Hebrew 5 BoK: HU., DC. Credit Level: U. Credit Hrs: 1.00

15JUDC109**Language Laboratory**

Language laboratory for Extended Basic Hebrew 6 BoK: HU., DC. Credit Level: U. Credit Hrs: 1.00

15JUDC111**Extended Basic Hebrew I**

Introduction to Hebrew language and culture. First quarter in the extended 6-quarter sequence that fulfills the A&S language requirement. BoK: HU., DC. Credit Level: U. Credit Hrs: 3.00

15JUDC112**Extended Basic Hebrew 2**

Introduction to Hebrew language and culture. Second quarter in the extended 6-quarter sequence that fulfills the A&S language requirement. Prereq: 15JUDC111. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15JUDC113**Extended Basic Hebrew 3**

Introduction to Hebrew language and culture. Third quarter in the extended 6-quarter sequence that fulfills the A&S language requirement. Prereq: 15JUDC112. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

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Judaic Studies**15JUDC114****Extended Basic Hebrew 4**

Introduction to Hebrew language and culture. Fourth quarter in the extended 6-quarter sequence that fulfills the A&S language requirement. Prereq: 15JUDC103. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15JUDC115**Extended Basic Hebrew 5**

Introduction to Hebrew language and culture. Fifth quarter in the extended 6-quarter sequence that fulfills the A&S language requirement. Prereq: 15JUDC114. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15JUDC116**Extended Basic Hebrew 6**

Introduction to Hebrew language and culture. Sixth quarter in the extended 6-quarter sequence that fulfills the A&S language requirement. Prereq: 15JUDC115. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15JUDC120**Biblical Hebrew I**

An introduction to the Hebrew of the Bible with basic grammatical understanding sufficient to read simpler narrative passages in the original. BoK: HU., DC. Credit Level: U. Credit Hrs: 3.00

15JUDC121**Biblical Hebrew II**

Continuation of 30JUDC110. BoK: HU., DC. Credit Level: U. Credit Hrs: 3.00

15JUDC122**Biblical Hebrew III**

Continuation of 30JUDC111. BoK: HU., DC. Credit Level: U. Credit Hrs: 3.00

15JUDC127**History of Jewish Civilization**

Jewish civilization as interpreted through Jewish historical, religious, literary, and cultural developments, Biblical to rabbinic period. Fulfills A&S history requirement. Transfer Module. BoK: HP, DC. Credit Level: U. Credit Hrs: 3.00

15JUDC127H**Honors Jewish Civilization I**

Jewish civilization as interpreted through Jewish historical religious literary and cultural developments, Biblical to Rabbinic period. One additional hour extra tutorial in addition to regular course BoK: HP. Credit Level: U. Credit Hrs: 4.00

15JUDC128**History of Jewish Civilization**

Jewish civilization as interpreted through Jewish historical, religious, literary, and cultural developments. Medieval period. Transfer Module. BoK: HP, DC. Credit Level: U. Credit Hrs: 3.00

15JUDC128H**Honors Jewish Civilization II**

Jewish Civilization as interpreted through historical, religious literary and cultural developments, medieval period. One hour extra tutorial in addition to regular course. BoK: HP. Credit Level: U. Credit Hrs: 4.00

15JUDC129**History of Jewish Civilization**

Jewish civilization as interpreted through Jewish historical, religious, literary and cultural developments 1750 to the present. Transfer Module. BoK: HP, DC. Credit Level: U. Credit Hrs: 3.00

15JUDC129H**Honors Jewish Civilization III**

Jewish Civilization as interpreted through historical religious literary and cultural developments 1750 to present. One hour extra tutorial in addition to the regular course BoK: HP. Credit Level: U. Credit Hrs: 4.00

Judaic Studies**15JUDC135****Introduction to Judaism**

Introduction to basic concepts, beliefs and practices of Judaism as expressed through its classic literature. Fulfills A&S humanities requirement. Transfer Module. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15JUDC145**The Emergence of Secular Jewish Identity and Culture**

This course examines the emergence and development of the secular sensibility in Jewish life. Topics include: origins of the phenomenon; historical conditions conducive to the phenomenon; major personalities; and current secular trends in Judaism. BoK: HP., SS. Credit Level: U. Credit Hrs: 3.00

15JUDC190**Monuments to War and Tragedy; Engraving the Mind and Remembrance**

Deals with the ways in which we choose to remember tragic events and loss. Students learn the process of engraving the mind and take a closer look at the monuments built to memorialize events. BoK: DC., LT. Credit Level: U. Credit Hrs: 3.00

15JUDC211**Second Year Hebrew 1**

Intermediate Hebrew language, literature, and conversation. First quarter in 3-quarter sequence. Prereq: 15JUDC103. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15JUDC212**Second Year Hebrew 2**

Intermediate Hebrew language, literature and conversation. Second quarter in a 3 quarter sequence Prereq: 15JUDC211. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15JUDC213**Second Year Hebrew 3**

Intermediate Hebrew language, Literature and conversation. Third quarter in a 3 quarter sequence. Prereq: 15JUDC212. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15JUDC228**An Introduction to Biblical Study.**

(Formerly 30PHIL280) A survey of the manuscripts and texts of the Bible, the historical and literary contexts of the Bible in the ancient Middle East, and an overview of some of the interpretive methods that one can bring to bear on Bible study and scholarship. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15JUDC229**Sacred Texts: Hebrew Scriptures**

(Formerly 30PHIL241, Old Testament.) Hebrew ideas clarified from the Greek: God, man, spirit, creation, life. Significance of the Prophets and other writings. Leading personalities, ethics, and ideals. BoK: HU., DC. Credit Level: U. Credit Hrs: 3.00

15JUDC231**Biblical Poetry**

This course will study the poetry of the Bible and its chronological development together with its relationship to common ancient Near Eastern poetic forms. Along the way, attention will be called to the relationship of the poetry to parallel prose narratives. Specifically, students will read portions of Judges, Exodus, Samuel, Job, Psalms, Isaiah, and several of the "Minor Prophets." BoK: HU. Credit Level: U. Credit Hrs: 3.00

15JUDC232**The Other Bible**

Study of those extra-biblical books of Jewish and Christian origin that exercised enormous influence on the canonically perceived literature. Specifically, Enoch, several of the Dead Sea Scrolls, and such important Christian literature as the Gospel of Peter and the Gospel of Thomas will be read. BoK: HU. Credit Level: U. Credit Hrs: 3.00

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Judaic Studies**15JUDC233****Ancient Stories of Creation**

An overview and comparison of different accounts of the creation of the universe and the origins of humankind. The course will focus on writings from the Near East, including but going beyond the standard biblical accounts, discussions of modern religious and cultural perspectives on angles. Prereq: 30RELG101. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15JUDC235**Chanukah Through the Ages**

The Jewish festival of Chanukah provides an illuminating lens to explore the character and development of secular Jewish culture. Based on the story of a cultural struggle between Judaism and Hellenism, Chanukah raises fascinating questions about secularism and religion. Was the adoption of Greek ways (Hellenization) tantamount to idolatry or a cultural matter without religious implications? Was the miracle of Chanukah a secular, military victory of the Maccabees against the Syrian Greeks and to what extent did the Maccabees (later known as the Hasmoneans) establish a secular sovereign Jewish state? Why did the rabbis ignore the secular side of the Chanukah story? Why was Chanukah popular among the secular Zionists? BoK: HP., DC. Credit Level: U. Credit Hrs: 3.00

15JUDC245**Modernity and the Jewish Intellectual Tradition**

Follows major development of modern Jewish intellectual currents through the work of some of the most influential Jewish thinkers of the era. Explores how these different thinkers attempted to reconcile a tradition of 3,000 years with the scientific, ethical and cultural dimensions of modern and secular Western civilization. Looks at the origins of modern secular Jewish identity in the seventeenth century in the writings of Spinoza. It then examines some of the leading representatives of the Haskalah, the Jewish Enlightenment, and it covers the period of German Jewish idealism in the nineteenth century. The course looks at the emergence of the existential interpretation of Judaism in the twentieth century, as well as the emergence of Jewish nationalism as an intellectual and cultural movement. BoK: HU., DC. Credit Level: U. Credit Hrs: 3.00

15JUDC252**Introduction to Jewish Literature**

Survey of Jewish literature from the Bible to the present. Features texts from major centers of Jewish culture. Authors range from the Bible, Judah HaLevi, Maimonides, and Bialik, Nobel prize winners Agnon and Singer, and more contemporary authors from Kafka to Allegra Goodman. All readings in translation. Required for majors. BoK: DC., LT. Credit Level: U. Credit Hrs: 3.00

15JUDC255**Jewish Autobiographies: The Mind of the Secular Jew**

This course examines the phenomenon of secular Jewish identity through the prism of autobiography and memoir, paying close attention to the historical context in which autobiographic works were produced and analyzing how individual authors have shaped their lives' events into a narrative pattern. The course will consider how culture, religions, politics, gender, and minority status shape experience, and explore the ways in which an author does or does not position him/herself as part of a larger community of Jews. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15JUDC261**Biblical Hebrew I**

Biblical Hebrew's basic vocabulary and grammar, using biblical excerpts, textbook, and support resources that facilitate independent Bible reading. First quarter: alphabet, vocalization, syllables, definite article, prepositions, noun patterns and endings, pronouns, and vocabulary. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15JUDC262**Biblical Hebrew II**

Biblical Hebrew's basic vocabulary and grammar, using biblical

Judaic Studies**15JUDC262****Biblical Hebrew II**

excerpts, textbook and support resources that facilitate independent Bible reading. Second quarter: Pronominal suffixes, the "strong" verb, basic syntax, numerals 'waw'-consecutive, "waw"-conjunctive, 'he'-directive, verb sequences, and vocabulary. Prereq: 15JUDC261. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15JUDC263**Biblical Hebrew III**

Biblical Hebrew's basic vocabulary and grammar, using biblical excerpts, textbook, and support resources that facilitate independent Bible reading. Third quarter: "weak" verbs, pausal forms, advanced syntax issues, vocabulary, and introduction to the Masorah. Prereq: 15JUDC262. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15JUDC300**The Jewish Bible**

An exploration of the Hebrew Scriptures refracted through the lens of Jewish Biblical interpretation from the second temple, medieval and modern periods BoK: HP., LT. Credit Level: U. Credit Hrs: 3.00

15JUDC301**Biblical Narratives**

An examination of Biblical narratives from creation to canonization by using interdisciplinary approaches to the Bible. BoK: LT., DC. Credit Level: U. Credit Hrs: 3.00

15JUDC303**Biblical Interpretation in the Greco-Roman Period (323BCE-620CE)**

Investigates different communities' influence on our understanding of the Bible and how the Bible influenced the understanding of those communities, with special attention given to exegetical method. Among the texts, interpreters, and technologies of antiquity considered are: "inner biblical interpretation; canonization; translation (the Septuagint, Targum); paraphrase (Philo, Josephus, Pseudo-Philo, Pirke d'rabbi Eliezer); typology and allegory (New Testament, Dead Sea Scrolls; Philo, Origen); "gapping" (Apocryphal OT and NT, Midrash); pagan views of the Bible (Julian). BoK: LT. Credit Level: U. Credit Hrs: 3.00

15JUDC311**Topics in Ancient Judaism**

Thematic introduction to some aspect of Judaic Studies in the biblical or rabbinic periods. Contact the Judaic Studies Department for current topic. BoK: DC., HU. Credit Level: U. Credit Hrs: 3.00

15JUDC312**Medieval Judaism**

Thematic introduction to some aspect of Judaic Studies in the Middle Ages. Contact the Judaic Studies Department for current topic BoK: DC., HU. Credit Level: U. Credit Hrs: 3.00

15JUDC313**Topics in Modern Judaism**

Thematic introduction to some aspect of Judaic Studies in the modern period. Contact the Judaic Studies Department for current topic. BoK: DC., HU. Credit Level: U. Credit Hrs: 3.00

15JUDC314**Jewish Women's Salons and Their Impact on Culture, Identity and Modernity**

Examines the significant role played by the salons of Jewish women in the development of art, literature, music, theater, philosophy, and politics in Europe and America from the late 18th century through the mid 20th century. Salons in Berlin, Vienna, Paris, Milan, New York, and elsewhere proved to be innovative and radical vehicles that helped mediate the secularization of modern Jewish life and the democratization of the public sphere. They provided a context in which nobility, artist, and thinkers exchanged ideas across barriers of class, gender, nationality, socio-economic status, and religion, and fostered the careers of many important figures. BoK: DC., LT. Credit Level: U. Credit Hrs: 3.00

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Judaic Studies**15JUDC315****The Menorah: From Sinai to Cincinnati**

Traces the history, art and religious significance of the Menorah, the seven-branched lampstand of the Biblical Temple, from its origins to recent controversies in Cincinnati. BoK: FA., HP. Credit Level: U. Credit Hrs: 3.00

15JUDC317**Jewish God Concepts**

A study of differing ways Jews have conceptualized the idea of God through history. Readings in English from the Bible, rabbinic literature, medieval Jewish philosophy (Saadia, Maimonides, Spinoza) mysticism (Luria), and 20th century philosophy and theology (Buber, Heschel, Kaplan and Soloveitchik). BoK: HU., DC. Credit Level: U. Credit Hrs: 3.00

15JUDC321**Demons in the Bible and Related Texts**

A discussion of demons and the demonic as they appear in the Bible and in texts from related regions and time periods. The course will promote critical thinking about demonic figures' treatment and roles in sacred texts. BoK: HP. Credit Level: U. Credit Hrs: 3.00

15JUDC324**Intro Conversation Hebrew**

Intro to Conversational Hebrew. BoK: HU., DC. Credit Level: U. Credit Hrs: 3.00

15JUDC325**Jerusalem**

A history of the city from social, religious, political and ethnic perspectives over the last four thousand years. Fulfills A&S requirements for International Studies BA. BoK: HP., DC. Credit Level: U. Credit Hrs: 3.00

15JUDC326**Jewish Nationalism**

The place of Israel in the Jewish tradition and the origins of Jewish nationalism. The rise of Zionism: the different strands of Zionist thought and the movement's various ideological opponents. The emergence of the Jewish community in the Land of Israel and the beginning of the creation of the Jewish National Home. BoK: HP., DC. Credit Level: U. Credit Hrs: 3.00

15JUDC327**Modern Israel**

Analysis of social, cultural, religious, economic and political developments in the State of Israel from its inception in 1948 to the present. Fulfills A&S International Studies BA requirement. BoK: DC., HU. Credit Level: U. Credit Hrs: 3.00

15JUDC328**Women in the Bible**

An analysis of specific Biblical texts concerning women in the context of their Near Eastern environment, and of the influence of Biblical material on contemporary attitudes to women. BoK: HP., DC. Credit Level: U. Credit Hrs: 3.00

15JUDC329**The Evolution of the Angel**

An introduction to angels as they are treated in the religious texts and traditions of Judaism, Christianity, Islam, and Zoroastrianism. The course will primarily deal with texts and ideas from the first millennium BCE through the medieval period, though there will also be discussions of modern religious and cultural perspectives on angels. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15JUDC330**Jews and Islam**

Comparative study of Islam and Judaism. Survey of Jewish status and their social, cultural, and religious developments within Islamic societies from the 7th to the 17th centuries. BoK: HU., DC. Credit Level: U. Credit Hrs: 3.00

Judaic Studies**15JUDC331****Advanced Hebrew**

Readings and conversation in contemporary Hebrew. Newspaper sources, short stories and poetry will be discussed and analyzed. Grammar points reviewed. BoK: HU., DC. Credit Level: U. Credit Hrs: 3.00

15JUDC332**Advanced Hebrew**

Readings and conversation in contemporary Hebrew. Newspaper sources, short stories and poetry will be discussed and analyzed. Grammar points reviewed. The second offering in a three-part course sequence. BoK: HU., DC. Credit Level: U. Credit Hrs: 3.00

15JUDC333**Advanced Hebrew**

Readings and conversation in contemporary Hebrew. Newspaper sources, short stories and poetry will be discussed and analyzed. Grammar points reviewed. The third offering in a three-part course sequence. BoK: HU., DC. Credit Level: U. Credit Hrs: 3.00

15JUDC337**Israeli Literature in Translation**

Survey of the prose and poetry of major Israeli writers, including Oz, Yehoshua, Amichai, Rachel, and others. Fulfills A&S literature requirement. BoK: LT., DC. Credit Level: U. Credit Hrs: 3.00

15JUDC341**The Sephardic Diaspora: 1492 - 2000**

The experience of the Sephardic Jews from the expulsion from Spain to the present. Will cover the history, literature and culture of communities from the Ottoman Empire to the Americas. Prereq: 15JUDC481, 15JUDC129. BoK: DC, HP. Credit Level: U. Credit Hrs: 3.00

15JUDC343**Medieval Mediterranean Jews 4th-15th centuries**

Introduces students to the development of Jewish settlement and society in North Mediterranean lands of Byzantium, Italy, and Spain. This course is a counterpart to the course Jews and Arabs. BoK: HP. Credit Level: U. Credit Hrs: 3.00

15JUDC348**The New Testament in its Jewish Matrix**

An introduction to the New Testament within the contexts of Jewish life history, literature and archaeology of the Greco-Roman period. BoK: HP., LT. Credit Level: U. Credit Hrs: 3.00

15JUDC349**Introduction to Rabbinic Literature**

A survey of the literature and literary forms produced by the rabbis of Late Antiquity C.70C.E.- 400 C.E. All texts read in translation. BoK: LT., DC. Credit Level: U. Credit Hrs: 3.00

15JUDC352**Gender and Judaism**

Analyzes the status of women in modern society and their particular experience within Judaism, in the framework of American and continental feminist writings as a lens through which their experience can be viewed. BoK: DC. Credit Level: U. Credit Hrs: 3.00

15JUDC353**Women in Jewish Civilization**

Examination of roles and images of women in Jewish literature, law and liturgy from Rabbinic times to the present. BoK: DC., HU. Credit Level: U. Credit Hrs: 3.00

15JUDC355**Yiddish Literature in Translation**

Readings in classic Yiddish literature, revealing humor, drama and pathos of East European society. Fulfills A&S literature requirement. BoK: LT., DC. Credit Level: U. Credit Hrs: 3.00

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Judaic Studies**15JUDC360****AMER JEWISH FICTION**

AMER JEWISH FICTION This course analyzes the shifting grounds of Jewish American Literature and the quandary of the Jewish American writers, who manifestly draw from their Jewish ethnic experience, and at the same time, find themselves deeply engrossed in the diverse experience of their mainstream American counterparts. BoK: LT., DC. Credit Level: U. Credit Hrs: 3.00

15JUDC362**American Jewish History 1654 to present**

A survey of American Jewish history from the earliest settlements in the seventeenth century to the modern age. Particular attention will be paid to challenges and opportunities that the unique American environment presented to Jewish continuity. Topics include the role of immigration, religious reform, Antisemitism, and political involvement. BoK: DC., HP. Credit Level: U. Credit Hrs: 3.00

15JUDC365**Practicum in Judaic Studies**

Internships in communal organizations; teaching assistants in Judaic Studies; language labs for Elementary and Intermediate Hebrew. BoK: NA. Credit Level: U. Credit Hrs: 1.00-6.00

15JUDC366**Practicum in Judaic Studies**

Internships in communal organizations; teaching assistants in Judaic Studies; language labs for Elementary and Intermediate Hebrew. The second offering in a three-part course sequence. BoK: NA. Credit Level: U. Credit Hrs: 1.00-6.00

15JUDC367**Practicum in Judaic Studies**

Internships in communal organizations; teaching assistants in Judaic Studies; language labs for Elementary and Intermediate Hebrew. The third offering in a three-part course sequence. BoK: NA. Credit Level: U. Credit Hrs: 1.00-6.00

15JUDC368**Language Lab 201**

Students work on their conversational skills: Emphasis is placed on verbal communication. Students will work in groups and on one-to-one basis with the instructor. BoK: NA. Credit Level: U. Credit Hrs: 1.00

15JUDC369**Language Lab 202**

Students continue to work on their conversational skills: Emphasis is placed on verbal communication. Students will work in groups and on a one-to-one basis with the instructor. BoK: NA. Credit Level: U. Credit Hrs: 1.00

15JUDC370**Language Lab 203**

Students will continue to work on their conversational skills: Emphasis is placed on verbal communication. Students will work in groups and on a one-to-one basis with the instructor. BoK: NA. Credit Level: U. Credit Hrs: 1.00

15JUDC371**Jews in American Film**

Exploration of the representation of Jews in American film and their role in developing the Hollywood film industry; how Jewish life was "translated" into pictures and how visual images relate to affective experience and shape our understanding of history. BoK: DC., HU. Credit Level: U. Credit Hrs: 3.00

15JUDC372**Israeli Cinema**

Examines the major transitions and changes that have shaped modern Israeli society through the medium of film. Focuses on the transformation of Israel from a mobilized community into a modern, self-doubting and pluralistic society that openly questions its past. BoK: DC., HU. Credit Level: U. Credit Hrs: 3.00

Judaic Studies**15JUDC373****Film and Holocaust**

Viewing and analysis of films portraying Jews during the Holocaust, from Nazi propaganda to postwar documentaries and artistic reconstruction. Formerly 15JUDC550. BoK: LT., DC. Credit Level: U. Credit Hrs: 3.00

15JUDC374**Jewish Humor/Women's Humor**

Investigates how humor reveals the cultural identity of a people, a nation, or an ethnic group, and explores the particular ways in which men and women confront social, racial and psychological problems through humor. BoK: LT., DC. Credit Level: U. Credit Hrs: 3.00

15JUDC379**Judaism and Christianity in Conflict**

Examination of Jewish Christian relations from the inception of Christianity to 6th Century C.E. The interplay between Judaism and Christianity will be considered against the background of the pagan Roman empire. 3 ug. cr. Fulfills A&S humanities requirement. BoK: HU., DC. Credit Level: U. Credit Hrs: 3.00

15JUDC380**Dead Sea Scrolls**

Surveys all Dead Sea Scrolls in translation and attempts to place them in the broader context of early Jewish and Christian thought. BoK: HP., DC. Credit Level: U. Credit Hrs: 3.00

15JUDC382**Studies in the Holocaust**

Examination of Nazi destruction of European Jewry; analysis of Jewish Holocaust literature and theological issues precipitated by events. BoK: DC. Credit Level: U. Credit Hrs: 3.00

15JUDC383**Literature of the Holocaust**

This course ponders the dilemmas of the post-Holocaust world by focusing on the literary response to the Holocaust by victims and survivors. Varieties of styles of literature will be read. Fulfills A&S literature requirement. BoK: LT., DC. Credit Level: U. Credit Hrs: 3.00

15JUDC384**Religion and the Holocaust**

Analysis of religious reactions of survivors to the Holocaust against backdrop of Jewish response to catastrophe throughout history. Examination of both Jewish and Christian theological writings on the Holocaust's implications for religion. Fulfills A&S humanities requirement. BoK: HU., DC. Credit Level: U. Credit Hrs: 3.00

15JUDC385**Religion and Genocide**

This course explores the relationship between religion and the uniquely 20th-Century phenomenon of genocide. Among the issues to be discussed are: responses of the world religious community to genocide; Christian anti-Semitism and the Holocaust; totalitarianism and the Messianic ideal; genocide and modern theology. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15JUDC386**Jewish Heretics**

Examination of Jewish heresy and sectarian movements throughout history, emphasizing "orthodox" response to these movements. Fulfills A&S humanities requirement. BoK: HU., DC. Credit Level: U. Credit Hrs: 3.00

15JUDC387**Freud & Judaism**

Investigates Freud's concepts of social change, culture, and civilization with its discontents, against the backdrop of classical Jewish thought and Freud's questionable Jewish identity. BoK: DC., SS. Credit Level: U. Credit Hrs: 3.00

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Judaic Studies

15JUDC390

Art and Judaism

An introduction to Jewish art and to Jewish attitudes toward art from Biblical Times to the present. Also explores the development of Christian attitudes toward the art of the Jews. BoK: FA., HP. Credit Level: U. Credit Hrs: 3.00

15JUDC392

The Apocrypha

(Formerly 30PHIL245). What is the Apocrypha? A study of the books, their history and relationship to the Biblical canon. Judith, Maccabees, Tobit. Offered alt. yrs. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15JUDC393

Biblical Archaeology

Examination of the Biblical record of ancient Israel against the background of 19th-20th century archaeological discoveries, and analysis of the extent to which such discoveries help us understand the Bible and Biblical times. BoK: HP., DC. Credit Level: U. Credit Hrs: 3.00

15JUDC394

Modern Jewish Thought

Examination of writings of major modern Jewish thinkers on the pressing intellectual, religious, and philosophical issues of the day. Fulfills A&S humanities requirement. BoK: HU., DC. Credit Level: U. Credit Hrs: 3.00

15JUDC395

Medieval Jewish Philosophy

Analysis of thought of Philo, Saadya Gaon, Yehuda Halevi, and Maimonides. Fulfills A&S humanities requirement. BoK: HU., DC. Credit Level: U. Credit Hrs: 3.00

15JUDC399H

Acculturation & Assimilation: The Jewish Encounter With Western Cultures

Examines the changing relationship of Jewish culture and the cultures of the societies among which Jews have lived from the 2nd century BCE to the present, drawing on the theoretical models relating to minority status, diasporas, and the assimilation of immigrant populations. BoK: HP. Credit Level: U. Credit Hrs: 3.00

15JUDC401

Modern Hebrew Literature

Readings and literary analysis including prose and poetic works. Fulfills A&S literature requirement. BoK: LT., DC. Credit Level: U. Credit Hrs: 1.00-3.00

15JUDC402

Modern Hebrew Literature

Readings and literary analysis including prose and poetic works. Fulfills A&S literature requirement. The second offering in a three-part course sequence. Prereq: 15JUDC401. BoK: LT, DC. Credit Level: U. Credit Hrs: 1.00-3.00

15JUDC403

Modern Hebrew Literature

Readings and literary analysis including prose and poetic works. Fulfills A&S literature requirement. Third offering in a three-part course sequence. Prereq: 15JUDC402. BoK: LT, DC. Credit Level: U. Credit Hrs: 1.00-3.00

15JUDC405

The Bible and the Ancient World

Explores the relationship between the Hebrew Bible and the broader literary and cultural traditions of the ancient Near East (e.g. Egyptian, Babylonian, Sumerian). Through the study of ancient literature contemporaneous with the Bible -- for example, the Babylonian creation and flood stories -- students gain fresh insight into the message and purpose of the Hebrew Bible. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15JUDC475

Mystics and Messiahs

Mystics & Messiahs Survey of mystical movements among Jews from

Judaic Studies

15JUDC475

Mystics and Messiahs

600-1800. Fulfills A&S humanities requirement. BoK: HU., DC. Credit Level: U. Credit Hrs: 3.00

15JUDC477

Honors Independent Study and Guided Research

Consent of instr. required. Cr. and hrs. to be arranged. BoK: NA. Credit Level: U. Credit Hrs: 1.00-15.00

15JUDC478

Honors Independent Study and Guided Research

See 15-016-477. BoK: NA. Credit Level: U. Credit Hrs: 1.00-6.00

15JUDC479

Honors Independent Study and Guided Research

See 15-016-477. BoK: NA. Credit Level: U. Credit Hrs: 1.00-6.00

15JUDC480

Jews in Europe

Survey and comparative analysis of Jewish experiences in western and eastern Christian Europe. BoK: DC. Credit Level: U. Credit Hrs: 3.00

15JUDC481

Spanish Jewry

History and culture of Jews in Iberian peninsula and their later dispersion. Emphasis on the distinctive Spanish-Jewish cultural style and on interaction with Moslem and Christian societies. BoK: HU., DC. Credit Level: U. Credit Hrs: 3.00

15JUDC482

East European Jews to World War I

Settlement patterns of Jews in Eastern Europe. Economic functions, social relations and legal status. Internal cultural developments: Talmudic civilization and sectarian challenges. BoK: HP., DC. Credit Level: U. Credit Hrs: 3.00

15JUDC485

Modern Jewish Ethics

Analysis of modern ethical issues in light of classical Jewish thought and paradigms. BoK: HU., SE. Credit Level: U. Credit Hrs: 3.00

15JUDC487

The Book of Job and the Problem of Evil

Textual-thematic study of the Book of Job in translation; post-Biblical literature on evil also examined. Fulfills A&S humanities requirement. BoK: HU., DC. Credit Level: U. Credit Hrs: 3.00

15JUDC490

Methodology in Judaic Studies

Survey of research methods employed across spectrum of Judaic Studies required of all juniors before they can take senior thesis (15-016-491, 492, 493) BoK: NA. Credit Level: U. Credit Hrs: 3.00

15JUDC491

Senior Thesis

Open only to Judaic Studies majors and Certificate students. Project to be approved by student's adviser. BoK: NA. Credit Level: U. Credit Hrs: 1.00-15.00

15JUDC492

Senior Thesis

Open only to Judaic Studies majors and Certificate students. Project to be approved by student's adviser. Second offering in a three-part course sequence. Prereq: 15JUDC491. BoK: NA. Credit Level: U. Credit Hrs: 1.00-15.00

15JUDC493

Senior Thesis

Open only to Judaic Studies majors and Certificate students. Project to be approved by student's adviser. Third offering in a three-part course sequence. Prereq: 15JUDC492. BoK: NA. Credit Level: U. Credit Hrs: 1.00-15.00

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Judaic Studies**15JUDC497****Capstone Seminar in Judaic Studies**

Introduction to methods and approaches in Judaic Studies through in-depth study of a selected topic in Jewish history, thought or literature. Required of Junior and Senior majors in Judaic Studies. May be repeated BoK: DC., HU. Credit Level: U. Credit Hrs: 3.00

15JUDC498**Capstone Seminar in Judaic Studies**

Emphasizes methods and approaches in Judaic studies through in-depth study of a selected topic in Jewish history, thought or literature. This is the second portion of a two-quarter sequence: JUDC497 introduces students to the selected topic and research skills appropriate to the competencies outlined in the General Education Program, while JUDC498 stresses scholarly method and requires completion of a major research paper or project. Required of junior and senior majors in Judaic studies. May be repeated. Prereq: 15JUDC497. BoK: DC, HU. Credit Level: U. Credit Hrs: 3.00

15JUDC505**History of the Jewish Book**

Appreciation of Jewish books through study of content, bindings, marks of use and ownership, scripts, and more. Meets in Klau Library's Dalsheimer Rare Book Room at Hebrew Union College. Each session focuses on actual examples from the Hebrew Union College collections. BoK: HU. Credit Level: U, G. Credit Hrs: 3.00

15JUDC508**Freud and Judaism**

Investigates Freud's concepts of social change, culture, and civilization with its discontents, against the backdrop of classical Jewish thought and Freud's questionable Jewish identity. BoK: DC. Credit Level: U, G. Credit Hrs: 3.00

15JUDC510**Antisemitism**

Study of different manifestations of antisemitism throughout history in varied geographical settings, and of the historical, sociological, religious, and psychoanalytic analyses trying to explain it. BoK: SE. Credit Level: U. Credit Hrs: 3.00

15JUDC511**Special Topics in Judaic Studies: History and Culture**

This course is designed to provide graduate and advanced undergraduate students with the opportunity for interdisciplinary study on a variety of topics within the general field of Jewish history and culture. Topics and instructors will rotate regularly, and several different topics may be offered during one academic year. The course may be repeated. Perm of Instructor. BoK: HU, DC. Credit Level: U, G. Credit Hrs: 1.00-6.00

15JUDC512**Special Topics in Judaic Studies: Literature, Art and Film**

Special Topics in Judaic Studies: Literature, Art and Film. This course is designed to provide graduate and advanced undergraduate students with the opportunity for interdisciplinary study on a variety of topics within the general field of Jewish literature, art and film. Topics and instructors will rotate regularly, and several different topics may be offered during one academic year. The course may be repeated. Perm of Instructor. BoK: LT, DC. Credit Level: U, G. Credit Hrs: 1.00-6.00

15JUDC513**Special Topics in Judaic Studies: Thought and Philosophy**

This course is designed to provide graduate and advanced undergraduate students with the opportunity for interdisciplinary study on a variety of topics within the general field of Jewish thought and philosophy. Topics and instructors will rotate regularly, and several different topics may be offered during one academic year. The course may be repeated. Perm of Department. BoK: HU. Credit Level: U, G. Credit Hrs: 3.00

Judaic Studies**15JUDC530****Jewish Music**

Survey of Jewish music including major forms periods, and composers. BoK: HU., DC. Credit Level: U, G. Credit Hrs: 3.00

15JUDC537**Topics in Jewish Literature**

Seminar on varied topics in modern Jewish literature. Topics will change from year to year. Fulfills A&S literature requirement. BoK: LT., DC. Credit Level: U. Credit Hrs: 3.00

15JUDC575**Jewish Women Writers**

Analysis of prominent Jewish women writers including Anzia Yezierska, Shulamith Har'even, Amelia Kahana Carmon, Cynthia Ozick, Joanna Kaplan and their depiction of the socio-historical and psychological issues in their time. BoK: LT., DC. Credit Level: U, G. Credit Hrs: 3.00

15JUDC591**Individual Work in Judaica**

Independent readings in field of Judaica. Topic and cr. to be arranged with instr. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-15.00

15JUDC592**Individual Work Judaica**

Students may take undergraduate level courses for graduate credit with permission of instructor and provided that they complete additional requirements. Refer to undergraduate listings for frequency of course offerings. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-15.00

15JUDC593**Individual Work in Judaica**

Independent readings in field of Judaica. Topic and cr. to be arranged with instr. Second offering in a three-part course sequence. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-15.00

Latin American Studies**15LAS401****Individual Work in Latin American Studies**

Fulfills core requirements; only by approval of the Latin American Studies Committee. Cr. to be arranged. BoK: NA. Credit Level: U. Credit Hrs: 3.00-6.00

15LAS402**Individual Work in Latin American Studies**

Fulfills core requirements; only by approval of the Latin American Studies Committee. Cr. to be arranged. Second offering in a three-part course sequence. BoK: NA. Credit Level: U. Credit Hrs: 1.00-6.00

15LAS403**Individual Work in Latin American Studies**

Fulfills core requirements; only by approval of the Latin American Studies Committee. Cr. to be arranged. Third offering in a three-way course sequence. BoK: NA. Credit Level: U. Credit Hrs: 1.00-6.00

15LAS421**Senior Integrative Independent Work**

Topics to be arranged. Required of all senior majors. Does not fulfill core requirement. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15LAS422**Senior Integrative Independent Work**

Topics to be arranged. Required of all senior majors. Does not fulfill core requirement. Second offering in a three-part course sequence. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15LAS423**Senior Integrative Independent Work**

Topics to be arranged. Required of all senior majors. Does not fulfill core requirement. Third offering in a three-part course sequence. BoK: NA. Credit Level: U. Credit Hrs: 3.00

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Latin**15LATN101****Elementary Latin**

An introduction to Latin grammar and the reading of simple prose. The first in a three-part course sequence. BoK: HU., DC. Credit Level: U. Credit Hrs: 3.00

15LATN102**Elementary Latin**

An introduction to Latin grammar and the reading of simple prose. The second in a three-part course sequence. Prereq: 15LATN101. Prereq: 15LATN101. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15LATN103**Elementary Latin**

An introduction to Latin grammar and the reading of simple prose. The third in a three-part course sequence. Prereq: 15LATN102. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15LATN104**Intensive Elementary Latin**

Accelerated introduction to Latin grammar and reading. The first in a three-part course sequence. BoK: HU., DC. Credit Level: U. Credit Hrs: 5.00

15LATN105**Intensive Elementary Latin**

Accelerated introduction to Latin grammar and reading. Second offering in a three-part course sequence. Prereq: 15LATN104. BoK: HU, DC. Credit Level: U. Credit Hrs: 5.00

15LATN106**Intensive Elementary Latin**

Accelerated introduction to Latin grammar and reading. Third offering in a three-part course sequence. Prereq: 15LATN105. BoK: HU, DC. Credit Level: U. Credit Hrs: 5.00

15LATN114**Latin-Vergil**

LATIN-VERGIL BoK: LT. Credit Level: U. Credit Hrs: 3.00

15LATN116**Latin-Lyric**

LATIN - LYRIC BoK: LT. Credit Level: U. Credit Hrs: 3.00

15LATN211**Intermediate Latin**

Intensive review of basic Latin combined with selected readings. The first in a three-part course sequence. Prereq: 15LATN103 or equivalent. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15LATN212**Intermediate Latin: Prose Selections**

Intensive review of basic Latin combined with selected readings. The second in a three-part course sequence. Prereq: 15LATN211. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15LATN213**Intermediate Latin: Roman Comedy: Plautus**

Intensive review of basic Latin combined with selected readings. The third in a three-part course sequence. Prereq: 15LATN212. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15LATN301**Latin Prose**

Intensive review of fundamentals and selected readings from prose authors. Prereq: 15LATN106. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15LATN302**Roman Rhetoric Cicero**

Readings in the greatest Roman orator, Cicero. Intermediate level. All readings in the Latin original. BoK: HU. Credit Level: U. Credit Hrs: 3.00

Latin**15LATN303****Latin Lyric and Horace**

Readings in the love poetry of Catullus and Horace's Odes. Intermediate level. All readings in the Latin original. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15LATN305**Latin Elegy**

Readings in the elegiac love poets, including Propertius, Tibullus, and Ovid. Intermediate level. All readings in the Latin original. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15LATN306**Virgil: Aeneid**

Readings in Vergil's Aeneid. Intermediate level. All readings in the Latin original. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15LATN401**Roman Epistolography**

Readings in the collections of literary letters including Cicero and the Younger Pliny. Advanced level. All readings in the Latin original. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15LATN402**Advanced Roman Rhetoric Cicero**

Readings in the greatest Roman orator, Cicero. Advanced level. All readings in the Latin original. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15LATN403**Latin Lyric and Horace**

Readings in the love poetry of Catullus and Horace's Odes. Advanced level. All readings in the Latin original. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15LATN405**Latin Elegy**

Readings in the elegiac love poets including Propertius, Tibullus, and Ovid. Advanced level. All readings in the Latin original. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15LATN406**Advanced Virgil: Aeneid**

Readings in Vergil's Aeneid. Advanced level. All readings in the Latin original. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15LATN471**Special Topics in Latin**

A special topic is chosen by student with approval of advisor as the subject of study in the capstone experience. BoK: LT. Credit Level: U. Credit Hrs: 1.00-15.00

15LATN501**Survey Latin Literature**

Close study of the greatest Roman orator, Cicero. All readings in the Latin original. BoK: LT. Credit Level: U, G. Credit Hrs: 3.00-4.00

15LATN502**Survey Latin Literature**

Close study of the *Rerum Natura* of Lucretius. All readings in the Latin original. BoK: LT. Credit Level: U, G. Credit Hrs: 3.00-4.00

15LATN503**Survey Latin Literature**

Close study of the plays of Plautus and Terence. All readings in the Latin original. BoK: LT. Credit Level: U, G. Credit Hrs: 3.00-4.00

15LATN504**Tacitus**

Close study of the historical writings of Tacitus. All readings in the original Latin. BoK: LT. Credit Level: U, G. Credit Hrs: 3.00-4.00

15LATN505**Horace**

Close study of the poetry of Horace. All readings in the Latin original. BoK: LT. Credit Level: U, G. Credit Hrs: 3.00-4.00

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Latin

15LATN506

Latin Satire

Readings in some principal writers or satire, including Lucilius, Horace, Persius, and Juvenal. All readings in the Latin original. BoK: LT. Credit Level: U, G. Credit Hrs: 3.00-4.00

15LATN507

Historians: Livy and Sallust

Readings in the historical writings of Sallust and Livy. All readings in the Latin original. BoK: LT. Credit Level: U, G. Credit Hrs: 3.00-4.00

15LATN508

Virgil: Eclogues and Georgics

Close study of Vergil's Eclogues and Georgics. All readings in the Latin original. BoK: LT. Credit Level: U, G. Credit Hrs: 3.00-4.00

15LATN509

Silver Latin

Readings in some principal writers of the Silver Age of Latin literature, including such authors as Lucan, Petronius, Statius, Quintilian, Pliny, Tacitus, and Martial. All readings in the Latin original. BoK: LT. Credit Level: U, G. Credit Hrs: 3.00-4.00

15LATN601

Special Readings in Latin

3 ug. cr.; 4 gr. cr. BoK: LT. Credit Level: U, G. Credit Hrs: 3.00-4.00

15LATN602

Special Readings in Latin

3 ug. cr.; 4 gr. cr. BoK: LT. Credit Level: U, G. Credit Hrs: 3.00-12.00

15LATN603

Special Readings in Latin

3 ug. cr.; 4 gr. cr. Credit Level: G. Credit Hrs: 3.00-4.00

15LATN850

Seminar: Cicero

Seminar:Cicero Credit Level: G. Credit Hrs: 4.00

15LATN851

Seminar: Cicero II

Rhetorical and historical investigations stemming from readings in 15-006-850. Prereq: 15LATN850. Credit Level: G. Credit Hrs: 4.00

15LATN857

Latin Lapidary Poetry and Prose

Reading Latin inscriptions from the Republic to late antiquity on historical events, imperial government, the army, urban life in the Roman west, and other social, economic and cultural phenomena. Credit Level: G. Credit Hrs: 4.00

15LATN871

Master's Thesis Research

Offered ea. qtr. Credit Level: G. Credit Hrs: 1.00-15.00

15LATN896

Topics of Latin Literature

Topics of Latin Literature Credit Level: G. Credit Hrs: 4.00

15LATN921

Cult, Myth and Reality in Ovid's Fasti

Ovid's Fasti, a didactic poem in the form of a calendar, reflects the political, cultural and religious tendencies of the Augustan Age. In this seminar we examine, apart from philological issues (genre, Greek models), the historical and religious context of this exciting oeuvre. Credit Level: G. Credit Hrs: 4.00

15LATN922

Livy

Intensive study of the Roman historian Livy. Credit Level: G. Credit Hrs: 4.00

Latin

15LATN971

Doctoral Dissertation Research

Offered ea. qtr. Credit Level: G. Credit Hrs: 1.00-15.00

15LATN972

Greek Tragedy in Rome

Explores the reception of Greek tragedy in Ancient Rome. The emphasis will be not only on the Roman plays inspired by Greek models (e.g. Seneca), but also on the references to Greek tragedy in Roman philosophy, oratory, and art (vase painting, sarcophagi). Credit Level: G. Credit Hrs: 4.00

15LATN973

Pliny the Younger and the Construction of Culture

This seminar will be a group exploration into the details of how the Younger Pliny constructs his ideal of the Roman cultural elite, with special attention to what Pliny tells us about the social uses of literature and to Roman ideas of the public and the private. Credit Level: G. Credit Hrs: 4.00

15LATN974

Statius

The goal of this seminar is to introduce students to the major issues in contemporary studies in Post-Augustan Latin Literature by reading extensive passages from Statius' Silvae and the Thebaid. Credit Level: G. Credit Hrs: 4.00

15LATN975

Early Latin

A study of pre-classical Latin literature: Elder Cato to C. Gracchus; Livius Andronicus-Lucilius. Credit Level: G. Credit Hrs: 4.00

15LATN977

Latin Prose Composition

Graduate level class concentrating on developing the student's latin style and command of grammar and syntax. Credit Level: G. Credit Hrs: 4.00

15LATN979

Seminar in the Julio-Claudians

The political, economic and social history of the period between Augustus and the death of Nero. Particular attention is paid to the internal dynamics of the imperial family and the question of succession, provincial administration and the imperial bureaucracy. Credit Level: G. Credit Hrs: 4.00

15LATN980

Seminar: Virgil

SEMINAR:VIRGIL Credit Level: G. Credit Hrs: 4.00

15LATN981

Ovid's Metamorphoses

Reading and advanced study of Ovid's Metamorphoses. Credit Level: G. Credit Hrs: 4.00

15LATN983

Virgil: Aeneid

n Credit Level: G. Credit Hrs: 4.00

15LATN984

Seminar Latin Literature

SEMINAR LATIN LIT Credit Level: G. Credit Hrs: 4.00

15LATN986

Roman Popular Culture

A study of the Late Republic and Early Empire culture of Roman lower socioeconomic classes. Credit Level: G. Credit Hrs: 4.00

15LATN987

Latin Palaeography

A survey of the field of palaeography and the principles of textual criticism. Credit Level: G. Credit Hrs: 4.00

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Latin**15LATN999****Directed Readings in Latin**

Offered ea. qtr. Credit Level: G. Credit Hrs: 1.00-15.00

Labor and Employment Relations**15LER300****Introduction to Human Resources**

An overview of the role of Human Resources in American organizations today. Equal Employment opportunity, organizational design, job development, planning and recruitment, selection and career development are examined. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15LER312**The Gendered Work Place**

Examines the status, historical, and legislative context and concerns of women in contemporary American workplace. Women will be discussed as an inclusive, diverse group of multiple races, ethnicities, and socio-economic classes. Prereq: 15LER300. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15LER401**Employee Compensation**

Theory and practice of compensation in private and public employment. Examines job analysis and descriptions; setting pay levels; knowledge base pay; discrimination; pay for performance; gain-sharing and profit sharing. Prereq: 15MATH149, 15LER300. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15LER402**International Human Resources**

Examines globalization of the economy and human resources; functional areas of human resources in a multinational company; including compensation, staffing, and training; comparative country analysis of major trading partners; human resources in foreign-owned firms in the US; special topics. Prereq: 15LER300. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15LER403**Training and Development**

Advanced study of human resources, functions of employee training and development. Topics include training and development, training needs analysis, training program design, facilitation and implementation and cost analysis. Prereq: 15LER300. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15LER404**Health and Safety**

An examination of the major health and safety issues that challenge contemporary organization. Topics highlighted are OSHA, worker safety, workplace violence, alcoholism, aids, drugs and stress management. Prereq: 15LER300. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15LER405**Staffing Organizations**

Analysis, evaluation, design and implementation of procedures and practices for recruitment, selection, employment, and separation of employees in organizations. Prereq: 15LER300. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15LER451**Employment Law**

An analysis of employee related statutes and case holdings on the business environment. The focus is on federal and state laws affecting employment decisions and how human resource managers must align organizational policies and practices accordingly. Prereq: 15LER300. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15LER478**Special Topics in Human Resources**

Provides opportunity for students to explore HR topics of interest on an individual basis or in structured courses developed as common interest arise. Prereq: 15LER300. BoK: NA. Credit Level: U. Credit Hrs: 3.00

Labor and Employment Relations**15LER478****Special Topics in Human Resources**

Provides opportunity for students to explore HR topics of interest on an individual basis or in structured courses developed as common interest arise. Prereq: 15LER300. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15LER499**Independent Study and Human Resources**

Independent Study. To be arranged. Prereq: 15LER300. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15LER517**Preparation for HRCI Professional Certification Exams**

Study of human resource management to prepare practitioners for the Human Resources Certificate Institute national exams as Professional in Human Resources and Senior Professional in Human Resources. Not for MALER students. (Formerly ECON 517) BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

15LER522**Labor Relations**

Labor relations in a unionized setting; history, legal background, unions and employers, organizing, collective bargaining, conflict, impasse resolution, grievance procedures, public/private sector comparisons, and future prospects. (FORMERLY ECON 522) BoK: SS. Credit Level: U, G. Credit Hrs: 3.00

15LER523**Collective Bargaining**

Union-management collective bargaining and the theory and practice of the art of negotiations. Bargaining power, goals, timing, strategies and techniques of the parties. Major class simulation and practice. Negotiation outcomes and impasse procedures. (FORMERLY ECON 523) Prereq: 15ECON522. BoK: SS. Credit Level: U, G. Credit Hrs: 3.00

15LER524**Collective Bargaining II**

Interest-based collective bargaining; environmental setting; the collaborative bargaining model; bargaining simulation. (FORMERLY ECON 524) BoK: SS. Credit Level: U, G. Credit Hrs: 3.00

15LER525**Ethical Issues in Employment Relations**

Economic, legal and philosophical approaches to the solution of ethical issues in unionized and non-unionized work places. (FORMERLY ECON 525) BoK: SS., SE. Credit Level: U, G. Credit Hrs: 3.00

15LER557**Personnel and Employment Relations**

Examination of the theory and practice of human resource management and employment relations in organizations. (FORMERLY ECON 557) BoK: SS. Credit Level: U, G. Credit Hrs: 3.00

15LER577**Collective Bargaining: Administration**

Problems, administration of negotiated agreements, internal machinery for settling grievances. Problems, interpretation of agreement. Function, scope of arbitration. (FORMERLY ECON 577) BoK: SS. Credit Level: U, G. Credit Hrs: 3.00

15LER610**Labor Unions in a Global Economy**

Study of contemporary American unionism in a global environment; international comparisons; challenges of globalization. (FORMERLY ECON 610) BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

15LER612**Employee Relations**

Achieving positive employee-employee relations; procedures and systems for preventing and resolving workplace conflict in both non-union and unionized settings. (FORMERLY ECON 612) Prereq: 15ECON522. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

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Labor and Employment Relations**15LER614****Public Sector Labor Relations**

Development of, and legal basis for, labor-management relations at various levels of government. Procedures, problems, and consequences of collective bargaining in public employment. (FORMERLY ECON 614) BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

15LER620**Professional Devel in HR I**

Attendance at meetings of Cincinnati area labor relations and human resources organizations and occasional conferences. Grade awarded after successful completion of three quarters of the colloquium and completion of HRCI certification exam or the HRCI Assessment. The first offering of a three-part course sequence. (Formerly ECON 620) BoK: NA. Credit Level: U, G. Credit Hrs: 2.00

15LER621**Professional Devel in HR II**

Attendance at meetings of Cincinnati area labor relations and human resources organizations and occasional conferences. Preparation for the Human Resource Certification exam. Grade awarded after successful completion of three quarters of the colloquium and completion of the HRCI certification exam or the HRCI Assessment. The second offering in a three-part course sequence. Prereq 15ECON620. BoK: NA. Credit Level: U, G. Credit Hrs: 2.00

15LER622**Professional Devel in HR III**

Preparation for the Human Resource Certification exam. Grade will be awarded after successful completion of three quarters of the colloquium and completion of the HRCI certification exam or the HRCI Assessment. The third offering in a three-part course sequence. Prereq: 15LER620, 15LER621. Prereq: 15ECON620, 15ECON621. BoK: NA. Credit Level: U, G. Credit Hrs: 2.00

15LER730**Statistics in Human Resources**

This course is designed to introduce students to advanced inferential statistics and provide opportunities to analyze and interpret data employing techniques commonly used by applied researchers and those practicing in the field of human resources. Prereq: 15STAT201, 22QA241. Credit Level: G. Credit Hrs: 3.00

15LER808**Organizational Literacy For Human Resources**

Different organizational forms; the role of organizational functions other than human resources; key concerns of each functional area; important concepts in each function; and how human resources can help other functions achieve their missions. Credit Level: G. Credit Hrs: 3.00

15LER810**Human Resources And Organizational Development And Change**

The strategic role of human resources in organizational development and change; types of change e.g. macro (mergers and acquisitions, downsizing, new technology, cultural) and micro (high-performance workgroups and teamwork); effect on organizations, workgroups, individual employees; resistance to change; and change strategies. Credit Level: G. Credit Hrs: 3.00

15LER812**Human Resources Consulting**

Devolution in responsibility for operational aspects of human resources to line managers; increased use of third-party consultants; the consultative roles of human resource professionals; consulting stages, including entry, contracting, data analysis, and feedback; consulting skills required at each stage. Credit Level: G. Credit Hrs: 3.00

15LER814**Human Resource Management (HRM)**

The course covers the following subjects and themes: strategic HRM, global issues, job analysis, job design, performance appraisal, human resource (HR) planning, recruitment, selection and placement, HR

Labor and Employment Relations**15LER814****Human Resource Management (HRM)**

development and training, and HR information systems.(FORM EC 814) Credit Level: G. Credit Hrs: 4.00

15LER816**Employee Compensation**

Theory and practice of compensation in private and public employment. Job analysis and descriptions; setting pay levels; knowledge-base pay; discrimination; pay for performance; gain-sharing and profit sharing. Credit Level: G. Credit Hrs: 3.00

15LER818**Employment Law I**

(Eve. only) Legal framework for employer-employee relations. Legislation and court decisions governing discrimination in hiring, advancement and termination, sexual harassment, affirmative action, and other aspects of human resource management. (FORMERLY ECON 818) Credit Level: G. Credit Hrs: 3.00

15LER819**Employment Law II**

(Eve. only) Continuation of 818, with emphasis on the developing law of wrongful discharge and breach of employment contracts.(FORMERLY ECON 819) Prereq: 15ECON818. Credit Level: G. Credit Hrs: 3.00

15LER822**Labor Relations Process and Law**

Parties, processes, and legal framework in union- management relations; union organizing and collective bargaining; legal guidelines for conduct, strategies, and tactics of the parties. (FORMERLY ECON 822) Credit Level: G. Credit Hrs: 4.00

15LER824**Collective Bargaining and Labor Relations**

The course covers the following topics and themes: theoretical and institutional approaches to collective bargaining, the distributive model, utility parameters, and commitment tactics. The integrative model and integrative bargaining tactics.(FORMERLY ECON 824) Credit Level: G. Credit Hrs: 4.00

15LER825**The Collective Bargaining Process**

The course covers the following topics: preparation for bargaining; bargaining procedures; stages of the collective bargaining process; management and union security; contract administration; the theory, strategies and tactics of intraorganizational bargaining. course includes a major simulation and some recent arbitration cases. Credit Level: G. Credit Hrs: 4.00

15LER828**Economics of Human Resources**

Fundamentals of human resource economics, labor supply, labor demand, and human capital theory. Applications to special topics. Formerly ECON 828 Prereq: 15ECON101. Credit Level: G. Credit Hrs: 3.00

15LER829**Individual Behavior in the Workplace**

Methods, theories and research findings in organizational behavior and psychology regarding topics such as diversity, employee involvement leadership, organizational change and motivation. Credit Level: G. Credit Hrs: 3.00

15LER830**Research Methods**

A survey of research procedures useful in economics, including statement of testable hypotheses, data gathering, and tools of statistical analysis. A research exercise is required.(FORMERLY ECON 830) Prereq: 15LER730. Credit Level: G. Credit Hrs: 3.00

15LER853**Negotiations, the Rational Approach**

Explores various tactics, strategies and models for negotiating rationally

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LT: Literature. NS: Natural Sciences. QR: Quantitative Reasoning. SE: Social & Ethical Issues. SS: Social Sciences.

Labor and Employment Relations**15LER853****Negotiations, the Rational Approach**

and effectively. Negotiating rationally means arriving at better decisions and at better agreements which optimize the interests of the parties. Students participate in simulation exercises and debriefings. Credit Level: G. Credit Hrs: 3.00

15LER873**Human Resource Information Systems and Applications**

Structure and uses of HRIS; systems and development process; needs analysis; system design, acquisition, implementation, evaluation and analysis; applications to HR functional areas using relevant software.(FORMERLY ECON 873) Credit Level: G. Credit Hrs: 3.00

15LER874**Staffing**

Analysis, evaluation, design and implementation of procedures and practices for recruitment, selection, employment, and separation of employees in organizations.(FORMERLY ECON 874) Credit Level: G. Credit Hrs: 3.00

15LER876**Employee Development and Training**

Role of employee development and training in organizations. Analysis, evaluation, design, and implementation of development and training activities and systems.(FORMERLY ECON 876) Perm of Instructor. Credit Level: G. Credit Hrs: 3.00

15LER878**Employee Benefits**

Analysis and evaluation of employee benefits in organizational compensation systems. Design and implementation of benefits plans.(FORMERLY ECON 878) Credit Level: G. Credit Hrs: 3.00

15LER880**Health and Work**

Rationales, legal constraints, design, implementation, and evaluation of workplace policies and programs concerning employee health and safety.(FORMERLY ECON 880) Credit Level: G. Credit Hrs: 3.00

15LER882**Negotiations**

Objectives: to provide an understanding of the negotiation process through readings, negotiation exercises and debriefings; to review practical and analytical skills that can be applied to a variety of negotiation settings; to offer guidance for reaching satisfactory agreements.(FORMERLY EC 882) Credit Level: G. Credit Hrs: 3.00

15LER884**The Diverse Workforce**

Workforce 2000; managing cultural diversity; the older worker; women in the labor force; work force skills and literacy; the disabled worker; temporary and part-time workers; workforce policy. (FORMERLY ECON 884) Credit Level: G. Credit Hrs: 3.00

15LER886**Human Resources Metrics**

Link between HRM and organizational financial performance; measurement of HRM variables including turnover, contracts, and attitudes; policy evaluation; accounting and the HRM function.(FORMERLY ECON 886) Credit Level: G. Credit Hrs: 3.00

15LER888**Human Resource Planning**

Forecasting employee demand and supply; techniques to meet needs, including internal labor markets, career planning and development; evaluation of utilization of human resources; public human resource programs.(FORMERLY ECON 888) Credit Level: G. Credit Hrs: 3.00

15LER890**Strategic Leadership for Human Resources**

Models of strategic planning; description and evaluation of planning process, including definition of mission and vision, environmental scanning, planning techniques, and decision analysis; evaluation of

Labor and Employment Relations**15LER890****Strategic Leadership for Human Resources**

outcomes.(FORMERLY EC 890) Credit Level: G. Credit Hrs: 3.00

15LER892**Strategic Human Resource Management**

Strategic versus traditional approaches to HRM: external and organizational context; strategic approach to functional areas of HRM and in different types of organizations.(FORMERLY ECON 892) Credit Level: G. Credit Hrs: 3.00

15LER894**International Human Resource Management**

Globalization of the economy and HRM; functional areas of HRM in a multinational company, including compensation, staffing, and training; comparative country analysis of major trading partners; HRM in foreign-owned firms in the US; special topics. (FORMERLY ECON 894) Credit Level: G. Credit Hrs: 3.00

15LER895**COMPARATIVE HUMAN RESOURCE MANAGEMENT**

Human resources context, practices and issues in foreign countries compared with US. Includes legal, economic, political and cultural environment; predominant approaches to staffing, compensation, employee and labor relations, training and strategic HR; current trends and issues. ACADEMIC STUDY TOUR TO COUNTRY OR AREA STUDIED Credit Level: G. Credit Hrs: 3.00-6.00

15LER896**Seminar in Labor and Employment Relations**

Research and field work relevant to understanding various aspects of labor relations and the management of human resources. A study of selected topics of the relationship of theory to practice.(FORMERLY ECON 896) Credit Level: G. Credit Hrs: 4.00

15LER897**Seminar in Labor and Employment Relations**

Research and field work relevant to understanding various aspects of labor relations and the management of human resources. A study of selected topics of the relationship of theory to practice. Credit Level: G. Credit Hrs: 4.00

15LER898**Teaching in Labor and Employment Relations**

Independent teaching or teaching assistance in labor and employment relations classes. To be arranged with LER faculty members. (FORMERLY ECON 898) Credit Level: G. Credit Hrs: 1.00-9.00

15LER899**Research in Labor and Employment Relations**

Independent study or research assistance on labor and employment relations topics. To be arranged with LER faculty members. Credit Level: G. Credit Hrs: 1.00-9.00

15LER900**LER Capstone**

This course is intended for Masters students in the Labor and Employment Relations program who are completing their final experience requirement. Permission of instructor is required. Credit Level: G. Credit Hrs: 2.00

Mathematics**15MATH146****Statistics for the Health Sciences**

Statistical models and inference applied to problems in the health sciences, with emphasis on the role that statistics plays in medical research. Primarily for students in the College of Nursing and Health. Score of 420+ on the Math Placement Test. BoK: QR. Credit Level: U. Credit Hrs: 3.00

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Mathematics**15MATH147****Elementary Probability and Statistics**

UNDERSTANDING DATA: Distributions and graphs, summarizing data, normal distribution, scatterplots, categorical data, designing samples and experiments, probability. Transfer Module. BoK: QR. Credit Level: U. Credit Hrs: 3.00

15MATH148**Elementary Probability and Statistics**

PROBABILITY & INFERENCE: Sampling distributions, probability, sample proportions and means, binomial distribution, confidence intervals, inference for means, comparing two means. Prereq.: 15-Math-147 with at least C-. Prereq: 15MATH147. Transfer Module. BoK: QR. Credit Level: U. Credit Hrs: 3.00

15MATH149**Elementary Probability and Statistics**

TOPICS IN INFERENCE: Inference for proportions, two-sample inference, two-way tables and Chi Square, one-way analysis of variance (ANOVA), inference for regression. Prereq.: 15-Math-148 with at least C-. Prereq: 15MATH148. Transfer Module. BoK: QR. Credit Level: U. Credit Hrs: 3.00

15MATH151**Mathematics for Early Childhood Teachers I**

Problem-solving principles and strategies, number systems, operations estimations, fractions, decimals, and percents. BoK: QR. Credit Level: U. Credit Hrs: 3.00

15MATH152**Mathematics for Early Childhood Teachers II**

Algebraic expressions, graphing points and lines, geometry of shape (congruence, similarity), and measurement. BoK: QR. Credit Level: U. Credit Hrs: 3.00

15MATH153**Mathematics for Early Childhood Teachers III**

Topics from statistics and probability. BoK: QR. Credit Level: U. Credit Hrs: 3.00

15MATH154**Mathematics for Early Childhood Teachers IV**

Geometric transformations in the plane, including rigid motions and dilations/contractions, reflection and rotational symmetries, tilings, tessellations, grid design and distortions. BoK: QR. Credit Level: U. Credit Hrs: 3.00

15MATH155**Topics in Mathematics**

Management Science: Euler circuits, Hamiltonian circuits, traveling salesman problems, minimum-cost spanning trees, critical path analysis, scheduling tasks, bin packing, mixture problems, linear programming. Score of 420+ on Math Placement Test. BoK: QR. Credit Level: U. Credit Hrs: 3.00

15MATH156**Topics in Mathematics**

Collecting and describing data, probability, and statistical inference. Score of 420+ on Math Placement Test. BoK: QR. Credit Level: U. Credit Hrs: 3.00

15MATH157**Topics in Mathematics**

Voting systems, fair division, and apportionment. Score of 420+ on Math Placement Test. BoK: QR. Credit Level: U. Credit Hrs: 3.00

15MATH173**College Algebra I**

Equations, inequalities, Cartesian coordinate system, graphs of polynomial functions. Score of 431 - 500 on Math Placement Test. Transfer Module. BoK: QR. Credit Level: U. Credit Hrs: 3.00

Mathematics**15MATH174****College Algebra II**

Rational functions, conic sections, exponential and logarithmic function, systems of equations and inequalities. Prereq.: 15-Math-173 with at least C- or score of 500+ on MPT. Prereq: 15MATH173. Transfer Module. BoK: QR. Credit Level: U. Credit Hrs: 3.00

15MATH181**Trigonometry**

Rational functions, conic sections, trigonometry. Prereq.: 15-Math-174 with at least C- or score of 530+ on MPT. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15MATH200**Cooperative Learning in Calculus 0**

Students will participate in guided group work which complements the Calculus 0 curriculum. Coreq: 15MATH250. BoK: QR. Credit Level: U. Credit Hrs: 1.00

15MATH201**Cooperative Learning in Calculus I**

Students participate in guided group work to complement the Calculus I curriculum. Coreq: 15MATH251. BoK: QR. Credit Level: U. Credit Hrs: 1.00

15MATH202**Cooperative Learning in Calculus II**

Student will participate in guided, group work which complements the Calculus II curriculum. Coreq: 15MATH252. BoK: QR. Credit Level: U. Credit Hrs: 1.00

15MATH203**Cooperative Learning in Calculus III**

Students will participate in guided, group work which complements the Calculus III curriculum. Coreq: 15MATH253. BoK: QR. Credit Level: U. Credit Hrs: 1.00

15MATH224**Foundations of Applied Calculus**

A review of algebraic skills needed for calculus, including exponents, radicals, linear equations and inequalities, linear systems, and exponential and logarithm functions. Prereq.: Score of 470+ on Math Placement Test. BoK: QR. Credit Level: U. Credit Hrs: 3.00

15MATH225**Finite Math**

Systems of equations, linear programming, matrix algebra, and probability. Score of 530+ on Math Placement Test. Prereq.: 15-Math-174 with at least C- or score of 530+ on MPT. Prereq: 15MATH174. BoK: QR. Credit Level: U. Credit Hrs: 3.00

15MATH225H**Honors Finite Mathematics**

Honors version of 15 Math 225. Prereq. 15-Math-174 with at least C- or score of 530+ on MPT. Prereq: 15MATH174. BoK: QR. Credit Level: U. Credit Hrs: 3.00

15MATH226**Applied Calculus I**

Functions, graphs, limits, continuity, differentiation, curve sketching, optimization. Properties of exponential and logarithmic functions. Prereq.: 15-Math-174 or 15-Math-224 with at least C- or score of 570+ on MPT. Prereq: 15MATH224, 15MATH174. Transfer Module. BoK: QR. Credit Level: U. Credit Hrs: 3.00

15MATH226H**Honors Applied Calculus I**

Honors version of 15 Math 226. Prereq.: 15-Math-174 or 15-Math-224 with at least C- or score of 570+ on MPT. Transfer Module. BoK: QR. Credit Level: U. Credit Hrs: 3.00

15MATH227**Applied Calculus II**

Applications of exponential and logarithmic functions, anti-differentiation, the definite integral, area, functions of the variables,

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Mathematics**15MATH227****Applied Calculus II**

partial derivatives, maxima and minima, Lagrange multipliers. Prereq.: 15-Math-226 with at least C-. Prereq: 15MATH226. Transfer Module. BoK: QR. Credit Level: U. Credit Hrs: 3.00

15MATH227H**Honors Applied Calculus II**

Honors version of 15 Math 227. Prereq.: 15-Math-226 with at least C-. Transfer Module. BoK: QR. Credit Level: U. Credit Hrs: 3.00

15MATH250**Calculus 0**

For students who need more preparation before going on to 15 Math 251 Calculus I. Prereq.: score of 550+ on MPT. BoK: QR. Credit Level: U. Credit Hrs: 5.00

15MATH251**Calculus I**

Functions, limits and continuity, derivatives, applications of the derivative, the integral. Prereq.: score of 670+ on the Math Placement Test or 15-Math-250 or 15-Math-181 with at least C-. Prereq: 15MATH250. Transfer Module. BoK: QR. Credit Level: U. Credit Hrs: 5.00

15MATH251H**Honors Calculus I**

Honors version of Math 251 (Calculus I). Prereq.: University Honors scholars with score of 860+ on MPT OR others with 1100+ on MPT and permission of department. Transfer Module. BoK: QR. Credit Level: U. Credit Hrs: 5.00

15MATH252**Calculus II**

Riemann sums, Riemann integral, techniques of integration, volume, applications of integration, vectors. Prereq.: 15-Math-251 with at least C-. Co-req.: 15-Math-256. Prereq: 15MATH251. Coreq: 15MATH256. BoK: QR. Credit Level: U. Credit Hrs: 4.00

15MATH252H**Honors Calculus II**

Honors version of 15 Math 252 Calculus II. Prereq: 15MATH251. Coreq: 15MATH256. Transfer Module. BoK: QR. Credit Level: U. Credit Hrs: 4.00

15MATH253**Calculus III**

Sequences, series, lines and planes in space, vector-valued functions. Prereq.: 15-Math-252 with at least C-. Co-req.: 15-Math-257. Prereq: 15MATH252. Coreq: 15MATH257. BoK: QR. Credit Level: U. Credit Hrs: 4.00

15MATH253H**Honors Calculus III**

Honors version of 15 Math 253 (Calculus III) Prereq: 15MATH252. Coreq: 15MATH257. Transfer Module. BoK: QR. Credit Level: U. Credit Hrs: 4.00

15MATH256**Calculus II Laboratory**

Computer lab to accompany Calculus II (15 Math 252) Coreq: 15MATH252. Transfer Module. BoK: NA. Credit Level: U. Credit Hrs: 1.00

15MATH256H**Honors Calculus II Laboratory**

Honors version of 15 Math 256 (Calc II Lab) Coreq: 15MATH252H. Transfer Module. BoK: NA. Credit Level: U. Credit Hrs: 1.00

15MATH257**Calculus III Laboratory**

Computer lab to accompany Calculus III (15 Math 253) Coreq: 15MATH253. Transfer Module. BoK: NA. Credit Level: U. Credit Hrs: 1.00

Mathematics**15MATH257H****Honors Calculus III Laboratory**

Honors version of 15 Math 257 (Calc III Lab) Coreq: 15MATH253H. Transfer Module. BoK: NA. Credit Level: U. Credit Hrs: 1.00

15MATH264**Calculus and Analytic Geometry IV**

Course covers partial derivatives, multiple integrals, calculus of vector fields. Prereq.: 15-Math-253 with at least C-. Prereq: 15MATH253. BoK: QR. Credit Level: U. Credit Hrs: 5.00

15MATH264H**Honors Calculus & Analytic Geometry IV**

Honors version of 15 Math 264. Partial derivatives, multiple integrals, and calculus of vector fields. Prereq: 15MATH253. BoK: QR. Credit Level: U. Credit Hrs: 5.00

15MATH273**Differential Equations**

First order differential equations (linear, separable, exact), second order linear equations, Wronskians, method of undetermined coefficients, variation of parameters, series solutions, regular singular points, higher order equations, Laplace transform. Prereq.: 15-Math-253 with at least C-. Prereq: 15MATH253. BoK: QR. Credit Level: U. Credit Hrs: 5.00

15MATH276**Matrix Methods**

Course covers matrices, systems of linear equations, Gaussian elimination, determinants, theory of solutions, computation of inverses, eigenvectors and eigenvectors, coordinate transformations, systems of differential equations, applications to mechanical systems and electrical circuits. Prereq.: 15-Math-253 with at least C-. Prereq: 15MATH253. BoK: QR. Credit Level: U. Credit Hrs: 3.00

15MATH307**Mathematics for Middle-School Teachers I**

Inquiry-based, integrated approach to middle school content areas of arithmetic (number systems, proportional reasoning, fractions, place value), geometry (shapes, measurement, transformations), algebra (with connections to arithmetic and geometry, as well as real-world problem solving), functions and graphs, and discrete mathematics. Emphasis on developing mathematical understanding needed to teach these concepts effectively. This is the first course in the sequence. Prereq.: 15-Math-227 with at least C-. Prereq: 15MATH227. BoK: QR. Credit Level: U. Credit Hrs: 4.00

15MATH308**Mathematics for Middle-School Teachers II**

Inquiry-based, integrated approach to middle-school content areas of arithmetic (number systems, proportional reasoning, fractions, place value), geometry (shapes, measurement, transformations), algebra (with connections to arithmetic and geometry, as well as real-world problem-solving), functions and graphs, and discrete mathematics. Emphasis on developing mathematical understanding needed to teach these concepts effectively. This is the second course in the sequence. Prereq.: 15-Math-307 with at least C-. Prereq: 15MATH307. BoK: QR. Credit Level: U. Credit Hrs: 4.00

15MATH309**Mathematics for Middle-School Teachers III**

Inquiry-based, integrated approach to middle-school content areas of arithmetic (number systems, proportional reasoning, fractions, place value), geometry (shapes, measurement, transformations), algebra (with connections to arithmetic and geometry, as well as real-world problem solving), functions and graphs and discrete mathematics. Emphasis on developing mathematical understanding needed to teach these concepts effectively. This is the third course in the sequence. Prereq.: 15-Math-308 with at least C-. Prereq: 15MATH308. BoK: QR. Credit Level: U. Credit Hrs: 4.00

15MATH351**Linear Algebra I**

Linear equations, matrices, vector spaces, bases and dimension.

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Mathematics**15MATH351****Linear Algebra I**

Prereq.: 15-Math-253 with at least C-. Prereq: 15MATH253. BoK: QR.
Credit Level: U. Credit Hrs: 3.00

15MATH352**Linear Algebra II**

Orthogonality, linear transformations, determinants, eigenvalues and eigenvectors, diagonalization. Prereq.: 15-Math-351 with at least C-.
Prereq: 15MATH351. BoK: QR. Credit Level: U. Credit Hrs: 3.00

15MATH355**Introduction to Differential Equations**

First and second order differential equations (with emphasis on the linear case), higher order linear equations, and systems of linear equations. Prereq.: 15-Math-264 and 15-Math-352 with at least C-.
BoK: QR. Credit Level: U. Credit Hrs: 3.00

15MATH357**Introduction to Abstract Mathematics**

Logic and proofs; set theory; relations; functions; cardinality. Prereq.: 15-Math-352 with at least C-. BoK: QR. Credit Level: U. Credit Hrs: 3.00

15MATH361**Probability and Statistics I**

Sample statistics. Probability, sample spaces, counting rules, conditional probability. Discrete and continuous random variables, their distributions and expected values. Binomial, Poisson, hypergeometric, normal, gamma distributions. Covariance, correlation. Sampling distributions of means and sums. Prereq.: 15-Math-253 with at least C-.
Prereq: 15MATH253. BoK: QR. Credit Level: U. Credit Hrs: 3.00

15MATH362**Probability and Statistics II**

Point estimation, confidence intervals for means, proportions, variances, and differences of means and proportions. Hypothesis testing. Simple linear regression, multiple linear regression. Model building. SAS software package may be used. Prereq.: 15-Math-361 with at least C-. Prereq: 15MATH361. BoK: QR. Credit Level: U. Credit Hrs: 3.00

15MATH363**Probability and Statistics III**

Analysis of variance and experimental design. Categorical data analysis, chi-square tests, reliability and quality control. SAS software package may be used. Prereq.: 15-Math-362 with at least C-. Prereq: 15MATH362. BoK: QR. Credit Level: U. Credit Hrs: 3.00

15MATH366**Engineering Statistics**

Descriptive statistics, probability, binomial, Poisson, and normal distributions. Confidence intervals, and hypothesis testing, regression analysis. Prereq.: 15-Math-253 with at least C-. Prereq: 15MATH253. BoK: QR. Credit Level: U. Credit Hrs: 3.00

15MATH377**Applied Boundary Value Problems**

Heat equation, wave equation, Laplace's equation, separation of variables, Fourier series, eigenfunction expansions, Fourier transform. Prereq.: 15-Math-264 AND 15-Math-273 with at least C-. Prereq: 15MATH264, 15MATH273. BoK: QR. Credit Level: U. Credit Hrs: 3.00

15MATH401**Introduction to Abstract Algebra I**

Division, prime numbers, modular arithmetic, Chinese Remainder Theorem, rings, homomorphisms. Prereq.: 15-Math-357 with at least C-.
Prereq: 15MATH357. BoK: QR. Credit Level: U. Credit Hrs: 3.00

15MATH402**Introduction to Abstract Algebra II**

Arithmetic in the rings of polynomials, irreducibility, congruence, in $F[x]$, the structure of the quotient ring, geometric constructions. Prereq.: 15-Math-401 with at least C-. Prereq: 15MATH401. BoK: QR. Credit Level: U. Credit Hrs: 3.00

Mathematics**15MATH404****History of Mathematics**

A survey of the history of mathematics from ancient times through the invention of the calculus. Egyptian and Babylonian computational systems, Pythagoreanism, Euclid, the work of Archimedes, Hindu-Arabic numeration, algebra of the Renaissance, Galileo's mathematization of nature, geometry of Descartes and Fermat, calculus of Newton and Leibniz. Prereq.: 15-Math-406 with at least C-. Prereq: 15MATH406. BoK: QR. Credit Level: U. Credit Hrs: 3.00

15MATH406**Introduction to Geometries I**

Introduction to Euclidean plane geometry. Attention is given to logical structure and the nature of axioms and their relationship to basic principles of plane geometry. Emphasis on triangle geometry, parallelism, and geometric constructions. Prereq.: 15-Math-357 with at least C-. Prereq: 15MATH357. BoK: QR. Credit Level: U. Credit Hrs: 3.00

15MATH407**Introduction to Geometries II**

A course in transformational geometry based on symmetries of the plane. Isometries of the plane; conjugacy and geometric equivalence; isometries in 3-D; geometry and vector algebra. Prereq.: 15-Math-406 with at least C-. Prereq: 15MATH406. BoK: QR. Credit Level: U. Credit Hrs: 3.00

15MATH408**Introduction to Analysis I**

Continuity and differentiability. Prereq.: 15-Math-357 with at least C-. Prereq: 15MATH357. BoK: QR. Credit Level: U. Credit Hrs: 3.00

15MATH409**Introduction to Analysis II**

Riemann Integration and Infinite Series Prereq.: 15-Math-408 with at least C-. Prereq: 15MATH408. BoK: QR. Credit Level: U. Credit Hrs: 3.00

15MATH410**Discrete Mathematics and Applications**

Logic, proofs, induction, relations, graphs, and trees. Prereq: 15MATH361. BoK: QR. Credit Level: U. Credit Hrs: 3.00

15MATH498**Undergraduate Internship in Mathematics**

Practical work-related experience in a supervised internship where job responsibilities involve statistical or mathematical reasoning or computation. For math majors (or math as second major.) Permission of Undergraduate Program Director required. Prereq: 15MATH352, 15MATH357. BoK: NA. Credit Level: U. Credit Hrs: 1.00-6.00

15MATH501**Senior Capstone Experience in Mathematics**

Students enroll in this course during the quarter in which they complete their senior capstone project/coursework. The capstone experience must be approved by the Undergraduate Program Director. BoK: QR. Credit Level: U. Credit Hrs: 1.00

15MATH504**Advanced Calculus**

Ordered sets, the real field, the complex field, Euclidean space, finite, countable and uncountable sets, metric spaces, compact sets, convergent sequences, Cauchy sequences, upper and lower limits, Bolzano-Weierstrass theorem, series, the number e , convergence tests for series, absolute convergence, addition and multiplication of series, rearrangements. Prereq: 15MATH357. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

15MATH505**Advanced Calculus**

Limits and continuity of functions, continuity and compactness, connectedness and continuity, discontinuities, monotone functions, derivatives, the Mean Value theorem, l'Hopital's rule, higher order derivatives, Taylor's theorem, Riemann-Stieltjes integral, integration and

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Mathematics**15MATH505****Advanced Calculus**

differentiation of vector-valued functions, rectifiable curves. Prereq: 15MATH504. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

15MATH506**Advanced Calculus**

Uniform convergence for sequences and series of functions, equi-continuous families of functions, the Stone-Weierstrass theorem, functions of several variables. Prereq: 15MATH505. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

15MATH511**Abstract Algebra**

Abstract vector spaces; determinants; eigenvalues and eigenvectors; algebra of linear transformations; canonical forms, including triangular, Jordan, and rational forms. Prereq: 15MATH357. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

15MATH512**Abstract Algebra**

Definition and basic properties of groups, sub-groups, permutation groups, direct products, isomorphisms, homomorphisms, normal subgroups, and factor groups. Prereq: 15MATH357. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

15MATH513**Abstract Algebra**

Selected topics in number theory. Binary relations and binary operations. Definitions and basic properties of rings and fields, integral domain, quotient fields, quotient rings and ideals, factorization of polynomials over fields, unique factorization domains, Euclidean domains, Gaussian integers, extension fields, algebraic extensions, geometric constructions, finite fields. Prereq: 15MATH512. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

15MATH514**Numerical Analysis**

Floating point arithmetic, roundoff error, error propagation, solving nonlinear equations by bisection, secant, regula-falsi, and Newton methods, error analysis, polynomial interpolation, Runge phenomenon, cubic spline interpolation, orthogonal polynomials, and least squares approximation. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

15MATH515**Numerical Analysis**

Gauss elimination, pivoting strategies, iterative methods for linear systems (Jacobi, Gauss-Seidel), eigenvalue-eigenvector computations by power, inverse power, and Rayleigh Quotient methods, Householder transformations, Hessenberg matrices and the Q-R method, singular value decomposition. Prereq.: Math 514. Prereq: 15MATH514. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

15MATH516**Numerical Analysis**

Numerical differentiation, Newton-Cotes and Gaussian quadrature, Romberg integration, FFT, adaptive quadrature, numerical methods for initial value problems including Runge-Kutta and predictor-corrector methods, finite difference methods for two-point boundary value problems, decent methods for optimization problems. Prereq.: Math 515. Prereq: 15MATH515. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

15MATH517**Applied Mathematics Practicum**

Techniques in applied mathematics, ordinary and partial differential equations, numerical methods, perturbation techniques, modeling. Under the guidance of the instructor, teams of students solve problems from industry, government, etc and present reports on their findings. Prereq: 15MATH254, 15MATH273. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

Mathematics**15MATH521****Mathematical Statistics**

Random variables, probability distribution functions, mathematical expectation, Chebyshev's inequality, marginal and conditional distributions, independence, binomial, Poisson, Gamma, and normal distribution. Prereq.: Math 264 and 361. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

15MATH522**Mathematical Statistics**

Sampling distributions: transformation of variables, order statistics, moment generating functions, distribution of sample mean and sample variance, stochastic convergence, central limit theorem, maximum likelihood estimation, Bayesian - estimation, confidence intervals. Prereq: 15MATH521. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

15MATH523**Mathematical Statistics**

Hypothesis testing, uniformly most powerful and likelihood ratio tests, sufficient statistics, Rao -Blackwell Theorem, exponential densities, Rao - Cramer inequality, sequential and chi-square tests. Prereq: 15MATH522. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

15MATH526**Nonlinear Optimization**

Methods of unconstrained optimization, the steepest descent method, Newton's Method, conjugate direction methods, quasi-Newton and variable metric methods, theory and methods of constrained penalty methods. Prereq: 15MATH264. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

15MATH531**Applied Statistical Inference**

Quick review of probability distributions. Inferences about population means and variance. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

15MATH532**Applied Regression Analysis**

Correlation, multiple regression, one-way ANOVA, and multiple comparisons. Projects using SAS packages. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

15MATH533**Analysis of Variance**

ANOVA for standard experimental designs and unbalanced designs, repeated measures, and analysis of covariance. Prereq: 15MATH532. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

15MATH534**SAS Programming**

Various aspects of the SAS statistical package from a programming language perspective. Emphasis on SAS data steps, including the infile, input, merge, set, do-loop, if-then commands, writing macros, matrix computations using PROC IML and PROC INSIGHT. Concentration is on programming issues rather than statistical procedures. Prereq: 15MATH363, 15MATH532. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

15MATH541**Computational Financial Mathematics I**

Symbolic and numerical solutions of ODEs, Brownian motion, stochastic calculus, Black Scholes formula, computer lab using Mathematica. Prereq: 15MATH361, 15MATH254. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

15MATH542**Computational Financial Mathematics II**

Computer lab using Mathematica. Stock market statistics, Bayesian and non-Bayesian estimates, implied volatility, numerical PDEs, optimal control of PDEs. Prereq: 15MATH541. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

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Mathematics**15MATH543****Computational Financial Mathematics III**

Computer lab using Mathematica. American options, optimal stopping, Dupire PDE, portfolio rules, portfolio optimization. Prereq: 15MATH542. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

15MATH551**Number Theory**

Number-theoretic functions, congruences, diophantine equations, primitive roots and indices, quadratic residues, quadratic reciprocity. Prereq: 15MATH402. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

15MATH553**Partial Differential Equations and Fourier Analysis**

Heat equation, separation of variables, Laplace equation, Fourier series, vibrating strings, and membranes. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

15MATH554**Partial Differential Equations and Fourier Analysis**

Sturm-Liouville problems. PDE with at least three independent variables. Green's functions, non-homogeneous problem, Fourier transform, and characterization. Prereq: 15MATH553, 15MATH254. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

15MATH555**Applied Linear Algebra**

Gaussian elimination, triangular factorization, band matrices, linear independence, computation of column space and nullspace of a matrix, orthogonality and geometry of R^n projections onto subspaces, least squares approximation, and the pseudo-inverse. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

15MATH556**Applied Linear Algebra**

Stability of linear differential and difference equations, the Spectral Theorem for symmetric matrices, positive definite matrices, the generalized eigenvalue problem, the Rayleigh quotient, and minimax principles. Prereq: 15MATH555. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

15MATH568**Applied Complex Analysis**

Introduction to the geometric aspects of elementary complex analysis. Topics covered include: complex numbers; mapping properties of elementary functions; conformal mapping and Möbius transformations; and applications to fluid flow. Prereq: 15MATH264, 15MATH273. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

15MATH573**Applied Bayesian Analysis**

Basic principles behind Bayesian inference and the concepts of prior and posterior distributions. Bayesian approach to statistical inference (estimation and test of hypotheses.) Differences and similarities between Bayesian and classical (frequentist) approaches featuring selected topics and examples requiring approximate or computer based numerical calculations of Bayesian answers. Prereq: 15MATH522. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

15MATH574**Nonparametric Statistics**

One- and two-sample location problems, Wilcoxon statistics, rank tests, one- and two-way layout, tests for independence, linear rank statistics, Kolmogorov test. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

15MATH575**Robust Statistics**

Methods of data analysis that are used when a sample is not assumed to have come from a normal distribution. Classical methods of inference and estimation; theoretical, applied, and computational aspects of robustness; Monte Carlo adaptive estimation, jackknifing, and bootstrapping. Prereq: 15MATH362. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

Mathematics**15MATH576****Topics in Applied Statistics**

Selected topics in applied statistics, depending on the area of specialty of the instructor. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

15MATH577**Applied Probability and Stochastic Processes I**

Basic elements of probability theory and stochastic processes, Markov chains, and the Poisson process. Prereq: 15MATH264. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

15MATH578**Applied Probability and Stochastic Processes II**

Additional topics from the theory of stochastic processes, plus applications. Prereq: 15MATH577. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

15MATH580**Mathematics using Mathematica**

Projects using Mathematica. (No prior knowledge of programming or Mathematica is required. There will be some different options for those with specialized goals.) BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

15MATH584**Combinatorics**

Theory and practice of enumeration; the Pigeonhole principle; permutations and combinations; binomial coefficients; inclusion-exclusion principle; recurrence relations; generating functions. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

15MATH591**Individual Work in Mathematics**

To be arranged. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-8.00

15MATH592**Individual Work in Mathematics**

To be arranged. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-15.00

15MATH593**Individual Work in Mathematics**

To be arranged. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-8.00

15MATH598**Special Topics in Mathematics**

Topics vary. Prereq: 15MATH597. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

15MATH599**Special Topics in Mathematics**

Topics vary. Prereq: 15MATH598. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

15MATH601**Complex Analysis**

The complex number system, elementary analytic functions and power series, conformal mapping and linear fractional transformations, Cauchy's Integral Theorem & Formula, local properties of analytic functions, Schwarz's Lemma, calculus of the residues, Schwarz reflection principle, normal families, Riemann Mapping Theorem, harmonic functions, Dirichlet problem, Meromorphic function Prereq: 15MATH506. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

15MATH604**General Topology**

Topics to be covered include: topologies and bases; subspaces; continuous functions; compactness; connectedness; separation axioms; Hausdorff property; Urysohn's lemma; Tietze extension theorem; product spaces; quotient spaces; and compact-open topology. Prereq: 15MATH506. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

15MATH605**General Topology**

Homotopy; the Seifert - van Kampen theorem; lifting theorem; classification of covering spaces; smooth manifolds; tangent spaces;

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Mathematics**15MATH605****General Topology**

regular values; smooth approximation theorem; surfaces; homology; the singular model; and the Eilenberg- Steenrod axioms. Prereq: 15MATH604. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

15MATH606**General Topology**

Cellular and simplicial homology; Betti numbers, Euler characteristic; Mayer-Vietoris sequence; homology cross-product; Lefschetz fixed-point theorem; Ext, Tor, universal coefficient theorems; Kunnethe theorems; cohomology; products (cross, cup, cap); Poincare duality; and topics chosen by the instructor. Prereq: 15MATH605. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

15MATH607**Real Analysis**

Elementary set theory, Axiom of Choice, elementary topology. Lebesgue Measure and integration on the real line. Abstract measure and integration theory, product measures and Fubini's theorem, absolute continuity and the Radon-Nikodym theorem, signed measures and decomposition theorems, integration on locally compact spaces, the Riesz Representation Theorem. Topological vectors. Prereq: 15MATH506. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

15MATH608**Real Analysis**

(see 15 Math 607) plus normed spaces and Hilbert spaces, elementary theory of continuous linear operators. Prereq: 15MATH607. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

15MATH609**Real Analysis**

Lebesgue measure, Lebesgue integration, differentiation, absolute continuity, LP spaces, abstract measure spaces, integration, product measures. The third offering in a three-part course sequence. Prereq.: Math 506. Prereq: 15MATH608. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

15MATH610**Algebraic Structures**

Group Theory: Sylow's theorems; Fundamental Theorem of abelian groups; Jordan-Holder theorems, solvable groups. Modules: Free modules and Zorus' Lemma. Modules over PID. Categories: Products; co-products; and free objects. Prereq: 15MATH513. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

15MATH613**Linear Models and Multivariate Analysis**

Review of matrix algebra, multivariate normal distribution; linear models including multiple regression, analysis of variance, analysis of covariance and repeated measurements. Selected topics from experimental design and multivariate analysis. Prereq: 15MATH351, 15MATH362. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

15MATH614**Linear Models and Multivariate Analysis**

Multivariate normal distribution. General linear models. Analysis of experiments. The second offering in a three-part course sequence. Prereq.: Math. 352 or equiv.; 362 or 523 or 708. Prereq: 15MATH613. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

15MATH615**Linear Models and Multivariate Analysis**

Multivariate normal distribution. General linear models. Analysis of experiments. The third part in a three-part course sequence. Prereq.: Math 352 or equiv.; 362 or 523 or 708. Prereq: 15MATH614. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

15MATH616**Ordinary Differential Equations**

Linear systems. Fundamental theory of existence, uniqueness and continuity of solutions in initial conditions. Stability of equilibria. Liapunov functions. Poincare-Bendixson theorem. Perturbation theory.

Mathematics**15MATH616****Ordinary Differential Equations**

BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

15MATH617**Ordinary Differential Equations**

Linear systems. Fundamental theory of existence, uniqueness and continuity of solutions in initial conditions. Stability of equilibria. Liapunov functions. Poincare-Bendixson theorem. Perturbation theory. The second part of a three- part course sequence. Prereq.: Math 506; knowledge of linear algebra. Prereq: 15MATH616. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

15MATH627**Partial Differential Equations**

The wave equation. Second order equations, elliptic and parabolic equations. Laplace's equation; heat equation. Separation of variables and Fourier series. Nonhomogenous problems. Sturm-Liouville theory and general Fourier expansions. Approximation methods. Prereq: 15MATH506. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

15MATH628**Partial Differential Equations**

The wave equation. Second order equations, elliptic and parabolic equations. Laplace's equation; heat equation. Separation of variables and Fourier series. Nonhomogenous problems. Sturm- Liouville theory and general Fourier expansions. Approximation methods. The second offering in a three-part course sequence. Prereq.: Math. 506. Prereq: 15MATH627. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

15MATH629**Partial Differential Equations**

The wave equation. Second order equations, elliptic and parabolic equations. Laplace's equation; heat equation. Separation of variables and Fourier series. Nonhomogenous problems. Sturm-Liouville theory and general Fourier expansions. Approximation methods. The third offering in a three-part course sequence. Prereq.: Math. 506. Prereq: 15MATH628. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

15MATH631**Advanced Theory of Statistics I**

Review of probability theory; distribution theory, sufficient statistics, maximum likelihood estimators, large sample theory, confidence intervals and testing. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

15MATH632**Advanced Theory of Statistics II**

Elements of decision theory, unbiased estimation, Bayesian analysis, minimax estimators, invariant estimator, Bayes and minimax tests, likelihood ratio tests. Prereq: 15MATH631. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

15MATH633**Advanced Theory of Statistics III**

Uniformly most powerful tests, general linear hypotheses, multiple decision problems, sequential analysis, density estimation, empirical processes. Prereq: 15MATH632. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

15MATH634**Probability Theory I**

Probability measures, random variables, expectation laws of large numbers, applications. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

15MATH710**Advanced Numerical Analysis**

Subjects of current interest in numerical analysis and its applications. Prereq: 15MATH516. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

15MATH701**Analytical Methods**

Linear and nonlinear ordinary differential equations; solutions by series and transforms; Bessel's equation; numerical methods; boundary value problems; applications to vibrations, heat transfer, etc. Credit Level: G.

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Mathematics**15MATH701****Analytical Methods**

Credit Hrs: 3.00

15MATH702**Analytical Methods**

Calculus in higher dimensions: gradient, curl, divergence, Jacobian, curvilinear coordinates, etc.; separation of variables for solving partial differential equations; calculus of variations. Prereq: 15MATH701.

Credit Level: G. Credit Hrs: 3.00

15MATH720**STATISTICAL CONSULTING**

Working on projects in teams of two, students will interact with researchers to learn statistical techniques and develop consulting and presentation skills. Perm of Instructor. Credit Level: G. Credit Hrs: 3.00

15MATH750**Technology for Calculus**

Introduction to the use of technology for teaching analysis (pre-calculus and calculus). Graphing calculators, symbolic algebra programs. Design and delivery of lessons that use technology. Project-oriented with cooperative learning component. For students in the M.A.T. program or by permission of the instructor. Credit Level: G. Credit Hrs: 2.00

15MATH753**Linear Algebra for Geometry**

Studies vectors and linear transformations; algebra of matrices. Focus is on dimensions 2 and 3, Isometries and symmetry groups. For students in the MAT program or by permission of instructor. Credit Level: G. Credit Hrs: 4.00

15MATH754**Technology for Geometry**

Technology for teaching geometry, including: dynamic geometry programs; computer graphics; and technical word processing. Design of lessons that use technology. Project-oriented with cooperative learning component. For students in the MAT program or by permission of instructor. Credit Level: G. Credit Hrs: 2.00

15MATH755**Geometry I**

Axiomatic treatment of neutral and Euclidean geometry. For students in the MAT program or by permission of instructor. Credit Level: G. Credit Hrs: 4.00

15MATH756**Geometry II**

Transformational geometry (isometries, similarities, and other affine transformations.) For students in the MAT program or by permission of instructor. Prereq: 15MATH755. Credit Level: G. Credit Hrs: 4.00

15MATH761**Algebra and Number Theory I**

Congruence, divisibility, primes, number-theoretic functions, number bases, and applications. For students in the M.A.T. program or by permission of the instructor. Credit Level: G. Credit Hrs: 4.00

15MATH762**Algebra and Number Theory II**

The theory of rings and fields, with emphasis on the algebra of polynomials. For students in the M.A.T. program or by permission of the instructor. Credit Level: G. Credit Hrs: 4.00

15MATH763**Probability and Statistical Inference**

Probability axioms and finite probability spaces. Combinatorics. Binomial and Normal distributions. Design of statistical studies and methods of statistical inference. For students in the M.A.T. program or by permission of the instructor. Credit Level: G. Credit Hrs: 4.00

15MATH764**Technology for Statistics**

Spreadsheets and statistical packages for handling and exploring data,

Mathematics**15MATH764****Technology for Statistics**

doing simulations, and demonstrating concepts of statistics. Project-oriented with cooperative learning component. For students in the M.A.T. program or by permission of the instructor. Credit Level: G. Credit Hrs: 2.00

15MATH798**M A T Project I**

Preparation of and presentation of the Master of Arts in Teaching project. Credit Level: G. Credit Hrs: 2.00

15MATH799**M A T Project II**

Preparation for and presentation of the Master of Arts in Teaching project. Credit Level: G. Credit Hrs: 2.00

15MATH801**Matrices**

Matrices and linear transformations in two and three dimensions. Credit Level: G. Credit Hrs: 3.00

15MATH802**Mathematical Models**

Development and analysis of mathematical models of discrete and continuous phenomena. For students in the M.A.T. program or by permission of the instructor. Credit Level: G. Credit Hrs: 4.00

15MATH804**Graduate Colloquium**

GRADUATE COLLOQUIUM Credit Level: G. Credit Hrs: 3.00

15MATH805**Graduate Colloquium**

GRADUATE COLLOQUIUM Credit Level: G. Credit Hrs: 3.00

15MATH806**Graduate Colloquium**

GRADUATE COLLOQUIUM Credit Level: G. Credit Hrs: 3.00

15MATH808**Historical Topics in Mathematics**

Historical perspectives on subjects in secondary school mathematics. Credit Level: G. Credit Hrs: 3.00

15MATH810**Proseminar in the Teaching of College Mathematics**

Techniques and practice in the teaching of undergraduate level mathematics courses. Credit Level: G. Credit Hrs: 3.00

15MATH831**Practicum in Applied Statistics**

This course enables students to enhance their graduate degree program with some practical experience working on real data analytic problems in applied statistics. Students must obtain an internship or co-operative employment in order to get credit for this class. Prereq: 15MATH533. Credit Level: G. Credit Hrs: 1.00-3.00

15MATH832**Practicum in Applied Statistics**

This course enables students to enhance their graduate degree program with some practical experience working on real data analytic problems in applied statistics. Students must obtain an internship or co-operative employment in order to get credit for this class. Prereq: 15MATH533. Credit Level: G. Credit Hrs: 1.00-3.00

15MATH833**Practicum in Applied Statistics**

This course enables students to enhance their graduate degree program with some practical experience working on real data analytic problems in applied statistics. Students must obtain an internship or co-operative employment in order to get credit for this class. Prereq: 15MATH533. Credit Level: G. Credit Hrs: 1.00-3.00

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Mathematics**15MATH834****Practicum in Applied Statistics**

This course enables students to enhance their graduate degree program with some practical experience working on real data analytic problems in applied statistics. Students must obtain an internship or co-operative employment in order to get credit for this class. Prereq: 15MATH533. Credit Level: G. Credit Hrs: 1.00-3.00

15MATH899**Readings**

READINGS Credit Level: G. Credit Hrs: 1.00-15.00

15MATH901**Seminar in Analysis**

Seminar in Analysis Credit Level: G. Credit Hrs: 4.00

15MATH902**Seminar in Analysis**

Seminar in Analysis Credit Level: G. Credit Hrs: 4.00

15MATH903**Seminar in Analysis**

Seminar in Analysis Credit Level: G. Credit Hrs: 4.00

15MATH904**Seminar in Topology**

Seminar in Topology Credit Level: G. Credit Hrs: 4.00

15MATH905**Seminar in Topology**

Seminar in Topology Credit Level: G. Credit Hrs: 4.00

15MATH906**Seminar in Topology**

Seminar in Topology Credit Level: G. Credit Hrs: 4.00

15MATH907**Seminar in Algebra**

Seminar in Algebra Credit Level: G. Credit Hrs: 4.00

15MATH908**Seminar in Algebra**

Seminar in Algebra Credit Level: G. Credit Hrs: 4.00

15MATH909**Seminar in Algebra**

Seminar in Algebra Credit Level: G. Credit Hrs: 4.00

15MATH911**Seminar in Applied Math**

Seminar in Applied Math Credit Level: G. Credit Hrs: 4.00

15MATH912**Seminar in Applied Math**

Seminar in Applied Math Credit Level: G. Credit Hrs: 4.00

15MATH913**Seminar in Applied Math**

Seminar in Applied Math Credit Level: G. Credit Hrs: 4.00

15MATH914**Seminar in Partial Differential Equations**

Seminar in Partial Differential Equations Credit Level: G. Credit Hrs: 4.00

15MATH915**Seminar in Partial Differential Equations**

Seminar in Partial Differential Equations Credit Level: G. Credit Hrs: 4.00

Mathematics**15MATH916****Seminar in Partial Differential Equations**

Seminar in Partial Differential Equations Credit Level: G. Credit Hrs: 4.00

15MATH917**Seminar in Differential Equations**

Seminar in Differential Equations Credit Level: G. Credit Hrs: 4.00

15MATH918**Seminar in Differential Equations**

Seminar in Differential Equations Credit Level: G. Credit Hrs: 4.00

15MATH919**Seminar in Differential Equations**

Seminar in Differential Equations Credit Level: G. Credit Hrs: 4.00

15MATH921**Seminar in Statistics**

Seminar in Statistics Credit Level: G. Credit Hrs: 4.00

15MATH922**Seminar in Statistics**

Seminar in Statistics Credit Level: G. Credit Hrs: 4.00

15MATH923**Seminar in Statistics**

Seminar in Statistics Credit Level: G. Credit Hrs: 4.00

15MATH924**Seminar in Probability**

Seminar in Probability Credit Level: G. Credit Hrs: 4.00

15MATH925**Seminar in Probability**

Seminar in Probability Credit Level: G. Credit Hrs: 4.00

15MATH926**Seminar in Probability**

Seminar in Probability Credit Level: G. Credit Hrs: 4.00

15MATH927**Seminar in Complex Analysis**

Seminar in Complex Analysis Credit Level: G. Credit Hrs: 4.00

15MATH928**Seminar in Complex Analysis**

Seminar in Complex Analysis Credit Level: G. Credit Hrs: 4.00

15MATH929**Seminar in Complex Analysis**

Seminar in Complex Analysis Credit Level: G. Credit Hrs: 4.00

15MATH931**Seminar in Geometric Analysis**

PhD level seminar in geometric analysis. Credit Level: G. Credit Hrs: 4.00

15MATH932**Seminar in Geometric Analysis**

PhD level seminar in geometric analysis. Credit Level: G. Credit Hrs: 4.00

15MATH933**Seminar in Geometric Analysis**

PhD level seminar in geometric analysis. Credit Level: G. Credit Hrs: 4.00

15MATH937**Seminar in Cryptography**

PhD level seminar in the mathematical theory of cryptography. Credit Level: G. Credit Hrs: 4.00

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Mathematics**15MATH938****Seminar in Cryptography**

PhD level seminar in the mathematical theory of cryptography. Credit Level: G. Credit Hrs: 4.00

15MATH939**Seminar in Cryptography**

PhD level seminar in the mathematical theory of cryptography. Credit Level: G. Credit Hrs: 4.00

15MATH941**Seminar in Financial Mathematics**

PhD level seminar in financial mathematics. Credit Level: G. Credit Hrs: 4.00

15MATH942**Seminar in Financial Mathematics**

PhD level seminar in financial mathematics. Credit Level: G. Credit Hrs: 4.00

15MATH943**Seminar in Financial Mathematics**

PhD level seminar in financial mathematics. Credit Level: G. Credit Hrs: 4.00

15MATH951**Seminar in Mathematical Biology**

PhD level seminar in Mathematical Biology. Credit Level: G. Credit Hrs: 4.00

15MATH952**Seminar in Mathematical Biology**

PhD level seminar in Mathematical Biology. Credit Level: G. Credit Hrs: 4.00

15MATH953**Seminar in Mathematical Biology**

PhD level seminar in Mathematical Biology. Credit Level: G. Credit Hrs: 4.00

15MATH971**Master's Thesis Research**

Cr. to be arranged. Credit Level: G. Credit Hrs: 1.00-15.00

15MATH972**Doctoral Dissertation Research**

Cr. to be arranged. Credit Level: G. Credit Hrs: 1.00-15.00

15MATH973**Research**

Cr. to be arranged. Credit Level: G. Credit Hrs: 1.00-15.00

Middle Eastern Studies**15MES245****Introduction to the Middle East**

This class is an introduction to issues and methods in Middle Eastern Studies. Assignments include a variety of primary and secondary sources in ME Studies to gain a broad sense of analytical approaches & exposure to empirical material not encountered in a single-discipline course. BoK: DC. Credit Level: U. Credit Hrs: 3.00

Management**15MGMT101****Business: Ethics and Decisions**

(Formerly 30BA101). The socio-political, economic, and the ethical issues of the next decade. Media course. BoK: SE. Credit Level: U. Credit Hrs: 3.00

15MGMT171**Introduction to Business**

(Formerly 30BA171). Preparation for business curriculum. Students assess abilities, personal goals. Review of major business fields; marketing, human resources finance, production. BoK: NA. Credit

Management**15MGMT171****Introduction to Business**

Level: U. Credit Hrs: 3.00

15MGMT181**Office Management**

Forms, machinery and equipment as office aids. Scientific analysis of office problems and methods. Organization, control and coordination of office work; personnel; cost analyses; budgets. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15MGMT271**Principles of Administration**

Functions of business enterprises; areas, type of management activities, investigation of decision making; organizational structures, control systems, assignment of activities. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15MGMT291**Human Relations in Management**

Analysis of reactions, interactions; activities of individuals, groups including supervision, leadership, motivation and influences on goal-oriented behavior. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15MGMT295**Managing Diversity in the Workforce**

Managing diversity is a recurring topic in business magazines, corporate speeches, and managerial seminars across the country. Cultural diversity is one of the most significant changes in the American workplace in the past two decades. The recognition of a diverse corporate workforce, one profoundly different from the traditional business employee population, creates new situations and unique challenges for everyone. This course will include lectures, videos, required readings and visiting lecturers. BoK: DC. Credit Level: U. Credit Hrs: 3.00

15MGMT372**Production Operations Management I**

Survey of production and support operations for product manufacturing and service organizations with emphasis on basic management and economic concepts, product output and physical facilities. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15MGMT471**Readings in Organizational Behavior**

Approaches to administrative thought, focusing on organizational behavior and related theories. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15MGMT472**Production Operations Management II**

Survey of production and support operations for product manufacturing and service organizations with emphasis on human inputs, capacity planning, introduction to production/inventory control, and product quality management. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15MGMT475**Personnel Function**

Those theories and basic concepts of management, leadership, organization, and labor relations necessary as background to addressing personnel problems. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15MGMT476**Cases in Personnel Management**

Employment, training, wage and salary, employee relations, fringe benefit problems analyzed utilizing case studies and other activities. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15MGMT499**Independent Study in Management**

Please complete and submit an Independent Application form available from the college office. BoK: NA. Credit Level: U. Credit Hrs: 1.00-12.00

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Management**15MGMT572****Dynamics of Interpersonal Behavior**

Analysis, group simulations, interpersonal processes and dynamics (role performances and development); organizational aspects of group behavior; leadership and change. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15MGMT573**Management in an Emergent Society**

Issues in the business firm's relationship with an emerging and changing society; conflicts of interest; prejudice and discrimination; management ethics. BoK: DC. Credit Level: U. Credit Hrs: 3.00

Marketing**15MKTG171****Salesmanship**

Buying habits and motives; sales presentations; analyzing territories; graphic sales presentations; locating and qualifying prospects. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15MKTG245**Principles of Advertising**

History, theory, and roles of advertising; social, economic, and legal aspects. Practice of management, research, strategy, and planning of advertising; emphasis on retail, international advertising. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15MKTG246**Principles of Advertising**

Design, execution of copy structure, layout. Mechanical, print, and broadcast production; sales promotion; trademarks; packaging; media selection scheduling, direct marketing. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15MKTG251**Principles of Marketing**

(Formerly 30MKTG351). Environment, ethics, social responsibility; buying behavior, target markets, services, branding and packaging; product and pricing concepts. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15MKTG252**Principles of Marketing**

(Formerly 30MKTG352). Continuation of 30MKTG251. International, market research; channels, wholesaling, retailing, distribution; promotion, advertising and selling; market planning and control. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15MKTG470**Consumer Behavior**

Behavioral aspects of the consumer decision-making process. Consumer behavior theory, marketing strategy and social implications. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15MKTG471**Principles of Retailing**

Retailing introduction emphasizing pricing, buying, layout, inventory; different retail stores growth and development. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15MKTG473**Sales Management**

Job analysis and specification; recruiting, selecting, training, compensating, supervising salespeople; problems, methods, organization and administration of sales departments; territories, quotas. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15MKTG475**Retail Management**

(Formerly Retail Decision Making). Organization; managerial framework; location, operations, systems, sales, promotion, customer services, merchandising policies and controls. BoK: NA. Credit Level: U. Credit Hrs: 3.00

Marketing**15MKTG571****Marketing in a Global Context**

(Formerly International Marketing). Foreign trade; internationalism and multinational corporations; theories, practice, cultural, social, political and economic environment of foreign markets. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15MKTG573**Marketing Research I**

Fundamentals of market research; planning the investigation; sources of data; cost determining; editing and testing the sample. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15MKTG574**Marketing Research II**

Gathering data; tabulation; conclusions; interpretation and presentations of results; planning and completing projects. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15MKTG585**Cases in Marketing Strategy**

(Formerly Marketing Strategy). Problems of mass production, marketing methods, price fixing, legislation, economic and social forces. Analysis and decision making by marketing executives. BoK: NA. Credit Level: U. Credit Hrs: 3.00

Multidisciplinary**15MLTI100****Learning Community Cohort**

Description not available. BoK: NA. Credit Level: U. Credit Hrs: 1.00-19.00

15MLTI111**Learning Community Link**

This course serves to indicate a student's involvement in a Learning Community cohort in a particular quarter. It can be taken multiple times to indicate the different quarters during which a student is part of a Learning Community. BoK: NA. Credit Level: U. Credit Hrs: 0.00

15MLTI112**Learning Community Integration**

Indicates a student's involvement in a learning community in a particular quarter. Credit granted for experiences undertaken in integrating learning among the separate courses involved. BoK: NA. Credit Level: U. Credit Hrs: 1.00-12.00

15MLTI121**Service Learning Link**

This course serves to indicate a student's involvement in a regular academic course that contained a service-learning component. It can be taken multiple times to indicate the different quarters during which a student is involved in service learning activities. BoK: NA. Credit Level: U. Credit Hrs: 0.00

15MLTI123**College Success Skills**

A survey of skills and resources designed to enhance academic success. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15MLTI125**Discovering Arts and Sciences**

Exploration of the relationship between fields of study in the liberal arts, their applications in a societal context, and work and career opportunities. Resources include faculty, alumni, representatives of the public and private sectors, and current literature on careers. Primarily designed for undeclared majors as part of the First Year Experience. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15MLTI175**Discovering UC**

Introduction to UC's majors and programs of study along with the complete process for selecting a major. Students participate in interactive faculty presentations from all baccalaureate colleges,

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Multidisciplinary**15MLTI175****Discovering UC**

personal assessment, academic exploration exercises, and one-on-one meetings with instructors. Helpful for undecided, questioning, or transitioning students in the major selection process. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15MLTI200**Research Tools I**

Instruction in resources of the University Libraries for students in the Learning Communities of the College of Arts & Sciences. Pass credit only. BoK: NA. Credit Level: U. Credit Hrs: 1.00

15MLTI201**McNair Experience I**

The purpose of this course is to provide McNair Scholars with an action plan for applying to and paying for graduate school, preparation for the Graduate Record Exam and exposure to diverse research areas. BoK: NA. Credit Level: U. Credit Hrs: 1.00

15MLTI202**McNair Experience II**

The purpose of this course is to provide McNair Scholars with an action plan for applying to and paying for graduate school, preparation for the Graduate Record Exam and exposure to diverse research areas. BoK: NA. Credit Level: U. Credit Hrs: 1.00

15MLTI203**McNair Experience III**

The purpose of this course is to provide McNair Scholars with an action plan for applying to and paying for graduate school, preparation for the Graduate Record Exam and exposure to diverse research areas. BoK: NA. Credit Level: U. Credit Hrs: 1.00

15MLTI222**Learning Community Link**

This course serves to indicate a student's involvement in a Learning Community cohort in a particular quarter. It can be taken multiple times to indicate the different quarters during which a student is part of a Learning Community. The 200 level will be used with sophomore level students. BoK: NA. Credit Level: U. Credit Hrs: 0.00

15MLTI280**McMicken Service Learning Seminar**

The connection of in-class learning principles to out of class learning experience through community interaction and service. Students enrolled in this class, which will be taken in conjunction with upper-division courses in various disciplines, have up to one academic year to fulfill the service requirement and will be granted credit upon completion of that requirement. BoK: SE. Credit Level: U. Credit Hrs: 1.00-3.00

15MLTI300**Study Abroad**

Students pursuing study abroad with the assistance of UC International Programs will enroll for this course to maintain their status as university students. Actual credit will be awarded upon return to the campus. BoK: NA. Credit Level: U. Credit Hrs: 1.00-50.00

15MLTI301**GOP INTERNSHIP**

GOP INTERNSHIP BoK: NA. Credit Level: U. Credit Hrs: 3.00

15MLTI311**McNair Experience III**

Part three of the orientation to the McNair Experience BoK: NA. Credit Level: U. Credit Hrs: 1.00

15MLTI312**McNair Experience IV**

Part three of the orientation to the McNair Experience BoK: NA. Credit Level: U. Credit Hrs: 1.00

Multidisciplinary**15MLTI333****Learning Community Link**

This course serves to indicate a student's involvement in a Learning Community cohort in a particular quarter. It can be taken multiple times to indicate the different quarters during which a student is part of a Learning Community. BoK: NA. Credit Level: U. Credit Hrs: 0.00

15MLTI350**Mock Trial Internship**

Internship experience for Pre-Law students. Teams will be formed to be trained by attorneys in trial procedure and will argue cases in competition before state and federal judges. BoK: NA. Credit Level: U. Credit Hrs: 1.00-3.00

15MLTI351**Mock Trial Internship**

Internship experience for Pre-Law students. Teams will be formed to be trained by attorneys in trial procedure and will argue cases in competition before state and federal judges. Prereq: 15MLTI350. BoK: NA. Credit Level: U. Credit Hrs: 1.00-3.00

15MLTI444**Learning Community Link**

This course serves to indicate a student's involvement in a Learning Community cohort in a particular quarter. It can be taken multiple times to indicate the different quarters during which a student is a part of a Learning Community. BoK: NA. Credit Level: U. Credit Hrs: 0.00

15MLTI498**Pre-Law Internship**

Internship experience for Pre-law students. Students will have the opportunity to work and learn in law-related settings such as law firms and prosecutors' offices. BoK: NA. Credit Level: U. Credit Hrs: 1.00-3.00

15MLTI500**International Exchange Program**

For UC students who are participating in UC programs abroad under the exchange program of UC International Programs. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-28.00

15MLTI501**Guided Study -- Interdisciplinary**

Individual work offered each quarter with variable cr. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

15MLTI502**Guided Study -- Interdisciplinary**

Individual work offered each quarter with variable cr. The second offering in a three-part course sequence. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

15MLTI503**Guided Study -- Interdisciplinary**

Individual work offered each quarter with variable cr. The third offering in a three-part course sequence. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

15MLTI681**Consortium**

CONSORTIUM BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-24.00

15MLTI682**The Ralph Regula School**

This is a placeholder course for students registering for classes through the Ralph Regula School of Computational Science. Credit will be awarded as advanced standing. UC's Ralph Regula advisor permission required. BoK: NA. Credit Level: U. Credit Hrs: 1.00-18.00

15MLTI841**Future Faculty Scholars Seminar**

Colloquium restricted to Preparing Future Faculty students. Provides an opportunity for enrollees to become more effective instructors, exposing them to a variety of topics - and insights - on what constitutes effective

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Multidisciplinary**15MLTI841****Future Faculty Scholars Seminar**

teaching. A variety of faculty help to accomplish this purpose by exposing students to - and by modeling - effective teaching strategies. Participants are asked to contribute as well, since many will already have had good teaching experience. Credit Level: G. Credit Hrs: 2.00

15MLTI842**Future Faculty Scholars Seminar**

Continuation of 15MLTI841 Credit Level: G. Credit Hrs: 2.00

15MLTI971**Interdisciplinary Research**

INTERDISCIPLIN RES Credit Level: G. Credit Hrs: 1.00-15.00

Military Science**15MS111****Basic Rappelling**

Introduction to basic rappelling and mountaineering skills. Small group leadership principles, designed to give students a functional base of practical management and leadership skills taught through a physically and mentally challenging course. The course develops a sense of confidence in students' abilities to overcome challenging obstacles. BoK: NA. Credit Level: U. Credit Hrs: 2.00

15MS112**Marksmanship and Leadership**

Introduction to safe use of a rifle and marksmanship training. Basic fundamentals of small group leadership is stressed. Practical experience at leading and decision making is provided to students. Each student faces personal challenges and learns to overcome them through initiative, sound judgment and accurate problem analysis. By doing this, students begin to develop a functional base of practical management and leadership skills which can be applied to future, challenging situations. BoK: NA. Credit Level: U. Credit Hrs: 2.00

15MS113**Military Field Crafts**

Introduction to basic outdoor survival skills, to include map reading, orienteering, land navigation and CPR certification. Students are face with personal challenges that must be overcome through development of personal leadership and decision making skills. Students continue to build upon their functional base of practical management and leadership skills. BoK: NA. Credit Level: U. Credit Hrs: 2.00

15MS211**Leadership Foundations I**

The focus is on developing knowledge of the leadership values and attributes through understanding Army rank, structure and duties as well as broadening knowledge of land navigation and squad tactics. Case studies will provide a tangible context for learning the Soldier's Creed and Warrior Ethos as they apply in the contemporary operating environment. BoK: HP., SE. Credit Level: U. Credit Hrs: 2.00

15MS212**Leadership Foundations II**

The second course in a series that explores the dimensions of creative and innovative tactical leadership strategies and styles of examining team dynamics and two historical leadership theories that form the basis of the Army leadership framework. Aspects of personal motivation and team building are practiced during planning, executing and assessing team exercises and participating in leadership labs BoK: HP., SE. Credit Level: U. Credit Hrs: 2.00

15MS213**Leadership Foundations III**

This is the third course in the series that examines the challenges of leading tactical teams in the complex contemporary operating environment (COE). This course highlights dimensions of terrain analysis, patrolling and operation orders. Continued study of the theoretical basis of the Army leadership framework explores the dynamics of adaptive leadership in the context of military operations.

Military Science**15MS213****Leadership Foundations III**

MS 213 provides a smooth transition to MS 311. BoK: HP., SE. Credit Level: U. Credit Hrs: 2.00

15MS311**Individual Leadership and Military Skills I**

Intermediate tasks of military land navigation and small unit tactics, military maps and use of the magnetic compass, land navigation and terrain analysis. Small unit tactics with emphasis on offensive, defensive and patrolling missions. The training and assessment of the 16 leadership dimensions. Other military skills training. Perm. of instructor required. Perm of Instructor. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15MS312**Individual Leadership and Military Skills II**

Organization and tactical employment of the squad and platoon, principles of tactical organization for military operations, preparation of operations order. The training and assessment of the 16 leadership dimensions. Other military skills training. Perm. of instr. required. Perm of Instructor. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15MS313**Individual Leadership and Military Skills III**

A study of platoon tactics and operations, garrison operations and marksmanship. Advanced camp orientation and leadership training and assessment. Other military skills training. Perm. of instr. required. Perm of Instructor. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15MS411**Developmental Leadership I**

Study the application of the military staff concept to include staff functions and staff procedures for problem solving and decision making. Topics include information/decision papers and briefings, military correspondence, organization training assessment, planning and execution, after-action reports and leadership theory. Pre-requisite courses: 15MS311, 15MS312 and 15MS313. Prereq: 15MS311, 15MS312, 15MS313. BoK: SE. Credit Level: U. Credit Hrs: 3.00-8.00

15MS412**Developmental Leadership II**

Study the application of military law and international law, as it pertains to the military, the laws of land warfare and the code of conduct. Focus is on the challenges the military profession faces in the new strategic environment. Pre-requisite courses 15MS311, 15MS312 and 15MS313 Prereq: 15MS311, 15MS312, 15MS313. BoK: SE. Credit Level: U. Credit Hrs: 3.00

15MS413**Developmental Leadership III**

Study the application of military ethics and professionalism as it pertains to the military leader in problem solving and decision making. Decision Briefs, Culture of Terrorism, Contemporary Operating Environment (COE), Force Protection, Army Modularity and Battlefield Staff ride. Pre-requisite courses: 15MS311, 15MS312 and 15MS313 Prereq: 15MS311, 15MS312, 15MS313. BoK: SE. Credit Level: U. Credit Hrs: 3.00

15MS491**Individual Work in Military Science**

Independent work in the field of Military Science by contract with faculty member. Must have the permission of the professor to register for the class. Perm of Instructor. BoK: NA. Credit Level: U. Credit Hrs: 1.00-3.00

Neuroscience**15NS110****Neuroscience: Freshman Seminar**

Introduces freshman neuroscience majors to the scope of neuroscience research being pursued at UC and to career options for neuroscientists. BoK: NA. Credit Level: U. Credit Hrs: 1.00

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Neuroscience**15NS111****Neuroscience: Seminar**

Exposes freshman neuroscience majors to state-of-the-art neuroscience talks hosted by various departments across the UC campus, develops scientific writing and presentation skills, and discusses issues that arise in undergraduate research projects. BoK: NA. Credit Level: U. Credit Hrs: 1.00

15NS201**Introduction to Neuroscience: Neurobiology**

Provides a fundamental background in cell and circuit level neurobiology. It is intended for Neuroscience majors. Prereq: 15BIOL101, 15BIOL102, 15BIOL103. BoK: NS. Credit Level: U. Credit Hrs: 3.00

15NS202**Introduction to Neuroscience: Neuropsychology**

Provides an overview of the study of brain-behavior relationship, focusing mainly on systems, cognitive and clinical aspects of neuroscience. It is intended for Neuroscience majors. BoK: NS., SS. Credit Level: U. Credit Hrs: 3.00

15NS203**Introduction to Neuroscience: Concepts and Methods**

Introduces students to conceptual and methodological issues in contemporary neuroscience, including broader social and ethical concerns, in light of basic principles of scientific reasoning and understanding. BoK: SE. Credit Level: U. Credit Hrs: 3.00

15NS211**Neuroscience: Seminar**

Exposes sophomore neuroscience majors to state-of-the-art neuroscience talks hosted by various departments across the UC campus, develops scientific writing and presentation skills and discusses issues that arise in undergraduate research projects. BoK: NA. Credit Level: U. Credit Hrs: 1.00

15NS311**Neuroscience: Seminar**

Exposes junior level neuroscience majors to state-of-the-art neuroscience talks hosted by various departments across the UC campus, develops scientific writing and presentation skills, and discusses issues that arise in undergraduate research projects. BoK: NA. Credit Level: U. Credit Hrs: 1.00

15NS411**Neuroscience: Seminar**

Exposes senior status neuroscience majors to state-of-the-art neuroscience talks hosted by various departments across the UC campus, develops scientific writing and presentation skills, and discusses issues that arise in undergraduate research projects. BoK: NA. Credit Level: U. Credit Hrs: 1.00

Organizational Leadership**15ORGL261****Financial Accounting for Organizational Leaders**

An interdisciplinary analysis of the reporting and interpretation of contemporary financial data. Prereq: 15ENGL103. BoK: QR. Credit Level: U. Credit Hrs: 4.00

15ORGL295**Diversity In the Workplace**

Diversity is a recurring topic in magazines, corporate speeches, and managerial seminars across the country. Cultural diversity has become one of the most significant changes in the American workplace. The recognition of a diverse workforce, one profoundly different from the traditional organizational employee population, creates new situations and unique challenges for everyone. This course will include lectures, videos, required readings and visiting lecturers. BoK: DC. Credit Level: U. Credit Hrs: 3.00

Organizational Leadership**15ORGL300****Organizational Behavior for Effective Leaders**

This course explores the attitudes and behaviors of individuals and groups in organizations. The discipline of organizational behavior systematically studies these attitudes and behaviors and provides insight about how to effectively manage and change them. Students will learn how organizations can be structured more effectively and how environmental events affect organizations. Prereq: 15ENGL101, 15ENGL102, 15ENGL103. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15ORGL400**Foundations of Leadership**

A general introduction to and analysis of historical and current theories of leadership. The course is designed for undergraduate students and gives attention to research findings about leadership, the practice of leaders, and skill development. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15ORGL450**Teaching Assistant Practicum for Undergraduate Studies**

Supervised experience as teaching assistant for undergraduate organizational leadership courses. Can take three quarters. Organizational Leadership GPA of 3.0 or better and at least 21 credit hours in the major required. Must have at least a grade of B or better in the course served as a TA and perm. of instructor. Offered each quarter. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15ORGL451**Research Methods for Leaders**

Introduces students to inferential statistics and provides opportunities to engage in data analysis techniques commonly used by organizational leaders. Prereq: 15MATH149, 15ORGL400. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15ORGL500**Leadership for Organizational Effectiveness**

This course focuses on leadership, profit maximization and organizational sustainability. Formerly LEADERSHIP FOR PROFIT MAXIMIZATION Prereq: 15ECON101, 15ORGL400. BoK: SS, QR. Credit Level: U. Credit Hrs: 3.00

15ORGL501**Leadership for Organizational Effectiveness II**

This course is the second in a sequence of two that focuses on leadership, profit maximization and organizational sustainability. Formerly LEADERSHIP FOR PROFIT MAXIMIZATION Prereq: 15ECON101, 15ORGL400, 15ORGL500. BoK: SS, QR. Credit Level: U. Credit Hrs: 3.00

15ORGL502**Lessons in Leadership**

Designed to cover current leadership issues facing private and public, for profit and not-for-profit organizations. A wide variety of corporate, government and other organizational leaders will serve as guest speakers and discuss current leadership issues. Students have the opportunity to examine multiple theories and ideas of leadership in order to develop insights for their own personal leadership development. Prereq: 15ORGL501. BoK: SS, DC. Credit Level: U. Credit Hrs: 3.00

15ORGL505**Special Problems in Organizational Leadership**

For students who desire individual work, by prior arrangement with the Center for Organizational Leadership. Offered each qtr. BoK: NA. Credit Level: U. Credit Hrs: 1.00-9.00

15ORGL550**Capstone**

Taken in the senior year, students operate in an approved leadership role (for example, in a student organization, as community volunteer, at work, etc.) Students synthesize and report their experiences as they relate to the theoretical foundations of leadership being studied. BoK: NA. Credit Level: U. Credit Hrs: 3.00-6.00

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Public Administration**15PBAD235****American Health Policy**

A survey of the history of health care delivery in the US, including the relationship of the public and private sectors in health care policy. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15PBAD535**American Health Policy**

A survey of the history of health care delivery in the US, including the relationship of the public and private sectors in health care policy. BoK: NA. Credit Level: G, U. Credit Hrs: 4.00

15PBAD721**Public Personnel Administration**

Theory and practice of personnel administration in American national, state, and local governments. Credit Level: G. Credit Hrs: 4.00

15PBAD722**Collective Bargaining in the Public Sector**

Theory, practice, and problems of labor-management relations in the public services. Credit Level: G. Credit Hrs: 4.00

15PBAD723**Principles in Quality Management**

Application of management principles and techniques to the public sector. Credit Level: G. Credit Hrs: 4.00

15PBAD724**Methods of Policy Analysis & Administration**

Develops understanding of core methods for Public Administration. Credit Level: G. Credit Hrs: 4.00

15PBAD725**Administrative Law**

Procedural requirements resting on administrative agencies: notice and hearing; rulemaking; adjudication. Case approach. Credit Level: G. Credit Hrs: 4.00

15PBAD726**Pro-seminar in Organization Theory and Behavior**

Analysis of various theories of organization and their application to public administration. Credit Level: G. Credit Hrs: 4.00

15PBAD727**Proseminar: Administrative Ethics**

Analysis of ethical issues faced by public administrators. Credit Level: G. Credit Hrs: 4.00

15PBAD728**Organizational Integration & Administration**

This course surveys the basic principles of integrating and developing public sector organizations. Credit Level: G. Credit Hrs: 4.00

15PBAD730**Public Budgeting**

Theories and concepts of public budgeting within the political context of U.S. government structures. Credit Level: G. Credit Hrs: 4.00

15PBAD731**Public Financial Management**

Fundamentals and techniques of sound financial management for the public sector. Prereq: 15PBAD730. Coreq: 15PBAD732. Credit Level: G. Credit Hrs: 4.00

15PBAD732**Computer Applications in Public Administration**

Introduces basic computer skills for public administration. Prereq: 15POL652. Coreq: 15PBAD731. Credit Level: G. Credit Hrs: 4.00

15PBAD733**Fund Accounting for Public Administration**

Introduces the basic principles of governmental accounting, financial statement preparation and analysis, the concept and principles of fund accounting, auditing and the attest function, the relationship of administration to the accounting department, how to use accounting data as a non-financial manager, encumbrance accounting and the

Public Administration**15PBAD733****Fund Accounting for Public Administration**

integration of the budgeting process. Prereq: 15PBAD732. Credit Level: G. Credit Hrs: 4.00

15PBAD735**Public Sector Decision Making**

Theories and techniques of rational decision making with emphasis on public sector applications. Credit Level: G. Credit Hrs: 4.00

15PBAD736**Issues in Public Administration**

Examination of selected issues in public administration. Credit Level: G. Credit Hrs: 4.00

15PBAD750**Introduction to Economic Development Administration**

This course analyzes the basic principles affecting economic development in the public sector. Credit Level: G. Credit Hrs: 4.00

15PBAD827**Public Administration Theory**

The intellectual development of American public administration; major concepts and problems in the field. Credit Level: G. Credit Hrs: 4.00

15PBAD839**Internship in Public Administration**

Seminar integrating theory, research experience in public affairs, administration. 15-085-890 MPA Working Paper. Perm of Instructor. Credit Level: G. Credit Hrs: 3.00

15PBAD890**MPA Working Paper Seminar**

This is a basic research methods course where students prepare a preliminary research proposal. The seminar will provide students an opportunity to revise the proposal and focus on the research project within the structure of a class. Credit Level: G. Credit Hrs: 4.00

15PBAD891**Independent Workshop--Public Administration**

To be arranged. Credit Level: G. Credit Hrs: 1.00-4.00

Professional Development**15PD250****Career Development for Arts and Sciences**

Under the guidance of the Career Development Center, this course will provide an orientation to the world of work and instruction in career planning and decision making. BoK: NA. Credit Level: U. Credit Hrs: 1.00

Philosophy**15PHIL101****Moral and Political Ideas**

MORAL-POLIDEAS(M&I) Transfer Module. BoK: HU, SE. Credit Level: U. Credit Hrs: 3.00

15PHIL101H**Moral Political Ideas - Honors**

Selected ethical, political, and social theories in ancient and Medieval philosophy. Transfer Module. BoK: HU, SE. Credit Level: U. Credit Hrs: 3.00

15PHIL102**Moral and Political Ideas**

Selected ethical, political, and social theories from the Renaissance to the 19th century. Transfer Module. BoK: HU, SE. Credit Level: U. Credit Hrs: 3.00

15PHIL102H**Moral and Political Ideas - Honors**

MORAL POL IDEAS Transfer Module. BoK: HU, SE. Credit Level: U. Credit Hrs: 3.00

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Philosophy**15PHIL103****Moral and Political Ideas**

Selected ethical, political and social theories in 20th century thought. Transfer Module. BoK: HU, SE. Credit Level: U. Credit Hrs: 3.00

15PHIL103H**Moral and Political Ideas - Honors**

MORAL POL IDEAS Transfer Module. BoK: HU, SE. Credit Level: U. Credit Hrs: 3.00

15PHIL104**Introduction to Philosophy: Belief and Knowledge**

Introductory readings, surveying classical problems in the theory of knowledge. A General Education course. Transfer Module. BoK: HU, SE. Credit Level: U. Credit Hrs: 3.00

15PHIL105**Introduction to Philosophy: Mind and Will**

Introductory readings surveying classical problems in metaphysics. A General Education course. Transfer Module. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15PHIL106**Introduction to Philosophy: Ethics**

Introductory readings surveying classical problems in ethics and values. A General Education Course. Transfer Module. BoK: HU, SE. Credit Level: U. Credit Hrs: 3.00

15PHIL107**Introduction to Philosophy: Through Movies**

A survey of philosophical topics through modern media, particularly film. Topics will include ethics, language, epistemology, science, philosophy of mind, and religion. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15PHIL108**Philosophy: Mind and Will**

An alternative non-General Education course corresponding to 15-065-105. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15PHIL111**Contemporary Moral Issues**

Philosophical and ethical issues underlying major controversies of the day: rights, freedom and punishment; sex, euthanasia, abortion; business ethics. Offered alt. yrs. Transfer Module. BoK: HU, SE. Credit Level: U. Credit Hrs: 3.00

15PHIL112**Early Philosophy of Nature**

Survey of ancient world views, our place in nature, and how we acquire knowledge. Transfer Module. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15PHIL113**Philosophy of the Scientific Revolution**

Development of the modern worldview. The impact of Copernicus, Galileo, Newton and others on our understanding of nature and society. Transfer Module. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15PHIL114**Humanity and Technology**

The impact of scientific knowledge and changing technology of our understanding of nature, culture, and the individual. Transfer Module. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15PHIL115**Introduction to Philosophies Around the World**

A General Education Approved course, emphasizing critical thinking in written assignments. It surveys the wisdom traditions of non-western cultures and the philosophical (wisdom) tradition of Western culture. BoK: HU., DC. Credit Level: U. Credit Hrs: 3.00

15PHIL121**Critical Thinking**

Introduction to the techniques of clear and careful reasoning. Transfer Module. BoK: HU. Credit Level: U. Credit Hrs: 3.00

Philosophy**15PHIL123****Introduction to Logic**

Deductive reasoning. Sec. I-II. Symbolizing arguments in formal logic. Proof techniques, validity, consistency. A General Education course. Transfer Module. BoK: HU, QR. Credit Level: U. Credit Hrs: 3.00

15PHIL187**Introductory Topics Seminar for Pre-Majors**

Seminar for pre-majors and honors students with topics designed to introduce students to philosophy. The course stresses philosophical analysis and writing. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15PHIL188**Introductory Topics Seminars for Pre-majors and Honors Students**

An examination of current topics in philosophy. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15PHIL189**Introductory Topics Seminars for Pre-majors and Honors Students**

An examination of current topics in philosophy. The second offering in a two-part course sequence. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15PHIL207**Minds and Machines**

Can machines think? Is artificial intelligence possible? People have long wondered whether machines could be made to think. In this course we will study the central issues in current philosophical consideration of minds and machines. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15PHIL215**Logic of Decision**

An introduction to some of the technical concepts useful in decision making, such as probability and utility, and some of the philosophical puzzles associated with the subject. Students should be competent in high school level algebra. BoK: QR., HU. Credit Level: U. Credit Hrs: 3.00

15PHIL219**Women and Philosophy**

A survey of what male philosophers have thought about women and what women have written in response. Four fundamental philosophical concepts and their development in relation to women are investigated: humanity, rationality, morality, and citizenship. How women philosophers are transforming these traditional concepts are also explored. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15PHIL220**African Philosophy**

A survey course on the question of "What is African philosophy?" The metaphysics and ethics of African philosophical traditions like animism and Islam. Transfer Module. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15PHIL221**Native American Philosophy**

Metaphysical and ethical issues as approved in Native American philosophical traditions. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15PHIL225**Directed Study I**

Independent work for students in the area of Philosophy. Perm of Instructor. BoK: HU. Credit Level: U. Credit Hrs: 1.00-3.00

15PHIL226**Directed Study II**

Independent work for students in the area of Philosophy. Perm of Instructor. BoK: HU. Credit Level: U. Credit Hrs: 1.00-3.00

15PHIL227**Directed Study III**

Independent work for students in the area of Philosophy. Perm of Instructor. BoK: HU. Credit Level: U. Credit Hrs: 1.00-3.00

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Philosophy**15PHIL229****Philosophy and Atheism**

Atheism, the belief that there are no gods at all, is the "default" position of any modern naturalistic philosopher, i.e. one that sees philosophy and science as contiguous. This course is a critical defense of this position when compared with its rivals, theism and agnosticism. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15PHIL230**Philosophy and Religion**

Arguments for the existence of God and introduction to metaphysics of religious belief. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15PHIL231**Science, Magic and the Occult**

An investigation of the contribution of ancient magic and occult philosophies to religion and the rise of modern science. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15PHIL235**Pre-Scientific Thought**

Earliest beginnings of scientific thought. Pre-Socratic Greeks. Thales through Plato. Offered every third yr. Transfer Module. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15PHIL243**Philosophy and Technology**

An introduction to the philosophical and ethical issues raised by modern technology. A General Education course. BoK: HU., SE. Credit Level: U. Credit Hrs: 3.00

15PHIL244**Computers and Controversy**

Ethical and philosophical issues raised by computer technology. A General Education course. BoK: HU., SE. Credit Level: U. Credit Hrs: 3.00

15PHIL245**Introduction to Environmental Ethics**

The philosophical bases for reasonable arguments establishing that at least some aspects of nature should be preserved in the raw and wild state. A General Education course. Transfer Module. BoK: HU, SE. Credit Level: U. Credit Hrs: 3.00

15PHIL246**Environmental Ethics H**

An honors section of 15-065-245. The philosophical bases for reasonable arguments establishing that at least some aspects of nature should be preserved in the raw and wild state. Transfer Module. BoK: HU, SE. Credit Level: U. Credit Hrs: 3.00

15PHIL247**Ethics of Scientific Research**

Introduces future scientists to ethical considerations that commonly arise while doing scientific research. Issues such as funding, publishing, and intellectual property will be incorporated with consequentialist and deontological ethical theories to help students understand and evaluate situations often faced by scientists. BoK: HU., SE. Credit Level: U. Credit Hrs: 3.00

15PHIL248**Philosophy of Education: The Ideal University**

An introduction to the main conception of the ideal university and academic freedom. A General Education course. BoK: HU., SE. Credit Level: U. Credit Hrs: 3.00

15PHIL250**Aesthetics for Fine Arts Majors**

Philosophical issues related to the fine arts, such as the nature of art and artistic expression. For majors in Fine Arts and related fields. Perm of Instructor. BoK: HU. Credit Level: U. Credit Hrs: 3.00

Philosophy**15PHIL252****Issues on Social and Political Philosophy**

Selected issues: rights, capital punishment, civil liberties, abortion. BoK: HU., SE. Credit Level: U. Credit Hrs: 3.00

15PHIL261**Philosophy of Physical Sciences**

Introduction to philosophy of science. Examination of roots of modern physical science as found in thought of such scientists as Copernicus, Galileo, Kepler, Bogle and Newton. (College level science not presupposed.) BoK: HU. Credit Level: U. Credit Hrs: 3.00

15PHIL262**Philosophy of Biological Sciences**

Introduction to philosophy of science. Examination of roots of modern biological science as found in the thought of such biologists as Galen, Harvey, Lamarck, Darwin and Mendel. (College level science not presupposed.) BoK: HU. Credit Level: U. Credit Hrs: 3.00

15PHIL263**Philosophy of Social Sciences**

Introduction to the philosophy of science. Representative topics: social sciences and value judgments, behaviorism and determinism, psychoanalysis and freedom, etc. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15PHIL271**Marx and Marxism**

An interdisciplinary course on the concepts of human nature in the theoretical views of Marx and 20th-century Marxism. BoK: HU., SE. Credit Level: U. Credit Hrs: 3.00

15PHIL277**Philosophy and The Arts**

(See 197.) An introduction to aesthetics, concentrating on problems such as: definition of art, art for art's sake, Marxist views of art as a social form, literary criticism, and the psychoanalytic interpretation of literature. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15PHIL280**Love Anger Fear and Other Emotions: Philosophical Perspective**

Philosophical perspectives on the theory of emotion, addressing questions such as physiological changes, cognitions, action tendencies, and the definition of individual emotions such as love, anger, and fear. BoK: DC., SE. Credit Level: U. Credit Hrs: 3.00

15PHIL287**Descartes' Meditations and Self-reliance**

The goal is to bring out the positive value of self-reliance and autonomy in our thinking. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15PHIL289**Special Topics in Philosophy**

This course is designed to give the faculty the opportunity to cover topical issues in the field. Perm of Department. BoK: HU. Credit Level: U. Credit Hrs: 1.00-3.00

15PHIL303**Philosophy of Psychology**

Introduces the philosophy of psychology/cognitive science. Topics covered include: folk psychology, mental state attribution and human rationality, behaviorism, functionalism and representationalism, and the role of language in cognition. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15PHIL304**Metaphysics**

A survey of systematic metaphysical positions. Study of Bradleyan Absolute Idealism, etc. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15PHIL305**Epistemology**

An introduction to analytic epistemology. Analysis of knowledge, belief and knowledge, evidence, objects of belief and knowledge, scientific (theoretical) knowledge, empirical knowledge and skepticism. BoK: HU.

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Philosophy

15PHIL305

Epistemology

Credit Level: U. Credit Hrs: 3.00

15PHIL306

Metaethics

A survey of the Anglo-American tradition in ethical theory from G.E. Moore to present. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15PHIL307

Philosophy of Mind

The Mind-Body problem, psychological explanation, philosophical behaviorism. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15PHIL308

Philosophy of Science

Issues in the philosophy of science. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15PHIL309

Philosophy of Language

Investigation of truth, reference, and meaning through philosophical works in the twentieth century. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15PHIL310

Rationalism

Great rationalists: Descartes, Leibniz, Spinoza. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15PHIL311

Empiricism

Great empiricists: Hume, Locke, Berkeley. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15PHIL312

Ancient Philosophy

A study of the pre-Socratics, Plato, and Aristotle. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15PHIL314

Chinese Philosophy

Course will examine central texts and exposition of the main ideas of Confucianism and Taoism. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15PHIL315

Kant's Metaphysics

Immanuel Kant (1724-1804) was one of the most influential philosophers of all time. This course will be an examination of Kant's great work, The Critique of Pure Reason, in which Kant asks, "What must the world be like in order that the mind can know it?" BoK: HU. Credit Level: U. Credit Hrs: 3.00

15PHIL317

Introduction to Pragmatism

An introduction to pragmatism by means of analysis of some of the writings of Pierce, James, Dewey, Mead, Addams, or Lewis. Recent developments in the pragmatist tradition may also be discussed in writings of Quine, Rorty, or Putnam. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15PHIL320

Marx

Philosophical foundations and development of selected topics in 19th and 20th century Marxism, e.g., Hegel, Feuerbach, Marx, Engles, Luxemburg, Lenin, Trotsky, Lucas, Gramsci. BoK: HU., SE. Credit Level: U. Credit Hrs: 3.00

15PHIL321

Wittgenstein

An in-depth examination of Wittgenstein's early and late philosophies, especially his influence in epistemology and the philosophy of language. BoK: HU. Credit Level: U. Credit Hrs: 3.00

Philosophy

15PHIL322

Ethics

A survey of recent and traditional work in ethical theory. BoK: HU., SE. Credit Level: U. Credit Hrs: 3.00

15PHIL323

Soc/Pol Philos

(Formerly 30PHIL272, Ethics & Politics II; or Democratic Theory.) Liberal and conservative thought traced from Plato, Aristotle, to modern times. Readings in Locke, Rousseau, Mill, Burke, Tocqueville, Oakeshott, Dewey, etc. Offered every third yr. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15PHIL324

Ethics and Animals: Human Obligations Toward Other Species

An introduction to the moral problems raised by our killing, eating and experimenting on non-human animals. Course emphasis will be on learning how to address an emotionally explosive normative issue in a rational and coherent way, drawing on the main traditions in moral philosophy from ancient to modern. Transfer Module. BoK: HU, SE. Credit Level: U. Credit Hrs: 3.00

15PHIL325

Environmental Ethics

A survey of three components of environmental ethics: condition of the global environment, relation of philosophical, scientific and economic approaches, and the role our conception of nature plays out in discussion of environmental problems. BoK: HU., SE. Credit Level: U. Credit Hrs: 3.00

15PHIL327H

Privacy, Security and Risk In The Information Society, Honors

A philosophical examination of the emerging social ethical, political and economic issues raised by the computerization of our society. The seminar will concentrate on time related issues of privacy security, and risk as they affect the nature of commerce and community in an information society. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15PHIL329H

Faith & Reason,H

An inquiry into the role of reason in religious belief, especially as contrasted with non-rational faith. BoK: HU., SE. Credit Level: U. Credit Hrs: 3.00

15PHIL330

Philosophy and Religion

Examines how religious beliefs differ from common sense, empirical science, and mathematics? What are the main beliefs of Christianity, Judaism and Islam? What are the arguments for and against God's existence? How can God's omniscience be reconciled with free will, and his goodness and omnipotence with evil? What is mysticism? BoK: HU. Credit Level: U. Credit Hrs: 3.00

15PHIL333

Feminist Political Philosophy

An introduction to feminist theory. Discussion of central moral, social, and political claims. Consideration of implications of feminism for men, women, and children in our society. BoK: DC., SE. Credit Level: U. Credit Hrs: 3.00

15PHIL334

Early Modern Women Philosophers

This course offers a broad overview of the work of women philosophers of 17th and 18th Centuries; and will be divided into 3 sections: metaphysics and epistemology, moral philosophy, and philosophical feminism. BoK: DC., SE. Credit Level: U. Credit Hrs: 3.00

15PHIL341

Symbolic Logic I

First-order logic: syntax, natural deduction proof theory, and model theory up to the completeness proof. BoK: HU., QR. Credit Level: U. Credit Hrs: 3.00

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Philosophy**15PHIL342****Symbolic Logic II**

First-order logic: syntax, natural deduction proof theory, and model theory up to the completeness proof. The second offering in a two-part course sequence. Prereq: 15PHIL341. BoK: HU, QR. Credit Level: U. Credit Hrs: 3.00

15PHIL345**Issues of the Information Age**

The impact of computing and information technology on the moral and legal principles that give order to our society, and on notions of society, community, and self. BoK: HU., SE. Credit Level: U. Credit Hrs: 3.00

15PHIL352**Problems of Consciousness**

This course will introduce students to recent philosophical and scientific work on the nature of subjective conscious experience. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15PHIL353**Philosophy and Race**

A focused survey of current theoretical literature on the meanings, functions and constructions of race and racial identity, especially in the U.S. BoK: HU., DC. Credit Level: U. Credit Hrs: 3.00

15PHIL362**Existentialism**

Existentialism will begin with a consideration of some of the writings of Kierkegaard and Nietzsche. Examines such 20th-century writers as Sartre and Camus. BoK: HU., SE. Credit Level: U. Credit Hrs: 3.00

15PHIL363**Nietzsche**

Does life have meaning? Our elucidation of the question will take as its starting point the pessimism of Schopenhauer with an evaluation of its strength and weakness. The relevance of the past and future. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15PHIL364**Existentialism II**

A clarification of the philosophical ideas of Sartre's existentialism such as being-in-itself, being-for-itself, and consciousness. Sartre's most popular ideas such as freedom, death, and bad faith. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15PHIL365**The Darwinian Revolution**

An examination of the Darwinian Revolution, and the issues it raised. Readings from Darwin and his contemporaries, as well as more recent secondary sources. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15PHIL366**NeoDarwinism**

The development of Darwinism in the 20th Century, emphasizing the contributions of modern genetics. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15PHIL367**Philosophy and Cognitive Ethology**

Explores the philosophical foundations of cognitive ethology. Do nonhuman animals have rich cognitive mental lives? Was Descartes right when he said nonhuman animals are "automatons?" Students will read a cross section of scientific and philosophical literature which engages these questions. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15PHIL370H**Philosophy, Environment and Wilderness Honors**

This is a course on the historical, theoretical, and practical issues concerning wilderness values. The conceptions of wilderness have a history, both a world history and an American history. How have ideas about what wilderness is changed and under what conditions? Are there rational bases for so-called wilderness values? How are they best understood and assessed? Study of the Greater Yellowstone Ecosystem will be a test case for the application of wilderness values

Philosophy**15PHIL370H****Philosophy, Environment and Wilderness Honors**

and their social and political support. BoK: HU., SE. Credit Level: U. Credit Hrs: 3.00

15PHIL371H**Reading & Literacy: Theory & Ideology H**

An examination of the current work on literacy, focusing on curriculum and on the social and political issues of literacy. BoK: HU., SE. Credit Level: U. Credit Hrs: 3.00

15PHIL372H**Why We Suffer: the Philosophy & Science of Pain, H**

Topics: history of ideas about pain; recent pain science; types of pain; biological role(s) of pain experience; the differences in pain experience among different social/cultural groups; the notion of suffering; the meaning of pain in light of theistic views--the problem of evil. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15PHIL373**Introduction to the Philosophy of Law: Justice**

Justice, plea-bargaining, entrapment, affirmative action, gender issues and the law, criminal defenses. A General Education course. BoK: HU., SE. Credit Level: U. Credit Hrs: 3.00

15PHIL374**Introduction to Philosophy of Law: Freedom**

An examination and moral evaluation of freedom of speech, freedom of action and the proper limits of government power over the individual. A General Education course. BoK: HU., SE. Credit Level: U. Credit Hrs: 3.00

15PHIL375H**Philosophy of Law: Justice Honors**

Justice, plea-bargaining, entrapment, affirmative action, gender issues and the law, criminal defenses. BoK: HU., SE. Credit Level: U. Credit Hrs: 3.00

15PHIL376**Philosophy of Law: Freedom, Honors**

An honors section of 15-065-374. An examination and moral evaluation of freedom of speech, freedom of action and the proper limits of government power over the individual. A General Education course. BoK: HU., SE. Credit Level: U. Credit Hrs: 3.00

15PHIL378**Locke's Essay**

Through the medium of Locke's Essay Concerning Human Understanding (1690), we will discuss central philosophical topics, such as the origin of concepts, the difference between primary and secondary qualities, our knowledge of the essences of things, the nature of linguistic communication and personal identity across time, and freedom of the will. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15PHIL381**Science, Philosophy and Society**

Examines scientific rationality, the role of science in society and the impact of society on society. It will focus on issues such as the nature of scientific method and of scientific truth, free inquiry and social and ethical constraints on research in a democratic society. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15PHIL386**Metaphysical Foundations of Technology**

Issues in the development and application of technology and their relationship to traditional philosophical concerns with human identity, the meaning of life, the nature of knowledge, and the relation between the individual and society. BoK: HU., SE. Credit Level: U. Credit Hrs: 3.00

15PHIL388H**The Darwinian Revolution**

This historically oriented course focuses on the development of Darwin's theory of evolution by natural selection, the emergence of

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Philosophy**15PHIL388H****The Darwinian Revolution**

evolutionary theory in the 19th Century, the intellectual and social context crucial to that theory, and the immediate scientific responses to Darwin's theory in the last half of the century. The course will be wide-ranging, covering not only Darwin's *On the Origin of Species* (1859), but also original writings from Darwin's contemporaries. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15PHIL389H**The Possibility of Human Altruism H**

An exploration of biological and psychological answers to the question, "Is it possible for humans to be altruists?" The course is offered in seminar style. Students will be asked to actively participate in discussion and to write several short critical essays. BoK: HU., SE. Credit Level: U. Credit Hrs: 3.00

15PHIL390H**The Evolution of Cognition, H**

In this course we aim to explore theories of the evolution of cognitive capacities in humans and in non-human animals, and their significance for philosophical theories of the nature of mind and cognition. Of special interest will be the evolution of capacities that underly language use, and of perception. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15PHIL391H**Loyalty, Patriotism and War**

What is loyalty and patriotism? Do they impose a moral obligation to go to war? How do the moral claims of family, friends, and nation "those nearer and dearer to you" balance against humanity at large? This course addresses these questions by readings from relevant philosophers and short essays. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15PHIL392H**The Linguistic Basis for Conceptual Thought**

Examines the debate between those who think that conceptual thought is independent of language and those who think that language acquisition is the key to the child's ability to think conceptually. We will read texts by both cognitive psychologists and contemporary philosophers. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15PHIL393H**Ethics and Individualism**

The clash of western values and religious fundamentalists is at the center of the political world stage today. But what are the western values at stake? Examines works by Immanuel Kant, John Stuart Mill, and Friedrich Nietzsche, which lay out three important approaches to Ethics - Deontology, Utilitarianism, and Ethical Egoism. Focuses on these ethical systems, but we will also consider how, despite the vast differences between their systems, each philosopher champions free-thinking individuals. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15PHIL394H**Art and Emotion**

A study of the way in which emotions enter into the creation and the experience of works of painting, literature, music and other art forms. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15PHIL395H**The Infinite**

Examines the concept of the infinite from Greek philosophy and mathematics, through the Middle Ages and Western religion, to modern logic and mathematics. Topics include Zeno's paradoxes; Aristotle's extension: Medieval matter and continuity; Leibniz and Newton's on the calculus: numbers (the naturals, integers, and reals) in modern mathematics; modern set theory's transfinite sets; and the continuum hypothesis. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15PHIL396H**Conversations About Life**

Built into college life are the late night conversations about love, sex, religion, politics, -- life's important things. This seminar is designed to

Philosophy**15PHIL396H****Conversations About Life**

encourage this tendency in an informal but structured setting. Serious topics will be selected by the students and then "hashed out" with the professor contributing to give direction and suggestions. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15PHIL397H**Eye, Mind and Art**

Psychologists and cognitive scientists now know a lot about how the brain processes visual information. In this course we will examine the different kinds of visual experience involved in our appreciation of the various visual arts -- photography, painting, sculpture, architecture, film, etc. -- drawing on work by philosophers, critics, art historians, and cognitive scientists. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15PHIL398H**Scientific Philosophy of Color**

Explores contemporary philosophical theories of the nature of color and color vision, and whether philosophical puzzles about color can be resolved by a mature color science. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15PHIL399H**Genetics and Bioethics**

The fifty years since the "discovery" of the structure of DNA has seen a revolution in molecular biology. The impact goes beyond science, including agriculture, medicine, and law. The course focuses on a book by one of the founders, James Watson, which discusses the scientific, social, and ethical issues raised. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15PHIL407**Philosophy of Mind II**

A detailed examination of central issues in philosophy of mind. Topics may include: behaviorism, identity theories, functionalism, anomalous monism, representation, intentionality, psychosemantics, mental causation, consciousness, qualia, and reductionism. Follows 15PHIL307. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15PHIL410**History of Modern Aesthetics**

History of modern aesthetics from 1750 to the present. First quarter centers on British Empiricism (Hume, Hutcheson), Kant and Hegel. Second quarter devoted to legacy of Idealism and Romanticism, Schopenhauer, Nietzsche, Croce, and other influential figures. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15PHIL411**History of Modern Aesthetics**

19th c. aesthetics. The German Tradition: Schiller, Schlegel, Schelling, Hegel, Schopenhauer, Nietzsche. Themes include Romanticism and Classicism, art as the expression of feeling, art as the revelation of truth, art as concrete universal. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15PHIL421**Aesthetics**

An introduction to aesthetics: nature of art, art as imitation, art as form, art as expression of emotion, contemporary theories of art, etc. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15PHIL422**Aesthetics**

An introduction to aesthetics. Topics include style and expression in the arts, representation and symbolism, interpretation and criticism. Examples from painting, literature, music, photography, architecture, etc. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15PHIL423**Aesthetics: Philosophy and Architecture**

An introduction to aesthetics of the visual arts. Philosophical topics on the arts of painting, photography, architecture and sculpture, as well as the nature of art history and art criticism. BoK: HU. Credit Level: U.

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Philosophy

15PHIL423

Aesthetics: Philosophy and Architecture

Credit Hrs: 3.00

15PHIL475

Philosophy of Medicine

An introduction to ethical and philosophical issues raised by the practice of medicine. BoK: HU., SE. Credit Level: U. Credit Hrs: 3.00

15PHIL501

Individual Work

Individual work. Cr. to be arranged. Each qtr. Individual work should be arranged between the student and the faculty member. Student should contact the faculty member who might be willing to sponsor the project the student has in mind. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-15.00

15PHIL502

Individual Work

Cr.to be arranged. Each qtr. individual work should be arranged between the student and the faculty member who might be willing to sponsor the project the student has in mind. The second offering in a three-part course sequence. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-15.00

15PHIL503

Individual Work

Cr. to be arranged.Each qtr. Individual work should be arranged between the student and the faculty member. Student should contact the faculty member who might be willing to sponsor the project the student has in mind. The third offering in a three-part course sequence. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-15.00

15PHIL512H

Honors Seminar: Business Ethics, H

Development of the theoretical and practical knowledge and skills to analyze and attempt to resolve real-life ethical dilemmas that are a ubiquitous and inevitable feature of business decisions. BoK: HU., SE. Credit Level: U. Credit Hrs: 3.00

15PHIL515

Empiricism: Locke

Advanced introduction to metaphysics and epistemology of John Locke. BoK: HU. Credit Level: U, G. Credit Hrs: 3.00

15PHIL516

Empiricism: Berkeley

Will examine closely the philosophy of George Berkeley. BoK: HU. Credit Level: U, G. Credit Hrs: 3.00-5.00

15PHIL517

Empiricism: Hume

An advanced introduction to Hume's theory of human nature and epistemology. BoK: HU. Credit Level: U, G. Credit Hrs: 3.00

15PHIL520

Contemporary Ethics

Philosophical work in ethics over the past century Topics will be drawn from metaethics, ethical theory, normative and/or applied ethics. Prereq: 15PHIL101, 15PHIL102, 15PHIL103, 15PHIL106. BoK: HU, SE. Credit Level: U. Credit Hrs: 3.00

15PHIL521

Genomics, Race, and Ethics

For the past 400 years, scientists, health professionals, ethicists and philosophers have been divided over the validity and the utility of the concept of race. Contrary to some expectations, the completion of the Human Genome Project only deepened this controversy. Examines taxonomic, biochemical, social and ethical issues involved in the study of population structure at the age of the DNA revolution. BoK: HU. Credit Level: U. Credit Hrs: 3.00

Philosophy

15PHIL525

Critical Theory

Course explores the philosophy of Michel Foucault in relation to the tradition of critical theory. The course examines the nature of reason and its relation to liberation and oppression. BoK: HU. Credit Level: U, G. Credit Hrs: 3.00-5.00

15PHIL531

Topics in Philosophy of Mind

Selected topics, with emphasis on contemporary accounts of conscious experience. Readings include recent and forthcoming books by Chalmers, Dretske, Kim, Levine, Lycan, Perry, Putnam, or Van Gulick. Perm of Instructor. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15PHIL532

Recent Philosophy of Mind

An advanced course in philosophy of mind, focusing on particular topics or figures in recent philosophy of mind and philosophical psychology. Topics may include consciousness, intentionality, functionalism, identity theory, reductionism, psychological laws, mental causation, and other debates. Prereq: 15PHIL307. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15PHIL540

Philosophy and Evolutionary Biology

Issues raised for philosophy of science by evolutionary biology. Topics include the significance of adaptation and development, genetics and reductionism, and ecological theory. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15PHIL543

History of Logic

Ancient, Medieval, Renaissance, and 19th-century logic. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15PHIL544

Topics in Philosophical Methodology

An examination of historical and contemporary approaches to philosophical method and practice. Topics may include pragmatism, conceptual analysis, the linguistic turn, phenomenology, scientific naturalism, and experimental philosophy. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15PHIL545

Descartes

An in-depth account of the philosophical and scientific views of Descartes in historical context. Recommended for advanced undergraduates only. BoK: HU. Credit Level: U, G. Credit Hrs: 3.00-5.00

15PHIL546

Seminar: Plato

An advanced examination of the main philosophical contributions of Plato. BoK: HU. Credit Level: U, G. Credit Hrs: 3.00-5.00

15PHIL547

Aristotle

An advanced examination of the main philosophical contributions of Aristotle. BoK: HU. Credit Level: U, G. Credit Hrs: 3.00

15PHIL548

Medieval Philosophy

A study of the work of medieval thinkers such as Aquinas, Anselm, Duns Scotus, and William of Ockham. BoK: HU. Credit Level: U, G. Credit Hrs: 3.00

15PHIL549

Topics in Logic

This course covers the valuational and model theoretic semantics for the standard systems of sentential many-valued logic, and extensions of first-order logic to modal and epistemic logic. Emphasis is on the evaluation of alternative account of the logical entailment. BoK: HU. Credit Level: U. Credit Hrs: 3.00

H=University Honors course.

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Philosophy

15PHIL550

Philosophy of Music

This course will examine the question of meaning in music. Can 'pure' instrumental music have meaning and, if so, how? A number of theories of musical meaning will be examined. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15PHIL554

Perceptual Representation

Examines contemporary philosophical literature on the structure and content of perceptual representations. Focus is on the question of what perceptions represent (objects, states of affairs, scenarios?) and what it means to say that a perception represents one of those things. This issue has a bearing not only on larger issues in the philosophy of mind but also on issues in epistemology and the philosophy of language. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15PHIL555

Philosophy of Language

Issues in meaning, reference, and truth as seen in the work of Frege, Russell, and other twentieth century thinkers. BoK: HU. Credit Level: U. G. Credit Hrs: 3.00-5.00

15PHIL556

Philosophical Logic

Selected problems in logic with implications for traditional philosophical problems. BoK: HU. Credit Level: U, G. Credit Hrs: 3.00-5.00

15PHIL557

Topics in Semantics

A survey of theories of meaning in natural language. Emphasis will be on the semantics of conditionals. Prereq: 15PHIL341. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15PHIL558

Theories of Interpretation

This course will examine the philosophical literature pertaining to the methods by which we determine what people believe and desire and what their words mean. Topics include: Radical interpretation (Davidson, Quine), the theory- theory (Ramsey, Stich and Nichols) and the simulation theory (Stueber, Gordon and Goldman). BoK: HU. Credit Level: U. Credit Hrs: 3.00

15PHIL560

Concept of Emotion

This course will examine philosophical theories of emotion, including the role of cognition and motivation in emotion, the rationality of emotion, the role of physiological change in emotion, etc. For advanced students only. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15PHIL561

Aesthetics and the Philosophy of Mind

An advanced course in philosophical aesthetics, focusing on the connections between art and emotion (the expression of emotion, the evocation of emotion, etc.) Perm of Instructor. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15PHIL562

Kierkegaard and Nietzsche

An advanced examination of the main philosophical contributions of Kierkegaard and Nietzsche. BoK: HU., SE. Credit Level: U. Credit Hrs: 3.00

15PHIL563

Social and Ethical Issues in Biomedicine

Philosophy of medicine cum bioethics has become a genuine academic discipline and recent biotechnological innovations have given a momentum to research and debates in this field. This course will first analyze the central philosophical concepts on which this discipline rests. It will then dwell on the social challenge of the genetic age and the philosophical theories deployed to solve the ethical problems related to genetic intervention. BoK: HU. Credit Level: U. Credit Hrs: 3.00

Philosophy

15PHIL565

20th-Century Existentialism

French existentialism of the post-war era. BoK: HU., SE. Credit Level: U, G. Credit Hrs: 3.00-5.00

15PHIL566

Ethics

Topics on recent Anglo-American analytic moral philosophy. BoK: HU., SE. Credit Level: U, G. Credit Hrs: 3.00

15PHIL567

Political Philosophy

Study of recent social and political philosophy, especially that of John Rawls. BoK: HU., SE. Credit Level: U. Credit Hrs: 3.00

15PHIL568

Cartesianism

This course will study the affect Cartesian philosophy and physics on 17th Century logic and semantic theory. In conjunction with secondary reading, the primary text will be Arnauld and Nicole "Art of Thinking" (the "Port-Royal Logic"), and relevant texts by Descartes, Arnauld, and Malebranche. We will see how Cartesian dualism necessitated both a rejection of the standard Aristotelian causal theory of reference and its replacement by a semantics of ideas based on esse objectivum and intentionality. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15PHIL569

Psych. Explanation

PSYCH EXPLANATION BoK: HU. Credit Level: U, G. Credit Hrs: 3.00-5.00

15PHIL570

Contemporary Metaphysics

Issues in metaphysics: freedom of the will, the nature of space and time, personal identity, causality. BoK: HU. Credit Level: U, G. Credit Hrs: 3.00-5.00

15PHIL571

Contemporary Epistemology

Issues in the theory of knowledge in the 20th Century. BoK: HU. Credit Level: U, G. Credit Hrs: 3.00-5.00

15PHIL572

20th C. Philosophy of Science Scientific Confirmation

This is an advanced course, examining accounts of confirmation within scientific disciplines, including recent work on Bayesianism. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15PHIL573

Contemporary Philosophy of Mind

An examination of recent work in philosophy of mind and cognitive science. Recent work in philosophy of mind as it pertains to artificial intelligence, psychology, and neuroscience. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15PHIL574

Philosophical Psychology

Study of philosophical assumptions in modern psychological theories of cognition and emotion. BoK: HU. Credit Level: U, G. Credit Hrs: 3.00

15PHIL575

Continental Epistemology

Post structuralism and deconstruction as responses to Cartesian epistemology which privileges the thinking subject and treats the contents of consciousness as foundational. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15PHIL576

Leibniz

An investigation of Leibniz logic and metaphysics. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15PHIL577

Feminist Philosophy

Explanation of current topics and questions in feminist philosophy

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Philosophy**15PHIL577****Feminist Philosophy**

including epistemology, ethics, and social philosophy. BoK: DC., SE.
Credit Level: U, G. Credit Hrs: 3.00-5.00

15PHIL578**Philosophy of Technology**

Relates theoretical and practical problems about the nature and function of technology to traditional philosophical concerns with the nature of knowledge, the legitimization of power, the meaning of life, and the justness of society. The impact of specific technologies on work and war and government, life and death is also studied. BoK: HU.
Credit Level: U. Credit Hrs: 3.00

15PHIL579**Philosophy and Neuroscience**

An interdisciplinary study of neuroscience and its philosophy. Topics might include relationship between levels of explanation and investigation in the neurosciences; neuroscientific methods--applications and limits; localization of cognitive functions to neural regions; mechanism, emergence or reduction in neuroscientific practice. Readings are drawn from both philosophical and neuroscientific sources. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15PHIL580**Literary Theory**

Recent movements in literary theory (1940-present and theories of critical interpretation which they embody. BoK: HU. Credit Level: U, G.
Credit Hrs: 3.00-5.00

15PHIL581**Approaches to Fiction**

An analysis of some philosophic questions concerning the reading of fiction (Why do we feel emotions for Anna Karenina, when she does not exist?) and the educational function of fiction. BoK: HU. Credit Level: U.
Credit Hrs: 3.00

15PHIL582**Ethical Theory**

Advanced course in ethical theory including such topics as relativism, subjectivism, values, and the sources of normativity. BoK: HU., SE.
Credit Level: U. Credit Hrs: 3.00

15PHIL583**Reasons for Action**

A review of classic and contemporary works on practical reason, focusing on reasons for action. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15PHIL585**Scientific Theories**

This course focuses on the nature and structure of scientific theories, an issue central to the philosophy of science. The transition from the positivist syntactic to the post-positivist semantic conception of theories is explored paying special attention to interpretation of the relationship between theory and real world. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15PHIL586**Plato's Later Dialogues**

The theory of Forms in The Phaedo, The Republic, The Parmenides, and The Sophist. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15PHIL587**Philosophy of Science: Experiment**

Critically explores the "experimental turn" in philosophy of science. Questions concerning the structure and epistemology of experimentation in science will be explored. Specific issues include the relationship between theory and experiment, conceptual foundations of experimental design, and the heuristic role of specific reasoning strategies employed in experimentation. Prereq: 15PHIL104, 15PHIL105, 15PHIL106. BoK: HU. Credit Level: U. Credit Hrs: 3.00

Philosophy**15PHIL588****History and Philosophy of Biology**

An advanced course in the historical and conceptual foundations of biology. Problems including the structure of evolutionary theory, reduction of Mendelian to molecular genetics, role of chance in evolution, species concepts, foundations of evo-devo, and laws in biology are approached by way of historical and contemporary cases from biology. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15PHIL589**History and Philosophy of Science**

Survey of issues relating to the aims and methods of history of science/philosophy. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15PHIL590**Early 20th Century Philosophy**

An examination of some of the views of representative early 20th century Anglo-American philosophers such as F.H. Bradley, B._Russell, G. E. Moore, William James or others. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15PHIL591**20th C. Philosophy of Science: Scientific Explanation**

An advanced course in philosophy of science, focusing on development in the theory of explanation, including statistical explanation. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15PHIL592**Philosophy of Science Since World War II**

A critical survey of developments in philosophy of science since World War II, including positivism, postpositivism and postmodernism. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15PHIL593**Philosophy of the Social Sciences**

Critical survey of prominent philosophical traditions in the social sciences, focusing on the relations between the natural and social sciences and the similarities and differences between Anglo-American and Continental philosophies. BoK: HU., SE. Credit Level: U. Credit Hrs: 3.00

15PHIL594**Philosophical Foundations of the Sociology of Knowledge.**

Explores a range of philosophical issues generated by the program of the sociology of knowledge for replacing philosophical with scientific analyses of science and its historical development. Sociological naturalism replaces normative theories of the rationality of science with descriptive accounts of the formation of scientific beliefs and the behavior of scientists. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15PHIL598**Kant**

An intensive study of the metaphysical writings of Immanuel Kant. BoK: HU. Credit Level: U, G. Credit Hrs: 3.00

15PHIL599**Special Topics: Political Philosophy, Marx**

An advanced examination of the contributions of Marx to political philosophy. BoK: HU., SE. Credit Level: U, G. Credit Hrs: 3.00

15PHIL621**Mathematical Logic I**

Propositional and first order logic. Proof systems, such as Hilbert-style proofs, natural deduction systems, or resolution proofs. Compactness, completeness, and model-theoretic techniques. Mathematical case, writing proofs of metatheorems about logic. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00-5.00

15PHIL622**Mathematical Logic II**

Propositional and first order logic. Proof systems, such as Hilbert-style proofs, natural deduction systems, or resolution proofs. Compactness, completeness, and model-theoretic techniques. Mathematical case, writing proofs of metatheorems about logic. The second offering in a

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Philosophy**15PHIL622****Mathematical Logic II**

three-part course sequence. Prereq: 15PHIL621. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00-5.00

15PHIL623**Mathematical Logic III**

Propositional and first order logic. Proof systems, such as Hilbert-style proofs, natural deduction systems, or resolution proofs. Compactness, completeness, and model-theoretic techniques. Mathematical case, writing proofs of metatheorems about logic. The third offering in a three-part course sequence. Prereq: 15PHIL622. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00-5.00

15PHIL701**Individual Work**

To be arranged each quarter between graduate student and faculty member. Credit Level: G. Credit Hrs: 1.00-15.00

15PHIL702**Individual Work**

To be arranged each quarter between graduate student and faculty member. The second offering in a three-part course sequence. Credit Level: G. Credit Hrs: 1.00-15.00

15PHIL703**Individual Work**

To be arranged each quarter between graduate student and faculty member. The third offering in a three-part course sequence. Credit Level: G. Credit Hrs: 1.00-15.00

15PHIL704**Graduate Pro-seminar**

Mentoring on classroom teaching and professional activities concerned with teaching. Philosophy GAs only. Credit Level: G. Credit Hrs: 1.00-5.00

15PHIL705**Pain: Conceptual and Empirical Issues**

An inquiry into conceptions or theories of the nature and role of pain in human and animal psychology, with topics that might include the following: history of the notion of pain, the neurophysiological systems implicated in pain experiences, multiplicity and diversity of pain types and syndromes, the biological role of pain, pain and emotion, and the implications of recent pain sciences for some philosophical issues. Credit Level: G. Credit Hrs: 5.00

15PHIL708**Introduction to Philosophy of Science and Scientific Reasoning**

Designed specifically for graduate students in the MST degree program. Students are introduced to central episodes and issues in the history and philosophy of science, with a focus on concepts and examples chosen for high school science instructors to use in their lectures and discussions. Credit Level: G. Credit Hrs: 2.00

15PHIL715**Empiricism: Locke**

Advanced introduction to metaphysics and epistemology of John Locke. Credit Level: G. Credit Hrs: 5.00

15PHIL716**Empiricism: Berkeley**

Will examine closely the philosophy of George Berkeley. Credit Level: G. Credit Hrs: 5.00

15PHIL717**Empiricism: Hume**

An advanced introduction to Hume's theory of human nature and epistemology. Credit Level: G. Credit Hrs: 5.00

15PHIL720**Contemporary Ethics**

Philosophical work in ethics over the past century. Topics will be drawn from metaethics, ethical theory, normative and/or applied ethics. Credit

Philosophy**15PHIL720****Contemporary Ethics**

Level: G. Credit Hrs: 5.00

15PHIL721**Genomics, Race, and Ethics**

For the past 400 years, scientists, health professionals, ethicists and philosophers have been divided over the validity and the utility of the concept of race. Contrary to some expectations, the completion of the Human Genome Project only deepened this controversy. Examines taxonomic, biomedical, social and ethical issues involved in the study of population structure at the age of the DNA Revolution. Credit Level: G. Credit Hrs: 5.00

15PHIL725**Critical Theory**

CRITICAL THEORY Credit Level: G. Credit Hrs: 5.00

15PHIL730**Happiness in Greek Philosophy**

An advanced introduction to various Greek theories of eudaimonia (translated usually by "happiness") starting with Aristotle and moving through the Stoics, Epicureans and other Hellenistic figures working in the wake of Aristotle. The main text will be Julia Annas' *The Mortality of Happiness*, a comprehensive treatment of the whole period. Credit Level: G. Credit Hrs: 5.00

15PHIL731**Topics in Philosophy of Mind**

Selected topics, with emphasis on contemporary accounts of conscious experience. Readings include recent and forthcoming books by Chalmers, Dretske, Kim, Levine, Lycan, Perry, Putnam, or Van Gulick. Credit Level: G. Credit Hrs: 5.00

15PHIL732**Recent Philosophy of Mind**

An advanced course in philosophy of mind, focusing on particular topics or figures in recent philosophy of mind and philosophical psychology. Topics may include consciousness, intentionality, functionalism, identity theory, reductionism, psychological laws, mental causation, and other debates. Credit Level: G. Credit Hrs: 5.00

15PHIL739**Philosophy of Biology: Classics in Evolution and Ecology**

In this course, cross-listed with Biology, we will examine closely a classic, foundational text in evolution or ecology. Some secondary sources may be considered. Attendees of the course will be asked to lead discussion on occasion. At least one short, critical paper is required. Credit Level: G. Credit Hrs: 5.00

15PHIL740**Philosophy and Evolutionary Biology**

Issues raised for philosophy of science by evolutionary biology. Topics include the significance of adaptation and development, genetics and reductionism, and ecological theory. Credit Level: G. Credit Hrs: 5.00

15PHIL741**Readings in Logic**

First-order logic: syntax, natural deduction proof theory, and model theory up to the completeness of proof. Credit Level: G. Credit Hrs: 5.00

15PHIL742**Readings in Logic**

Continuation of 741. Prereq: 15PHIL741. Credit Level: G. Credit Hrs: 5.00

15PHIL743**History of Logic**

Ancient, Medieval, Renaissance, and 19th-century logic. Credit Level: G. Credit Hrs: 5.00

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Philosophy**15PHIL744****Topics in Philosophical Methodology**

An examination of historical and contemporary approaches to philosophical method and practice. Topics may include pragmatism, conceptual analysis, the linguistic turn, phenomenology, scientific naturalism, and experimental philosophy. Credit Level: G. Credit Hrs: 5.00

15PHIL745**Descartes**

An in-depth account of the philosophical and scientific views of Descartes in historical context. Credit Level: G. Credit Hrs: 5.00

15PHIL746**Seminar: Plato**

An advanced examination of the main philosophical contributions of Plato. Credit Level: G. Credit Hrs: 5.00

15PHIL747**Aristotle**

An advanced examination of the main philosophical contributions of Aristotle. Prereq.: 104, 105, 106 or equiv. Credit Level: G. Credit Hrs: 5.00

15PHIL748**Medieval Philosophy**

A study of the work of medieval thinkers such as Aquinas, Anselm, Duns Scotus, and William of Ockham. Credit Level: G. Credit Hrs: 5.00

15PHIL749**Topics in Logic**

This course covers the valuational and model theoretic semantics for the standard systems of sentential many-valued logic, and extensions of first-order logic to modal and epistemic logic. Emphasis is on the evaluation of alternative account of the logical entailment. Credit Level: G. Credit Hrs: 5.00

15PHIL750**Philosophy of Music**

This course will examine the question of meaning in music. Can 'pure' instrumental music have meaning and, if so, how? A number of theories of musical meaning will be examined. Credit Level: G. Credit Hrs: 5.00

15PHIL754**Perceptual Representation**

Examines contemporary philosophical literature on the structure and content of perceptual representations. Focus is on the question of what perceptions represent (objects, states of affairs, scenarios?) and what it means to say that a perception represents one of those things. This issue has a bearing not only on larger issues in the philosophy of mind but also on issues in epistemology and the philosophy of language. Credit Level: G. Credit Hrs: 5.00

15PHIL755**Philosophy of Language**

Issues in meaning, reference, and truth as seen in the work of Frege, Russell, and other twentieth century thinkers. Credit Level: G. Credit Hrs: 5.00

15PHIL756**Philosophical Logic**

Selected problems in logic with implications for traditional philosophical problems. Prereq.: 241- Symbolic Logic. Credit Level: G. Credit Hrs: 5.00

15PHIL757**Topics in Semantics**

A survey of theories of meaning in natural language. The emphasis will be on the semantics of conditionals. Prereq: 15PHIL741. Credit Level: G. Credit Hrs: 5.00

Philosophy**15PHIL758****Theories of Interpretation**

This course will examine the philosophical literature pertaining to the methods by which we determine what people believe and desire and what their words mean. Topics include: Radical interpretation (Davidson, Quine), the theory-theory (Ramsey, Stich and Nichols) and the simulation theory (Stueber, Gordon and Goldman). Credit Level: G. Credit Hrs: 5.00

15PHIL760**Concept of Emotion**

This course will examine philosophical theories of emotion, including the role of cognition and motivation in emotion, the rationality of emotion, the role of physiological change in emotion, etc. Credit Level: G. Credit Hrs: 5.00

15PHIL761**Aesthetics and the Philosophy of Mind**

An advanced course in philosophical aesthetics, focusing on the connection between art and emotion (the expression of emotion, the evocation of emotion, etc.) Perm of Instructor. Credit Level: G. Credit Hrs: 5.00

15PHIL762**Kierkegaard and Nietzsche**

An advanced examination of the main philosophical contributions of Kierkegaard and Nietzsche. Credit Level: G. Credit Hrs: 5.00

15PHIL763**Social and Ethical Issues in Biomedicine**

Philosophy of medicine cum bioethics has become a genuine academic discipline and recent biotechnological innovations have given a momentum to research and debates in this field. This course will first analyze the central philosophical concepts on which this discipline rests. It will then dwell on the social challenge of the genetic age and the philosophical theories deployed to solve the ethical problems related to genetic intervention. Credit Level: G. Credit Hrs: 5.00

15PHIL765**20th Century Existentialism**

French existentialism of the post-war era. Credit Level: G. Credit Hrs: 5.00

15PHIL766**Ethics**

Topics on recent Anglo-American analytic moral philosophy. Credit Level: G. Credit Hrs: 5.00

15PHIL767**Political Philosophy**

Study of recent social and political philosophy, especially that of John Rawls. Credit Level: G. Credit Hrs: 5.00

15PHIL768**Cartesianism**

Studies the affect Cartesian philosophy and physics in 17th Century logic and semantic theory. In conjunction with secondary reading, the primary text will be Arnauld and Nicole "Art of Thinking", the "Port Royal Logic", and relevant texts by Descartes, Arnauld, and Malebranche. We will see how Cartesian dualism necessitated both a rejection of the standard Aristotelian causal theory of reference and its replacement by a semantics of ideas based on esse objectivum and intentionality.. Credit Level: G. Credit Hrs: 5.00

15PHIL770**Contemporary Metaphysics**

Issues in metaphysics: freedom of the will, the nature of space and time, personal identity, causality. Credit Level: G. Credit Hrs: 5.00

15PHIL771**Contemporary Epistemology**

Issues in the theory of knowledge in the 20th century. Credit Level: G. Credit Hrs: 5.00

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Philosophy**15PHIL772****20th Century Philosophy Science: Scientific Confirmation**

This is an advanced course examining accounts of confirmation within scientific disciplines, including recent work on Bayesianism. Credit Level: G. Credit Hrs: 5.00

15PHIL773**Contemporary Philosophy of Mind**

An examination of recent work in philosophy of mind and cognitive science. Current issues in the philosophy of mind. Credit Level: G. Credit Hrs: 5.00

15PHIL774**Philosophical Psychology**

Study of philosophical assumptions in modern psychological theories of cognition and emotion. Credit Level: G. Credit Hrs: 5.00

15PHIL775**Continental Epistemology**

Post-structuralism and deconstruction as responses to Cartesian epistemology which privileges the thinking subject and treats the contents of consciousness as foundational. Credit Level: G. Credit Hrs: 5.00

15PHIL776**Leibniz**

An investigation of Leibniz logic and metaphysics. Credit Level: G. Credit Hrs: 5.00

15PHIL777**Feminist Philosophy**

Explanation of current topics and questions in feminist philosophy including epistemology, ethics, and social philosophy. Credit Level: G. Credit Hrs: 5.00

15PHIL778**Philosophy of Technology**

Relates theoretical and practical problems about the nature and function of technology to traditional philosophical concerns with the nature of knowledge, the legitimation of power, the meaning of life, and the justness of society. The impact of specific technologies on work and war, cities and government, life and death is also studied. Credit Level: G. Credit Hrs: 5.00

15PHIL779**Philosophy and Neuroscience**

An interdisciplinary study of neuroscience and its philosophy. Topics might include relationship between levels of explanation and investigation in the neurosciences; neuroscientific methods--applications and limits; localization of cognitive functions to neural regions; mechanism, emergence or reduction in neuroscientific practice. Readings are drawn from both philosophical and neuroscientific sources. Credit Level: G. Credit Hrs: 5.00

15PHIL780**Literary Theory**

Recent movements in literary theory (1940-present) and theories of critical interpretation which they embody. Credit Level: G. Credit Hrs: 5.00

15PHIL781**Approaches to Fiction**

An analysis of some philosophic questions concerning the reading of fiction (Why do we feel emotions for Anna Karenina, when she does not exist?) and the educational function of fiction. Credit Level: G. Credit Hrs: 5.00

15PHIL782**Ethical Theory**

Advanced course in ethical theory, including such topics as relativism, subjectivism, values, and the sources of normativity. Credit Level: G. Credit Hrs: 5.00

Philosophy**15PHIL783****Reasons for Action**

A review of classic and contemporary works on practical reason, focusing on reasons for action. Credit Level: G. Credit Hrs: 5.00

15PHIL785**Scientific Theories**

Focuses on the nature and structure of scientific theories, an issue central to the philosophy of science. The transition from the positivist syntactic to the post-positivist semantic conception of theories is explored paying special attention to the interpretation of the relationship between theory and real world. Credit Level: G. Credit Hrs: 5.00

15PHIL786**Plato's Later Dialogues**

The theory of Forms in The Phaedo, The Republic, The Parmenides, and The Sophist. Credit Level: G. Credit Hrs: 5.00

15PHIL787**Philosophy of Science: Experiment**

Critically explores the "experimental turn" in philosophy of science. Questions concerning the structure and epistemology of experimentation in science will be explored. Specific issues include the relationship between theory and experiment, conceptual foundations of experimental design, and the heuristic role of specific reasoning strategies employed in experimentation. Credit Level: G. Credit Hrs: 5.00

15PHIL788**History and Philosophy of Biology**

An advanced course in the historical and conceptual foundations of biology. Problems including the structure of evolutionary theory, reduction of Mendelian to molecular genetics, role of chance in evolution, species concepts, foundations of evo-devo, and laws in biology are approached by way of historical and contemporary cases from biology. Credit Level: G. Credit Hrs: 5.00

15PHIL789**History and Philosophy of Science**

An advanced graduate section of 15-065-589. Survey of issues relating to the aims and methods of history of science/philosophy. Credit Level: G. Credit Hrs: 5.00

15PHIL790**Early 20th Century Philosophy**

An examination of some of the views of representative early 20th century Anglo-American philosophers, such as F.J. Bradley, B. Russell, G.E. Moore, William James or others. Credit Level: G. Credit Hrs: 5.00

15PHIL791**20th Century Philosophy of Science: Scientific Explanation**

An advanced course in philosophy of science, focusing on development in the theory of explanation, including statistical explanation. This is an advanced graduate section of 15-065-591. Credit Level: G. Credit Hrs: 5.00

15PHIL792**Philosophy of Science Since World War II**

A critical survey of developments in philosophy of science since World War II, including positivism, postpositivism, and postmodernism. Credit Level: G. Credit Hrs: 5.00

15PHIL793**Philosophy of the Social Sciences**

Critical survey of prominent philosophical traditions in the social sciences, focusing on the relation between the natural and the social sciences and the similarities and differences between Anglo-American and Continental philosophies. Will cover Durlach, Winch, Weber, Schutz, Garfinkel, Marx, and Huberman, among others. Credit Level: G. Credit Hrs: 5.00

15PHIL794**Philosophical Foundations of the Sociology of Knowledge**

Explores a range of philosophical issues generated by the program of the sociology of knowledge for replacing philosophical with scientific

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Philosophy

15PHIL794

Philosophical Foundations of the Sociology of Knowledge

analyses of science and its historical development. Sociological naturalism replaces normative theories of the rationality of science with descriptive accounts of the formation of scientific beliefs and the behavior of scientists. Credit Level: G. Credit Hrs: 5.00

15PHIL798

Kant

An intensive study of the metaphysical writings of Immanuel Kant. Credit Level: G. Credit Hrs: 5.00

15PHIL799

Special Topics: Political Philosophy, Marx

An advanced examination of the contributions of Marx to political philosophy. Credit Level: G. Credit Hrs: 5.00

15PHIL812

Philosophy & Law: Conceptions of Self Freedom and Moral Responsibility

Taught by the College of Law, this course examines the early modern philosophical concepts of self and freedom. These provide the basis for an understanding of moral responsibility, and related issues such as guilt, innocence, and punishment. Perm of Instructor. Credit Level: G. Credit Hrs: 4.50

15PHIL815

Seminar: Philosophy of the Neurosciences and Psychology

The impact on the philosophy of mind and science of recent research and discoveries in the neuro-science of perception, learning and memory. Credit Level: G. Credit Hrs: 5.00

15PHIL825

SEMINAR: POLITICAL PHILOSOPHY

Graduate seminar on central topics and recent work in political philosophy. Seminar will include discussions of influential philosophical work on justice, the state, oppression, and distribution. Students will write a philosophical research paper on a topic of their choice. Credit Level: G. Credit Hrs: 5.00

15PHIL826

Seminar: Aristotle's Ethics & Politics

Focuses on Aristotle's "philosophy of human affairs" as it is found in the Nicomachean Ethics and in the Politics. Richard Kraut's recent study is a secondary source, as well as a range of scholarship on issues that emerge from a contemporary analysis and assessment of Aristotle's contributions to moral and political philosophy. Credit Level: G. Credit Hrs: 5.00

15PHIL830

Seminar: Cognitive Science/Mind

This course will survey the interdisciplinary debate of recent research in social and cognitive psychology reports of systematic irrationality in human subjects. This research has been met with strong opposition, especially from the philosophical camp. Credit Level: G. Credit Hrs: 5.00

15PHIL841

Seminar: Business Ethics

Primarily designed for MBA students and offered with the cooperation of the College of Business Administration; emphasis is on ethical problems which arise in day-to-day business situations. Credit Level: G. Credit Hrs: 1.00-5.00

15PHIL848

Pierce

Pierce's pragmatism: "practical consequences," "the real," signs (icons, indices, symbols), categoriology, realism-nominalism. Credit Level: G. Credit Hrs: 5.00

15PHIL849

Aristotle's Metaphysical Biology

Study of the primarily biological treatises of Aristotle and associated passages from the Metaphysics. Credit Level: G. Credit Hrs: 5.00

Philosophy

15PHIL850

Truth & Reference

TRUTH & REFERENCE Credit Level: G. Credit Hrs: 5.00

15PHIL851

Seminar: Philosophy of Language

An advanced examination of the philosophy of language. Credit Level: G. Credit Hrs: 5.00

15PHIL852

Seminar: Philosophical Logic

An in-depth study of a current topic in philosophical logic. Credit Level: G. Credit Hrs: 5.00

15PHIL855

Seminar: Contemporary Analytic Philosophy

Covers contemporary topics or figures in the analytic philosophy tradition. Examples of authors who may be covered are Russell, Moore, Wittgenstein, Carnap, Quine, Davidson, Goodman, Hare, Kripke, Putnam, and Lewis. Credit Level: G. Credit Hrs: 5.00

15PHIL859

Seminar: Metaphysics

An in-depth examination of a topic in contemporary metaphysics. Credit Level: G. Credit Hrs: 5.00

15PHIL860

Seminar: Hume

Examination of Hume's moral, social and political philosophy. Credit Level: G. Credit Hrs: 5.00

15PHIL861

Seminar: Descartes

This is an advanced seminar, which will focus on the work of Rene Descartes. It is restricted to advanced graduate students. Credit Level: G. Credit Hrs: 5.00

15PHIL862

Seminar: Ancient Skepticism

An advanced critical introduction to ancient Greek skepticism. Credit Level: G. Credit Hrs: 5.00

15PHIL864

Scientific Change

An advanced examination of philosophy of perception. Credit Level: G. Credit Hrs: 5.00

15PHIL869

Issues Philosophical Psychology

Philosophical psychology of contemporary issues. Representative topics include cognitive development, representations and processes, consciousness, dissociation phenomena, pain, qualia and reduction. Topics vary. Credit Level: G. Credit Hrs: 5.00

15PHIL870

Seminar: Philosophy of Science

An advanced course exploring topics in philosophy of science. Credit Level: G. Credit Hrs: 5.00

15PHIL871

Seminar: Kant's Ethics

A seminar on Kantian Ethical Theory, including the groundwork of the Metaphysic of Morals. Credit Level: G. Credit Hrs: 5.00

15PHIL872

Seminar: Inductivism and Critical Rationalism

Theory and evidence: can evidence increase the credibility of hypotheses? (Inductivism: yes; Critical Rationalism: no) Can evidence only falsify hypothesis? (Inductivism: no; Critical Rationalism: yes) Credit Level: G. Credit Hrs: 5.00

15PHIL875

Seminar: Epistemology

An examination of recent work in the theory of knowledge, emphasizing approaches to skepticism, naturalized & social epistemology. Credit

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Philosophy**15PHIL875****Seminar: Epistemology**

Level: G. Credit Hrs: 5.00

15PHIL890**Seminar: Mental Representation**

This course will examine recent work in philosophy and psychology on the nature of conceptual representation. Credit Level: G. Credit Hrs: 5.00

15PHIL892**Conceptual Foundations of Population Genetics**

Explores the conceptual foundations of evolutionary theory. Special attention is paid to the reasoning strategies involved in constructing and evaluating theoretical population genetics models. Specific issues include: model structure, individuation, confirmation, and interpretation. More general issues include the present status of the evolutionary synthesis in its historical context. Credit Level: G. Credit Hrs: 5.00

15PHIL897**Seminar: 20th Century Philosophy of Science**

An advanced examination of 20th-century philosophy of science. Credit Level: G. Credit Hrs: 5.00

15PHIL961**Graduate Readings**

Cr. to be arranged. Credit Level: G. Credit Hrs: 1.00-15.00

15PHIL962**Graduate Readings**

Cr. to be arranged. Credit Level: G. Credit Hrs: 1.00-15.00

15PHIL963**Graduate Readings**

Cr. to be arranged. Credit Level: G. Credit Hrs: 1.00-15.00

15PHIL971**Dissertation Research**

Cr. to be arranged. Offered ea. qtr. Credit Level: G. Credit Hrs: 1.00-15.00

15PHIL972**Dissertation Research**

Cr. to be arranged. Credit Level: G. Credit Hrs: 1.00-15.00

15PHIL973**Dissertation Research**

Cr. to be arranged. Credit Level: G. Credit Hrs: 1.00-15.00

Physics**15PHYS101****College Physics**

A survey of physics without calculus. Three lecture hours and one-hour recitation per week. Proficiency in algebra and trigonometry required. Coreq.: Phys. 111. This course does not satisfy the engineering or pre-engineering requirement. Transfer Module. BoK: NS, QR. Credit Level: U. Credit Hrs: 1.00-5.00

15PHYS102**College Physics**

A survey of physics without calculus. Three lecture hours and one-hour recitation per week. Proficiency in algebra and trigonometry required. The second offering in a three-part course sequence. Coreq.: Phys. 112. This course does not satisfy the engineering or pre-engineering requirement. Prereq: 15PHYS101. Transfer Module. BoK: NS, QR. Credit Level: U. Credit Hrs: 1.00-5.00

15PHYS103**College Physics**

A survey of physics without calculus. Three lecture hours and one-hour recitation per week. Proficiency in algebra and trigonometry required. The third offering in a three-part course sequence. Coreq.: Phys. 113.

Physics**15PHYS103****College Physics**

This course does not satisfy the engineering or pre-engineering requirement. Prereq: 15PHYS102. Transfer Module. BoK: NS, QR. Credit Level: U. Credit Hrs: 1.00-5.00

15PHYS104**How Things Work: Roller Coasters to Rocket Ships**

A practical introduction into the Physics and Science of everyday life. This course considers objects from our everyday environment and their principles of operation, histories, and relationships to one another. The emphasis of Physics 104 is on Newton's Laws, and how they are involved in roller coasters, submarines, and rocket ships! Formerly Introductory Physics I. BoK: NS. Credit Level: U. Credit Hrs: 3.00

15PHYS105**How Things Work:GPS Satellites to Global Warming**

A practical introduction into the physics and science of everyday life. This course considers objects from the every day environment and their principles of operation, histories, and relationships to one another. The emphasis is on thermodynamics, relativity and electricity and magnetism, and how they are involved in global warming, automobiles, air-conditioning and power systems. Formerly Introductory Physics II. BoK: NS. Credit Level: U. Credit Hrs: 3.00

15PHYS106**How Things Work: Digital Cameras to Lasers**

A practical introduction into the physics and science of every day life. This course considers objects from the every day environment and their principles of operation, histories and relationship to one another. Emphasis is on waves, optics and quantum mechanics, and how they are involved in digital cameras, lasers, musical instruments, medical imaging and nuclear power. Formerly Introductory Physics III. BoK: NS. Credit Level: U. Credit Hrs: 3.00

15PHYS110**In the Beginning**

Examines in detail the first three minutes of the existence of the universe. The objective is to impart to students a reasonably clear idea of the probable sequence of physical events in the very early universe. Through the power of physical reasoning, one can build a logical, consistent, and compelling picture of the early universe using experimental observations made now, billions of years later. BoK: QR., NS. Credit Level: U. Credit Hrs: 3.00

15PHYS111**College Physics Lab**

A 2-1/2 hour laboratory each week to accompany college physics. Transfer Module. BoK: NA. Credit Level: U. Credit Hrs: 1.00

15PHYS112**College Physics Lab**

A 2-1/2 hour laboratory each week to accompany college physics. The second offering in a three- part course sequence. Transfer Module. BoK: NA. Credit Level: U. Credit Hrs: 1.00

15PHYS113**College Physics Lab**

A 2-1/2 hour laboratory each week to accompany college physics. The third offering in a three- part course sequence. Transfer Module. BoK: NA. Credit Level: U. Credit Hrs: 1.00

15PHYS120**Astronomy: The Solar System**

The sky and its motions. Tides, eclipses, light, and telescopes. The history of Astronomy. Comparative planetology, comets, and other interplanetary debris. Formation and evolution of our solar system. BoK: NS. Credit Level: U. Credit Hrs: 3.00

15PHYS121**Astronomy: Stars and Galaxies**

The sun and solar activity. The structure and evolution of stars. Variable stars, star charts, and coordinate systems. Stellar death, supernova, black holes. The Milky Way, other galaxies, active galaxies, and

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Physics**15PHYS121****Astronomy: Stars and Galaxies**

cosmology. BoK: NS. Credit Level: U. Credit Hrs: 3.00

15PHYS122**Astronomy: Life in the Universe**

The scientific investigation of life in the universe. The chemical and biological evolution of life on earth. The search for life within our solar system. Planetary systems and habitable regions around other stars. The search for extraterrestrial signals of intelligent design. BoK: NS. Credit Level: U. Credit Hrs: 3.00

15PHYS123**Astronomy: Earth and Moon**

The study of earth vicinity solar system phenomena including eclipses, meteors, comets, and asteroids. These phenomena are explained studying the orbit and perturbations of the earth-moon system. The cycle of lunar and solar eclipses, and the influence of astronomy on calendars and time keeping. BoK: NS. Credit Level: U. Credit Hrs: 3.00

15PHYS125**Astronomy Lab**

Meets one morning or evening per week. Selected experiments in astronomy: use of telescopes, astrophotography, solar observations, computers in astronomy. Transfer Module. BoK: NA. Credit Level: U. Credit Hrs: 2.00

15PHYS126**Astronomy Lab**

Meets one morning or evening per week. Selected experiments in astronomy: use of telescopes, astrophotography, solar observations, computers in astronomy. Transfer Module. BoK: NA. Credit Level: U. Credit Hrs: 2.00

15PHYS127**Astronomy Lab**

Meets one morning or evening per week. Selected experiments in astronomy: use of telescopes, astrophotography, solar observations, computers in astronomy. Transfer Module. BoK: NA. Credit Level: U. Credit Hrs: 2.00

15PHYS132**Meteorology: The Physics of Weather and the Environment**

Introduction to the atmosphere, pressure, temperature, precipitation, fluid flow, solar radiation, optical phenomena (rainbows, mirages, sunsets), storms, forecasting and climate. BoK: NS. Credit Level: U. Credit Hrs: 3.00

15PHYS133**Physics of Sound and Music**

A description of acoustical phenomena: the reception of sound (the ear), the environment of music (from acoustics), and the production of musical sounds (musical instruments). Transfer Module. BoK: NS. Credit Level: U. Credit Hrs: 3.00

15PHYS135**Our Elegant Universe**

Topics of Modern Physics, such as a grand unified theory of everything, string theory, extra dimensions of space, the big bang with historical context, non-mathematical conceptual presentation. BoK: QR, NS. Credit Level: U. Credit Hrs: 3.00

15PHYS201**General Physics I**

A survey of physics, using calculus, recommended for science and mathematics students. Coreq.: Phys. 211 Prereq. or Coreq.: Math 261. Transfer Module. BoK: NS, QR. Credit Level: U. Credit Hrs: 4.00

15PHYS201H**Honors General Physics I**

Limited to Honors students. Material covered includes: 1 and 2-D motion, Newton's Laws, energy and momentum conservation, angular motion and momentum, and simple harmonic motion. Coreq: 15MATH251. BoK: QR, NS. Credit Level: U. Credit Hrs: 4.00

Physics**15PHYS201H****Honors General Physics I**

Limited to Honors students. Material covered includes: 1 and 2-D motion, Newton's Laws, energy and momentum conservation, angular motion and momentum, and simple harmonic motion. Coreq: 15MATH251. BoK: QR, NS. Credit Level: U. Credit Hrs: 4.00

15PHYS202**General Physics II**

A survey of physics, using calculus, recommended for science and mathematics students. The second offering in a three-part course sequence. Coreq.: Phys. 212. Prereq. or Coreq.: Math 262. Transfer Module. BoK: NS, QR. Credit Level: U. Credit Hrs: 4.00

15PHYS202H**Honors General Physics II**

Limited to Honors Students. Material covered includes electricity and magnetism. Coreq: 15MATH252. BoK: QR, NS. Credit Level: U. Credit Hrs: 4.00

15PHYS203**General Physics III**

A survey of physics, using calculus, recommended for science and mathematics students. The third offering in a three-part course sequence. Coreq.: Phys. 213. Prereq. or Coreq.: Math 263. Transfer Module. BoK: NS, QR. Credit Level: U. Credit Hrs: 4.00

15PHYS203H**Honors General Physics III**

Limited to Honors students. Material covered includes: waves, thermodynamics and modern physics. Coreq: 15MATH253. BoK: QR, NS. Credit Level: U. Credit Hrs: 4.00

15PHYS204**General Physics for Physics Majors I**

First quarter in Freshman sequence for Physics Majors. Material covered includes: 1 and 2-D motion, Newton's Laws, energy and momentum conservation, angular motion and momentum, and simple harmonic motion. Coreq: 15MATH251, 15PHYS214. BoK: QR, NS. Credit Level: U. Credit Hrs: 4.00

15PHYS205**General Physics for Physics Majors II**

Second quarter in freshman sequence for physics majors. Material covered includes: electricity and magnetism. Prereq: 15PHYS204. Coreq: 15MATH252, 15PHYS215. BoK: QR, NS. Credit Level: U. Credit Hrs: 4.00

15PHYS206**General Physics for Physics Majors III**

Third quarter in freshman sequence for physics majors. Material covered includes: waves, thermodynamics, and modern physics. Prereq: 15PHYS205. Coreq: 15MATH253, 15PHYS213. BoK: QR, NS. Credit Level: U. Credit Hrs: 4.00

15PHYS211**General Physics Laboratory I**

A three-hour laboratory each week accompanying General Physics. Transfer Module. BoK: NA. Credit Level: U. Credit Hrs: 1.00

15PHYS211H**General Physics for Physics Majors Laboratory**

Limited to Honors students. A 3-hour laboratory each week to accompany Honors General Physics I. Coreq: 15PHYS201H. Transfer Module. BoK: NS, QR. Credit Level: U. Credit Hrs: 1.00

15PHYS212**General Physics Laboratory II**

A three-hour laboratory each week accompanying General Physics. Transfer Module. BoK: NA. Credit Level: U. Credit Hrs: 1.00

15PHYS212H**General Physics for Physics Majors Laboratory**

Limited to Honors students. A 3-hour laboratory each week to accompany Honors General Physics II. Coreq: 15PHYS202H. Transfer

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Physics**15PHYS212H****General Physics for Physics Majors Laboratory**

Module. BoK: NS, QR. Credit Level: U. Credit Hrs: 1.00

15PHYS213**General Physics Laboratory III**

A three-hour laboratory each week accompanying General Physics.

Transfer Module. BoK: NA. Credit Level: U. Credit Hrs: 1.00

15PHYS213H**General Physics for Physics Majors Laboratory**

Limited to Honors students. A 3-hour laboratory each week to accompany Honors General Physics III. Transfer Module. BoK: NS, QR. Credit Level: U. Credit Hrs: 1.00

15PHYS214**General Physics for Physics Majors Laboratory**

A 3-hour laboratory each week to accompany General Physics I for Physics Majors Coreq: 15PHYS204. BoK: NS, QR. Credit Level: U. Credit Hrs: 1.00

15PHYS215**General Physics for Physics Majors Laboratory**

A 3-hour laboratory each week to accompany General Physics-II for Physic Majors. Coreq: 15PHYS205. BoK: NS, QR. Credit Level: U. Credit Hrs: 1.00

15PHYS216**General Physics for Physics Majors Laboratory**

A 3 hour laboratory each week accompanying General Physics II for Physics Majors. BoK: NS., QR. Credit Level: U. Credit Hrs: 1.00

15PHYS241**Introduction to Modern Physics**

A survey of modern physics, including relativity, atomic and nuclear structure, the properties of elementary particles, and solid state physics. BoK: NS., QR. Credit Level: U. Credit Hrs: 3.00

15PHYS242**Introduction to Modern Physics**

A survey of modern physics, including relativity, atomic and nuclear structure, the properties of elementary particles, and solid state physics. The second offering in a two-part course sequence. Prereq.: Phys. 241. Prereq: 15PHYS241. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

15PHYS276**Modern Physics for Engineers**

Quantum theory and applications to atomic, nuclear and solid state physics. BoK: NS., QR. Credit Level: U. Credit Hrs: 3.00

15PHYS278**Introduction to Nanoscience and Technology**

An introduction to nanoscience and nanotechnology for undergraduate engineering and science students: nanoparticles, nanoelectronics, nanophotonics, nanobioscience, and societal and ethical implications. BoK: NS., SE. Credit Level: U. Credit Hrs: 3.00

15PHYS279**Experimental Nanoscale Science and Technology**

Introduces students to experimental nanoscale science and technology, including carbon nanotube synthesis, nanotube sensor fabrication and characterization, quantum dot characterization, and gold nanoparticle fabrication and characterization. The experimental techniques learned in this course can be applied to industrial problems and also used as a foundation for performing research in the area of nanoscale science and technology. Prereq: 15PHYS278. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

15PHYS301**Mechanics**

A study of advanced undergraduate mechanics. BoK: NS., QR. Credit Level: U. Credit Hrs: 3.00

Physics**15PHYS302****Mechanics**

A study of advanced undergraduate mechanics. Prereq.: Phys. 301;_Coreq.: Math 342 or equiv. BoK: NS., QR. Credit Level: U. Credit Hrs: 3.00

15PHYS304**Electricity and Magnetism**

A study of advanced undergraduate electricity and magnetism. BoK: NS., QR. Credit Level: U. Credit Hrs: 3.00

15PHYS305**Electricity and Magnetism**

A study of advanced undergraduate electricity and magnetism. Prereq.: Phys. 304; Coreq.: Math 342 or equiv. BoK: NS., QR. Credit Level: U. Credit Hrs: 3.00

15PHYS331**Thermodynamics and Statistical Physics**

Thermodynamics and kinetic theory, with an introduction to statistical mechanics. BoK: NS., QR. Credit Level: U. Credit Hrs: 3.00

15PHYS332**Thermodynamics and Statistical Physics**

Thermodynamics and kinetic theory, with an introduction to statistical mechanics. Prereq.: Phys. 331. BoK: NS., QR. Credit Level: U. Credit Hrs: 3.00

15PHYS341**Advanced Topics in Astronomy**

Explores selected topics in astronomy with an in-depth examination of modern astronomical phenomena such as solar system astronomy and exploration, the birth and death of stars, black holes, and cosmology. Topics may vary from year to year. Can be retaken up to 3 times for 9 crs. Coreq: 15PHYS203, 15PHYS206, 15PHYS353. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00-9.00

15PHYS351**Intermediate Physics I**

A study of intermediate undergraduate mechanics, which includes both analytical methods and laboratory experiments. Prereq: 15PHYS203, 15PHYS213. BoK: NS, QR. Credit Level: U. Credit Hrs: 5.00

15PHYS352**INTERMEDIATE PHYSICS II**

A study of intermediate undergraduate electricity and magnetism, which includes both analytic methods and laboratory experiments. Prereq: 15PHYS351. BoK: NS, QR. Credit Level: U. Credit Hrs: 5.00

15PHYS353**INTERMEDIATE PHYSICS III**

A study of intermediate undergraduate modern physics and quantum physics, which includes both analytical methods and laboratory experiments. Prereq: 15PHYS352. BoK: NS, QR. Credit Level: U. Credit Hrs: 5.00

15PHYS361**Experiments in Modern Physics I**

Students choose from a variety of experiments in modern physics. Typically a student will do two or three experiments in a quarter. The choice of experiments can be tailored to match the student's interests. Prereq: 15PHYS353, 15PHYS276. BoK: QR, NS. Credit Level: U. Credit Hrs: 3.00

15PHYS362**Experiments in Modern Physics II**

Students choose from a variety of experiments in modern physics. Typically a student will do two or three experiments in a quarter. The choice of experiments can be tailored to match the student's interests. Prereq: 15PHYS353, 15PHYS276. BoK: QR, NS. Credit Level: U. Credit Hrs: 3.00

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Physics**15PHYS403****Special Relativity**

A comprehensive introduction to Special Relativity Topics include: Lorentz transformation, paradoxes of relativity, experimental evidence for relativity, relativistic dynamics and electromagnetics. Prereq: 15PHYS301, 15PHYS302, 15PHYS304, 15PHYS305. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

15PHYS410**Computational Physics**

An introduction to computational physics. Topics include: root finding, numerical integration, numerical solution of ordinary and partial differential equations, the study of eigen value problems, Monte Carlo methods, data visualization and topics of current interest. Prereq: 15MATH273. Coreq: 15PHYS353. BoK: QR, NS. Credit Level: U. Credit Hrs: 3.00

15PHYS499**Capstone Project**

A one quarter course normally taken in the spring of the senior year. Required for physics majors. The student is required to complete an independent research or teaching project under faculty supervision and prepare a written report on the project and its results. Proposals are required and due early in the preceding winter quarter. BoK: NS., QR. Credit Level: U. Credit Hrs: 3.00

15PHYS501**Special Problems**

Special readings or experiments under direction of individual staff members. Permission of Department Head required. Cr. arranged. Open also to Honors students. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-15.00

15PHYS502**Special Problems**

Special readings or experiments under direction of individual staff members. Permission of department head required. Cr. arranged. Open also to Honors students. The second offering in a three-part course sequence. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-15.00

15PHYS503**Special Problems**

Special readings or experiments under direction of individual staff members. Permission of department head required. Cr. arranged. Open also to Honors students. The third offering in a three-part course sequence. BoK: QR., NS. Credit Level: U, G. Credit Hrs: 1.00-15.00

15PHYS507**Introductory Quantum Mechanics**

Elements of quantum mechanics with applications to atomic physics, nuclear physics, and solid state physics. BoK: NS., QR. Credit Level: U, G. Credit Hrs: 3.00

15PHYS508**Introductory Quantum Mechanics**

Elements of quantum mechanics with applications to atomic physics, nuclear physics, and solid state physics. The second offering in a two-part course sequence. BoK: NS., QR. Credit Level: U, G. Credit Hrs: 3.00

15PHYS509**Introduction to Quantum Mechanics**

Elements of quantum mechanics with applications to atomic physics, nuclear physics, and solid state physics. The third offering in a three-part sequence. BoK: NS., QR. Credit Level: U, G. Credit Hrs: 3.00

15PHYS511**Advanced Laboratory I**

Modern and seminal classical physics experiments. Prereq: 15PHYS353. BoK: QR, NS. Credit Level: U, G. Credit Hrs: 3.00

15PHYS512**Advanced Laboratory II**

Modern and seminal classical physics experiments. The second offering

Physics**15PHYS512****Advanced Laboratory II**

in a two-part course sequence. Prereq: 15PHYS511. BoK: QR, NS. Credit Level: U, G. Credit Hrs: 3.00

15PHYS521**Introduction to Astrophysics I**

Introduction to modern astrophysics, including stellar structure, the interstellar medium, galactic structure, extragalactic astronomy and cosmology. Prereq: 15PHYS353. BoK: QR, NS. Credit Level: U, G. Credit Hrs: 3.00

15PHYS522**Introduction to Astrophysics II**

Continuation of 15-PHYS-521, Introduction to Astrophysics I Prereq: 15PHYS353. BoK: QR, NS. Credit Level: U, G. Credit Hrs: 3.00

15PHYS541**Special Topics in Contemporary Physics I**

Topics, which vary from year to year, include astrophysics, space physics, general relativity plasma physics, medical physics, advanced optics, and string theory. BoK: QR., NS. Credit Level: U, G. Credit Hrs: 3.00

15PHYS542**Special Topics in Contemporary Physics II**

Topics, which vary from year to year, include astrophysics, space physics, general relativity, plasma physics, medical physics, advanced optics, and string theory. BoK: QR., NS. Credit Level: U, G. Credit Hrs: 3.00

15PHYS611**Medical Imaging Without Ionizing Radiation**

The physics and instrumentation of diagnostic ultrasound, magnetic resonance imaging (MRI), functional MR and MR spectroscopy. Prereq: 15MATH533. BoK: QR, NS. Credit Level: U, G. Credit Hrs: 3.00

15PHYS612**Advanced Topics in MRI**

Quantum mechanical aspects of NMR and methods by which gradient magnetic fields are used to encode NMR signals to produce a magnetic resonance image. Prereq: 15MATH533. Credit Level: G. Credit Hrs: 3.00

15PHYS622**Introduction to Quantum Computing**

An introduction to the rapidly growing field of quantum computing. Taught by several faculty members and aimed at advanced undergraduates or beginning graduate students in Physics, Computer Science, Mathematics and Electrical Engineering. Cross-listed with ECES-622. Prereq: 15PHYS276. BoK: QR, NS. Credit Level: U, G. Credit Hrs: 3.00

15PHYS623**Special Topics in Quantum Computing**

Introduces advanced topics in quantum computing such as quantum algorithms, noise, error-correction, and information theory. Taught by several faculty members and aimed at advanced undergraduates or beginning graduate students. Cross-listed with ECES 753. Prereq: 20ECES622. BoK: QR, NS. Credit Level: U, G. Credit Hrs: 3.00

15PHYS001**Graduate Colloquium**

Required of all graduate students. Cr. to be arranged. Credit Level: G. Credit Hrs: 1.00-3.00

15PHYS002**Graduate Colloquium**

Required of all graduate students. Cr. to be arranged. Second offering in a three-part course sequence. Credit Level: G. Credit Hrs: 1.00-3.00

15PHYS003**Graduate Colloquium**

Required of all graduate students. Cr. to be arranged. Third offering in a three-part course sequence. Credit Level: G. Credit Hrs: 1.00-3.00

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Physics**15PHYS003****Graduate Colloquium**

Required of all graduate students. Cr. to be arranged. Third offering in a three-part course sequence. Credit Level: G. Credit Hrs: 1.00-3.00

15PHYS004**Advanced Seminar**

Research activities in the dept. First-year graduate students must register each qtr. Cr. arranged. Credit Level: G. Credit Hrs: 1.00-3.00

15PHYS005**Advanced Seminar**

Research activities in the dept. First-year graduate students must register each quarter. Cr. arranged. Second offering in a three-part course sequence. Credit Level: G. Credit Hrs: 1.00-3.00

15PHYS006**Advanced Seminar**

Research activities in the dept. First-year graduate students must register each quarter. Cr. arranged. The third offering in a three-part course sequence. Credit Level: G. Credit Hrs: 1.00-3.00

15PHYS007**Advanced Seminar (Graduate)**

Sec. 1, Aeronomy. Sec. 2, High Energy. Sec. 3, Solid State. Cr. arranged. Credit Level: G. Credit Hrs: 1.00-15.00

15PHYS008**Advanced Seminar (Graduate)**

Sec. 1, Aeronomy. Sec. 2, High Energy. Sec.3, solid state. Cr. arranged. Credit Level: G. Credit Hrs: 1.00-15.00

15PHYS009**Advanced Seminar (Graduate)**

Sec. 1, Aeronomy. Sect. 2, High Energy. Sec. 3, solid state. Cr. Arranged. Credit Level: G. Credit Hrs: 1.00-15.00

15PHYS707**Electrodynamics**

Classical theory of electrodynamics and relativity. Credit Level: G. Credit Hrs: 4.00

15PHYS708**Electrodynamics**

Classical theory of electrodynamics and relativity. The second offering in a three-part course sequence. Credit Level: G. Credit Hrs: 4.00

15PHYS710**Quantum Mechanics**

Wave and matrix mechanics, perturbation theory, scattering, and angular momentum. Credit Level: G. Credit Hrs: 4.00

15PHYS711**Quantum Mechanics**

Wave and matrix mechanics, perturbation theory, scattering and angular momentum. The second offering in a three-part course sequence. Prereq.: Phys. 710. Credit Level: G. Credit Hrs: 4.00

15PHYS712**Quantum Mechanics**

Wave and matrix mechanics, perturbation theory, scattering and angular momentum. The third offering in a three-part course sequence. Prereq.: Phys. 711. Credit Level: G. Credit Hrs: 4.00

15PHYS713**Statistical Mechanics**

Kinetic theory and statistical mechanics. Credit Level: G. Credit Hrs: 4.00

15PHYS714**Statistical Mechanics**

Kinetic theory and statistical mechanics. Credit Level: G. Credit Hrs: 4.00

Physics**15PHYS721****Mathematical Physics**

Mathematical methods; linear algebra, complex variables, orthogonal functions, differential equations. Credit Level: G. Credit Hrs: 4.00

15PHYS741**Dynamics**

Lagrangian and Hamiltonian mechanics, small oscillations. Credit Level: G. Credit Hrs: 4.00

15PHYS751**Physics by Inquiry I**

A course for science teachers that covers important introductory concepts in physics with depth and with an emphasis on development of reasoning skills necessary for scientific inquiry. Credit Level: G. Credit Hrs: 2.00-6.00

15PHYS752**Physics by Inquiry II**

A course for science teachers that covers important introductory concepts in physics with depth and with an emphasis on development of reasoning skills necessary for scientific inquiry. The second offering in a three-way course sequence. Credit Level: G. Credit Hrs: 2.00-6.00

15PHYS753**Physics by Inquiry III**

A course for science teachers that covers important introductory concepts in physics with depth and with an emphasis on development of reasoning skills necessary for scientific inquiry. Credit Level: G. Credit Hrs: 2.00-6.00

15PHYS754**Graduate Seminar in Physics Education**

A graduate seminar covering the teaching of physics and research in physics education. Credit Level: G. Credit Hrs: 1.00-4.00

15PHYS801**Biocheminformatics**

This course will discuss the chemistry, biophysics and statistics behind computational methods used to predict the structure and function of proteins and RNA molecules from sequence information. Applications of bioinformatic packages to biophysics problems and development of analysis tools will be emphasized. The thermodynamics and kinetics of folding transitions in biomolecules will be also discussed and illustrated using simplified chain representations. Credit Level: G. Credit Hrs: 3.00

15PHYS802**Molecular Modeling of Biological Systems**

Focuses on the application of computer simulations to the study of biological systems. This course will discuss concepts in classical mechanics, thermodynamics and statistical mechanics and their application to Monte Carlo and molecular dynamics methods. The use of molecular tools will be emphasized. The thermodynamics and kinetics of folding transitions in biomolecules will be also discussed and illustrated using simplified chain representations. Credit Level: G. Credit Hrs: 3.00

15PHYS821**Astrophysics I**

Review of modern astrophysics, including stellar structure, the interstellar medium, galactic structure, extragalactic astronomy and cosmology. Credit Level: G. Credit Hrs: 4.00

15PHYS822**Astrophysics II**

Continuation of 15-PHYS-821, Astrophysics I Credit Level: G. Credit Hrs: 4.00

15PHYS841**Particle Physics**

n Prereq: 15PHYS712. Credit Level: G. Credit Hrs: 4.00

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Physics**15PHYS842****Particle Physics**

4 gr. cr. Prereq: 15PHYS841. Credit Level: G. Credit Hrs: 4.00

15PHYS845**Solid State Physics**

4 gr. cr. Prereq: 15PHYS712. Credit Level: G. Credit Hrs: 4.00

15PHYS846**Solid State Physics**

4 gr. cr. Prereq: 15PHYS845. Credit Level: G. Credit Hrs: 4.00

15PHYS871**Advanced Problems**

Readings or laboratory work in special topics under the direction of individual faculty members. Cr. to be arranged. Offered each quarter. Credit Level: G. Credit Hrs: 1.00-15.00

15PHYS872**Research for the Master's Degree**

Offered ea. qtr. Credit Level: G. Credit Hrs: 1.00-15.00

15PHYS910**Advanced Quantum Mechanics**

The quantum theory of particles and fields. Credit Level: G. Credit Hrs: 4.00

15PHYS911**Advanced Quantum Mechanics**

The quantum theory of particles and fields. Prereq.: Phys. 910. Credit Level: G. Credit Hrs: 4.00

15PHYS913**Field Theory**

Quantum field theory, interactions, renormalization. Prereq: 15PHYS912. Credit Level: G. Credit Hrs: 4.00

15PHYS914**Field Theory**

Quantum field theory, interactions, renormalization. The second offering in a three-part course sequence. Prereq.: Phys. 913. Prereq: 15PHYS913. Credit Level: G. Credit Hrs: 4.00

15PHYS915**Field Theory**

Quantum field theory, interactions, renormalization. The third offering in a three-part course sequence. Prereq.: Phys. 914. Prereq: 15PHYS914. Credit Level: G. Credit Hrs: 4.00

15PHYS919**Special Topics in Theoretical Physics**

Topics recently covered include the renormalization group, superconductivity, magnetism in solids, gauge theories. Credit Level: G. Credit Hrs: 4.00

15PHYS920**Special Topics in Theoretical Physics**

Topics recently covered include the renormalization group, superconductivity, magnetism in solids, gauge theories. Hrs. to be arranged. The second offering in a three-part course sequence. Credit Level: G. Credit Hrs: 4.00

15PHYS921**Special Topics in Theoretical Physics**

Topics recently covered include the renormalization group, superconductivity, magnetism in solids, gauge theories. Hrs. to be arranged. The third offering in a three-part course sequence. Prereq: 15PHYS920. Credit Level: G. Credit Hrs: 4.00

15PHYS925**Advanced Topics in Solid State Physics**

Physics of plasmas, laser light scattering physics, plasmas in solids. Credit Level: G. Credit Hrs: 4.00

Physics**15PHYS926****Advanced Topics in Solid State Physics**

Physics of plasmas, laser light scattering physics, plasmas in solids. Hrs. to be arranged. The second offering in a three-part course sequence. Credit Level: G. Credit Hrs: 4.00

15PHYS927**Advanced Topics in Solid State Physics**

Physics of plasmas, laser light scattering physics, plasmas in solids. Hrs. to be arranged. The third offering in a three-part course sequence. Credit Level: G. Credit Hrs: 4.00

15PHYS937**Advanced Topics in Astrophysics I**

Advanced study of modern astrophysics, including stellar structure, the interstellar medium, galactic structure, extragalactic astronomy, and cosmology. Prereq: 15PHYS821, 15PHYS822. Credit Level: G. Credit Hrs: 4.00

15PHYS971**Research for the Doctorate**

Cr. to be arranged. Offered ea. qtr. Credit Level: G. Credit Hrs: 1.00-15.00

15PHYS973**Readings and Research**

Description not available. Credit Level: G. Credit Hrs: 1.00-15.00

Political Science**15POL110****American Politics**

American political system, ideology, constitutional development; public opinion and voting behavior, pressure groups and political parties, civil rights and civil liberties. Transfer Module. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15POL111**Introduction to American Politics II**

The American political system, ideology, constitutional development; public opinion and voting behavior, pressure groups and political parties, civil rights and civil liberties. Transfer Module. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15POL140**Political Theory**

An examination of the major ideologies which have dominated modern politics. Transfer Module. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15POL160**Comparative Politics**

Fundamentals of comparative government institutions and political processes. Transfer Module. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15POL180**International Relations**

The basic concepts, frameworks, and policies associated with the study of International Relations. Historical examples and contemporary issues and problems. Transfer Module. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15POL210**Introduction to Political Behavior**

Study of citizen politics in Western democracies, political parties, interest groups, socialization and participation. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15POL211**Election in America**

Analysis of American voting behavior and the impact of elections on democratic politics. BoK: SS. Credit Level: U. Credit Hrs: 3.00

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Political Science**15POL212****Political Parties**

Evolution and structure of political parties in the United States; the two-party system; election practices and problems. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15POL216**State and Local Government.**

An analysis of structure, powers and functions of state government, and the problems of relations among state and local government units. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15POL217**The Government and Politics of Ohio.**

Analysis of the structure, powers, and functions of state and local government in Ohio; intergovernmental relations in Ohio; electoral and party politics in Ohio. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15POL219**The American Presidency.**

The office and powers of the president; executive- legislative relations; presidential leadership. Prereq: 15POL110, 15POL111. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15POL220**The American Congress**

The role, organization, and behavior of Congress with reference to problems of representation and policy formulation. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15POL221**The American Supreme Court**

The composition, organization, jurisdiction and decision-making procedures of the Court. Its policy outputs and their impact. Offered in alternate years. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15POL222**Judicial Process**

Structure and functions of American judicial systems; participants in judicial process; process of litigation; influences on judicial decisions; political and governmental consequences of judicial decisions. Offered in alternate years. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15POL231**Government and Public Policy.**

Formation, implementation, and content of selected policies of federal, state, and local governments in the United States. Offered in alternate years. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15POL232**Community Disaster Reconstruction**

Policies and techniques for restoring communities affected by disaster. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15POL235**American Health Policy**

The course goals are to achieve basic understanding of 1) the history of health care delivery in the U.S., 2) the relationship of public and private sector in organizing health care delivery, 3) the role of government in developing health care policy, and 4) comparison to other industrialized countries' health care systems. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15POL240**Development of Political Thought I**

Major schools and theories from Plato to J.S. Mill. Political philosophy's present status and problems. Prereq.: 15-085-140. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15POL241**Development of Political Thought II**

Major schools and theories from Plato to J.S. Mill. Political philosophy's present status and problems. The second offering in a two-part course sequence. Prereq.: 15-085-140. BoK: NA. Credit Level: U. Credit Hrs: 3.00

Political Science**15POL241****Development of Political Thought II**

Major schools and theories from Plato to J.S. Mill. Political philosophy's present status and problems. The second offering in a two-part course sequence. Prereq.: 15-085-140. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15POL245**American Political Thought**

The great ideas and issues which have shaped American political thought. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15POL248**Mass Political Movements**

The etiology of deviant political movements with special emphasis on theories of revolution and totalitarianism. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15POL253**Political Inquiry I: Approaches**

Major approaches to political science; history of the discipline, issues and paradigms. Prereq: 15POL110, 15POL111, 15POL140, 15POL160, 15POL180. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15POL254**Political Inquiry II: Methods**

Assumptions, terminology, methods__and techniques of quantitative research and data analysis in Political Science. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15POL269**Politics in Developing Countries**

Politics in Developing Countries BoK: NA. Credit Level: U. Credit Hrs: 3.00

15POL274**Government and Politics of CIS and Eastern Europe**

3 ug. cr. BoK: SS., DC. Credit Level: U. Credit Hrs: 3.00

15POL280**Approaches to International Politics**

Foreign policies and patterns in world politics. Theories of international relations. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15POL281**Conduct of U.S. Foreign Relations.**

Policy process; roles of the executive and legislative branches of government. Administrative analysis of national policy machinery, diplomacy and foreign service functions. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15POL282**NATO and Alliances in International Politics**

Study of NATO and alliance theory. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15POL283**International Cooperation: Theory**

Examines international cooperation theory, and the issues of why nations cooperate, the forms of cooperation, and how it is attained and sustained. Covers topics such as cooperation theory, regimes, institutions, norms, bargaining, and the politics of cooperation. Prereq: 15POL180. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15POL284**US National Security Policy**

Assessment of US National Security, issues of foreign policy, Homeland Security and the War on Terror. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15POL285**Politics of Terrorism**

The problems of terrorism in a global perspective. Prereq: 15POL180, 15POL160. BoK: NA. Credit Level: U. Credit Hrs: 3.00

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Political Science

15POL286

Security Policies of Asian States

Examines the defense and security policies of Asian states, internal and external threats to their national security, their political and military options against these threats, and their experience with war and conflict. Prereq: 15POL180. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15POL287

Politics of Human Rights

Concepts and policies dealing with promotion and protection of human rights world-wide. BoK: SS., SE. Credit Level: U. Credit Hrs: 3.00

15POL288

International Law

The conceptual sources, history, scope, and current effect of international law as applied to interstate relations. Offered alternate years. BoK: SS., SE. Credit Level: U. Credit Hrs: 3.00

15POL289

International Organization

Structure and functions of the United Nations and other major international organizations. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15POL293

Political Intelligence/Counterintelligence

A study of the roll of intelligence and counterintelligence in a democratic society; the tension between openness and secrecy. BoK: SS., DC. Credit Level: U. Credit Hrs: 3.00

15POL294

Honors: Special Topics

Research in one of the undergraduate fields of the department, with consent of the instructor. BoK: NA. Credit Level: U. Credit Hrs: 3.00-4.00

15POL295

Honors: Special Topics

Research in one of the undergraduate fields of the department, with consent of instructor. BoK: NA. Credit Level: U. Credit Hrs: 3.00-4.00

15POL296

Honors: Special Topics

Research in one of the undergraduate fields of the department, with consent of the instructor. BoK: NA. Credit Level: U. Credit Hrs: 3.00-4.00

15POL310

Public Opinion

Formation, distribution, and properties of public opinion and its linkage to the governmental process in America. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15POL311

Political Psychology

Psychological aspects of politics, political attitudes, and public opinion. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15POL313

Political Participation

Analyze causes and consequences of citizen political participation in modern democracy. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15POL314

Women and Politics

Political roots of the feminist movement; women's role in contemporary political life. BoK: SS., DC. Credit Level: U. Credit Hrs: 3.00

15POL315

Electing the President

3 ug. cr. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15POL316

Polls, Elections, and Politics

Role of public opinion and election polls in American politics; how polls are conducted; mass media coverage, analysis, and interpretation of

Political Science

15POL316

Polls, Elections, and Politics

poll results; positive and negative influence of polls in democracies. BoK: SS., QR. Credit Level: U. Credit Hrs: 3.00

15POL318

Black Leadership in 20th Century

Introduction to urban political structures and policy processes; political behavior in the urban area. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15POL319

Religion and Politics in America

Study of the role of religion and religious movements in American politics, including the religious right and creationism in modern America; issues include abortion, prayer in public schools, and separation of church and state. Prereq: 15POL110, 15POL111. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15POL321

Constitutional Law: Federal System

Principles of American Constitution and their development by judicial interpretation. Conflicts over national judicial, legislative and executive power and state-federal relations. Prereq: 15POL221. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15POL322

Constitutional Law: Civil Rights.

Due process and Constitutional requirements in criminal procedure. Equal protection of the law. Special emphasis on the 5th and 14th Amendments. BoK: SS., SE. Credit Level: U. Credit Hrs: 3.00

15POL323

Constitutional Law: Civil Liberties.

First Amendment freedoms of speech, press, assembly and religion. Prereq: 15POL322. BoK: SS, SE. Credit Level: U. Credit Hrs: 3.00

15POL331

Environmental Policy and Administration

Concepts, issues, policies, and legal structures related to environmental protection and energy. Offered alternate years. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15POL332

Regulatory Policy and Administration.

Politics, issues, processes in government regulation of the economy. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15POL333

The Future of the Welfare State

Social welfare policies, implementation, success, and failure. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15POL334

Emergency Management Policy and Administration

Review and analysis of federal, state, and local crisis and emergency management policy and administration. BoK: SS. Credit Level: U. Credit Hrs: 3.00-4.00

15POL340

Progressivism in Political Theory

Study of progressivism and how it appears in past and present political theory; conflicts created by progressive political theory. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15POL341

Marx and the Marxist Tradition

Marxism, Leninism, Salinism; application of Communist theory; revisionism and dogmatism in Communist theory and practice. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15POL342

Contemporary Political Thought.

3 ug. cr. BoK: NA. Credit Level: U. Credit Hrs: 3.00

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Political Science**15POL343****Citizenship and Terrorism in Modern Society**

Explores the political theory supporting modern citizenship and terrorism. Prereq: 15POL140. BoK: SS. Credit Level: U. Credit Hrs: 3.00-4.00

15POL344**The Internet and Democratic Politics**

How will computer mediated communication (CMC) via the internet effect democratic politics? Will CMC increase the effectiveness of ordinary citizens, strengthen the power of politics elites, or simply reinforce the status quo? Prereq: 15POL140. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15POL345**Political Theory of the U.S. Constitution.**

This course will examine the fundamental political ideas which influenced the creation of the U.S. Constitution. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15POL346**State Theory**

Overview and analysis of major 19th and 20th-century state theories and their origins. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15POL347**Political Theory and the Administrative State**

The way that any given political theory conceptualizes the state, its purposes and legitimacy, significantly influences the way that administration occurs within this state. This course will consider the major state theories and show how each translates into a specific vision of administration. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15POL348**Politics of Protest**

Forms and strategy of political protest; political violence, confrontation; militancy, civil disobedience. Prereq.: 200 Level Theory. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15POL349**The Politics of Protest II**

Forms and strategy of political protest; political violence, confrontation; militancy, civil disobedience. The second offering in a two-part course sequence. Prereq.: 200 Level Theory. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15POL352**Introduction to Statistics for Political Science**

4 ug. cr. BoK: SS., QR. Credit Level: U. Credit Hrs: 4.00

15POL356**Models of Political Choice and Conflict**

Survey of formal methods of political analysis: game theory, social choice and deductive modeling. Analysis of collective choice, voting rules, paradoxes, impossibility theorems, evaluation of equilibria, strategic manipulation, agenda, control, vote trading and other political phenomena. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15POL360**Approaches to Comparative Politics**

Survey of concepts, approaches, & research strategies in comparative politics. Prereq: 15POL160. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15POL364**Newly Industrializing Countries of Asia**

Analysis of politics of industrialization and modernization in NICs in East Asia. Includes alternative strategies for political and economic development in Taiwan, Hong Kong, China, and South Korea. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15POL365**Women and Politics in the Third World**

A survey of women and politics in the third world. Prereq: 15POL160. BoK: SS, DC. Credit Level: U. Credit Hrs: 3.00

Political Science**15POL367****Civil War and Political Violence**

Explores ethnic conflict and civil wars, including genocide, terrorism, and child soldiers in the Middle East, Africa, South Asia, and Europe. Prereq: 15POL180. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15POL368**Nationalism and Identity Politics**

Various theories and approaches to nationalism and other forms of identity politics. They will apply these theories through international and comparative case studies, and policy analyses. Prereq: 15POL160. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15POL370**Politics of Islam**

Islamic political theories; Islam as an historic civilization and as a modern state system; fundamentalism; Islam and the West. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15POL371**Middle East Conflicts I**

3 ug. cr. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15POL372**Middle East Conflicts II**

3 ug. cr. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15POL373**Problems and Prospects of Democratic Citizenship**

This course analyzes the problems democratic citizens face, and assesses strategies proposed to deal with those problems. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15POL376**Politics of the European Union**

History, institutions, policies, and theories the European Union. Prereq: 15POL160. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15POL380**Regional Politics in Asia**

Examines regional politics in Asia, and the role of regional organizations in coordinating national policies on political, economic, and social issues. BoK: SS., DC. Credit Level: U. Credit Hrs: 3.00

15POL381**U.S. Foreign Policy**

Policy aspects of contemporary U.S. foreign relations with modernized states, Europe and the Soviet Union. Offered alternate years. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15POL382**U.S. Foreign Policy and Developing Countries**

Contemporary U.S. foreign relations with the less developed states, Latin America and Asia. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15POL383**Conflict in International Relations**

Concepts and theories associated with the causes, management, and resolution of international conflict. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15POL384**International Crisis Decision-Making.**

Examines decision making theories and the phenomenon of crisis. Students engage in decision- making simulation. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15POL385**International Security Policy**

Analysis of international security issues, e.g., regional conflicts. Nuclear and conventional arms races and efforts to contain and reduce them. Offered alternate years. BoK: NA. Credit Level: U. Credit Hrs: 3.00

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Political Science**15POL386****International Relations in East Asia**

Pattern of international politics in East Asia; emphasis on post-1945 period. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15POL387**Politics of Vietnam War**

An exploration of the way in which cold war theoretical perspectives and domestic policies come together to involve America in its longest and most controversial war. Theories of containment and balance of power are viewed in terms of the political decision making and the military contest. At the same time, American perspectives are compared to Vietnamese perspectives, i.e., how the Vietnamese saw the war in both domestic and geopolitical terms. The influence of political BoK: NA. Credit Level: U. Credit Hrs: 3.00

15POL388**International Cooperation: Asia**

Examines international cooperation among Asian states on strategic, political, economic, social, and science and technology issues, the breadth and depth of bilateral and multilateral cooperation, and regional organizations in Asia. Prereq: 15POL180. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15POL389**Politics of International Economic Affairs**

Political aspects of international economic relations among developed countries and between developed and Third World nations. Offered in alternate years. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15POL395H**Globalization and Its Discontents**

This course provides an interdisciplinary examination of the economic, social, and political consequences of globalization in the contemporary world. Topics will cover the implications of globalization both for national policy and international relations. BoK: SS., DC. Credit Level: U. Credit Hrs: 3.00

15POL396H**Creation vs Evolution: Science, Religion, and Politics in America Honors**

This honors course examines the creation/evolution controversy from Darwin's Origin of Species to the Scopes "Trial of the Century" to the creationist movement in Modern American society. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15POL397H**Abolition of 21st Century Slavery**

An interdisciplinary human rights seminar covering US and international law against trafficking, the comparative economics of forced labor, politics of the freedom movement, the moral/religious crusade against prostitution, and historical evolution of the campaign. Service and experiential learning with Cincinnati-based Freedom Center Museum and Restavek Foundation (Haitian child slaves), YWCA Rescue Project, and US and international interest groups/NGO's. BoK: DC., SE. Credit Level: U. Credit Hrs: 3.00

15POL398**Politics in a New Europe**

This course examines the major events and issues in contemporary Europe. Honors special topic. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15POL399H**Education and Power**

The politics of education challenges students to reconsider concepts including power and equity. Students will: 1) read and debate research on education and power in political science and other social sciences 2) better understand policies such as multilingual education and affirmative action through international comparisons, and 3) interact with local educational institutions. BoK: DC., SE. Credit Level: U. Credit Hrs: 3.00

Political Science**15POL401****Political Science Special Topics: Political Intelligence.**

University Honors Program course. Perm of Instructor. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15POL405**Internship Seminar.**

Examines the interrelationship between various governmental actors, the influence of organized interest groups, electoral process, and the formulation and implementation of public policy. Internship positions may be paying or non-paying with elected officials; federal, state, or local agencies; interest groups; political party organizations. Students are expected to work a minimum of 12 hours a week and prepare short papers as well as a major research paper. Perm of Instructor. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15POL406**Internship Practicum.**

This course builds on the internships experience students received in Political Science 405. Perm of Instructor. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15POL410**Individual Work: American Politics**

Open only to Political Science and International Affairs majors who complete either directed readings or relevant practical work. Perm of Instructor. BoK: NA. Credit Level: U. Credit Hrs: 1.00-6.00

15POL411**Individual Work Amer.**

INDIV WORK AMER Perm of Instructor. BoK: NA. Credit Level: U. Credit Hrs: 1.00-3.00

15POL412**Public Opinion**

PUBLIC OPINION BoK: NA. Credit Level: U. Credit Hrs: 3.00

15POL430**Practicum in Homeland Security and Emergency Management.**

Field experience working with security practitioners in the private or public sectors. BoK: NA. Credit Level: U. Credit Hrs: 1.00-5.00

15POL440**Individual Work: Political Theory**

Open only to political science and international affairs majors who complete either directed readings or relevant practical work. Perm of Instructor. BoK: NA. Credit Level: U. Credit Hrs: 1.00-4.00

15POL460**Individual Work: Comparative Politics**

Open only to political science and international affairs majors who complete either directed readings or relevant practical work. Perm of Instructor. BoK: NA. Credit Level: U. Credit Hrs: 1.00-6.00

15POL480**Individual Work: International Relations**

Open only to political science and international affairs majors who complete either directed readings or relevant practical work. Perm of Instructor. BoK: NA. Credit Level: U. Credit Hrs: 1.00-6.00

15POL490**Senior Project**

Required for both the political science and international affairs majors. Perm of Instructor. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15POL491**Individual Work**

Description not available from department. Perm of Instructor. BoK: NA. Credit Level: U. Credit Hrs: 1.00-3.00

15POL495**Senior Thesis -- Honors**

Description not available. Perm of Instructor. BoK: NA. Credit Level: U. Credit Hrs: 3.00-6.00

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Political Science**15POL496****Senior Thesis -- Honors**

n Perm of Instructor. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15POL499**Honors: Individual Study**

Description not available. Perm of Instructor. BoK: NA. Credit Level: U. Credit Hrs: 3.00-4.00

15POL510**American Public Opinion**

Formation, distribution, and properties of public opinion and its linkage to the governmental process in America. BoK: SS., HU. Credit Level: U, G. Credit Hrs: 3.00-4.00

15POL511**Elections in America**

Description not available. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

15POL512**Political Parties**

Description not available. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

15POL513**Campaign Management and Elections**

Introduces students to the concepts of campaign strategy, and analysis of election results. Involvement in actual political campaigns is encouraged but not required. Graduate students will conduct an empirical analysis of one or more elections. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

15POL514**Communication and Presidential Campaigns**

An examination and analysis of the communication strategies and techniques used by modern (1960 and beyond) presidential candidates. BoK: HP., SS. Credit Level: U, G. Credit Hrs: 3.00

15POL515**The Rhetoric of Presidential Debates**

Case studies of contemporary persuasive campaigns by individuals and/or organizations. BoK: HP. Credit Level: U. Credit Hrs: 3.00

15POL516**Polls, Elections, and Politics**

Role of public opinion and election polls in American politics; how polls are conducted; mass media coverage, analysis, and interpretation of poll results; positive and negative influence of polls in democracies. Prereq: 15POL110, 15POL111, 15POL140, 15POL160, 15POL180. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00-4.00

15POL517**Media and United States Politics**

The role of the media in American politics, including American exposure to different media; the place of the media in electoral politics, and the media's impact on American government. BoK: SS. Credit Level: U, G. Credit Hrs: 3.00-4.00

15POL518**The Rhetorical Presidency**

An examination and analysis of the rhetorical genres of the contemporary Presidency. BoK: HU., SS. Credit Level: U, G. Credit Hrs: 3.00-4.00

15POL519**American Presidency**

Description not available. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

15POL520**American Congress**

Description not available. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

Political Science**15POL521****American Supreme Court**

Description not available. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

15POL522**Judicial Process**

n BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

15POL523**Women and Politics**

Political roots of the feminist movement; women's role in contemporary political life. BoK: SS., DC. Credit Level: U, G. Credit Hrs: 3.00-4.00

15POL524**Women and Campaign Communication**

An examination and analysis of the campaign communication strategies used by and for women who have sought or who are seeking elective office in the United States. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15POL525**Domestic Sources of American Foreign Policy**

An examination of the influence of the president, executive departments, Congress, the intelligence community elites, and public opinion on American foreign policy. BoK: SE., SS. Credit Level: U, G. Credit Hrs: 3.00-4.00

15POL526**Public Administration**

Introduction to administrative theory and practice as applied to public administration. Prereq: 15POL110, 15POL111. BoK: HU, SS. Credit Level: U, G. Credit Hrs: 3.00-4.00

15POL527**Religion, Science, and Politics**

Study of the role of religion and religious movements in American politics, including the religious right and creationism in modern America; issues include abortion, prayer in public schools, and separation of church and state. Prereq: 15POL110, 15POL111, 15POL140, 15POL160, 15POL180. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00-4.00

15POL531**Government and Public Policy**

Formation, implementation, and content of selected policies of federal, state, and local governments in the United States. BoK: SS. Credit Level: U, G. Credit Hrs: 3.00-4.00

15POL532**Community Development: Theory and Practice**

A seminar using common readings and group work exploring theory and practice in community and economic development. Students will learn about frameworks for examining community development policies and projects to include such considerations as public participation, equity design, the role of community organizations, and government. The class will involve lectures, discussion, field trips, and a group project(s) that will be determined by one or more actual developments in Cincinnati in which students will be involved in an interdisciplinary study in planning, architecture, and the like analysis of a real project(s) at the neighborhood, city, or regional level. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00-4.00

15POL534**Emergency Management Policy**

Review and analysis of federal, state, and local crisis and emergency management policy and administration. BoK: SS. Credit Level: U, G. Credit Hrs: 3.00-4.00

15POL535**American Health Policy**

Course goals are to achieve basic understanding of 1) the history of health care delivery in the U.S., 2) the relationship of public and private sector in organizing health care delivery, 3) the role of government in developing health care policy, and 4) comparison to other industrialized

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Political Science

15POL535

American Health Policy

countries' health care systems. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

15POL536

Security and Intergovernmental Relations

Describes the complex problems of managing and coordinating governments within the American Federal System; focuses upon the new security problems posed by homeland security. BoK: HU., SS. Credit Level: U, G. Credit Hrs: 3.00-4.00

15POL540

Progressivism in Political Theory

Study of progressivism and how it appears in past and present political theory; conflicts created by progressive political theory. BoK: SS., DC. Credit Level: U, G. Credit Hrs: 3.00-4.00

15POL541

Development of Political Thought II

Description not available. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

15POL543

Citizenship and Terrorism

Discusses the complex problems terrorism creates for citizenship. BoK: SS., DC. Credit Level: U, G. Credit Hrs: 3.00-4.00

15POL545

American Political Thought

Description not available. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

15POL546

State Theory

Overview and analysis of major 19th and 20th century state theories and their origin. BoK: HU., SS. Credit Level: U, G. Credit Hrs: 3.00-4.00

15POL547

Politics and Literature

Through literature and film this course will explore political commentary. Each quarter will focus on a particular topic (e.g. political satire, Utopias, political novels, Nobel laureates in literature) with a selection of books, stories, poetry, films, and/or plays. Class will feature assigned and chosen readings, discussions, class presentations, and papers. BoK: SS., LT. Credit Level: U, G. Credit Hrs: 3.00-4.00

15POL548

Mass Political Movements

Description not available. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

15POL552

SPSS

n BoK: NA. Credit Level: U, G. Credit Hrs: 2.00-4.00

15POL553

Intro to Political Science

Assumptions, terminology, methods, and techniques of quantitative research and data analysis in Political Science. BoK: NA. Credit Level: G, U. Credit Hrs: 4.00

15POL554

Intro Political Analysis

Major approaches to political science; history of the discipline, issues and paradigms. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

15POL555

Introduction to Survey Research

Principles, methods, and techniques for designing, conducting, and analyzing surveys; sampling procedures; questionnaire construction; data collection, processing and analysis; ethics of polls. Prereq: 15POL253, 15POL254. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00-4.00

Political Science

15POL557

Proseminar: Survey Research

Methodological aspects of survey design and analysis. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00-4.00

15POL559

Practicum in Survey Research

Application of survey methods: sampling, questionnaire design, data collection, and analysis. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00-4.00

15POL560

Approaches to Comparative Politics

Survey of concepts, approaches, and research strategies in comparative politics. Prereq: 15POL160. BoK: SS, DC. Credit Level: U, G. Credit Hrs: 3.00-4.00

15POL561

Government and Politics of Japan

Political traditions, institutions, processes and major political issues. Prereq: 15POL160. BoK: SS, DC. Credit Level: U, G. Credit Hrs: 3.00-4.00

15POL562

Government and Politics of Korea

Political traditions, institutions, processes and major political issues. Prereq: 15POL160. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00-4.00

15POL563

Government and Politics of China

Political traditions, institutions, processes, and major political issues. Prereq: 15POL160. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00-4.00

15POL564

Politics in South Asia

Survey of the traditions, institutions and political issues found in the main states of South Asia. Prereq: 15POL160. BoK: SS, DC. Credit Level: U, G. Credit Hrs: 3.00-4.00

15POL565

Government and Politics of Latin America

Survey of selected Latin American countries that examines institutions and processes, political culture, and political behavior. BoK: HU., DC. Credit Level: U, G. Credit Hrs: 3.00-4.00

15POL566

Government and Politics of Canada

Development of the Canadian parliamentary system, federalism, parties and elections, biculturalism, and relations with the U.S. Prereq: 15POL160. BoK: SS, DC. Credit Level: U, G. Credit Hrs: 3.00-4.00

15POL567

Civil War and Political Violence

Explores ethnic and civil wars, including genocide, terrorism, and child soldiers in the Middle East, Africa, South Asia, and Europe. Prereq: 15POL180. BoK: DC, SS. Credit Level: U, G. Credit Hrs: 3.00-4.00

15POL568

Nationalism and Identity Politics

Various theories and approaches to nationalism and other forms of identity politics. These theories will be applied through international and comparative case studies, and policy analysis. Prereq: 15POL160. BoK: DC, SS. Credit Level: U, G. Credit Hrs: 3.00-4.00

15POL569

Politics of Developing Countries

Description not available. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

15POL570

Comparative Political Behavior

This course summarizes citizens involvement in and opinions about government in advanced industrial societies. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00-4.00

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LT: Literature. NS: Natural Sciences. QR: Quantitative Reasoning. SE: Social & Ethical Issues. SS: Social Sciences.

Political Science**15POL571****Government and Politics of Middle East I**

Introduction to the government and politics of the Middle East. Includes discussions of Islam, revolution, and terrorism. BoK: SS., DC. Credit Level: U, G. Credit Hrs: 3.00-4.00

15POL572**Government and Politics of Middle East II**

The Arab-Israeli conflict in detail; intra-Arab and inter-Arab political relations as well as Israeli policy and government responses to violence. Prereq: 15POL271. BoK: SS, DC. Credit Level: U, G. Credit Hrs: 3.00-4.00

15POL574**Government and Politics of Russia**

Introduction to the politics and government of the Russian Federation through examination of the geopolitical, cultural, and historical foundations that brought it into being as well as the constitutional, institutional, political, economic, and foreign policy realities that have been evolving since its inception. BoK: SS., DC. Credit Level: U, G. Credit Hrs: 3.00-4.00

15POL575**Government and Politics of East and Central Europe**

An examination of the political currents influencing the development of former Soviet bloc states in Eastern and central Europe. Includes themes of continuity and change from the pre-Soviet period to the present, and the current relationships of these to Russia. Prereq: 15POL160. BoK: SS, DC. Credit Level: U, G. Credit Hrs: 3.00-4.00

15POL576**Politics of the European Union**

History, institutions, policies, and theories of the European Union. Prereq: 15POL160. BoK: DC, SS. Credit Level: U, G. Credit Hrs: 3.00-4.00

15POL577**Government and Politics of Europe I**

A survey of key developments in European politics. Prereq: 15POL160. BoK: HU, SS. Credit Level: U, G. Credit Hrs: 3.00-4.00

15POL578**Government and Politics of Europe II**

Description not available. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00-4.00

15POL579**Women and Politics in the Third World**

A survey of women and politics in the third world. Prereq: 15POL160. BoK: DC, SS. Credit Level: U, G. Credit Hrs: 3.00-4.00

15POL580**Approaches to International Politics**

Foreign policies and patterns in world politics; theories of international relations. Prereq: 15POL180. BoK: SS, DC. Credit Level: U, G. Credit Hrs: 3.00-4.00

15POL581**US Foreign Policy: Institutions and Processes**

Policy process; roles of the executive and legislative branches of government; administrative analysis of national policy machinery, diplomacy and foreign service functions. Prereq: 15POL180. BoK: SS, DC. Credit Level: U, G. Credit Hrs: 3.00-4.00

15POL582**Alliances and Alignment in International Relations**

Study of NATO and alliance theory BoK: SS., DC. Credit Level: U, G. Credit Hrs: 3.00-4.00

15POL583**International Cooperation**

Examines international cooperation theory and the issues of why nations cooperate, the forms of cooperation, and how it is attained and sustained. Covers topics such as cooperation theory, regimes, institutions, norms, bargaining, and the politics of cooperation. Prereq:

Political Science**15POL583****International Cooperation**

15POL180. BoK: SS, DC. Credit Level: U, G. Credit Hrs: 3.00-4.00

15POL584**National Security Policy**

Approaches to and issues in National Security Policy. Political, military, economic, and other aspects of security studies will be covered. BoK: SS., DC. Credit Level: U, G. Credit Hrs: 3.00-4.00

15POL585**Terrorism**

The problems of terrorism in a global perspective. Prereq: 15POL160, 15POL180. BoK: SS, DC. Credit Level: U, G. Credit Hrs: 3.00-4.00

15POL586**Security and Conflict-Asia**

Examines security & conflict in contemporary Asia, the security threats facing Asian countries, including state-building, terrorism, civil and international war. Also examines political and military options against these threats, including alliances and conventional & nuclear deterrence. BoK: DC., SS. Credit Level: U, G. Credit Hrs: 3.00

15POL587**Asian Regional Politics**

Examines regional politics in Asia, and the role of regional organizations in coordinating national policies on political, economic, and social issues. BoK: SS., DC. Credit Level: U, G. Credit Hrs: 3.00-4.00

15POL588**US Foreign Policy: Globalization**

Contemporary US foreign relations with the less developed states, Latin America and Asia. Prereq: 15POL280. BoK: SS, DC. Credit Level: U, G. Credit Hrs: 3.00-4.00

15POL589**International Conflict**

Concepts and theories associated with the causes, management, and resolution of international conflict. Prereq: 15POL180, 15POL280. BoK: SS, DC. Credit Level: U, G. Credit Hrs: 3.00-4.00

15POL590**International Crisis Management**

Examines decision making theories and the phenomenon of crisis. Students engage in decision-making simulation. Prereq: 15POL180, 15POL280. BoK: SS, DC. Credit Level: U, G. Credit Hrs: 3.00-4.00

15POL591**International Politics in E. Asia**

Pattern of International politics in East Asia; emphasis on post - 1945 period. Prereq: 15POL280. BoK: SS, DC. Credit Level: U, G. Credit Hrs: 3.00-4.00

15POL592**International Political Economy**

Political aspects of international economic relations among developed countries and between developed and Third world nations. Prereq: 15POL180, 15POL280. BoK: SS, DC. Credit Level: U, G. Credit Hrs: 3.00-4.00

15POL602**Global Biodiversity: Law & Policy**

Examines domestic and international policies and laws relating to biodiversity conservation management. Addresses relevant laws and regulations such as the Endangered Species Act; international conventions and treaties on biological diversity, and key institutions involved in biodiversity protects. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

15POL610**Public Opinion**

Description not available. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

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Political Science**15POL611****Political Psychology**

4 ug. or gr. cr. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

15POL612**Political Socialization**

4 ug. or gr. cr. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

15POL613**Political Participation**

4 ug. or gr. cr. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

15POL614**Women and Politics**

4 ug. or gr. cr. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

15POL615**Electing the President**

4 ug. or gr. cr. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

15POL617**The Mass Media and United States Politics**

This course covers the role of the media in American Politics, including American exposure to different media. The place of the media in electoral politics, and the media's impact on American Government. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

15POL618**Urban Politics**

URBAN POLITICS BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

15POL621**Constitutional Law: Federal System**

4 ug. or gr. cr. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

15POL622**Constitutional Law: Civil Rights**

4 ug. or gr. cr. Prereq: 15POL621. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

15POL623**Constitutional Law: Civil Liberties**

4 ug. or gr. cr. Prereq: 15POL622. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

15POL631**Environmental Policy and Administration**

4 ug. or gr. cr. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

15POL632**Regulatory Policy and Administration**

4 ug. or gr. cr. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

15POL633**Welfare State**

4 ug. or gr. cr. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

15POL634**Emergency Management Policy and Administration**

Review and analysis of federal, state, and local crisis and emergency management policy and administration. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00-4.00

15POL640**Progressivism in Political Theory**

Study of progressivism and how it appears in past and present political theory; conflicts created by progressive political theory. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

15POL641**Marx and Marxist Tradition**

4 ug. or gr. cr. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

Political Science**15POL642****Contemporary Political Thought**

4 ug. or gr. cr. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

15POL643**Citizenship and Terrorism in Modern Society**

Explores the political theory supporting modern citizenship and terrorism. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00-4.00

15POL644**The Internet and Democratic Politics**

How will computer mediated communication (CMC) via the internet effect democratic politics? Will CMC increase the effectiveness of ordinary citizens, strengthen the power of political elites, or simply reinforce the status quo? Prereq: 15POL550. BoK: NA. Credit Level: G, U. Credit Hrs: 4.00

15POL645**Political Theory of the Constitution**

4 ug. or gr. cr. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

15POL646**State Theory**

Overview and analysis of major 19th and 20th-century state theories and their origins. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

15POL647**Political Theory and Administrative State**

4 ug. or gr. cr. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

15POL648**Politics of Protest**

4 ug. or gr. cr. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

15POL649**Politics of Protest II**

4 ug. or gr. cr. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

15POL652**Statistics for Political Science**

4 ug. or gr. cr. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

15POL656**Models of Political Choice and Conflict**

Survey of formal methods of political analysis: game theory, social choice and deductive modeling. Analysis of collective choice, voting rules, paradoxes, impossibility theorems, evaluation of equilibria, strategic manipulation, agenda control, vote trading and other political phenomena. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

15POL660**Approaches to Comparative Politics**

Survey of concepts, approaches, and research strategies in comparative politics. Prereq: 15POL160. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

15POL664**Newly Industrialized Countries of Asia**

This is a four credit version of 364 intended primarily for graduate students. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

15POL665**Women and Politics in Third World**

A survey of women and politics in the third world. Prereq: 15POL160. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

15POL667**Civil War and Political Violence**

Explores ethnic conflict and civil war, including genocide, terrorism, and child soldiers in the Middle East, Africa, South Asia, and Europe. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00-4.00

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LT: Literature. NS: Natural Sciences. QR: Quantitative Reasoning. SE: Social & Ethical Issues. SS: Social Sciences.

Political Science**15POL670****Politics of Islam**

Description not available. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

15POL673**Problems and Prospects of Democratic Citizenship**

This course analyzes the problems democratic citizens face, and assesses strategies proposed to deal with those problems. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

15POL680**Regional Politics in Asia**

Examines regional politics in Asia, and the role of regional organizations in coordinating national policies on political, economic, and social issues. BoK: SS., DC. Credit Level: U, G. Credit Hrs: 1.00-3.00

15POL681**U.S. Foreign Policy**

Prereq.: 500 level International Relations. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

15POL682**U.S. Foreign Policy in Developing Countries**

Prereq.: 500 level International Relations. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

15POL684**International Crisis Decision-Making**

Prereq.: 500 level International Relations. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

15POL685**International Security Policy**

Prereq.: 500 level International Relations. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

15POL686**International Relations in East Asia**

International Relations in East Asia BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

15POL688**International Cooperation: Asia**

This class examines international cooperation among Asian states on strategic, political, social, and science and technology issues. It studies the breadth and depth of bilateral and multilateral cooperation, and explores the operation of regional organizations in Asia. BoK: NA. Credit Level: U, G. Credit Hrs: 2.00

15POL689**Politics of International Economic Affairs**

Prereq.: 500 level International Relations BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

15POL616**Polls, Elections, and Politics**

Role of Public opinion and election polls in American politics; how polls are conducted; mass media coverage, analysis, and interpretation of poll results; positive and negative influence of polls in democracies. Credit Level: G. Credit Hrs: 4.00

15POL619**Religion and Politics in America**

Study of the role of religion and religious movements in American politics, including the religious right and creationism in modern America; issues include abortion, prayer in public schools, and separation of church and state. Credit Level: G. Credit Hrs: 4.00

15POL620**The Legislative Process**

Advanced study of legislatures. Study of U.S. Congress, U.S. state legislatures and legislatures in other countries. Institutional, historical, comparative and formal theories of the behavior of legislatures and legislators. Mass, elite and interest group representation in legislatures. Credit Level: G. Credit Hrs: 4.00

Political Science**15POL620****The Legislative Process**

Advanced study of legislatures. Study of U.S. Congress, U.S. state legislatures and legislatures in other countries. Institutional, historical, comparative and formal theories of the behavior of legislatures and legislators. Mass, elite and interest group representation in legislatures. Credit Level: G. Credit Hrs: 4.00

15POL626**Security and Inter-Government Relations**

Describes the complex problem of managing and coordinating governments within the American Federal System; focuses upon the new security problems posed by homeland security. Credit Level: G. Credit Hrs: 4.00

15POL668**Nationalism and Identity Politics**

Various theories and approaches to nationalism and other forms of identity politics. They will apply these theories through international and comparative case studies, and policy analyses. Credit Level: G. Credit Hrs: 4.00

15POL671**Middle East Conflict I**

Introduction to the Government and Politics of the Middle East. Includes discussions of Islam, Revolution, and Terrorism. Credit Level: G. Credit Hrs: 4.00

15POL672**Middle East Conflict II**

The Arab-Israeli conflict in detail; intra-Arab and inter-Arab political relations as well as Israeli policy and government responses to violence. Prereq: 15POL671. Credit Level: G. Credit Hrs: 4.00

15POL683**International Cooperation**

Examines international cooperation theory and the issues of why nations cooperate, the forms of cooperation, and how it is attained and sustained. Covers topics such as cooperation theory, regimes, institutions, norms, bargaining, and the politics of cooperation. Credit Level: G. Credit Hrs: 4.00

15POL687**International Human Rights**

Concepts and policies dealing with promotion and protection of human rights world-wide. Credit Level: G. Credit Hrs: 4.00

15POL700**Nature of Political Inquiry**

A survey of the development and dimensions of the discipline. Credit Level: G. Credit Hrs: 4.00

15POL705**Political Science Colloquium**

This course will introduce students to the discipline of political science with a focus on its professional norms and practices, particularly research publication, conference presentations, and thesis proposals. Credit Level: G. Credit Hrs: 4.00-10.00

15POL706**Colloquium on Teaching Political Science**

Required of graduate teaching assistants in their first year of teaching. Credit Level: G. Credit Hrs: 4.00

15POL707**Colloquium on Teaching Political Science**

Required of graduate teaching assistants in their first year of teaching. Credit Level: G. Credit Hrs: 4.00

15POL710**Proseminar: American National Government**

The basic literature of the field; research approaches and problems. Credit Level: G. Credit Hrs: 4.00

H=University Honors course.

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Political Science**15POL711****Pro-Seminar: American Political Behavior**

The basic literature of the field; research approaches and problems

Prereq: 15POL610, 15POL626. Credit Level: G. Credit Hrs: 4.00

15POL715**Pro-seminar in Public Opinion**

Description not available. Credit Level: G. Credit Hrs: 4.00

15POL720**Proseminar: Public Policy Analysis and Evaluation**

Methods, techniques of public policy analysis, evaluation of selected

cases. Prereq: 15POL652. Credit Level: G. Credit Hrs: 4.00

15POL725**Administrative Law**

Procedural requirements resting on administrative agencies: notice and rearing; rulemaking; adjudication. Case approach. Credit Level: G. Credit Hrs: 4.00

15POL730**Practicum in Homeland Security and Emergency Management.**

Field experience working with security practitioners in the private or public sectors. Credit Level: G. Credit Hrs: 1.00-5.00

15POL737**Intergovernmental Relations.**

Covers structure and elements of American Federal System plus policy and administration within it. Credit Level: G. Credit Hrs: 4.00

15POL740**Pro-seminar: Political Theory**

An introduction to the study of political philosophy through an examination of selected texts from Plato to J.S. Mill. Credit Level: G. Credit Hrs: 4.00

15POL744**Proseminar: Democratic Theory**

This course will be divided into three sections. The first section will present classical treatments of democracy in Plato, Aristotle, and Tacitus. The second will deal with modern democratic thought in such theorists as Machiavelli, Locke, Rousseau, Madison, Tocqueville and Dewey. The third will deal with contemporary normative and empirical analysis of problems in democratic theory. Credit Level: G. Credit Hrs: 4.00

15POL745**Pro-seminar in American Political Theory**

Selected topics in the history of American Political Theory. Credit Level: G. Credit Hrs: 4.00

15POL750**Proseminar: Research Design.**

Principles of design, measurement, and methods of data collection.

Prereq: 15POL652. Credit Level: G. Credit Hrs: 4.00

15POL751**Proseminar: Survey Research**

Methodological aspects of survey design and analysis. Credit Level: G. Credit Hrs: 4.00

15POL752**Multivariate Statistical Analysis**

Selected topics on the application of multivariate statistics to political research, including the general linear model, analysis of variance and co-variance, multiple regression, causal modeling, factor analysis, canonical correlation, discriminant analysis, and others. Prereq:

15POL652. Credit Level: G. Credit Hrs: 4.00

15POL753**Multivariate Statistical Analysis II**

Selected topics on the application of multivariate statistics to political research, including the general linear model, analysis of variance and co-variance, multiple regression, causal modeling, factor analysis, canonical correlation, discriminant analysis, and others. Prereq:

Political Science**15POL753****Multivariate Statistical Analysis II**

15POL752. Credit Level: G. Credit Hrs: 4.00

15POL754**Policy Sciences Methods**

Research designs will be presented along with perspectives on causality, the structure of inquiry, modes of observation, and evaluation tools such as cost-benefit analysis. Prereq: 15POL652. Credit Level: G. Credit Hrs: 4.00

15POL756**Models of Political Choice and Conflict**

Survey of formal methods of political analysis: game theory, social choice and deductive modeling. Analysis of collective choice, voting rules, paradoxes, impossibility theorems, evaluation of equilibria, strategic manipulation, agenda-control, vote trading and other political phenomena. Credit Level: G. Credit Hrs: 4.00

15POL760**Pro-seminar: Comparative Politics**

Survey of the literature of comparative politics; methodology of comparative research. Credit Level: G. Credit Hrs: 4.00

15POL764**Pro-seminar: East Asia**

Readings in selected topics in East Asian politics; emphasis on modern period and current issues. Credit Level: G. Credit Hrs: 4.00

15POL765**Proseminar: Politics of South Asia**

Readings and selected issues in South Asian politics. Emphasis on modern period and current issues. Credit Level: G. Credit Hrs: 4.00

15POL769**Pro-seminar: Political Development**

Theories and approaches to the comparative study of politics. Emphasis on developing political systems. Credit Level: G. Credit Hrs: 4.00

15POL771**Pro-seminar: Middle East Political Systems**

Readings and the political literature of the Middle East. Credit Level: G. Credit Hrs: 4.00

15POL777**Pro-seminar: Europe**

An examination of developments in European politics since World War II and a survey of the theoretical approaches used to analyze them. Credit Level: G. Credit Hrs: 4.00

15POL779**International Security Policy**

Description not available. Credit Level: G. Credit Hrs: 4.00

15POL780**Pro-seminar: International Relations**

Covers the major theories and approaches to the study of International Politics. Credit Level: G. Credit Hrs: 4.00

15POL781**Pro-seminar: International Law**

Reading in the literature of international organizations and specialized agencies. Credit Level: G. Credit Hrs: 4.00

15POL782**International Law and Human Rights**

The course is designed to acquaint the graduate student with both the concepts and methods used in undertaking research in international law and human rights. In part, this is accomplished through an immersion of the student in methodological and conceptual issues drawn from the philosophy of a science generally. Credit Level: G. Credit Hrs: 4.00

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Political Science**15POL783****Pro-seminar: Int. Pol. Ec.**

Description not available. Credit Level: G. Credit Hrs: 4.00

15POL784**Proseminar: International Security Policy**

Proseminar on ethnic conflict and Civil Wars. Explores topics including international security, terrorism, genocide, and child soldiers in the Middle East, Africa, South Asia, and Europe. Credit Level: G. Credit Hrs: 4.00

15POL785**Core Reading In International Relations**

For students preparing for the Doctoral Comprehensive Examination in International Relations. The readings are based on lists compiled and distributed by the I.R. faculty. Students should consult with their committee chair. Credit Level: G. Credit Hrs: 4.00

15POL810**Research Seminar: American Politics**

Description not available. Prereq: 15POL710. Credit Level: G. Credit Hrs: 4.00

15POL811**Research Seminar in American Politics**

Students develop research projects based on prior work in 15POL710 or 711 Prereq: 15POL710, 15POL711. Credit Level: G. Credit Hrs: 4.00

15POL812**Seminar: American National Government**

Description not available. Credit Level: G. Credit Hrs: 4.00

15POL813**Seminar in American Political Behavior**

Description not available. Prereq: 20CEE680. Credit Level: G. Credit Hrs: 4.00

15POL819**Advanced Individual Work: American Politics**

Prereq.: Perm. of instr. Credit Level: G. Credit Hrs: 1.00-15.00

15POL825**Practicum in Public Aim**

Description not available. Credit Level: G. Credit Hrs: 3.00

15POL826**Organization and Society**

Critical theoretical examination of concepts of bureaucracy, political theory, and economics in the context of public organizations. Prereq: 15POL726. Credit Level: G. Credit Hrs: 4.00

15POL840**Research Seminar: Political Theory**

Prereq.: 15-085-740. Prereq: 15POL740. Credit Level: G. Credit Hrs: 4.00

15POL849**Individual Work in Political Theory**

To be arranged. Credit Level: G. Credit Hrs: 1.00-15.00

15POL851**Practicum in Survey Research**

Application of survey methods: Sampling, questionnaire design, data collection and analysis. Credit Level: G. Credit Hrs: 4.00

15POL859**Individual Work in Methodology**

Perm. of instr. Credit Level: G. Credit Hrs: 1.00-15.00

15POL860**Seminar: Comparative Politics**

Research on selected topics. Credit Level: G. Credit Hrs: 4.00

Political Science**15POL879****Individual Work: Comparative Politics**

Prereq.: Perm. of instr. Credit Level: G. Credit Hrs: 1.00-15.00

15POL880**Research Seminar in International Relations**

The course will introduce the students to the main methodological approaches and theories associated with research in International Relations. Prereq: 15POL780. Credit Level: G. Credit Hrs: 4.00

15POL885**Literature Review of International Relations**

For students writing the literature review component of the dissertation. The student produces such a review as a written paper at the completion of the course. Credit Level: G. Credit Hrs: 4.00

15POL889**Individual Work: International Relations**

Prereq.: Perm. of instr. Credit Level: G. Credit Hrs: 1.00-15.00

15POL891**Independent Workshop--Public Administration**

To be arranged. Credit Level: G. Credit Hrs: 1.00-4.00

15POL895**Masters Thesis Research**

Students may register for 895 repeatedly. Credit Level: G. Credit Hrs: 1.00-15.00

15POL995**PhD Thesis Research**

Up to a total of 45 credits. Credit Level: G. Credit Hrs: 1.00-15.00

Portuguese**15PORT101****Basic Portuguese 1**

Introduction to Portuguese language to culture. First quarter in the basic 3 quarter sequence that fulfills the A&S language requirement. BoK: HU., DC. Credit Level: U. Credit Hrs: 5.00

15PORT102**Basic Portuguese 2**

Introduction to Portuguese language and culture. Second quarter in the basic 3-quarter sequence that fulfills the A&S language requirement. Prereq: 15PORT101. BoK: DC, HU. Credit Level: U. Credit Hrs: 5.00

15PORT103**Basic Portuguese 3**

Introduction to Portuguese language and culture. Third quarter in the basic 3-quarter sequence that fulfills the A&S language requirement. Prereq: 15PORT102. BoK: DC, HU. Credit Level: U. Credit Hrs: 5.00

15PORT111**Extended Basic Portuguese 1**

Basic Portuguese language and culture. First quarter in the extended 6-quarter sequence that fulfills the A&S language requirement. BoK: DC., HU. Credit Level: U. Credit Hrs: 3.00

15PORT112**Extended Basic Portuguese 2**

Basic Portuguese language and culture. Second quarter in the extended 6-quarter sequence that fulfills the A&S language requirement. Prereq: 15PORT111. BoK: DC, HU. Credit Level: U. Credit Hrs: 3.00

15PORT113**Extended Basic Portuguese 3**

Basic Portuguese language and culture. Third quarter in the extended 6-quarter sequence that fulfills the A&S language requirement. Prereq: 15PORT112. BoK: DC, HU. Credit Level: U. Credit Hrs: 3.00

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Portuguese

15PORT114

Extended Basic Portuguese 4

Basic Portuguese language and culture. Fourth quarter in the extended 6-quarter sequence that fulfills the A&S language requirement. Prereq: 15PORT113. BoK: DC, HU. Credit Level: U. Credit Hrs: 3.00

15PORT115

Extended Basic Portuguese 5

Basic Portuguese language and culture. Fifth quarter in the extended 6-quarter sequence that fulfills the A&S language requirement. Prereq: 15PORT114. BoK: DC, HU. Credit Level: U. Credit Hrs: 3.00

15PORT116

Extended Basic Portuguese 6

Basic Portuguese language and culture. Sixth quarter in the extended 6-quarter sequence that fulfills the A&S language requirement. Prereq: 15PORT115. BoK: DC, HU. Credit Level: U. Credit Hrs: 3.00

15PORT332

Introduction to Brazil

An introduction to the history, cultures, language, religions, and politics of Brazil in preparation for a study tour in June 2004. BoK: DC., HU. Credit Level: U. Credit Hrs: 3.00

15PORT515

Study Tour in Brazil

Study tour to Rio de Janeiro and Belo Horizonte. Follows introduction to Brazil (15PORT332). Students will complete independent projects based on tour. BoK: DC., HU. Credit Level: U, G. Credit Hrs: 3.00

15PORT550

Portuguese Study Abroad

For students participating in an established exchange program in the Portuguese-speaking world. Permission of Department required. Perm of Department. BoK: DC. Credit Level: U, G. Credit Hrs: 9.00-18.00

15PORT581

Elementary Portuguese Language

Basic Portuguese language, reading writing and speaking for graduate credit. BoK: DC. Credit Level: G, U. Credit Hrs: 3.00

15PORT582

Elementary Portuguese Language

Basic Portuguese language, reading, writing, speaking for graduate credit BoK: DC. Credit Level: G, U. Credit Hrs: 3.00

15PORT583

Elementary Portuguese Language

Basic Portuguese languages, reading, writing, speaking for graduate credit BoK: DC. Credit Level: G, U. Credit Hrs: 3.00

15PORT584

Elementary Portuguese Language

Basic Portuguese language, reading, writing, speaking for graduate credit BoK: DC. Credit Level: G, U. Credit Hrs: 3.00

15PORT585

Elementary Portuguese Language

Basic Portuguese Language, reading, writing, speaking for graduate credit. Prereq: 15PORT584. BoK: DC. Credit Level: G, U. Credit Hrs: 3.00

15PORT586

Elementary Portuguese Language

Basic Portuguese languages, reading, writing and speaking for graduate credit Prereq: 15PORT585. BoK: DC. Credit Level: G, U. Credit Hrs: 3.00

15PORT591

Individual Study

To be arranged. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-15.00

15PORT592

Portuguese Independent Study

Independent study in Portuguese language for Master's and Doctoral

Portuguese

15PORT592

Portuguese Independent Study

students. Prereq: 15PORT591. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

15PORT593

Independent study in Portuguese language for Master's and Doctoral students

Independent study in Portuguese language for Master's and Doctoral students Prereq: 15PORT592. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

Psychology

15PSYC101

Introduction to Psychology

Overview of psychology in these areas: history, research, biology (brain), perception and sensation, memory, intelligence, cognition and language. Transfer Module. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15PSYC101H

Introduction to Psychology Honors

Psych 101 for honors students. Transfer Module. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15PSYC102

Introduction to Psychology

Overview of psychology in these areas: life-span development, learning & cognition, personality, abnormal, therapies. Transfer Module. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15PSYC102H

Introduction to Psychology (Honors)

Psyc 102 for honors students. Transfer Module. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15PSYC103

Introduction to Psychology

Overview of psychology in these areas: social, gender, health, stress, applied, industrial, motivation & emotion, states of consciousness. Transfer Module. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15PSYC103H

Introduction to Psychology (Honors)

Psych 103 for honors students. Transfer Module. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15PSYC150

Psychohistory: Words & Ideas

Freshman Seminar: Psychohistory, deals with both substantive theory and methodology, the application of psychology to study of the past, of history, taking into account unconscious, as well as conscious, motivations. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15PSYC151

Religion, Spirituality, Health & Well-Being

Freshman Seminar: Explores the meanings between the terms religion and spirituality, as well as current interdisciplinary research linking both physical & psychological health to religion and/or spirituality. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15PSYC201

Lifespan Development

Introduction to developmental issues across the lifespan. Prereq: 15PSYC101, 15PSYC102. Coreq: 15PSYC103. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15PSYC205

Child Development

Examines biological, cognitive, cultural, environmental and social influences on development in childhood. Current theories, methodologies, and research findings and applications will be discussed. BoK: SS. Credit Level: U. Credit Hrs: 3.00

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Psychology**15PSYC206****Adolescent Development**

Examines biological, cognitive, cultural, environmental and social influences on development in adolescents. Current theories, methodologies, and research findings and applications will be discussed. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15PSYC207**Adult Development**

Examines biological, cognitive, cultural, environmental and social influences on development in adulthood. Current theories, methodologies, and research findings and applications will be discussed. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15PSYC208**Aging**

Comprehensive overview of the psychological, social & physical aspects of aging, including related research; psychological & physical disorders of late adulthood & their treatment. Strategies for successful & healthy aging are discussed. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15PSYC210**Human Sexuality**

PSYCHOLOGICAL, BIOLOGICAL AND SOCIAL RESEARCH ON ADULT HUMAN SEXUAL FUNCTIONING AND RELATIONSHIPS. BoK: SS., SE. Credit Level: U. Credit Hrs: 3.00

15PSYC213**Positive Psychology**

Positive Psychology is an investigation of positive emotions & adaptive behaviors and the development of personal strengths and pro-social behaviors. implications for self-growth, relationships & institutions will be discussed. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15PSYC215**Social Psychology**

The study of social interaction; theoretical perspective in social psychology, group dynamics, conformity and deviance, leadership, intergroup conflict, gender roles, and social factors in health. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15PSYC241**Health Psychology**

Review of psychological influences on how people stay healthy, why people may be predisposed to illness due to psychological factors, and why psychological techniques may facilitate treatment. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15PSYC247**Psychology of Adjustment**

DYNAMICS OF EMOTION, FRUSTRATION, AND ANXIETY INCLUDING THE SCIENTIFIC STUDY OF PERSONAL AND INTERPERSONAL ADJUSTMENT TO CONFLICT. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15PSYC251**Abnormal Psychology**

Examines behavior disorders, personality disturbances; basic concepts, classification, diagnosis, etiology, treatment. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15PSYC271**Special Topics in Psychology**

Content varies according to current interests of faculty and students. Students may register for only 3 cr. per Qtr. Repeated ea. Qtr. BoK: NA. Credit Level: U. Credit Hrs: 1.00-3.00

15PSYC274**Introduction to Statistical Methods**

Required of psychology majors. Statistical methods most commonly used in psychology. Descriptive statistics, introduction to probability and sampling distributions. BoK: QR. Credit Level: U. Credit Hrs: 3.00

Psychology**15PSYC275****Intermediate Psychological Statistics**

Required of Psych. Majors. Correlational methods, analysis of variance and non-parametric statistics. Prereq: 15PSYC274. BoK: QR. Credit Level: U. Credit Hrs: 3.00

15PSYC276**Advanced Psychological Statistics**

Stat for students who have completed 274-275 sequence. More common statistical techniques will be reviewed with an emphasis on conducting stat tests with computer-based statistical packages (SPSS). This course will be especially helpful for students preparing to take 381 or preparing for independent research. Prereq: 15PSYC275. BoK: QR. Credit Level: U. Credit Hrs: 3.00

15PSYC290**Guided Readings**

Independent study in areas of student's choosing. Variable cr. ea. qtr. BoK: NA. Credit Level: U. Credit Hrs: 1.00-6.00

15PSYC305**Cognition From Birth Through Adolescence: An Introduction**

Examines how thinking & intelligence develop from infancy to early adulthood. Topics surveyed include perception, memory, language, mathematics, reasoning, concepts & categorization, & social cognition; applications relevant to education & communication disorders. Offered alternate years. Prereq: 15PSYC101, 15PSYC102, 15PSYC103. BoK: DC, SS. Credit Level: U. Credit Hrs: 3.00

15PSYC310**Topics in Advanced Human Sexuality**

Students who have successfully completed Psyc 210 wish to develop research skills by investigating an approved topic beyond the information provided by standard Human Sex texts. A 20-minute power-pt. presentation & 5-8 page paper detailing the results of their research are required. Prereq: 15PSYC210. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15PSYC312**Psychology of Women**

An analysis of the physiological, psychological and cultural aspects of sexuality and sex roles. BoK: DC. Credit Level: U. Credit Hrs: 3.00

15PSYC324**UNDERSTANDING SEX OFFENSES AND THE OFFENDER**

A comprehensive overview of psychological, sociological and legal issues related to sexual offenses. The sex offender and different typologies of the sex offender are addressed. BoK: SS., HU. Credit Level: U. Credit Hrs: 3.00

15PSYC331**Development: Children And Adolescents**

Theory, research, and development focusing on youth. Prereq: 15PSYC101, 15PSYC102. Coreq: 15PSYC103, 15PSYC201. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15PSYC332**Development: Adulthood and Aging**

Theory, research and development in adulthood and beyond. Prereq: 15PSYC101, 15PSYC201. Coreq: 15PSYC102, 15PSYC103. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15PSYC333**Child Health Psychology**

Review of theory and research in pediatric (child health) psychology. Prereq: 15PSYC331. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15PSYC334**Diversity and Health**

Health issues as they relate to diverse populations, including but not limited to racial, ethnic, and sexist minorities, individuals from low socio-economic backgrounds and the elderly. Prereq: 15PSYC101, 15PSYC102. Coreq: 15PSYC103. BoK: SS, DC. Credit Level: U. Credit Hrs: 3.00

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Psychology

15PSYC335

Theories of Clinical Intervention

Theory and research on models of clinical intervention/psychotherapy. Prereq: 15PSYC251. BoK: SS, SE. Credit Level: U. Credit Hrs: 3.00

15PSYC341

Psychology of Personality

A THEORETICAL APPROACH TO PERSONALITY, PSYCHODYNAMICS, ASPECTS OF DEVELOPMENT, AND METHODS OF STUDYING PERSONALITY. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15PSYC350

Introduction to Sport Psychology

An introduction to the psychological study of people and their behavior in sport environments. Emphasis is on the mental skills associated with high level performance in sports. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15PSYC354

Psychology of Stress Management

A detailed analysis of the nature of stress including definitions, beliefs, current research and coping strategies. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15PSYC358

Psychology of Interpersonal Relations

Theory and research on interpersonal relationships (e.g. styles of relating); discussion of different types of relationships and of relationship problems. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15PSYC360

Psychology of Food and Eating

Topics will include factors that influence food selection and ingestion, sensory control of food intake, eating disorders, cognition, and food attitudes. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15PSYC362

Brains on Drugs

Focus on the effects of illicit and prescribed drugs on human behavior, including alcohol, caffeine, nicotine, cocaine, and steroids. Topics include drug classification, drug education, the prevention and treatment of drug abuse, and physiological effects. BoK: SE. Credit Level: U. Credit Hrs: 3.00

15PSYC363

Psychology and the Law

The focus of this course is how psychological processes are used, misused, or ignored in the legal world. We will examine memory research as it relates to eyewitness testimony, and psychopathology's relationship to issues surrounding competency to stand trial and insanity pleas, among other topics. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15PSYC365

Psychology of Conflict and Conflict Resolution

Examines intrapersonal, interpersonal, and intergroup conflict. Factors that contribute to conflict in each of the latter areas are examined as are strategies for resolving conflict. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15PSYC370

Introduction to Psychobiology

Introduction to biological bases of feelings, thoughts, and actions. BoK: NS. Credit Level: U. Credit Hrs: 3.00

15PSYC377

Uses of Psychology in Everyday Life

Emphasizes the personal application of psychological principles to everyday affairs. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15PSYC379

RESEARCH METHODS IN COGNITIVE PSYCHOLOGY

Descriptive and Laboratory projects related to topics in cognitive psychology including object recognition, speech and language

Psychology

15PSYC379

RESEARCH METHODS IN COGNITIVE PSYCHOLOGY

processing, memory and reasoning. Prereq: 15PSYC381. BoK: QR, SS. Credit Level: U. Credit Hrs: 3.00

15PSYC380

Research Methods in Psychology

RES METHODS IN PSY BoK: QR. Credit Level: U. Credit Hrs: 3.00

15PSYC381

Experimental Methods in Psychology

Required of psychology majors. Lectures, demonstrations and laboratory exercises in general experimental psychology. Lec., lab. Prereq: 15PSYC274, 15PSYC275, 15PSYC380. BoK: QR. Credit Level: U. Credit Hrs: 3.00-6.00

15PSYC382

Research Methods in Social Psychology

An overview of research methodology in Social Psychology. Prereq: 15PSYC381. BoK: QR. Credit Level: U. Credit Hrs: 3.00

15PSYC383

Perception and Action

An introductory course that focuses on the interplay between theory and research and on the ways in which perception is related to behavior; in evolution, control, and development. BoK: NS. Credit Level: U. Credit Hrs: 3.00

15PSYC384

Research Methods in Personality and Clinical Psychology

An overview of theory and research in the study of personality and clinical psychology. Prereq: 15PSYC381. BoK: QR. Credit Level: U. Credit Hrs: 3.00

15PSYC385

Research Methods in Children's Learning

An overview of theory and research in the study of the learning process. Applies theories of learning to young children's knowledge development. Research will involve collaboration with the Children's Science Museum assessing children's learning through hands-on exploration. Prereq: 15PSYC381. BoK: QR, SS. Credit Level: U. Credit Hrs: 3.00

15PSYC386

Research Methods: Children's Health and Mental Health

Research methods capstone course focusing on children's health and mental health issues. Prereq: 15PSYC274, 15PSYC381. Coreq: 15PSYC275. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15PSYC387

Advanced Methods and Data Analysis

Capstone course that emphasizes advanced methods and data analysis in a wide variety of content domains. Prereq: 15PSYC274, 15PSYC275. Coreq: 15PSYC381. BoK: QR, SS. Credit Level: U. Credit Hrs: 3.00

15PSYC388

Applied Psychological Research

A two-quarter sequence on the methodology, design, and implementation of research to be used in solving social problems. Prereq: 15PSYC381. BoK: QR. Credit Level: U. Credit Hrs: 3.00

15PSYC390

Fieldwork Practicum

A supervised experience in community agencies and placements. Arrangements with individual faculty member must be made prior to registration. BoK: NA. Credit Level: U. Credit Hrs: 1.00-6.00

15PSYC392

Fieldwork Practicum: Prepersonnel/Labor Relations

Supervised practical experience in an appropriate business or industrial setting. Arrangements with individual faculty member must be made prior to registration. BoK: NA. Credit Level: U. Credit Hrs: 1.00-6.00

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Psychology**15PSYC394****Fieldwork Practicum: SCIP**

Supervised practical experience in an appropriate community agency. Variable cr. ea. qtr. BoK: NA. Credit Level: U. Credit Hrs: 1.00-6.00

15PSYC395**Groups at Work: Theory and Practice in Social Skills**

Theories of small work groups that help increase the interpersonal effectiveness of individuals and the group. Practice in skills and behaviors to expand personal competency in groups. Students may receive credit for this course or Communications 143 and 145, but not both. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15PSYC401**Seminar In Health**

This course will focus on current research and clinical topics in health psychology. Faculty will teach the course based on their areas of expertise. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15PSYC418**Human Performance**

The course will review models of performance and their application to human factors problems. Topics include attention, working memory, skill and the effects of personality and operational stressors. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15PSYC428**The Psychology of Self and Human Relations**

The course focuses on the individual psyche and moves through the various stages and processes of human interaction. That is, from the personal to the interpersonal and intergroup arenas of human development, social interaction, and social functioning. The course will focus on teaching personal and social skills for living and critical reasoning for understanding the self and its relationship to the multi-cultural world. Senior psychology majors only. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15PSYC434**Applications of Psychology in Professional Life**

Topics include methods of job hunting, career opportunities in psychology, conflict resolution, stress management, dealing with co-workers, management skill building & ethics; provides students a chance to discuss & practice interpersonal & communication skills for success in careers. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15PSYC437**Senior Thesis Seminar**

Seminar designed to guide senior psychology students through preliminary steps for completing senior thesis project with designated mentor. Prereq: 15PSYC381. BoK: NA. Credit Level: U. Credit Hrs: 1.00-3.00

15PSYC438**Senior Thesis**

Supervised empirical or other type independent research. Senior thesis or some other appropriate research is required of students wishing to graduate with honors in psychology. Arrangements with individual faculty member must be made prior to registration. Prereq: 15PSYC381. BoK: NA. Credit Level: U. Credit Hrs: 3.00-6.00

15PSYC451**Research Methods In Community Research**

The course will provide an opportunity for students to design & conduct individual projects that emphasize methods appropriate for completing research in community settings. Students will gain experience in using statistical software (e.g. SPSS) and writing reports. Prereq: 15PSYC274. BoK: DC, SS. Credit Level: U. Credit Hrs: 3.00

15PSYC452**Research in Stress and Health**

Explores the impact of stress on health outcomes. Prereq: 15PSYC241. BoK: NS, SS. Credit Level: U. Credit Hrs: 3.00

Psychology**15PSYC475****Seminar for Honors Students in Psychology**

Discussion of controversial issues in psychology including position papers and debate. Prereq: 15PSYC381. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15PSYC490**Psychological Research**

Supervised experience assisting in or conducting empirical research. Variable cr. ea. qtr. BoK: NA. Credit Level: U. Credit Hrs: 1.00-6.00

15PSYC501**Psychophysiology and Psychosomatic Illness**

Psychophysiological & psychosomatic disorders are physical conditions that are affected by psychological factors. This course will examine present theories of the origin and treatment of these illnesses. Prereq: 15PSYC241. BoK: NS, SS. Credit Level: U, G. Credit Hrs: 3.00

15PSYC502**Social Psychology**

The study of social interaction; interpersonal attraction, altruism and helping behavior, human aggression, social attitudes and attitude change, perceiving other persons, and self-concept. BoK: SS. Credit Level: U, G. Credit Hrs: 3.00

15PSYC510**Psycholinguistics: The Psychology of Language**

Psychological study of the structure, acquisition, and uses of language. Topics covered include the biological basis of language, the linguistic structure of language, children's acquisition of language, language comprehension, discourse processing, conversation, ape language, speech perception, language disorders in children. Prereq: 15PSYC381. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

15PSYC513**Psychology of Sexual Orientation**

An analysis of the psychological, cultural and physiological aspects of sexual orientation. BoK: SE. Credit Level: U, G. Credit Hrs: 3.00

15PSYC517**Physiological Psychology**

Physiological correlates of behavior: neurophysiology, neuroanatomy, motivation, emotion, learning, memory, brain-behavior relationships. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

15PSYC518**Physiological Psychology**

Physiological correlates of behavior: neurophysiology, neuroanatomy, motivation, emotion, learning, memory, brain-behavior relationships. The second offering in a two-part course sequence. Prereq.: Introductory biology course recommended. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

15PSYC519**THE REMEMBERING BRAIN**

Explores what goes on in the human brain from multiple perspectives as we learn and remember. Focus on brain mechanisms that regulate memory, amnesia & memory loss, learning strategies, sub-conscious memory & other topics. Interest neurosciences, psych, educ, comm, dis, biomedical engineer. Perm of Instructor. BoK: NS, SS. Credit Level: U. Credit Hrs: 3.00

15PSYC522**Psychopharmacology**

Focuses on how certain classes of drugs affect the brain and endocrine system to alter mood and behavior. Particular attention is given to how drugs accomplish this by affecting receptor, cellular & genetic processes which then alter communication patterns throughout the brain. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

15PSYC526**Death and Dying**

The study of how individuals view dying and death at different points in the life span. Examines the process of dying, cultural attitudes toward

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Psychology

15PSYC526

Death and Dying

death, coping with different types of loss, death education and counseling, and ethical issues. Prereq: 30PSYC101, 30PSYC175. BoK: SS, SE. Credit Level: U. Credit Hrs: 3.00

15PSYC535

Introduction to Cognitive Psychology

An introduction to research, theory, and applied aspects of reasoning, remembering, understanding and attention. Prereq: 15PSYC381. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

15PSYC537

Broken Brains: Biological Bases of Mental Disorders

Study of the brain and nervous system as they relate to psychopathology and other disorders. Prereq: 15PSYC370. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

15PSYC540

The Psychology of Ideology

Ideology as understood primarily by social and developmental psychologists. Topics include authoritarianism, prejudice, and group processes. Prereq: 15PSYC274, 15PSYC275. BoK: SE, SS. Credit Level: U, G. Credit Hrs: 3.00

15PSYC543

Motivation

Dynamic, behavioral, and cognitive approaches to human and animal motivation, research methods and results. Prereq: 15PSYC381. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

15PSYC552

History and Systems

Overview of the development of scientific psychology from its foundations in Western intellectual culture. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15PSYC571

Advanced Special Topics in Psychology

Content varies each quarter according to the interests of faculty and students. Students may register for only 3 cr. per qtr. Course is repeated each qtr. Arrangements with individual faculty member must be made prior to registration. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

15PSYC575

Psychological Measurement and Testing

Measurement theory and application; reliability; validity. Use of tests of intelligence, aptitude, achievement and personality. Prereq: 15PSYC381. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

15PSYC580

The Development of Prejudice

The historic and cultural bases of prejudice and discrimination will be explored. Students will participate in small group discussions of topic material as well as explore potential manifestations of prejudice and/or discrimination within our campus community. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

15PSYC590

Teaching Assistant Practicum

Supervised experience as a teaching assistant. Variable ug. cr. ea. qtr. BoK: NA. Credit Level: U. Credit Hrs: 1.00-6.00

15PSYC595

Psychology of Men

The study of how men are acculturated and stereotyped by society. Explored are the dilemmas men face in our changing society. Particular emphasis is on the disparity between society's view of men and our (men and women) experience of men individually and collectively. BoK: DC. Credit Level: U, G. Credit Hrs: 3.00

Psychology

15PSYC601

Industrial Psychology

Individual and social problems in selection, training, motivation, efficiency, appraisal, morale, communication, and leadership. BoK: NA. Credit Level: U, G. Credit Hrs: 2.00-3.00

15PSYC622

Contemporary Issues: Child Health & Mental Health

Contemporary issues such as child psychopathology, influence of the media on children, and children's reaction to trauma. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

15PSYC628

PSYCHOLOGY OF WORLD EVENTS: INTERNATIONAL CONFLICT AND GLOBALIZATION

Psychological factors involved in modern inter- national & ethnic conflicts & in economic and cultural globalization. Special attention to the interpretation of personal statements, eyewitness accounts, autobiographical materials & interviews. BoK: SS., DC. Credit Level: U, G. Credit Hrs: 3.00

15PSYC631

Program Evaluation and Policy Analysis

Examines how programs and policies function in health, urban studies, business, and government. Topics include research design; sampling, questionnaire design; structured and in-depth interviewing; ethnographic field work; design, managerial, and political issues in evaluation and policy analysis; etc. Prereq: 15PSYC381. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

15PSYC648

Social Psychology of Urban Life

Psychological aspects of life in cities. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

15PSYC649

Social Psychology of Urban Life

Psychological aspects of life in cities: the world perspective. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

15PSYC652

Psychology of Management

In this seminar, students will discuss psycho- social issues related to being a leader in our global economy. The course bridges issues for psychology and business, including assuming a leadership role, networking, women as leaders, workplace stress, family & business, understanding mergers and acquisition and the work environment. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

15PSYC659

Social Structure and Personality

Interrelations between society and personality; social influences upon self-concept; dramaturgical theory. Prereq: 15PSYC101. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

15PSYC661

Advanced Individual Work in Psychology

Variable ug. cr. ea. qtr. BoK: NA. Credit Level: U. Credit Hrs: 1.00-6.00

15PSYC680

The Psychology of Religion and Spirituality

Examination of: (1) definitions of religion, faith, spirituality, post-modern psychology of religion and current issues within and continuities between psychology and religion; (2) history of psychospiritual/religious thought from ancient through modern philosophy; (3) biological, behavioral, laboratory and comparative theories of religion; (4) research methods in psychology of religion; (5) major psychological theories and systems in the psychology of religion/spirituality; (6) implications for theory development and research. Perm of Instructor. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00-4.00

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Psychology**15PSYC681****Africana Psychology: Historical and Contemporary Thought and Praxis**

Course examines: (A) the roots of a "Black psychology" in 1) the philosophy and context of ancient Egyptian/Kemet beliefs and those of other classical African civilizations; 2) 20th century philosophical and sociopolitical African diaspora thought and praxis (e.g., Nkrumah, Senghor, Oruka, Fanon, W.E.B. DuBois, Locke) as well as in current African/Black philosophy (e.g., Outlaw, Davis, Hooks, Asante, West); and (B) Contemporary Black Psychology: the major theories, issues, and research in Black/African American psychology (e.g., Clarke, White, Nobles, Hilliard, Akbar) as well as the future direction of an "Africana Psychology." BoK: NA. Credit Level: U, G. Credit Hrs: 3.00-4.00

15PSYC710**Individual Work in Social Psychology**

May be taken repeatedly. Offered ea. qtr. Ug. or gr. cr. to be arranged. See Director, Graduate Program in Social Psychology. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-15.00

15PSYC714**Descriptive Statistics and Probability**

Numerical and graphical methods for describing and presenting sets of data and relationships between variables. Introduction to probability theory. Introduction to statistical inference. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

15PSYC715**Inferential Statistics**

Survey of statistical techniques for making inferences about means, variances, proportions, and distributions. Introduction to the Analysis of Variance. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

15PSYC716**Modeling Experimental and Observational Data**

Multiple regression and analysis of variance. Specifying, estimating and evaluating statistical models. Prereq: 15PSYC715. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

15PSYC729**Human Factors Seminar**

History, principles, and guidelines of human factors as they impact the design of hardware and software as used by people and business. Sr. undergrad. or gr. standing. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

15PSYC741**Interdisciplinary Studies in Developmental Disorders I**

Multifaceted approach to understanding of mental retardation. Psychological, medical, social, educational areas. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

15PSYC760**Applying Psychological Principles to African Americans**

Seminar on theory, research & practice in the application of psychological principles to African Americans. Presentations by students, faculty & practitioners. Students will be required to share ongoing projects & asked to give and receive feedback on considering ethnicity in research. Perm of Instructor. BoK: DC, SS. Credit Level: U, G. Credit Hrs: 1.00-3.00

15PSYC721**Core: Social and Personality**

Social bases of behavior and theories of personality. Credit Level: G. Credit Hrs: 3.00

15PSYC722**Core: Development**

Psychological theories of lifespan development. Credit Level: G. Credit Hrs: 3.00

Psychology**15PSYC723****Core: Personality**

Theories of personality. Credit Level: G. Credit Hrs: 3.00

15PSYC731**Core of Psychology: Biological Bases**

This is one of six content courses designed to cover each of the following content areas such that the content is completed within the six allotted quarters of study: History and Philosophy of Psychology; Biological Bases of Behavior; Cognition and Learning; Social Psychology; Perception; Personality; Developmental Psychology; Applications of Psychology. Each of the core modules will be taught each year. Credit Level: G. Credit Hrs: 3.00

15PSYC732**Core of Psychology: Social**

This is one of six content courses designed to cover each of the following content areas such that the content is completed within the six allotted quarters of study: History and Philosophy of Psychology; Biological Bases of Behavior; Cognition and Learning; Social Psychology; Perception; Personality; Developmental Psychology; Applications of Psychology. Each of the core modules will be taught each year. Credit Level: G. Credit Hrs: 3.00

15PSYC733**Core of Psychology: History and Philosophy**

This is one of six content courses designed to cover each of the following content areas such that the content is completed within the six allotted quarters of study: History and Philosophy of Psychology; Biological Bases of Behavior; Cognition and Learning; Social Psychology; Perception; Personality; Developmental Psychology; Applications of Psychology. Each of the core modules will be taught each year. Credit Level: G. Credit Hrs: 3.00

15PSYC734**Core of Psychology: Perception**

This is one of six content courses designed to cover each of the following content areas such that the content is completed within the six allotted quarters of study: History and Philosophy of Psychology; Biological Bases of Behavior; Cognition and Learning; Social Psychology; Perception; Personality; Developmental Psychology; Applications of Psychology. Each of the core modules will be taught each year. Credit Level: G. Credit Hrs: 3.00

15PSYC735**Core of Psychology: Cognition and Learning**

This is one of six content courses designed to cover each of the following content areas such that the content is completed within the six allotted quarters of study: History and Philosophy of Psychology; Biological Bases of Behavior; Cognition and Learning; Social Psychology; Perception; Personality; Developmental Psychology; Applications of Psychology. Each of the core modules will be taught each year. Credit Level: G. Credit Hrs: 3.00

15PSYC736**Core of Psychology: Personality and Development**

This is one of six content courses designed to cover each of the following content areas such that the content is completed within the six allotted quarters of study: History and Philosophy of Psychology; Biological Bases of Behavior; Cognition and Learning; Social Psychology; Perception; Personality; Developmental Psychology; Applications of Psychology. Each of the core modules will be taught each year. Credit Level: G. Credit Hrs: 3.00

15PSYC737**Professional Development: Ethics**

This seminar will be required of first year students, and is designed to acquaint students with basic concepts in professional ethics governing research, teaching and applications of psychology. Credit Level: G. Credit Hrs: 1.00

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Psychology

15PSYC738

Professional Development: Proposal Writing

THIS SEMINAR WILL BE REQUIRED OF FIRST YEAR STUDENTS, AND IS DESIGNED TO PROVIDE STUDENTS WITH BASIC SKILLS ASSOCIATED WITH WRITING RESEARCH PROPOSALS. Credit Level: G. Credit Hrs: 1.00

15PSYC739

Professional Development: Presentation Skills

THIS SEMINAR WILL BE REQUIRED OF FIRST YEAR STUDENTS, AND IS DESIGNED TO PROVIDE STUDENTS WITH BASIC SKILLS needed to prepare and make professional presentations in the course of their teaching, research or applied work. Credit Level: G. Credit Hrs: 1.00

15PSYC744

Advanced Social Psychology

Systematic review of major theories and empirical findings in social psychology. Credit Level: G. Credit Hrs: 4.00

15PSYC745

Experimental Research Seminar

Informal presentations, discussion of research by graduate students and faculty in experimental Psychology. Required of first, second, and third year experimental graduate students. Credit Level: G. Credit Hrs: 1.00

15PSYC780

Generalized Linear Models

Introduction to and applications of the generalized linear model and the generalized linear mixed model in psychological research. Prereq: 15PSYC716. Credit Level: G. Credit Hrs: 3.00

15PSYC781

Factor Analysis And Structural Equation Models

Introduction to and applications of factor analysis and structural equation modeling in psychological research. Prereq: 15PSYC716. Credit Level: G. Credit Hrs: 3.00

15PSYC799

Research on the Master's Thesis

Students may register for 799 repeatedly but not for more than 18 credits in total. (cf. Psych. 899 and 999). Offered each quarter. Credit Level: G. Credit Hrs: 1.00-15.00

15PSYC806

Descriptive Psychopathology

A survey of recent theories and research in psychopathology, the nature of abnormality, symptoms, and current research work with pathological groups. Prereq: Students who have not been admitted into the Ph.D. program in Clin. Psych. must obtain consent of the instr., the Dir. of Clin. Training, and the Dir. of Grad. Studies prior to enrolling for this course. Credit Level: G. Credit Hrs: 3.00

15PSYC810

Psychopathology of Childhood

Clinical overview of disturbances of development and personality, including therapeutic and research issues. Prereq.: Students who have not been admitted into the Ph.D. program. in Clin. Psych. must obtain the consent of the instr., the Dir. of Clin. Training and the Dir. of Grad. Studies prior to enrolling for this course. Credit Level: G. Credit Hrs: 3.00

15PSYC815

Adult Intellectual Assessment

Theory and application of adult intellectual assessment. Credit Level: G. Credit Hrs: 3.00

15PSYC818

Performance and Information-Processing

The course will explore the use of information- processing models in human factors. Models will be evaluated in the contexts of laboratory studies. Real-world skills and individual and group differences. Prereq: 15PSYC729. Credit Level: G. Credit Hrs: 3.00

Psychology

15PSYC821

Psychology of Perception

Intensive treatment of psychophysics and organization, stability, development of perceptual processes. Current theories of perception and their experimental bases. Credit Level: G. Credit Hrs: 3.00-4.00

15PSYC822

Psychology of Perception

Intensive treatment of psychophysics and organization, stability, development of perceptual processes. Current theories of perception and their experimental bases. The second offering in a three-part course sequence. Credit Level: G. Credit Hrs: 4.00

15PSYC823

Psychology of Perception

Intensive treatment of psychophysics and organization, stability, development of perceptual processes. Current theories of perception and their experimental bases. The third offering in a three-part course sequence. Credit Level: G. Credit Hrs: 4.00

15PSYC824

Stress & Cognition

The course will begin by reviewing cognitive theories of stress processes. It will then review their application to studies of stress and performance individual differences, and clinical anxiety and depression. Credit Level: G. Credit Hrs: 3.00

15PSYC826

Experimental Design

Applications of and theoretical issues in experimental design; programming general linear models for ANOVAS. The second offering in a two- part course sequence. Prereq.: One year of graduate statistics. Credit Level: G. Credit Hrs: 4.00

15PSYC830

Seminar: Ethical and Professional Issues in Professional Psychology

A review and discussion of the key ethical and professional issues of interest to professional psychologists. Credit Level: G. Credit Hrs: 3.00

15PSYC838

DIVERSITY IN CLINICAL PSYCHOLOGY

Diversity Issues in research and clinical practice with particular emphasis on ethnicity, gender and sexual orientation. Credit Level: G. Credit Hrs: 3.00

15PSYC840

Theory of Development

Students will read, discuss and write about theoretical approaches to development. Credit Level: G. Credit Hrs: 3.00

15PSYC842

Family Theory and Family Therapy

The family is viewed as a social system with a culture. Within this context, several major approaches to family therapy will be examined. Credit Level: G. Credit Hrs: 3.00

15PSYC853

Psychological Measurement

Types of measurement, reliability, validity, test development, scaling, clinical assessment, professional standards, and ethics. Perm of Instructor. Credit Level: G. Credit Hrs: 3.00

15PSYC854

Introduction to Psychotherapy

Lab. experience in interview methods, administration; interpretation of intelligence, personality tests, report writing, case histories. Credit Level: G. Credit Hrs: 3.00

15PSYC856

Assessment

Lab. experience in interview methods, administration; interpretation of intelligence, personality tests, report writing, case histories. The third offering in a three-part course sequence. Credit Level: G. Credit Hrs: 3.00-4.00

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Psychology**15PSYC856****Assessment**

Lab. experience in interview methods, administration; interpretation of intelligence, personality tests, report writing, case histories. The third offering in a three-part course sequence. Credit Level: G. Credit Hrs: 3.00-4.00

15PSYC858**Psychotherapy II**

See 15-055-857. Theories and applications of psychotherapeutic procedures with groups. Credit Level: G. Credit Hrs: 4.00

15PSYC860**Measurement of Psychopathology**

Measurement of psychopathology with emphasis on the MMPI. Credit Level: G. Credit Hrs: 3.00

15PSYC865**Pediatric Neuropsychology Assessment -- Practicum I**

Training and experience in the administration of neuropsychological tests in a pediatric setting; lectures and readings on various topics in pediatric neuropsychology, including the neuropsychology of learning disabilities and cerebral plasticity. Credit Level: G. Credit Hrs: 1.00-3.00

15PSYC867**Pediatric Neuropsychology Assessment -- Practicum III**

Training and experience in the administration of neuropsychological tests in a pediatric setting; lectures and readings on various topics in pediatric neuropsychology, including the neuropsychology of learning disabilities and cerebral plasticity. The third offering in a three-part course sequence. Credit Level: G. Credit Hrs: 1.00-3.00

15PSYC870**Clinical Case Conference**

This is an educational event in which departmental alumni, faculty and mental health professionals provide an overview of public and private practice in the community. The audience is graduate students in the psychology department who learn about clinical and research aspects of current mental health care. Credit Level: G. Credit Hrs: 1.00

15PSYC871**Individual Work in Psychology**

Supervised research, reading, or practical experience. Variable cr. ea. qtr. Credit Level: G. Credit Hrs: 1.00-15.00

15PSYC872**Clinical Psychology Internship Preparation Seminar**

Seminar in preparation for Clinical Psychology Internship applications. Credit Level: G. Credit Hrs: 1.00

15PSYC873**Seminar in Child Clinical Psychology**

Read and discuss developmental and clinical research relevant to child clinical psychology. Credit Level: G. Credit Hrs: 1.00

15PSYC874**Child Clinical Case Conference**

This is a seminar in which students will present their child and adolescent clinical cases for discussion in addition to discussing readings in family therapy. Credit Level: G. Credit Hrs: 1.00

15PSYC877**Theories of Personality**

Psychodynamic theories. Credit Level: G. Credit Hrs: 3.00

15PSYC880**Practicum in Crisis Intervention**

Practice in assessment and treatment of short-term clients, conducted through the University Walk-In Clinic. Cr. TBA. Credit Level: G. Credit Hrs: 1.00-15.00

15PSYC881**Intervention in Clinical Psychology**

Course will examine theory and research relevant to the formulation, development, and implementation of psychological interventions. Credit

Psychology**15PSYC881****Intervention in Clinical Psychology**

Level: G. Credit Hrs: 3.00

15PSYC888**Clinical Practica**

Involves assessment, diagnosis, and treatment of emotional disorders under supervision at an associated mental health agency. Cr. TBA. Credit Level: G. Credit Hrs: 1.00-15.00

15PSYC891**Developmental Disorders: Psychopathology and Interventions**

This 3-hours course will focus on a review of developmental disabilities in children and adolescents. Current research in assessment, cognitive development, and child and family interventions will be reviewed. Credit Level: G. Credit Hrs: 3.00

15PSYC892**Internalizing Disorders: Psychopathology and Interventions**

This 3-hours course will focus on a review of internalizing disorders in children & adolescents. Current research in assessment, psychopathology, and child and family therapy will be reviewed. Credit Level: G. Credit Hrs: 3.00

15PSYC893**Externalizing Disorders: Psychopathology and Interventions**

This 3-hours course will focus on a review of externalizing disorders in children & adolescents. Current research in assessment, psychopathology, and child and family therapy will be reviewed. Credit Level: G. Credit Hrs: 3.00

15PSYC898**Research Methods in Psychology**

Empiricism in psychology, modes of analysis, comparison of experimental, quasi-experimental and correlational designs, methods for data collection, overview of secondary analysis and meta-analysis. Credit Level: G. Credit Hrs: 3.00

15PSYC899**Non-Thesis Research by a Graduate Student**

May be elected repeatedly. Credit Level: G. Credit Hrs: 1.00-15.00

15PSYC915**Seminar in Health Psychology**

Examination and discussion of the research literature in health psychology. Papers in focal areas are chosen each quarter and critiqued. Recent developments are emphasized. Credit Level: G. Credit Hrs: 1.00

15PSYC920**Neuropsychology Case Conference**

Clinical neuropsychology case conceptualization and interpretation. Credit Level: G. Credit Hrs: 1.00

15PSYC922**Clinical Neuropsychology I**

Discussion of the theoretical and empirical literature on brain-behavior relationships and examination of the clinical features of the major neurobehavioral syndromes, including visuoperceptive, aphasic, amnesic, and apraxic disturbances. Credit Level: G. Credit Hrs: 3.00

15PSYC923**Clinical Neuropsychology II**

Emphasis is on the etiology and assessment of focal and nonfocal cerebral impairment related to trauma, neoplasm, cerebrovascular disease, degenerative dementias, and toxico-metabolic disorders. Credit Level: G. Credit Hrs: 3.00

15PSYC925**Seminar in Neuropsychology**

Examine and discuss research literature and clinical and professional issues of relevance to clinical neuroscience and neuropsychology. Credit Level: G. Credit Hrs: 1.00

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Psychology

15PSYC926

Seminar in Neuropsychology

Examine and discuss research literature and clinical and professional issues of relevance to clinical neuroscience and neuropsychology.

Prereq: 15PSYC925. Credit Level: G. Credit Hrs: 1.00

15PSYC927

Seminar in Neuropsychology

Examine and discuss research literature and clinical and professional issues of relevance to clinical neuroscience and neuropsychology.

Prereq: 15PSYC926. Credit Level: G. Credit Hrs: 1.00

15PSYC928

Seminar in Cognitive Neuropsychology

Reading and discussion of theoretical perspectives and methodological issues concerning integrative relationships between normal cognitive processing and neuropsychological dysfunction. Credit Level: G. Credit Hrs: 3.00

15PSYC929

Seminar in Cognitive Neuroscience

A survey of current data and theory in domains of cognitive neuroscience such as central auditory processing, memory, and language from neural network/connectionist modeling, cognitive psychology and neuropsychology and neuroimaging perspectives. Perm of Instructor. Credit Level: G. Credit Hrs: 3.00

15PSYC935

Topics in Cognitive Psychology

Covers basic topics in cognitive psychology. Prereq: 15PSYC809. Credit Level: G. Credit Hrs: 3.00

15PSYC936

Practicum in Clinical Neuropsychology

Supervised clinical training in neuro-psychological assessment and intervention procedures for various patient groups with known or suspected brain disease. Credit Level: G. Credit Hrs: 1.00-6.00

15PSYC937

Practicum in Clinical Neuropsychology

Supervised clinical training in neuro- psychological assessment and intervention procedures for various patient groups with known or suspected brain disease. The second offering in a three-part course sequence. Prereq.: Admission to Clin. or Neuropsych. PhD program. Credit Level: G. Credit Hrs: 1.00-6.00

15PSYC938

Practicum in Clinical Neuropsychology

Supervised clinical training in neuro- psychological assessment and intervention procedures for various patient groups with known or suspected brain disease. The third offering in a three-part course sequence. Prereq.: Admission to Clin. or Neuropsych. PhD program. Credit Level: G. Credit Hrs: 1.00-6.00

15PSYC944

Topics in Perception and Action

Review and discussion of theoretical and empirical topics in areas such as ecological psychology, motor control and learning, postural control, and the perceptual guidance of coordinated action. Credit Level: G. Credit Hrs: 3.00

15PSYC945

Topics in Perception and Action

Continued review and discussion of theoretical and empirical topics in areas such as ecological psychology, motor control and learning, postural control, and the perceptual guidance of coordinated action. The second of a three-course sequence. Credit Level: G. Credit Hrs: 3.00

15PSYC974

Seminar: Current Research in Human Learning

Reading and critical discussion of recent major contributions to human learning. Offered ea. qtr., may be elected repeatedly. Credit Level: G. Credit Hrs: 1.00-3.00

Psychology

15PSYC999

PhD Dissertation Research

Students may register for 999 repeatedly up to a total of 45 credits.

Credit Level: G. Credit Hrs: 1.00-18.00

Religious Studies

15RELG101

Introduction to the Study of Religion

This course is an introduction to the various methodologies used in the academic study of religion. The course surveys the phenomenological, psychological, anthropological, sociological, historical-critical, literary, and hermeneutical perspectives. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15RELG201

History and Thought: Christianity

This course examines the earliest period of Christianity's history, from its origins in Palestinian Judaism to the Fourth Ecumenical Council. BoK: HP. Credit Level: U. Credit Hrs: 3.00

15RELG246

Sacred Texts: Asian Traditions

Drawing on a diverse selection of readings, we explore the nature and use of texts in Asia, religious, cultural, and historical themes, and the fascination Asian texts have held in the West. BoK: HU., DC. Credit Level: U. Credit Hrs: 3.00

15RELG260

History and Thought: Islam

The course will cover the emergence of Islam in seventh-century Arabia with the Prophet Muhammad and the Qur'an; the spread of Islam and the major periods of Islamic history; Islamic Law and Theology; the basic beliefs and practices of Islam which are shared by all Muslims; several major movements within Islam; Islamic reactions to the West including modernist movements and Islamist movements, and the situation of Muslims living in the West, especially the United States. BoK: HP., DC. Credit Level: U. Credit Hrs: 3.00

15RELG262

History and Thought: Buddhism

This course will emphasize the main teachings of the historical Buddha including the Four Noble Truths and The Eight-Fold Path. Such important concepts as karma, enlightenment, and emptiness will be explored. BoK: HP., DC. Credit Level: U. Credit Hrs: 3.00

15RELG317

Religion, Medicine and Healing

This course will examine the intimate connection between religion and medicine through an investigation of the nature of health and healing. What does it mean to be whole and healthy and how do these traditions address and understand illness. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15RELG319

Suffering and Death

This course will focus on several human responses to death and dying: denial, acceptance, and rebellion. From the perspective of both the humanities and social sciences, the course will investigate such questions as: life after death, funeral behavior, grief and bereavement, suicide, terminal care. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15RELG336

Religious Roots of International Conflict

This course explores the role which religion has historically played in conflict between nations. Following a historical overview of the concept of "holy war" in centuries past, we will then focus on several specific examples of religiously-inspired conflict in the 20th century. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15RELG349

Sacred Space, Sacred Time

Sacred Space deals with architecture, placement and symbolism found in places and buildings for worship in five major religions: Judaism,

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Religious Studies**15RELG349****Sacred Space, Sacred Time**

Christianity, Islam, Hinduism and Buddhism. Sacred Time deals with the religious holidays of the same five religions. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15RELG351**Spirituality and Mysticism**

An examination of the close relationship between spirituality and mysticism, and an analysis of the mystical experience, which belongs to the core of all religion. This comparative survey will encompass ancient, medieval and some modern sources derived from both Eastern and Western religious traditions. Issues such as the contemporary relevance of mystical literature and its value in terms of our own personal growth and transformation will be considered. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15RELG401**Religion and Sexuality**

This course examines the connection between religion and human sexuality. The history and development of such topics as purity and impurity, sexual taboos, celibacy, homosexuality and sex as a spiritual path will be discussed. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15RELG414**Fundamentalism**

An in-depth study into the modern phenomenon of fundamentalism. This course will examine the historical circumstances that gave rise to fundamentalism and its growth. Emphasis will be on fundamentalism in American Christian culture with some attention to other major religious traditions. BoK: HU. Credit Level: U. Credit Hrs: 3.00

Romance Languages and Literature**15RLL100****Introduction to Language Learning**

An introduction to the process of learning a language and an orientation to basic linguistic elements including strategies for memorizing and remembering vocabulary and grammar. BoK: HU., DC. Credit Level: U. Credit Hrs: 3.00

15RLL160**Revolutionary Women: Wollstonecraft and France's Last Queen**

Mary Wollstonecraft and Marie Antoinette led very different and controversial lives in a Europe under radical change. The British feminist historian and Habsburg Queen of France sought freedom and wrote their own roles with significant social and political impacts on a larger world. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15RLL180**Brazilian Culture**

Introduction to the history, land & peoples of Brazil. Topics include slavery & its legacy, religions, economic growth, urban violence & poverty, and tourism. BoK: HU., DC. Credit Level: U. Credit Hrs: 3.00

15RLL322**European Colonialism**

Investigates European colonialism and its effect on both Europe and other regions of the world, concentrating primarily on the colonial empires established by three Romance Language speaking nations - Portugal, Spain and France. BoK: HU., SE. Credit Level: U. Credit Hrs: 3.00

15RLL341H**Brazilian Culture Through Film**

A consideration of Brazilian economic, political and social culture through film. Contemporary issues related to race relations, crime, and poverty are also studied. BoK: DC. Credit Level: U. Credit Hrs: 3.00

15RLL413**Introduction to Literary Theory**

A general introduction to literary theories and the organization of literary analyses based on these theories. Prereq: 15FREN302. BoK: LT. Credit Level: U. Credit Hrs: 3.00

Romance Languages and Literature**15RLL460****Topics in Medieval French and Spanish**

TOPICS MED FR & SP BoK: NA. Credit Level: U. Credit Hrs: 3.00

15RLL710**European Studies 710: Workshops on Migration and Diaspora**

Introduces students to the methodologies and interdisciplinary approaches to the field of European Studies through a series of bi-weekly workshops. Five faculty from three departments will present their work and lead discussion. The workshop will address topics on this year's general theme-Migration and Diaspora. Topics include Flemish diaspora communities in the central Middle Ages; Jews and Muslims living in medieval Spain; the relationships between Turks and Germans in Germany, Estonians and Russians in the former Soviet Union, and north Africans in France. Credit Level: G. Credit Hrs: 3.00

15RLL711**European Studies 711: Seminar on the African Diaspora in Europe from 1450 to Post-Colonial Era**

This interdisciplinary seminar will address: 1) the variety of ways and reasons in which and for which Africans, primarily West Africans, have left their homelands for Europe; 2) issues related to their daily life in Europe such as work, housing, legal status (slave or free); 3) acculturation-language acquisition, conversion to Christianity, education, marriage, gender and sexual relations; 4) African and European reflections on these experiences as formulated in historical, literary and critical materials. Credit Level: G. Credit Hrs: 4.00

15RLL712**European Studies 712: Spring Quarter Writing Workshop and Student Conference**

Workshop devoted to the process of writing a research paper that will then be presented in a student conference at the end of the quarter. Students will meet both as a group and individually with the seminar instructors. Students will exchange their work with one another on a regular basis and will also be responsible for helping to organize a conference along with faculty. Credit Level: G. Credit Hrs: 4.00

15RLL713**Introduction to Literary Theory**

An introduction to the concepts, vocabulary and methods of literary theory and criticism. Credit Level: G. Credit Hrs: 4.00

15RLL720**Survey of Caribbean Literature**

An introductory survey of both the Francophone and Hispanophone literature of the Caribbean. Taught in English Credit Level: G. Credit Hrs: 4.00

15RLL750**GTA Orientation to the Romance Languages Classroom**

Orients Graduate Teaching Assistants to the Romance Language Department's teaching policies, procedures, methods and materials. Meets for two to three weeks before classes begin. Credit Level: G. Credit Hrs: 4.00

15RLL751**Romance Languages Teaching Methods**

An introduction to the research and theory of teaching the Romance Languages: French, Spanish, Italian, and Portuguese. Credit Level: G. Credit Hrs: 4.00

15RLL752**Second Language Acquisition Theory Applied to the Romance Languages**

An introduction to second language acquisition theory as it applies to the Romance Languages Credit Level: G. Credit Hrs: 4.00

15RLL753**Computer Assisted Language Learning in the Romance Languages**

An introduction to computer assisted language learning as it applies to the teaching and learning of the Romance Languages. Credit Level: G.

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Romance Languages and Literature**15RLL753****Computer Assisted Language Learning in the Romance Languages**

Credit Hrs: 4.00

15RLL762**Introduction to Graduate Studies formerly Bibliography and Methods of Research**

This course introduces first-year French and Spanish students to the elements of successful graduate study and to the teaching profession in higher education. Credit Level: G. Credit Hrs: 1.00

15RLL763**Bibliography & Research Methods**

An introduction to bibliography and research methods in the Romance Languages and Literatures. Credit Level: G. Credit Hrs: 4.00

15RLL764**Professional Practices**

Preparation for the academic job search including application resume and interview techniques. Credit Level: G. Credit Hrs: 1.00

15RLL800**Interdisciplinary Seminar**

A team-taught course confronting issues in language, literature or culture, or all three which cross traditional boundaries. This course is normally preceded by a Topics or Readings course. Credit Level: G. Credit Hrs: 4.00

15RLL821**Literature of exile**

A comparative study of the literature of exiles in the Romance Languages Credit Level: G. Credit Hrs: 4.00

15RLL919**Professional Development**

This course helps doctoral students prepare for the job search and for success in a career in higher education. Topics studied include an overview of higher education in the US; effective job searches; interview techniques; the teaching portfolio. Credit Level: G. Credit Hrs: 4.00

Russian**15RUSS101****Elementary Russian I**

For beginning students. Reading, writing, culture, grammar and conversation. Fulfills college language requirement when followed by Russian 201-2-3. BoK: HU., DC. Credit Level: U. Credit Hrs: 3.00

15RUSS101H**Honors Elementary Russian**

Acquaints students with basics of Russian language, culture, and everyday life. BoK: HU., DC. Credit Level: U. Credit Hrs: 3.00

15RUSS102**Elementary Russian II**

For beginning students. Reading, writing, culture, grammar and conversation. Fulfills college language requirement when followed by Russian 201- 2-3. The second offering in a three-part course sequence. Prereq: 15RUSS101. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15RUSS102H**Elementary Russian Honors**

A section of Elementary Russian for Honors students. The second offering of a three-part course sequence. BoK: HU., DC. Credit Level: U. Credit Hrs: 3.00

15RUSS103**Elementary Russian III**

For beginning students. Reading, writing, culture, grammar and conversation. Fulfills college language requirement when followed by Russian 201- 2-3. The third offering in a three-part course sequence. Prereq: 15RUSS102. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

Russian**15RUSS103H****Elementary Russian Honors**

A section of Elementary Russian for Honors students. The third offering in a three-part course sequence. BoK: HU., DC. Credit Level: U. Credit Hrs: 3.00

15RUSS111**Extended Basic Russian 1**

Basic Russian language and culture. First quarter in the extended 6-quarter sequence to fulfill the A&S language requirement. BoK: DC., HU. Credit Level: U. Credit Hrs: 3.00

15RUSS112**Extended Basic Russian 2**

Basic Russian language and culture. Second quarter in the extended 6-quarter sequence to fulfill the A&S language requirement. Prereq: 15RUSS101. BoK: DC, HU. Credit Level: U. Credit Hrs: 3.00

15RUSS113**Extended Basic Russian 3**

Basic Russian language and culture. Third quarter in the extended 6-quarter sequence to fulfill the A&S language requirement. Prereq: 15RUSS102. BoK: DC, HU. Credit Level: U. Credit Hrs: 3.00

15RUSS114**Extended Basic Russian 4**

Basic Russian language and culture. Fourth quarter in the extended 6-quarter sequence to fulfill the A&S language requirement. Prereq: 15RUSS103. BoK: DC, HU. Credit Level: U. Credit Hrs: 3.00

15RUSS115**Extended Basic Russian 5**

Basic Russian language and culture. Fifth quarter in the extended 6-quarter sequence to fulfill the A&S language requirement. Prereq: 15RUSS201. BoK: DC, HU. Credit Level: U. Credit Hrs: 3.00

15RUSS116**Extended Basic Russian 6**

Basic Russian language and culture. Sixth quarter in the extended 6-quarter sequence to fulfill the A&S language requirement. Prereq: 15RUSS202. BoK: DC, HU. Credit Level: U. Credit Hrs: 3.00

15RUSS201**Intermediate Russian I**

This course sequence (201-2-3) fulfills the college language requirement. BoK: HU., DC. Credit Level: U. Credit Hrs: 3.00

15RUSS202**Intermediate Russian II**

This course sequence fulfills the college language requirement. The second offering in a three-part course sequence. Prereq: 15RUSS201. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15RUSS203**Intermediate Russian III**

This course sequence (201-2-3) fulfills the college language requirement. The third offering in a three-part course sequence. Prereq: 15RUSS202. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15RUSS302**Russian Conversation and Reading Two**

For advanced students. The second offering in a three-part course sequence. Prereq: 15RUSS301. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15RUSS581**Elementary Russian I**

ELEMEN RUSSIAN I BoK: HU., DC. Credit Level: U, G. Credit Hrs: 3.00

15RUSS582**Elementary Russian II**

ELEMEN RUSSIAN II Prereq: 15RUSS581. BoK: HU, DC. Credit Level: U, G. Credit Hrs: 3.00

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Russian**15RUSS583****Elementary Russian III**

ELEMEN RUSSIAN III Prereq: 15RUSS582. BoK: HU, DC. Credit Level: U, G. Credit Hrs: 3.00

15RUSS584**Intermediate Russian I**

INTERM RUSSIAN I BoK: HU., DC. Credit Level: U, G. Credit Hrs: 3.00

15RUSS585**Intermediate Russian II**

INTERM RUSSIAN II Prereq: 15RUSS584. BoK: HU, DC. Credit Level: U, G. Credit Hrs: 3.00

15RUSS586**Intermediate Russian III**

INTERM RUSSIAN III Prereq: 15RUSS585. BoK: HU, DC. Credit Level: U, G. Credit Hrs: 3.00

15RUSS591**Independent Study**

INDEPENDENT STUDY BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-15.00

15RUSS592**Independent Study**

INDEPENDENT STUDY BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-15.00

15RUSS593**Independent Study**

INDEPENDENT STUDY BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-15.00

Sociology**15SOC141****Introduction to Sociology**

An introduction to sociological principles and perspectives for the analysis of the social character of human activities, particularly in contemporary society. Transfer Module. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15SOC142**Introduction to Sociology II**

An examination of social structure with emphasis on the organization of major institutions, the relationship of humans to their environments, and social change. FORMERLY KNOWN AS SOCIETIES IN CHANGE. Prereq: 15SOC141. Transfer Module. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15SOC143**Contemporary Social Issues**

Discussion of selected social issues and problems of current concern in society. Prereq: 15SOC141. Transfer Module. BoK: SS, SE. Credit Level: U. Credit Hrs: 3.00

15SOC144**Barriers to Equality**

An examination of forces of inequality (e.g., class, gender, race/ethnicity) as major influences on the structure of interaction in society and on access to social opportunity. Prereq: 15SOC141. Transfer Module. BoK: SS, DC. Credit Level: U. Credit Hrs: 3.00

15SOC145**Understanding Social Behavior**

An analysis of social bases of individual behavior, including the influence of formal and informal groups and other social phenomena. Prereq: 15SOC141. Transfer Module. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15SOC273**Substance Abuse in American Society**

An interdisciplinary survey of substance abuse in the U.S. drawing from biology, psychology and sociology. Includes an examination of the

Sociology**15SOC273****Substance Abuse in American Society**

causes of chemical dependency along with strategies for intervention, treatment and prevention. Prereq: 15SOC141. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15SOC275**Sociology of the Family**

Analysis of contemporary patterns of marriage and family life, including examination of courtship, marriage and marital adjustment, childrearing, divorce, and alternatives to traditional family roles. Prereq: 15SOC141. Transfer Module. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15SOC276**Changing Roles for Men and Women**

Social causes and consequences of change in traditional sex roles, with emphasis upon problems of contemporary women and transition in American family structure. (Formerly 15-SOC-379) Prereq: 15SOC141. Transfer Module. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15SOC301**Sociology of Food**

An examination of what people eat and the meanings they attribute to food, and inequalities in the distribution of food in the U.S. and around the globe. Specific topics include the development of fast food and ethnic cuisine, agricultural systems, taboos, sensuality, and the ways that food systems shape social class, ethnicity and gender. Prereq: 15SOC141. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15SOC304**Survey of Sociological Theory**

A presentation of the major classical and contemporary theories in sociology. Prereq: 15SOC141. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15SOC305**Survey of Sociological Theory**

A presentation of the major classical and contemporary theories in sociology. The second offering in a two-part course sequence. Prereq: 15SOC304. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15SOC306**Organizations in Modern Society**

An introduction to the sociological study of organizations. Topics include conflict and commitment in organizations, participatory democracy, race and gender in organizations, the nature of bureaucracies, and the effects of globalization on how work is structured. Types of organizations studied include community-based, for-profit, non-profit organizations, asylums and other total institutions. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15SOC318**Elementary Quantitative Analysis in Sociology**

Course focus is on descriptive and inferential statistics which are used in social science research; students will learn data management and analysis; the use of SPSS for data analysis; the interpretation of results. Prereq: 15SOC141. BoK: NA. Credit Level: U. Credit Hrs: 4.00

15SOC319**Elementary Quantitative Analysis in Sociology**

Descriptive and inferential statistics used in social science research. Students will learn data management and analysis, the use of SPSS for data analysis, and the interpretation of results. The second offering in a two-part course sequence. Prereq.: 318. Prereq: 15SOC318. BoK: NA. Credit Level: U. Credit Hrs: 4.00

15SOC321**Methods - Social Research**

Course focus is on elements of the research process and the strategies used by sociologists to undertake valid social research. Topics will include developing the research question, doing the literature review, conceptualization and measurement, research ethics, and sampling, in addition to coverage of various techniques for projects. Prereq: 15SOC141. BoK: NA. Credit Level: U. Credit Hrs: 3.00

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Sociology**15SOC321****Methods - Social Research**

Course focus is on elements of the research process and the strategies used by sociologists to undertake valid social research. Topics will include developing the research question, doing the literature review, conceptualization and measurement, research ethics, and sampling, in addition to coverage of various techniques for projects. Prereq: 15SOC141. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15SOC322**Methods - Social Research**

Course focus is on elements of the research process and the strategies used by sociologists to undertake valid social research. Topics will include developing the research question, doing the literature review, conceptualization and measurement, research ethics, and sampling, in addition to coverage of various techniques for projects. This is the second offering in a two- part course sequence. Prereq.: 321. Prereq: 15SOC318, 15SOC321. BoK: NA. Credit Level: U. Credit Hrs: 4.00

15SOC325**Deviance**

Sociological perspectives on deviance and control, including examination of social causes and social reactions to deviance. Prereq: 15SOC141. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15SOC326**Elite Deviance**

In this course, we will explore the nature and varieties of deviance performed by the elite in society, ranging from the violation of professional ethics to corporate and governmental crimes. Prereq: 15SOC141. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15SOC328**Women, Culture and Society**

An interdisciplinary introduction to Women's Studies analyzing women's social, economic, and political position in the U.S. today. BoK: SS., DC. Credit Level: U. Credit Hrs: 3.00

15SOC330**The Individual in Society**

Ethnomethodological, symbolic interactionist and other microsociological approaches to individuals in interaction and society. Topics include identity, reasoning, gender differences, and face-to-face interaction. Prereq: 15SOC141. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15SOC335**Social-Psychological Effects of Economic Disadvantage**

Examination of the social-psychological effects of economic disadvantage, including coping with life events, long term consequences, and impact on children and adolescents. Prereq: 15SOC141. BoK: SS, SE. Credit Level: U. Credit Hrs: 3.00

15SOC340**Sociology of Death and Dying**

Exploration of historical and modern societal attitudes towards death and dying, cultural practices of funeral ritual, body disposition and grieving, and legal and ethical issues surrounding end of life. Prereq: 15SOC141. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15SOC345**Urban Society**

An introductory course in urban sociology which examines cities from historical, theoretical, and empirical perspectives. Prereq: 15SOC141. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15SOC361**Homelessness**

An examination of the causes and consequences of homelessness in the United States with an emphasis on the City of Cincinnati. Students will participate in an unpaid service experience with a community service agency serving the homeless. Prereq: 15SOC141. BoK: SS. Credit Level: U. Credit Hrs: 3.00

Sociology**15SOC365****Sociology of Sports**

Analysis of sports as a major leisure institution that reflects the structure of the larger society; issues in professional and collegiate sports are examined. Prereq: 15SOC141. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15SOC370**Sociology of Social Problems**

An examination of the processes whereby social problems and their solutions are constructed in the public arena; specifically, an examination of social groups that promote social problems, the methods used for influencing the public, and the opportunities and constraints associated with finding solutions to social problems. Prereq: 15SOC141. BoK: SS, SE. Credit Level: U. Credit Hrs: 3.00

15SOC371**Social Change**

An examination of social change historically and cross-nationally, focusing on such issues as the roles of technology, culture, demographic conditions and power. Prereq: 15SOC141. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15SOC373**Race in Modern Society**

A sociological analysis of race and ethnicity. Special attention given to racial and ethnic prejudice, discrimination, and social inequality. Prereq: 15SOC141. BoK: SS, DC. Credit Level: U. Credit Hrs: 3.00

15SOC380**Men and Masculinity**

An examination of men's position/role in society, changing definitions of masculinity, media portrayals, and issues of social identity. Prereq: 15SOC141. BoK: SS, DC. Credit Level: U. Credit Hrs: 3.00

15SOC386**El Salvador Study Tour**

An examination of inequality and social change in El Salvador. Assigned readings discussed in meetings during the quarter followed by one week in El Salvador Perm of Instructor. BoK: DC. Credit Level: U. Credit Hrs: 3.00

15SOC389**Youth and Society**

An analysis of the status of youth and adolescents in society. Particular emphasis is placed on the ambiguity of the role of adolescents/youth in modern society and the special problems which result. (Formerly 15SOC406) Prereq: 15SOC141. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15SOC401**Sociology of Education**

Sociological concepts and theories are applied to issues in education. Topics will include the rise of the modern U.S. school system, the interface between schools and the stratification system, and outcomes of schooling. Prereq: 15SOC141. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15SOC407**Environmental Sociology**

An introduction to the study of how nature shapes human life and how humans shape nature. Topics include ecological restoration, social movements, global warming, natural disasters, urban environments, inequality and environmental policy. Makes connections between local, national, and global processes. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15SOC415**The Media and Sociology**

An examination of the use of sociology and social science information by the media. Emphasis will be on the critical examination of how data, issues and research are presented. Implications for the public's understanding of social issues will be explored, particularly as it relates to information provided by different media outlets. Prereq: 15SOC141.

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Sociology**15SOC415****The Media and Sociology**

BoK: SS. Credit Level: U. Credit Hrs: 3.00

15SOC418**Current Family Issues**

A detailed analysis of contemporary family life in the United States. Discuss definitions of what constitutes a family, analyze the impact of race, class and gender on family life, and examine research on family formation and dissolution, relationships. Prereq: 15SOC141. BoK: SS, DC. Credit Level: U. Credit Hrs: 3.00-4.00

15SOC420**Sociology of Law**

Analysis of law as a social institution and the process of legal development and change. Special emphasis will be given to the relationship between law and social organization, and the relation of sociocultural changes to substantive and procedural aspects of law. The concept of justice will also be analyzed. Law will be viewed as a collectivistic-individualistic process and as a reflection of social and cultural values. Prereq: 15SOC141. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15SOC444**Social Movements**

Analysis of contemporary social movements within a collective behavior framework. 443 is recommended, but not required. Prereq: 15SOC141. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15SOC448**Applied Sociology**

Designed to acquaint students with both the applied and clinical elements of sociological practice. Emphasis is on the use of sociological theory, concepts, methods, and findings in non-academic settings. The course involves an unpaid "field experience" learning component. Prereq: 15SOC141. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15SOC450**Criminology**

An examination of the extent and nature of criminal behavior, theories of criminal behavior, the types of problems with research in the area, and societal efforts to deal with criminal behavior. Prereq: 15SOC141. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15SOC452**Capstone I: Urban Inequality**

An advanced examination of racial and ethnic inequality in urban housing and labor markets. The first course in a two-course sequence. Prereq: SOC318, SOC321. Coreq: SOC319, SOC322 Prereq: 15SOC318, 15SOC321. Coreq: 15SOC319, 15SOC322. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15SOC453**Capstone II: Urban Inequality**

An advanced examination, including individual empirical research projects, of racial and ethnic inequality in urban housing and labor markets. The second course in a two-course sequence. Prereq: SOC319, SOC 322, SOC452 Prereq: 15SOC319, 15SOC322, 15SOC452. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15SOC462**Capstone I: Gender, Work, and Family**

An advanced examination of change affecting family life, the organization of the workplace, and the relationship between these two societal institutions. The first course in a two-course sequence. Prereq: SOC318, SOC321. Coreq: SOC319, SOC322 Prereq: 15SOC318, 15SOC321. Coreq: 15SOC319, 15SOC322. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15SOC463**Capstone II: Gender, Work, and Family**

An advanced examination, including individual empirical research

Sociology**15SOC463****Capstone II: Gender, Work, and Family**

projects of change affecting family life, the organization of the workplace, and the relationship between these two societal institutions. The second course in a two-course sequence. Prereq: SOC318-319, SOC321-322, SOC462. Prereq: 15SOC319, 15SOC322, 15SOC462. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15SOC472**Capstone I: War & Society**

An advanced examination of the many ways war, civil or otherwise, affects the development of society--both historically and contemporarily. The first course in a two-course sequence. Prereq: SOC318, SOC321. Coreq: SOC 319, SOC 322 Prereq: 15SOC318, 15SOC321. Coreq: 15SOC319, 15SOC322. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15SOC473**Capstone II: War & Society**

An advanced examination, including individual empirical research projects, of the causes of contemporary wars and their effects on life chances. The second course in a two-course sequence. Prereq: SOC319, SOC322, SOC472 Prereq: 15SOC319, 15SOC322, 15SOC472. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15SOC475**War and Society**

This course examines the relationship of contemporary war to society, both generally and in its effects on individuals. Prereq: 15SOC141. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15SOC484**Social Inequality**

The causes and consequences of social inequality, especially class inequality in modern societies. Prereq: 15SOC141. BoK: SS, DC. Credit Level: U. Credit Hrs: 3.00

15SOC490**Sociology of Health and Illness**

Examines classical and critical theories of health, illness and empirical research. Preventative approaches to health care are contrasted with disease oriented approaches on the basis of social economic and demographic factors, health care providers, patients and health care systems. Prereq: 15SOC141. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15SOC501**Social Psychology**

The study of social interaction; theoretical perspectives in social psychology, group dynamics, conformity and deviance, leadership, intergroup conflict, gender roles, social factors in health. Prereq: 15SOC141. BoK: SS. Credit Level: U, G. Credit Hrs: 3.00

15SOC502**Social Psychology**

The study of social interaction; interpersonal attraction, altruism and helping behavior, human aggression, social attitudes and attitude change, perceiving other persons, self-concept. Prereq: 15SOC141. BoK: SS. Credit Level: U, G. Credit Hrs: 3.00

15SOC522**Professional Women**

Analysis of current and past status of women in management, professions and of various factors influencing movement of women into managerial, professional positions. Prereq: 15SOC141. BoK: SS, DC. Credit Level: U, G. Credit Hrs: 3.00

15SOC565**Internship in Sociology**

Supervised research or service learning in a community organization. Perm of Instructor. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-3.00

15SOC566**Internship in Sociology**

Supervised research or service learning in a community organization. Perm of Instructor. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-3.00

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Sociology**15SOC567****Internship in Sociology**

Supervised research or service learning in a community organization. Perm of Instructor. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-3.00

15SOC570**Political Sociology**

Sociological analysis of political organization and political behavior. Prereq: 15SOC141. BoK: SS. Credit Level: U, G. Credit Hrs: 3.00

15SOC581**Individual Work in Sociology**

Guided individual research or study on a topic pre-arranged with a professor. Must have professor's permission to sign up. Available for undergraduate or graduate credit. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-15.00

15SOC582**Individual Work in Sociology**

Guided individual research or study on a topic pre-arranged with a professor. Must have professor's permission to sign up. Available for undergraduate or graduate credit. The second offering in a three-part course sequence. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-15.00

15SOC583**Individual Work in Sociology**

Guided individual research or study on a topic pre-arranged with a professor. Must have professor's permission to sign up. Available for undergraduate or graduate credit. The third offering in a three-part course sequence. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-15.00

15SOC586**El Salvador Study Tour**

An examination of inequality and social change in El Salvador. Assigned readings discussed in meetings during the quarter followed by one week in El Salvador. Perm of Instructor. BoK: DC. Credit Level: U, G. Credit Hrs: 3.00-4.00

15SOC591**Taft Undergraduate Research 1**

Faculty-mentored independent study dedicated to completion of an independent research product as specified by the Dept. of Sociology's guidelines for the Taft Undergraduate Senior Research Fellowship. Available only to Dept. of Sociology Taft Undergraduate Senior Research Fellows. First of a two-quarter sequence. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15SOC592**Taft Undergraduate Research 2**

Faculty-mentored independent study dedicated to the completion of an independent research product as specified by the Dept. of Sociology's guidelines for the Taft Undergraduate Senior Research Fellowship. Available only to Dept. of Sociology Taft Undergraduate Senior Research Fellows. The second quarter of a two-quarter sequence. Prereq: 15SOC591. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15SOC607**Complex Organizations**

Theory, research studies, and applications in complex organizations. A fundamental survey course for advanced undergraduate and graduate students. Prereq: 15SOC141. BoK: SS. Credit Level: U, G. Credit Hrs: 3.00

15SOC608**Complex Organizations II**

Theory and research on internal dynamics of organizations in relation to structure. Topics include opportunity structure; power, and authority; effects of tokenism; and the employment of professionals in organizations. Prereq: 15SOC141. BoK: SS. Credit Level: U, G. Credit Hrs: 3.00

15SOC641**Introduction to Population Studies**

Examines the basic concepts and principles of demography, the study

Sociology**15SOC641****Introduction to Population Studies**

of populations. Concepts and principles are applied to the United States' and the world's populations, with an emphasis on understanding population issues. (Formerly titled "Demography".) Prereq: 15SOC319, 15SOC322. BoK: SS. Credit Level: U, G. Credit Hrs: 3.00

15SOC642**Demographic Techniques**

Examines the logic and calculations of basic demographic techniques, e.g., life tables, survival rates, and stable populations. Emphasis is on an intuitive understanding of the procedures and where they may be usefully applied. (Formerly titled "Demography" with a prerequisite of SOC641.) Prereq: 15SOC141. BoK: SS. Credit Level: U, G. Credit Hrs: 3.00

15SOC705**Intermediate Social Statistics**

Types and uses of statistical techniques in sociological research. Credit Level: G. Credit Hrs: 4.00

15SOC706**Intermediate Social Statistics**

Types and uses of statistical techniques in sociological research. Prereq: 15SOC705. Credit Level: G. Credit Hrs: 4.00

15SOC711**Theory Construction**

Principles of philosophy of science, research design, data collection and analysis. Credit Level: G. Credit Hrs: 4.00

15SOC712**Design and Techniques**

Principles of philosophy of science, research design, data collection and analysis. The second offering in a two-part course sequence. Credit Level: G. Credit Hrs: 4.00

15SOC713**Measurement**

Theories, issues in measurement in research. See 15-SOC-711. Credit Level: G. Credit Hrs: 4.00

15SOC714**Graduate Research II**

Seminar devoted to preparation of Master's thesis. Credit Level: G. Credit Hrs: 1.00-4.00

15SOC715**Graduate Research II**

Seminar devoted to preparation of Master's thesis. The second offering in a three-part course sequence. Prereq: 15SOC714. Credit Level: G. Credit Hrs: 1.00-4.00

15SOC716**Graduate Research II**

Seminar devoted to preparation of Master's thesis. The third offering in a three-part course sequence. Prereq: 15SOC715. Credit Level: G. Credit Hrs: 1.00-4.00

15SOC726**Youth and Society**

An analysis of the status of youth and adolescents in society; particular emphasis is placed on the ambiguity of the role of adolescents/youth in modern society. Credit Level: G. Credit Hrs: 4.00

15SOC731**Individual Work in Sociology**

Guided individual research or study on a topic pre-arranged with a professor. Must have professor's permission to sign up. Master's or PhD students. Credit Level: G. Credit Hrs: 1.00-15.00

15SOC732**Individual Work in Sociology**

Guided individual research or study on a topic pre-arranged with a professor. Must have professor's permission to sign up. Master's or

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Sociology**15SOC732****Individual Work in Sociology**

PhD students. The second offering in a three-part course sequence. Credit Level: G. Credit Hrs: 1.00-15.00

15SOC733**Individual Work in Sociology**

Guided individual research or study on a topic pre-arranged with a professor. Must have professor's permission to sign up. Master's or PhD students. The third offering in a three-part course sequence. Credit Level: G. Credit Hrs: 1.00-15.00

15SOC748**Seminar in Social Stratification**

The study of systems of inequality in society. Major theories and current research about social class and social stratification. Credit Level: G. Credit Hrs: 4.00

15SOC749**Seminar in Social Stratification II**

Analysis of dimensions of stratification and social inequality, status attainment, and social mobility. Prereq: 15SOC748. Credit Level: G. Credit Hrs: 4.00

15SOC755**Political Culture & Ideology**

An examination of how culture reinforces or challenges political arrangements. Special focus on core ideas such as ideology, hegemony, and symbolic power. Credit Level: G. Credit Hrs: 4.00

15SOC760**Work and Occupations Seminar**

Research and theory in work and the American occupational structure; new empirical and theoretical developments in the field are studied. Credit Level: G. Credit Hrs: 4.00

15SOC771**Family Theory and Research**

Current research and theory in family studies are explored in seminar format. Credit Level: G. Credit Hrs: 4.00

15SOC784**Social Movements**

Analysis of contemporary social movements within a collective behavior framework. Credit Level: G. Credit Hrs: 4.00

15SOC788**Seminar: Urban Structure and Change**

This seminar covers theories of and empirical research on the structure and growth of American cities. Credit Level: G. Credit Hrs: 4.00

15SOC790**Seminar: Sociology of Health and Illness**

Sociological aspects of health and illness are examined using classical and critical theories, empirical research, examination of demographic factors in health, illness; health care providers; patients; social forces affecting the health care system. Credit Level: G. Credit Hrs: 4.00

15SOC794**Seminar in Urban Inequality**

Explores racial and ethnic inequality in urban housing and labor markets in a seminar format. Credit Level: G. Credit Hrs: 4.00

15SOC806**Teaching Sociology**

Seminar on strategies for teaching sociology; conceptualizing and organizing course content; presentation strategies; examinations and evaluation. Credit Level: G. Credit Hrs: 4.00

15SOC807**Teaching Practicum Seminar**

Problems and methods in the teaching of sociology. Required of teaching fellows and assistants in the dept. Credit Level: G. Credit Hrs: 1.00-4.00

Sociology**15SOC808****Teaching Practicum Seminar**

Problems and methods in the teaching of sociology. Required of teaching fellows and assistants in the dept. The second offering in a three-part course sequence. Credit Level: G. Credit Hrs: 1.00-4.00

15SOC809**Teaching Practicum Seminar**

Problems and methods in the teaching of sociology. Required of teaching fellows and assistants in the dept. The third offering in a three-part course sequence. Credit Level: G. Credit Hrs: 1.00-4.00

15SOC810**Seminar in Gender**

Research and theory in significance of gender in social behavior research and stratification research. Credit Level: G. Credit Hrs: 4.00

15SOC811**Seminar on Race**

Research and theory dealing with race/ethnicity as a status category; examination of conceptual measurement issues; variable effects on social outcomes and implications for social policy. Credit Level: G. Credit Hrs: 4.00

15SOC812**Seminar in Complex Organizations**

Research on issues relevant to understanding of complex organizations; includes student research focusing on an organizational issue. Credit Level: G. Credit Hrs: 4.00

15SOC817**Sociology of Science**

A survey of the major theories and empirical studies in the sociology of science. Topics include relationships between knowledge and power, social movements and science, reward systems in science, genetic and environmental issues, technology and social change, and science policy. Credit Level: G. Credit Hrs: 4.00

15SOC821**Seminar in Human Fertility**

Theory and research on the social influences shaping childbearing behavior. Prereq: 15SOC642. Credit Level: G. Credit Hrs: 4.00

15SOC822**Seminar in Migration**

Systematic reviews of theories, research strategies, and findings on the social influences shaping human migration. Prereq: 15SOC642. Credit Level: G. Credit Hrs: 4.00

15SOC825**Family Policy**

This course examines contemporary perspectives on the changing American family, paying explicit attention to the relationship between public policy and trends in family life and family well being. Credit Level: G. Credit Hrs: 4.00

15SOC831**Advanced Individual Work in Sociology**

Guided individual research or study on a topic pre-arranged with a professor. Must have professor's permission to sign up. Master's or PhD students. Credit Level: G. Credit Hrs: 1.00-15.00

15SOC832**Advanced Individual Work in Sociology**

Selected problems. Cr. Arranged. The second offering in a three-part course sequence. Credit Level: G. Credit Hrs: 1.00-15.00

15SOC833**Advanced Individual Work in Sociology**

Selected problems. Cr. arranged. The third offering in a three-part course sequence. Credit Level: G. Credit Hrs: 1.00-15.00

15SOC835**Seminar: Relationships within Families**

Examines theoretical and research issues in understanding family

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Sociology**15SOC835****Seminar: Relationships within Families**

relationships over time, including decision making, effects of the addition of children, divorce, death. Prereq: 15SOC771. Credit Level: G. Credit Hrs: 4.00

15SOC840**Qualitative Research Methods**

Qualitative methods of social research for MA and PhD students; research strategies will be reviewed, students will use the methodology for their own research. Credit Level: G. Credit Hrs: 4.00

15SOC843**Workplace Studies: Ethnomethodological Approaches**

Covers recent qualitative ethnomethodological research on the social organization of work and technology in workplace settings. Credit Level: G. Credit Hrs: 4.00

15SOC845**Seminar in Social Change**

Research seminar focusing on large-scale societal change and its attendant characteristics including urbanization, population changes, and environmental costs. Credit Level: G. Credit Hrs: 4.00

15SOC865**Sociology of Sports**

An analysis of the relationship between sports, culture, and societal institutions. Credit Level: G. Credit Hrs: 4.00

15SOC875**Sociological Theory**

A comparative survey of basic concepts and theories in sociology; the codification of analytic schemes; a critical analysis of trends in theory construction. Credit Level: G. Credit Hrs: 4.00

15SOC876**Sociological Theory**

A comparative survey of basic concepts and theories in sociology; the codification of analytic schemes; a critical analysis of trends in theory construction. The second offering in a two-part course sequence. Credit Level: G. Credit Hrs: 4.00

15SOC884**Research Practicum Seminar**

Problems and methods in sociological research. Required of students working toward the PhD degree. Credit Level: G. Credit Hrs: 1.00-4.00

15SOC885**Research Practicum Seminar**

Problems and methods in sociological research. Required of students working toward the PhD degree. The second offering in a three-part course sequence. Credit Level: G. Credit Hrs: 1.00-4.00

15SOC886**Research Practicum Seminar**

Problems and methods in sociological research. Required of students working toward the PhD degree. The third offering in a three-part course sequence. Credit Level: G. Credit Hrs: 1.00-4.00

15SOC910**Seminar: Structural Relations Models**

The use of structural modeling for analysis of social phenomena; multivariate regression techniques. Credit Level: G. Credit Hrs: 4.00

15SOC934**Symbolic Interaction Theory**

Interrelations between society and individual behavior from an interactionist perspective. Prereq: 15SOC744. Credit Level: G. Credit Hrs: 4.00

15SOC937**Doctoral Dissertation Research**

Supervised dissertation research pre-arranged with permission of professor. PhD students. Credit Level: G. Credit Hrs: 1.00-15.00

Sociology**15SOC938****Doctoral Dissertation Research**

Cr. arranged. The second offering in a three-part course sequence. Credit Level: G. Credit Hrs: 1.00-15.00

15SOC939**Doctoral Dissertation Research**

Cr. arranged. The third offering in a three-part course sequence. Credit Level: G. Credit Hrs: 1.00-15.00

Spanish**15SPAN100****Conversational Spanish for Special Purposes**

A basic conversational Spanish course for specialized fields that require speaking skills with a focused vocabulary. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15SPAN101**Basic Spanish I**

Basic Spanish language and culture. First quarter in the 3-quarter sequence that fulfills the A&S language requirement. BoK: DC., HU. Credit Level: U. Credit Hrs: 5.00

15SPAN102**Basic Spanish II**

Basic Spanish language and culture. Second quarter in the 3-quarter sequence that fulfills the A&S language requirement. Prereq: 15SPAN101. BoK: DC, HU. Credit Level: U. Credit Hrs: 5.00

15SPAN102H**Basic Spanish II Honors**

Honors section of Basic Spanish Prereq: 15SPAN101. BoK: HU, DC. Credit Level: U. Credit Hrs: 5.00

15SPAN103**Basic Spanish III**

Basic Spanish language and culture. Third quarter in the 3-quarter sequence that fulfills the A&S language requirement. Prereq: 15SPAN102. BoK: DC, HU. Credit Level: U. Credit Hrs: 5.00

15SPAN103H**Basic Spanish III Honors**

Honors section of Basic Spanish Prereq: 15SPAN102. BoK: DC, HU. Credit Level: U. Credit Hrs: 5.00

15SPAN111**Extended Basic Spanish 1**

Basic Spanish language and culture. First quarter in the extended 6-quarter sequence that fulfills the A&S language requirement. BoK: DC., HU. Credit Level: U. Credit Hrs: 3.00

15SPAN112**Extended Basic Spanish 2**

Basic Spanish language and culture. Second quarter in the extended 6-quarter sequence that fulfills the A&S language requirement. Prereq: 15SPAN111. BoK: DC, HU. Credit Level: U. Credit Hrs: 3.00

15SPAN113**Extended Basic Spanish 3**

Basic Spanish language and culture. Third quarter in the extended 6-quarter sequence and fulfills the A&S language requirement. Prereq: 15SPAN112. BoK: DC, HU. Credit Level: U. Credit Hrs: 3.00

15SPAN114**Extended Basic Spanish 4**

Basic Spanish language and culture. Fourth quarter in the extended 6-quarter sequence that fulfills the A&S language requirement. Prereq: 15SPAN113. BoK: DC, HU. Credit Level: U. Credit Hrs: 3.00

15SPAN115**Extended Basic Spanish 5**

Basic Spanish language and culture. Fifth quarter in the extended 6-quarter sequence that fulfills the A&S language requirement. Prereq: 15SPAN114. BoK: DC, HU. Credit Level: U. Credit Hrs: 3.00

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Spanish**15SPAN116****Extended Basic Spanish 6**

Basic Spanish language and culture. Sixth quarter in the extended 6-quarter sequence that fulfills the A&S language requirement. Prereq: 15SPAN115. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15SPAN161**Intensive Spanish for International Co-op Program**

Intensive immersion course in Spanish for students with little or no experience in Spanish. Focus on functioning in Spanish in the target culture for students preparing for international co-op assignments. Other students may be admitted with permission of the instructor and the ICP director. BoK: HU., DC. Credit Level: U. Credit Hrs: 3.00

15SPAN180**World Cultures - Hispanic**

General education course on issues of the Spanish speaking world. Taught in English. Satisfies content area requirement in American Diversity/ World Cultures. Does not count toward major or minor in Spanish. The first part in a two-part series. BoK: HU., DC. Credit Level: U. Credit Hrs: 3.00

15SPAN181**Mexican Culture**

General education course on Mexican Culture. Taught in English. Satisfies content area requirement in American Diversity/World Cultures. Does not count toward major or minor Spanish. The second part in a two-part series. BoK: HU., DC. Credit Level: U. Credit Hrs: 3.00

15SPAN182**U S Latino Culture**

An introduction to the rapidly changing and growing arts and literature of the several Hispanic cultures of the U.S. including the Cuban, Caribbean and Mexican diaspora. BoK: HU., DC. Credit Level: U. Credit Hrs: 3.00

15SPAN250**Valentine House Conversational Spanish**

Conversational Spanish for Valentine House residents. BoK: DC. Credit Level: U. Credit Hrs: 1.00

15SPAN251**Composition and Conversation**

Course taught in Spanish. Grammar review. Writing and speaking practice. The sequence is a prereq. to courses at 300 level. Prereq: 15SPAN106. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15SPAN252**Composition and Conversation**

Course taught in Spanish. Grammar review. Writing and speaking practice. The sequence is a prereq. to courses at 300 level. The second offering in a three-part course sequence. Prereq.: Spanish 104-5-6 or Intermediate Spanish or appropriate Spanish Placement Test score. Prereq: 15SPAN251. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15SPAN253**Composition and Conversation**

Course taught in Spanish. Grammar review. Writing and speaking practice. The sequence is a prereq. to courses at 300 level. The third offering in a three-part course sequence. Prereq.: Spanish 104-5-6 or Intermediate Spanish or appropriate Spanish Placement Test score. Prereq: 15SPAN252. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15SPAN260**Mexican Civilization through Its Art**

A combination of Mexican history and art through the analysis of paintings by two of its most famous artists: Diego Rivera and Frida Kahlo. Taught in English. BoK: HU., DC. Credit Level: U. Credit Hrs: 3.00

15SPAN261**Seeing It Our/Their Way and Readings in Chicano-U**

Latino Literature. General education course on Chicano-U.S. Latino

Spanish**15SPAN261****Seeing It Our/Their Way and Readings in Chicano-U**

literature and the bicultural, bilingual culture for which it speaks. Emphasis on literature and cultural studies. BoK: LT., DC. Credit Level: U. Credit Hrs: 3.00

15SPAN300**Grammar and composition**

Intermediate/advanced course in Spanish grammar and composition. Prereq: 15SPAN253. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15SPAN301**Speaking in Spanish about Hispanic Culture**

Emphasizes grammar & conversation, as well as Spanish syntax and for the development of students' speaking proficiency. BoK: HU., DC. Credit Level: U. Credit Hrs: 3.00

15SPAN302**Reading Spanish Texts**

Introduction to literary analysis and reading of texts in Spanish. Provides students with the necessary tools to read a text closely and the skills to develop a critical understanding of major trends and styles in literary production and movements. BoK: HU., DC. Credit Level: U. Credit Hrs: 3.00

15SPAN303**Spanish Linguistics**

An introduction to the structures of the international Spanish language, its grammar, morphology and phonology BoK: DC. Credit Level: U. Credit Hrs: 3.00

15SPAN305**Business Spanish**

Composition, conversation, business correspondence, written translation from and into Spanish. Prereq: 15SPAN253. BoK: SE, DC. Credit Level: U. Credit Hrs: 3.00

15SPAN306**Business Spanish**

Composition, conversation, business correspondence, written translation from and into Spanish. The second offering in a three-part course sequence. Prereq.: Sp.253 or perm. of instr. Prereq: 15SPAN305. BoK: SE, DC. Credit Level: U. Credit Hrs: 3.00

15SPAN307**Business Spanish**

Composition, conversation, business correspondence, written translation from and into Spanish. The final offering in a three-part course sequence. Prereq: Sp. 253 or perm. of instr. Prereq: 15SPAN306. BoK: SE, DC. Credit Level: U. Credit Hrs: 3.00

15SPAN308**Introducción a la Economía**

Esta materia es el primer trimestre del curso. "Principios de Economía" y es completamente equivalente a las secciones dictadas en inglés. This course is cross-listed with 15ECON101 which is the English equivalent. Prereq: 15SPAN253. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15SPAN310**Introducción a las Tres Culturas**

This course compares the three more important distinct cultures, (Spanish, Indian, and Latin American) that intersect in Latin America to create the contemporary culture. BoK: HU., DC. Credit Level: U. Credit Hrs: 3.00

15SPAN311**Latin America Today**

An introduction to the contemporary culture of Latin America. Taught in Spanish Prereq: 15SPAN253. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

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Spanish**15SPAN312****Spain Today**

A virtual visit to today's Spain using internet resources in an electronic classroom. Topics: Politics, Society, Economy, Culture, and Foreign Policy. Taught in Spanish. Prereq: 15SPAN253. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15SPAN313**Hispanic Culture in the U S**

An introduction to the culture of Hispanics living in the United States. Taught in Spanish. Prereq: 15SPAN300. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15SPAN314**Spanish Film**

Introduces cinematic works of Spanish film artist using an interdisciplinary and cross-cultural approach emphasizing socio-economic and political issues such as popular culture in nation formation, construction of gender, sexuality and immigration. BoK: HU., DC. Credit Level: U. Credit Hrs: 3.00

15SPAN315**Latin American Film**

Introduces some of the cinematic works of Latin American film artists using an interdisciplinary and cross-cultural approach emphasizing socio-economic and political issues, such as popular culture in nation formation, construction of gender & sexuality & immigration. BoK: HU., DC. Credit Level: U. Credit Hrs: 3.00

15SPAN316**Latino Film in the U S**

An introduction to the Latino films written and produced in the United States from the last two decades of the 20th Century to the present. BoK: HU., DC. Credit Level: U. Credit Hrs: 3.00

15SPAN320**Spanish Civilization I**

Survey of the civilization of Spain, especially literary culture, from Latin antiquity through the early modern period. Taught in Spanish. BoK: HP., DC. Credit Level: U. Credit Hrs: 3.00

15SPAN321**Spanish Civilization II**

Survey of the civilization of Spain, especially literary culture, in modern times. In Spanish. BoK: HP., DC. Credit Level: U. Credit Hrs: 3.00

15SPAN322**Latin American Civilization I**

Survey of Latin American civilization, especially post-Colombian literary culture, through the early modern period. In Spanish. BoK: HP., DC. Credit Level: U. Credit Hrs: 3.00

15SPAN323**Latin American Civilization II**

Survey of Latin American civilization, especially literary culture, in modern times. In Spanish. BoK: HP., DC. Credit Level: U. Credit Hrs: 3.00

15SPAN329**Spanish Civilization I**

An introduction to the culture and civilization of Spain and Spanish America. The first of a three-part sequence. Prereq: 15SPAN253. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15SPAN330**Spanish Civilization II**

An introduction to the culture and civilization of Spain and Spanish America. The second of a three-part sequence. Prereq: 15SPAN253. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15SPAN331**Spanish Civilization III**

A continuation of the Survey of Spanish Civilization I and II. BoK: HP., DC. Credit Level: U. Credit Hrs: 3.00

Spanish**15SPAN332****Study Tour: The route to Santiago de Compostela**

Interdisciplinary course (also offered in French) focused in the cultural implications for both Spain and Europe of the pilgrimage to Santiago de Compostela, Spain. The course deals with such aspects of this subject as art, history, or politics. Perm of Instructor. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15SPAN333**Intermediate Spanish Through Theater**

Practice of Spanish language through the reading, discussing and performing of Spanish and Latin American plays. Prereq: 15SPAN106, 15SPAN116. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15SPAN334**Intermediate Spanish Through Theater**

A continuation of 15SPAN333, Intermediate Spanish Through Theater. Prereq: 15SPAN300. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15SPAN340**Culture Through Media**

A study of the beliefs, history, habits, values and expectations of Spanish speaking peoples through a study of videos (television and movies), radio programs and newspapers. Prereq: 15SPAN253. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15SPAN351**Pronunciation/Oral Communication**

Study and practice of the sounds and intonation of Spanish, with emphasis on developing a critical ear for and correct articulation of the sounds that characterize Spanish spoken by an educated native speaker. BoK: HU., DC. Credit Level: U. Credit Hrs: 3.00

15SPAN354**Conversation and Pronunciation in Spanish**

Study of phonetics and speaking practice on a variety of themes geared to increase vocabulary, improve grammar, improve pronunciation and promote fluency. BoK: HU., DC. Credit Level: U. Credit Hrs: 3.00

15SPAN364**Spanish Language & Culture I for International Co-op Program**

Spanish language and culture course for international co-op program. First of a 2-course sequence required for students doing co-op in a Spanish-speaking country. Perm of Instructor. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15SPAN365**Spanish Language & Culture II for International Co-op Program**

Spanish Language & Culture course for international co-op program. Second in a 2-course sequence required for students doing co-op in a Spanish-speaking country. Perm of Instructor. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00-9.00

15SPAN372**Spanish Literature of the Medieval Period**

Survey of the literature of Spain in the medieval period. BoK: LT., HP. Credit Level: U. Credit Hrs: 3.00

15SPAN373**Spanish Literature of the Golden Age**

Survey of the literature of Spain in the Golden Age, roughly 1500-1700. BoK: LT., HP. Credit Level: U. Credit Hrs: 3.00

15SPAN374**Spanish Literature of the Eighteenth and Nineteenth Centuries**

Survey of the literature of 18th and 19th century Spain. BoK: LT., HP. Credit Level: U. Credit Hrs: 3.00

15SPAN375**Spanish Literature of the Twentieth Century**

Survey of the literature of 20th century Spain. BoK: LT., HP. Credit Level: U. Credit Hrs: 3.00

H=University Honors course.

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Spanish

15SPAN381

Latin American Literature before Columbus

Survey of the oral "literature" (later transcribed by Spaniards) of pre-Columbian Latin America. BoK: LT., HP. Credit Level: U. Credit Hrs: 3.00

15SPAN382

Latin American Literature in the Colonial Period

Survey of Latin American literature in the colonial periods, roughly 1500-1800. BoK: LT., HP. Credit Level: U. Credit Hrs: 3.00

15SPAN383

Latin American Literature of the Nineteenth Century

Survey of Latin American literature in the 19th Century BoK: LT., HP. Credit Level: U. Credit Hrs: 3.00

15SPAN384

Latin American Literature of the Twentieth Century

Survey of Latin American literature in the twentieth century BoK: LT., HP. Credit Level: U. Credit Hrs: 3.00

15SPAN421

Topics in Spanish Literature

Changing, intensive study of an area of Spanish literature: e.g., one author, literary movement, literary texts, relationships to the other arts, or literary theme. Prereq: 15SPAN371. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15SPAN422

Topics in Latin American Literature

Panoramic view of contemporary Latin American literature (poetry and prose). This course will also review the relationship between literature, cinema, arts and music. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15SPAN423

Topics in Hispanic Studies

Changing topics on aspects of the language(s), cultures or literatures of Spain and/or Latin America. Prereq: 15SPAN302. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15SPAN424

Spanish Jewry: The Jews of Medieval Spain

A survey of the history of Spanish Jews from the Muslim conquest of Spain in the 8th century to their expulsion in 1492. A cross-listing of existing 15JUDC481. BoK: DC., HP. Credit Level: U. Credit Hrs: 3.00

15SPAN425

The Sephardic Diaspora 1492 - Present

The experience of Sephardic Jews from the expulsion from Spain to the present. Covers the history, literature and culture of communities from the Ottoman Empire to the Americas Prereq: 15SPAN424. BoK: DC, HP. Credit Level: U. Credit Hrs: 3.00

15SPAN431

Spanish Civilization and Culture I

Taught in Spanish. An advanced course dealing with the civilization and culture of Spain from prehistoric time to the present. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15SPAN432

Spanish Civilization and Culture II

The second course in a three-part sequence. Taught in Spanish. An advanced course dealing with the civilization and culture of Spain from prehistoric time to the present. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15SPAN433

Spanish Civilization and Culture III

The final course in a three-part series. Taught in Spanish. An advanced course dealing with the civilization and culture of Spain from prehistoric time to the present. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15SPAN441

Latin American Civilization and Culture

Religious, philosophical, sociopolitical and economic beliefs in Pre-

Spanish

15SPAN441

Latin American Civilization and Culture

Columbian and Colonial Latin America. Taught alternating years. Taught in Spanish. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15SPAN442

Latin American Civilization and Culture

Religious, philosophical, sociopolitical and economic beliefs in Pre-Columbian and Colonial Latin America. Taught in Spanish. The second course of a three-part series. Prereq: 15SPAN441. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15SPAN443

Latin American Civilization and Culture

Religious, philosophical, sociopolitical and economic beliefs in Pre-Columbian and Colonial Latin America. Taught in Spanish. The final course in a three-part series. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15SPAN452

Speech and Debate

The second part of a three-part series. Intensive study of Spanish language skills. Emphasis on communication. Conducted in Spanish. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15SPAN453

Stylistics

The final course in a three-part series. Intensive study of Spanish language skills. Emphasis on communication. Conducted in Spanish. Prereq: 15SPAN451. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15SPAN454

Grammar and Stylistics

Review grammatical constructions and writing exercises designed to refine students' expression in Spanish. Prereq: 15SPAN302. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15SPAN456

Spanish Translation

A workshop in the translation of Spanish texts into English and English texts into Spanish. BoK: LT., DC. Credit Level: U. Credit Hrs: 3.00

15SPAN457

Spanish Linguistics

An introduction to Spanish linguistics including grammar, morphology, and phonology. Prereq: 15SPAN302. BoK: DC, LT. Credit Level: U. Credit Hrs: 3.00

15SPAN481

Spanish Capstone

The capstone course for General Education requirement; to be linked with another 400-level course in the Department. Perm of Instructor. BoK: NA. Credit Level: U. Credit Hrs: 1.00

15SPAN495

Mexican Traditions

This course will look at major political, social and cultural traditions in Mexico's long history since the conquest. With emphases on art, architecture, literature and major festivals. Prereq: 15SPAN253. BoK: DC, HU. Credit Level: U. Credit Hrs: 3.00

15SPAN500

Service Learning

A supervised learning experience based in service to the Spanish speaking community in the Cincinnati area. Perm of Instructor. BoK: DC. Credit Level: U. Credit Hrs: 1.00-3.00

15SPAN505

Business Spanish

Composition, conversation, business correspondence, written translation from and into Spanish. Undergraduates, see 305. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00-4.00

15SPAN506

Business Spanish

Composition, conversation, business correspondence, written

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Spanish**15SPAN506****Business Spanish**

translation from and into Spanish. Undergraduates, see 305. The second offering in a three-part course sequence. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00-4.00

15SPAN507**Business Spanish**

Composition, conversation, business correspondence, written translation from and into Spanish. Undergraduates, see 305. The final course in a three-part course sequence. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00-4.00

15SPAN508**Spring Quarter in Spain**

Description not available. BoK: NA. Credit Level: U, G. Credit Hrs: 0.00

15SPAN509**Business Spanish**

Description not available. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00-5.00

15SPAN510**Undergraduate Independent Study in Spain**

Description not available. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00-5.00

15SPAN511**Undergraduate Independent Study in Spain**

Description not available. BoK: NA. Credit Level: U. Credit Hrs: 3.00-5.00

15SPAN512**Study Tour to Havana, Cuba**

Study on site of Cuba's present and past as regards the various art forms and political history. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00-4.00

15SPAN513**Curriculum for Language**

Description not available. BoK: NA. Credit Level: U. Credit Hrs: 2.00

15SPAN515**Study Tour: Spain**

A tour of one or more cities in Spain with an emphasis on culture, art, architecture and institutions. Students participate in an organized trip. This is not a class on the UC campus. Instructor permission required. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00-4.00

15SPAN517**Spain Tour**

Spain Tour: Madrid and its theater. Assigned readings. One week in Madrid in December. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00-4.00

15SPAN521**Topics in Spanish Literature**

A course of representative plays by the major women dramatists of 20th Century Spain, such as Maria Martinez Sierra, Ana Diosdado, and Paloma Pedero. Taught in Spanish. Prereq: 15SPAN354. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

15SPAN522**Topics in Latin American Literature**

Changing, intensive study one area of Latin American literature: e.g., an author, literary movements, relationships to the other arts, etc. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

15SPAN523**Topics in Hispanic Studies**

All aspects of the historical and cultural heritage of Spain from the 19th century to the present. Special emphasis on Post-Franco Spain. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

Spanish**15SPAN530****Sec. Methods: Spanish**

Description not available. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

15SPAN531**Spanish Civilization & Culture**

A course dealing with the civilization and culture of Spain from prehistoric time to the present. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

15SPAN532**Spanish Civilization and Culture**

All aspects of the historical and cultural heritage of Spain from the 19th century to the present. Special emphasis on Post-Franco Spain. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

15SPAN534**Latin American Baroque Culture**

The Baroque (colonial) period in Latin America, from the point of view of the relation between art and culture. Given in Spanish. BoK: DC., FA. Credit Level: G, U. Credit Hrs: 3.00-4.00

15SPAN541**Latin American Civilization and Culture I**

All aspects of the cultural and historical heritage of the countries of Latin America. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

15SPAN542**Latin American Civilization and Culture I**

All aspects of the cultural and historical heritage of the countries of Latin America. The second part of a two-course sequence. Prereq: 15SPAN541. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

15SPAN550**Spanish Study Abroad**

For students participating in an established exchange program in the Spanish-speaking world. Permission of department required. Perm of Department. BoK: DC. Credit Level: U, G. Credit Hrs: 12.00-18.00

15SPAN551**Grammar and Syntax**

Course is designed to review finer points of Spanish grammar and syntax, particularly subjunctive and past tenses in order to improve students' oral and written expression at graduate level. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

15SPAN552**Speech and Debate**

Designed to help students improve oral proficiency in Spanish to achieve superior rating on ACTFL scale. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

15SPAN553**Stylistics**

Course is designed to improve students' writing skills in terms of organization, choice of vocabulary, persuasive expression, etc. especially as applied to graduate level papers. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

15SPAN560**Mexican Culture**

Mexican Culture and Civilization for students attending the UC in Mexico summer study program. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

15SPAN561**Intermediate Spanish Grammar 1 in Mexico**

Intermediate Spanish grammar taught in Mexico. Must be taken in conjunction with Spanish 562. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

15SPAN562**Intermediate Spanish Conversation I in Mexico**

Intermediate Spanish conversation taught in Mexico. Must be taken in conjunction with Spanish 561. BoK: NA. Credit Level: U, G. Credit Hrs:

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Spanish**15SPAN562****Intermediate Spanish Conversation I in Mexico**

4.00

15SPAN563**Intermediate Spanish Grammar II in Mexico**

Continuation of Intermediate Spanish grammar taught in Mexico. Must be taken in conjunction with Spanish 564. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

15SPAN564**Intermediate Spanish Conversation II in Mexico**

Continuation of Intermediate Spanish conversation taught in Mexico. Must be taken in conjunction with Spanish 563. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

15SPAN565**Spanish Phonet. & Phonol.**

Description not available. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00-4.00

15SPAN571**Advanced Spanish Grammar I in Mexico**

Advanced Spanish Grammar I taught in Mexico. Must be taken in conjunction with Spanish 572. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

15SPAN572**Advanced Spanish Conversation I in Mexico**

Advanced Spanish conversation taught in Mexico. Must be taken in conjunction with Spanish 571. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

15SPAN573**Advanced Spanish Grammar II in Mexico**

Continuation of Advanced Spanish Grammar taught in Mexico. Must be taken in conjunction with Spanish 574. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

15SPAN574**Advanced Spanish Conversation II in Mexico**

Continuation of Advanced Spanish Conversation taught in Mexico. Must be taken in conjunction with Spanish 573. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

15SPAN575**Independent Study in Mexico**

Independent study for students participating in the UC in Mexico course. Prereq: 15SPAN105, 15SPAN113. BoK: HP, DC. Credit Level: U, G. Credit Hrs: 1.00-8.00

15SPAN581**Elementary Conversational Spanish**

For beginners: emphasis on speaking and listening; grammar; culture. Undergraduates, see 111. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

15SPAN582**Elementary Conversational Spanish**

For beginners; emphasis on speaking and listening; grammar, culture. Undergraduates, see 111. The second offering in a three-part course sequence. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

15SPAN583**Elementary Conversational Spanish**

For beginners; emphasis on speaking and listening; grammar, culture. Undergraduates, see 111. The third offering in a three-part course sequence. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

15SPAN584**Intermediate Conversational Spanish**

Emphasis on speaking and listening; grammar; culture. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

Spanish**15SPAN585****Intermediate Conversational Spanish**

Emphasis on speaking and listening; grammar; culture. The second offering in a three-part course sequence. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

15SPAN586**Intermediate Conversational Spanish**

Emphasis on speaking and listening; grammar; culture. The third offering in a three-part course sequence. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

15SPAN590**Study in Mexico**

9 ug. BoK: NA. Credit Level: U, G. Credit Hrs: 9.00

15SPAN591**Independent Study**

Previous written approval of instructor and undergraduate adviser required. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-15.00

15SPAN592**Independent Study**

Previous written approval of instructor and undergraduate adviser required. The second offering in a three-part course sequence. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-15.00

15SPAN593**Independent Study**

Previous written approval of instructor and undergraduate adviser required. The third offering in a three-part course sequence. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-15.00

15SPAN715**20th Century Spanish Essay**

A study of 20th century Spain through the works of its most important essayists. BoK: NA. Credit Level: G, U. Credit Hrs: 4.00

15SPAN738**Teaching Latin American and US Latin cultures through their literatures**

This course will first look at the various ways of connecting the study of literature and culture. Students will be asked to individually and collectively formulate theories for doing this, aided by selective readings. They will be asked to put their theories into practice through careful readings of the following texts: Cristobal Colon, selections from "Cartas" y "Diarios"; Sor Juana Ines de la Cruz, Respuesta a Sor Filotea, Esteban Echeverria, El matadero, Juan Carlos Mariategui, selected essays from Siete ensayos de la realidad peruana, Juan Rulfo and Gabriel Garcia Marquez, selected stories: Octavio Paz, selections from El laberinto de la soledad, Richard Rodriguez, selections from Hunger for Memory and Sandra Cisneros's The House of Mango Street. Open to Seniors. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

15SPAN701**Spanish Language Teaching Practicum**

Practical issues in the Spanish language classroom. Prereq: 15RLL750. Credit Level: G. Credit Hrs: 1.00

15SPAN702**Spanish Language Teaching Practicum**

Practical issues in the Spanish language classroom. Prereq: 15RLL750. Credit Level: G. Credit Hrs: 1.00

15SPAN703**Spanish Language Teaching Practicum**

Practical issues in the Spanish language classroom. Prereq: 15RLL750. Credit Level: G. Credit Hrs: 1.00

15SPAN707**Spanish Language and Culture**

Advanced language course for teachers on Mexico program. Credit Level: G. Credit Hrs: 4.00

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Spanish

15SPAN708

Mexican Civilization

Mexican civilization for teachers on program in Mexico. Credit Level: G. Credit Hrs: 4.00

15SPAN709

Advanced Teaching Methods

Spanish teaching methods K-8 for teachers on program in Mexico. Credit Level: G. Credit Hrs: 4.00

15SPAN713

Introduction to Literary Criticism

An historical survey of the major critical approaches to Hispanic literature. Credit Level: G. Credit Hrs: 4.00

15SPAN714

Literary Criticism

A continuation of Sp. 713. A general approach to psychoanalytic and socio-historical methods. Readings include: T. Eagleton, Fokkema, J. Lacan and J. Jameson. Prereq: 15SPAN713. Credit Level: G. Credit Hrs: 4.00

15SPAN716

Survey of Medieval Spanish Literature

A survey of Spanish literature of the Middle Ages. Credit Level: G. Credit Hrs: 4.00

15SPAN717

Survey of Golden Age Spanish Literature

A survey of Spanish literature in the Golden Age. Credit Level: G. Credit Hrs: 4.00

15SPAN718

Spanish Golden Age Literature

Students will read Golden Age works in fictional and nonfictional prose, poetry, and theater. Credit Level: G. Credit Hrs: 4.00

15SPAN719

Spanish Golden Age Poetry

A survey of metaphysical poetry of XVI and XVII century Spain with emphasis on textual analysis and sociocultural context. Selections by Garcilaso de la Vega, San Juan de la Cruz, Luis de Leon, Gongora, Quevedo, and Cervantes. Poems are included in two anthologies. Syllabus available in RLL office. Credit Level: G. Credit Hrs: 4.00

15SPAN720

Survey of 19th Century Spanish Literature

A survey of Spanish Literature in the 19th Century Credit Level: G. Credit Hrs: 4.00

15SPAN721

Contemporary Latin American Poetry

Description not available. Credit Level: G. Credit Hrs: 4.00

15SPAN722

El Lazarillo

A study of the social and literary issues concerning "La vida de Lazarillo de Tormes." Perm of Instructor. Credit Level: G. Credit Hrs: 4.00

15SPAN723

Survey 20th Century Spanish Literature

A survey of Spanish literature of the 20th Century Credit Level: G. Credit Hrs: 4.00

15SPAN724

Twentieth Century Latin American Poetry

A study of Latin American poetry from the Avant Garde period to the present day. Perm of Instructor. Credit Level: G. Credit Hrs: 4.00

15SPAN725

Latin American Theatre I

A survey of Latin American dramatic texts from the early 20th century through the 40s (from naturalism through theatrical vanguards). Readings include: Florencio Sánchez, Antonio Acevedo Hernández, Rodolfo Usigli, Xavier Villaurrutia, Roberto Arlt, Samuel Eichelbaum,

Spanish

15SPAN725

Latin American Theatre I

Armando Moock, Vicente Huidobro, etc. Taught 1988-89. Credit Level: G. Credit Hrs: 4.00

15SPAN726

Latin American Theater II

Description not available. Credit Level: G. Credit Hrs: 4.00

15SPAN727

20th Century Narrative in Spain before the Civil War

Reading and analysis of important novels by the major narrators of the period: Unamuno, Valle Inclán, Baroja, Pérez de Ayala. Credit Level: G. Credit Hrs: 4.00

15SPAN728

20th-Century Spanish Novel after Civil War

Novels by major writers illustrative of the evolution of the genre since 1939. Credit Level: G. Credit Hrs: 4.00

15SPAN729

Post-War Women's Novels in Spain

Representative novels by major women in Spain since 1939. Included will be works by Rodoreda, Matute, Martín Gaité, Laforet, Quiroga, Montero, Tusquets and others. Credit Level: G. Credit Hrs: 4.00

15SPAN730

Pre-Columbian Literature

Pre-Columbian literature and the Chronicles written by the Spaniards. It is designed not only to give a background for contemporary Latin American literature but to relate to it directly. Credit Level: G. Credit Hrs: 4.00

15SPAN731

Baroque Latin American Literature

The baroque period in Latin America, also called Colonial period, is studied in general not only as a period of itself but as the beginning of Latin American literature. Credit Level: G. Credit Hrs: 4.00

15SPAN732

Spanish Civilization and Culture

SP CIV & CULTURE I Credit Level: G. Credit Hrs: 4.00

15SPAN733

Survey of Latin American Literature I

A survey of Latin American literature from the colonial period to the 20th Century Credit Level: G. Credit Hrs: 4.00

15SPAN734

Survey of Latin American Literature II

A survey of Latin American literature from 1900 to the present. Credit Level: G. Credit Hrs: 4.00

15SPAN735

Survey of the Fantastic in Latin American Literature

A survey of the fantastic element in Latin American literature. Credit Level: G. Credit Hrs: 4.00

15SPAN736

Origins of Latin American Literature

This course studies Indian and Spanish discourses that gave shape to Latin American Literature. Readings: "Popol-Vuh", "Chilam Balam", Colón, Inca Garcilaso, etc. Credit Level: G. Credit Hrs: 4.00

15SPAN737

Hispanic Poetry From Colony to Modernism

The surge of Latin American poetry during the colonial times until the splendour of the Modernist period, emphasizing language as an important mean of Latin American culture. Credit Level: G. Credit Hrs: 4.00

15SPAN739

Love in Latin American Poetry

The theme of love in Latin American poetry from the modernism till contemporary poets. The course will use a diverse group of critical

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Spanish**15SPAN739****Love in Latin American Poetry**

approaches. Given in Spanish. Credit Level: G. Credit Hrs: 4.00

15SPAN740**History of the Spanish Language**

A historical, phonological and morphological study of Spanish from its Latin and other roots. Credit Level: G. Credit Hrs: 4.00

15SPAN741**Octavio Paz and Latin American Thought**

Deals with an understanding of Latin American culture through the critical thinking of Nobel Laureate poet and essayist Octavio Paz. Credit Level: G. Credit Hrs: 4.00

15SPAN742**Latin American Civilization and Culture I**

This course deals with the cultural elements that created Latin America, blending the Indian, Black, and white cultures in a diverse mixed continent. History, myth, legends -- all of them intertwined in a cultural and civilization context will be studied. The course will travel through three fundamental periods: Pre-Columbian, Discovery/Conquest, and Colonial. Reading materials will include historical approaches, as well as Indian texts (Popol Vuh), Spanish chronicles (Diaz del Castillo), and Baroque literature (Sor Juana Ines de la Cruz). Credit Level: G. Credit Hrs: 4.00

15SPAN743**Latin America Civilization and Culture II**

This course deals with the cultural elements that created Latin America, blending the Indian, Black, and white cultures in a diverse mixed continent. History, myth, legends -- all of them intertwined in a cultural and civilization context will be studied. The course will travel through three fundamental periods: Pre-Columbian, Discover/Conquest, and Colonial. Reading materials will include historical approaches, as well as Indian texts (Popol Vuh), Spanish chronicles (Diaz del Castillo), and Baroque literature (Sor Juana Ines de la Cruz). Credit Level: G. Credit Hrs: 4.00

15SPAN744**US Latino Literature**

An introduction to the literature of Latino writers in the U.S. Credit Level: G. Credit Hrs: 4.00

15SPAN745**Mexican Literature**

An introduction to Mexican literature from pre-Colombian to modern times with special emphasis on the 20th century. Credit Level: G. Credit Hrs: 4.00

15SPAN746**Chicano Literature**

An historical and theoretical overview of Chicano literature and its place in American literature Credit Level: G. Credit Hrs: 4.00

15SPAN748**Contemporary Spanish Literature**

Description not available. Credit Level: G. Credit Hrs: 4.00

15SPAN749**Latin American Modernism**

Latin American literary movement that revolutionized the entire Spanish literature at the end of the 19th century and beginning of the 20th century. This is a panoramic course, an overview of several poets and writers. Credit Level: G. Credit Hrs: 4.00

15SPAN750**Modernity & Postmodernity**

The reformulation and continuation of modernity in contemporary Spanish literature. Credit Level: G. Credit Hrs: 4.00

Spanish**15SPAN752****Medieval Literature and Reader-Response Criticism (formerly Med**

Study of principal works of the medieval period in light of major theories in the area of reader-response criticism. Lit I). Credit Level: G. Credit Hrs: 4.00

15SPAN753**Medieval Literature and Feminist Criticism (formerly Med**

An application of feminist critical approaches to major works of prose and poetry of medieval period. Lit. II). Credit Level: G. Credit Hrs: 4.00

15SPAN754**Medieval Readings**

Survey of major works of Medieval Spanish Literature Credit Level: G. Credit Hrs: 4.00

15SPAN755**Spanish Historical Past Through Narration**

Representative texts from the 1930's onwards that will address key historical moments in Spanish history of the 20th century. Credit Level: G. Credit Hrs: 4.00

15SPAN756**The Search for Meaning: Spanish Contemporary Theater**

The main tendencies in Spanish theater production of the 20th century, its connections with different European movements, and its commentary on the social settings in which they take place. Credit Level: G. Credit Hrs: 4.00

15SPAN757**Wit and Humor in Early Modern Spanish Literature**

The kinds, uses of, and implications of, wit, humor, and the burlesque in early modern Spain. Credit Level: G. Credit Hrs: 4.00

15SPAN760**Latin American Short Story**

An introduction to the short narrative fiction of Latin America. Credit Level: G. Credit Hrs: 4.00

15SPAN761**Latin American Cinema I**

First in a 2-part sequence introducing Latin American Cinema. Credit Level: G. Credit Hrs: 4.00

15SPAN762**Latin American Cinema II**

Second in a 2 part sequence introducing Latin American cinema. Credit Level: G. Credit Hrs: 4.00

15SPAN763**Latin American Essay**

Seminar in Latin American Essay. Credit Level: G. Credit Hrs: 4.00

15SPAN764**Post Modernism in Latin American Narrative**

Modernism and post modernism theories. Credit Level: G. Credit Hrs: 4.00

15SPAN765**Latin American 19th Century Novel**

Description not available. Credit Level: G. Credit Hrs: 4.00

15SPAN766**19th Century Latin American Literature**

4 gr. cr. Credit Level: G. Credit Hrs: 4.00

15SPAN767**20th Century Hispanic Caribbean Literature**

Overview of variety of articulations of cultural specificity in 20th century Hispanic Caribbean Literature. Study of the relationship between literary discourse and the formulation of models of identity, be it as the source thereof, its illustration or even its disruptive contradiction. Credit Level: G. Credit Hrs: 4.00

Spanish

15SPAN768

One Hundred Years of Solitude

An in-depth reading and analysis of Gabriel Garcia Marquez's novel from cultural historical and textual/narratological approaches. Given in Spanish. Credit Level: G. Credit Hrs: 4.00

15SPAN777

Poesia Contemporánea Española

The course provides a survey of poetry in Spain in the last two decades of the twentieth century, with special attention to poetry written by women and to new poetic movements. Credit Level: G. Credit Hrs: 4.00

15SPAN783

Special Topics in Spanish Literature

A special seminar devoted to a particular issue germane to Spanish literature. Topics may vary. May be repeated for a total of 12 credits. Credit Level: G. Credit Hrs: 4.00

15SPAN784

Special Topics in Latin American Literature

A special seminar devoted to a particular issue germane to Latin American Literature. Topics will vary. May be repeated for a total of 12.0 credits. Credit Level: G. Credit Hrs: 4.00

15SPAN790

Latin American Theater

Description not available. Credit Level: G. Credit Hrs: 4.00

15SPAN792

Contemporary Spanish Theatre (1950-1995)

Consideration of discursive and ideological trends in representative plays of the period. Credit Level: G. Credit Hrs: 4.00

15SPAN794

20th Century Spanish Poetry

4 gr. cr. Credit Level: G. Credit Hrs: 4.00

15SPAN795

18th Century Spanish Literature

A survey of 18th century literature. Credit Level: G. Credit Hrs: 4.00

15SPAN797

19th Century Spanish Novel

n Credit Level: G. Credit Hrs: 4.00

15SPAN800

Translation Workshop

A translation workshop devoted to translating one text or the work of one author from Spanish into English Perm of Instructor. Credit Level: G. Credit Hrs: 4.00

15SPAN801

Contemporary Latin American Women Novelists

Textual strategies and the development of feminine discourse in the works of selected contemporary Latin American women writers. Readings include works by Maria Luisa Bombal, Griselda Gambaro, Rosario Castellanos, Elena Poniatowska, Isabel Allende and selected others. Credit Level: G. Credit Hrs: 4.00

15SPAN802

Latin American Women Playwrights

Readings of representative performance texts written by Latin American Women during the last twenty years. Credit Level: G. Credit Hrs: 4.00

15SPAN803

Chicana Literature

The rising importance of groups of Latin American descent in the United States is matched by an equally important boom in the literary/artistic accomplishments of these groups. This course will look at their work in poetry, prose, and theater. Credit Level: G. Credit Hrs: 4.00

15SPAN804

Central American Literature

This course will cover the literature of Central America with emphasis

Spanish

15SPAN804

Central American Literature

on the major works, genres, and periods. The students will gain full understanding of the historical conditions of cultural production, the relationship between political situations and literary works, as well as the theoretical implications of the works studied. Credit Level: G. Credit Hrs: 4.00

15SPAN812

Spanish Romanticism

A study of the major Spanish romantics with principal attention to poetry and theater. Credit Level: G. Credit Hrs: 4.00

15SPAN813

Bakhtin and Latin American Novel

Bakhtin theories of novel and its application to Latin American novel and recent L.A. criticism. Credit Level: G. Credit Hrs: 4.00

15SPAN814

Deconstruction in Latin American Narrative

An approach to deconstructive theories as they apply to LA novels and short stories: LA narrative is deconstruction themselves and their significance in the development of LA literature. Credit Level: G. Credit Hrs: 4.00

15SPAN815

Lacan and Latin American Narrative

An analysis in depth of selected masterpieces in Latin American narrative using psychoanalytic Lacanian as a theoretical frame. Credit Level: G. Credit Hrs: 4.00

15SPAN816

Irony, Parody and Playfulness in Latin American Literature and Cinema

Analysis of the concepts of parody, irony and play as a theoretical point of departure to study contemporary Hispanic literature and film. Credit Level: G. Credit Hrs: 4.00

15SPAN820

Quevedo

Description not available. Credit Level: G. Credit Hrs: 4.00

15SPAN821

Quevedo or the Anxiety of Influence I

First part of a two term course thought to give an account of Quevedo's interaction with both the literary field and the field of power in XVIIth century Spain. Credit Level: G. Credit Hrs: 4.00

15SPAN822

Quevedo or the Anxiety of Influence

Second part of a two term course thought to give an account of Quevedo's interaction with both the literary field and the field of power in XVIIth century Spain. Credit Level: G. Credit Hrs: 4.00

15SPAN823

Borges

Seminar on Jorge Luis Borges' poetry from his first period as an "Ultraist" poet to his last books. This course is complemented with a parallel analysis of his essays on the themes of poetry in general. Credit Level: G. Credit Hrs: 4.00

15SPAN824

Gongora's Soledades

Studies the most difficult poetry ever written in Spanish, "Soledades" by Luis de Gongora (1561-1627). Gongora's poetry presents a triple challenge to the reader with its syntax, neologisms and highly conceptualized metaphors and images. Credit Level: G. Credit Hrs: 4.00

15SPAN825

The Works of Federico Garcia Lorca

Reading and discussion of Garcia Lorca's main works, both poetry & theatre. Reading of bibliography relevant to the subject Credit Level: G. Credit Hrs: 4.00

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LT: Literature. NS: Natural Sciences. QR: Quantitative Reasoning. SE: Social & Ethical Issues. SS: Social Sciences.

Spanish**15SPAN830****Humor in Medieval Spanish Literature**

Explores the medieval concepts of humor, parody and satire and how these differ from contemporary notions about the comic. 3-4 major works will be studied in depth as examples of these concepts. Credit Level: G. Credit Hrs: 4.00

15SPAN850**The Fantastic in Latin American Narrative**

A study of the fantastic element and its importance in the development of Spanish American narrative. Theoretical framework from Propp, Todorov, Bakhtin, Jackson, and Bessiere. Readings by Lugones, Dario, Quiroga, Bioy Caseres, Borges and Cortazar. Credit Level: G. Credit Hrs: 4.00

15SPAN854**Latin American Short Story I**

b Credit Level: G. Credit Hrs: 4.00

15SPAN855**Latin American Short Story II**

A continuation of LA Short Story I. It includes the most contemporary writers, Julio Cortazar, Juan Rulfo, Gabriel Garcia Marquez, Isabel Allende. Credit Level: G. Credit Hrs: 4.00

15SPAN856**Seminar: Topics in Latin American Literature**

Geared for the graduate student, the course will involve the development of sophisticated research papers on theoretical problems concerning contemporary Latin American literature. Prereq: 15SPAN713. Credit Level: G. Credit Hrs: 4.00

15SPAN857**Topics in Spanish Literature**

In-depth study of an author, literary period or theme in Spanish literature. Topics will change in relationship to students' needs and faculty research interests. Credit Level: G. Credit Hrs: 4.00

15SPAN858**Satire**

Study of the theory of satire with analysis of a variety of texts. Credit Level: G. Credit Hrs: 4.00

15SPAN859**Problems in 20th Century Spanish Poetry**

An approach to 20th century Spanish poetry from a variety of viewpoints and perspectives; the dynamics of poetic movements. Credit Level: G. Credit Hrs: 4.00

15SPAN860**Research Seminar: Hispanic Poetry & Politics**

An interdisciplinary seminar examining the inter- action of poetry and politics in Spain and Latin America. Repeatable 2 times up to 12 hrs. Credit Level: G. Credit Hrs: 4.00

15SPAN888**Seminar in Cortazar**

A study of the Argentinean writer Julio Cortazar. Perm of Instructor. Credit Level: G. Credit Hrs: 4.00

15SPAN890**Urban Space in Latin American Narrative**

A study of the representational urban space in Latin American Narrative from both cultural and textual approaches. Readings by Borges, Oretti, Sabato, Cortazar and others. Credit Level: G. Credit Hrs: 4.00

15SPAN891**Gender Issues in Early Modern Spain**

Shows how certain literary texts (novels and autobiographies) challenge gender, literary and social notions of the time, including cross-dressing and cross-gendering. This is a repeatable course that will focus on different periods during different quarters. Credit Level: G. Credit Hrs: 4.00

Spanish**15SPAN892****Gender and Desire in Latin American Literature and Cinema**

An analysis of Latin American Literature and cinema from the standpoint of current gender discourse theories and the diverse dynamics of desire and "jouissance." The approach will be both textual and cultural, including narrative texts and films from the last decades. Credit Level: G. Credit Hrs: 4.00-16.00

15SPAN893**Frontiers in Spanish Literature**

A seminar investigating frontiers, boundaries and margins in Spanish Literature. Credit Level: G. Credit Hrs: 4.00

15SPAN894**Frontiers in Latin American Literature**

A seminar investigating frontiers, boundaries and margins in Latin American literature. Credit Level: G. Credit Hrs: 4.00

15SPAN895**Poetics and Politics in Latin American Literature**

A seminar in the interaction, interference, and influence of poetics and politics in Latin American literature: period and genre will vary. Credit Level: G. Credit Hrs: 4.00-8.00

15SPAN896**Poetics and Politics in Spanish Literature**

A seminar in the interaction, interference and influence of poetics and politics in Spanish Literature: period and genre will vary. Credit Level: G. Credit Hrs: 4.00-8.00

15SPAN897**Reading Spanish for Graduate Students**

A sequence of three courses designed to prepare graduate students to read technical/professional materials in Spanish with reference to a dictionary. Credit Level: G. Credit Hrs: 4.00

15SPAN898**Reading Spanish for Graduate Students**

A sequence of three courses designed to prepare graduate students to read technical/professional materials in Spanish with reference to a dictionary. Prereq: 15SPAN897. Credit Level: G. Credit Hrs: 4.00

15SPAN899**Reading Spanish for Graduate Students**

A sequence of three courses designed to prepare graduate students to read technical/professional materials in Spanish with reference to a dictionary. Prereq: 15SPAN898. Credit Level: G. Credit Hrs: 4.00

15SPAN900**Graduate Teaching Internship in Spanish**

The Graduate Teaching Internship offers doctoral students an opportunity to teach Spanish majors in upper level courses under the careful direction of a faculty mentor. Credit Level: G. Credit Hrs: 4.00

15SPAN901**Graduate Teaching Internship in Spanish**

The Graduate Teaching Internship offers doctoral students an opportunity to teach Spanish majors in upper level courses under the careful supervision of a faculty mentor. Credit Level: G. Credit Hrs: 4.00

15SPAN902**Graduate Teaching Internship in Spanish**

The Graduate Teaching Internship offers doctoral students an opportunity to teach Spanish majors in upper level courses under the careful supervision of a faculty mentor. Credit Level: G. Credit Hrs: 4.00

15SPAN906**Independent Study**

Offered ea. qtr. Written approval of instr. and graduate adviser. Credit Level: G. Credit Hrs: 1.00-4.00

15SPAN907**Independent Study**

Offered each quarter. Written approval of instr. and graduate adviser. The second offering in a three-part course sequence. Credit Level: G.

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Spanish

15SPAN907

Independent Study

Credit Hrs: 1.00-4.00

15SPAN908

Independent Study

Offered each quarter. Written approval of instr. and graduate adviser.

The third offering in a three-part course sequence. Credit Level: G.

Credit Hrs: 1.00-4.00

15SPAN910

Seminar: Galdos

4 gr. cr. Credit Level: G. Credit Hrs: 4.00

15SPAN912

Feminist Theory and Spanish Literature

Application of feminist theory to Spanish literature Credit Level: G.

Credit Hrs: 4.00

15SPAN913

Spanish Women Dramatists of the 20th Century (1900-1970)

Major works by Maria Martinez Sierra, Pilar Millan Aseray, Julia Maura, and others. Credit Level: G. Credit Hrs: 4.00

15SPAN914

Contemporary Spanish Woman Dramatists

CONT SP WOM DRAMAT Credit Level: G. Credit Hrs: 4.00

15SPAN919

Professional Development

Topics studies include doctoral exams and the dissertation; scholarly publishing; job searching. For advanced graduate students. Credit Level: G. Credit Hrs: 4.00

15SPAN920

Virgin Mary in Medieval Literature

This course traces the importance of the Virgin Mary as a character in medieval texts, especially collections of Marian miracles such as the Contigas de Santa Maria of Alfonso X and the Milagros de Nuestra Senora of Berceo. Additional readings will focus on medieval theological debates concerning the Virgin and the social implications of her role as a figure of popular devotion. Credit Level: G. Credit Hrs: 4.00

15SPAN921

Themes in Contemporary Latin American Literature

An analysis of current literary theory and critical issues relating to contemporary Latin American literature. Credit Level: G. Credit Hrs: 4.00

15SPAN926

Individual Study Spain

IND STDY SPAIN Credit Level: G. Credit Hrs: 4.00

15SPAN927

Individual Study Spain

IND STDY SPAIN Credit Level: G. Credit Hrs: 4.00

15SPAN928

Individual Study Spain

IND STDY SPAIN Credit Level: G. Credit Hrs: 4.00

15SPAN930

Vallejo Buero and Sastre

A study of two contemporary Spanish playwrights. Credit Level: G. Credit Hrs: 4.00

15SPAN931

Seminar: Cortazar

An in depth study of Julio Cortazar major works - short stories, novels and essays. Credit Level: G. Credit Hrs: 4.00

Spanish

15SPAN932

Surrealist Movement in America Latina

This course will deal with the theoretic and practical principles of the Surrealist movement and its developing in Latin American poets analyzed included: Neruda, Paz, Molina, Moro, Rojas, Mutis, etc. Credit Level: G. Credit Hrs: 4.00

15SPAN933

Urban Spaces in Latin American Literature and Film

A class-contextual and theoretical examination of urban spaces in Latin American literature and films. Credit Level: G. Credit Hrs: 4.00

15SPAN935

Latin American Poetry

Description not available. Credit Level: G. Credit Hrs: 4.00

15SPAN936

Play and Playfulness

A study of the play element in 20th century Latin American narrative. In-depth analysis of the theories of game and play in literature as a point of departure. Credit Level: G. Credit Hrs: 4.00

15SPAN979

Cervantes' Don Quixote I

An intensive investigation of Cervantes' masterpiece Don Quixote. This is the first of a two quarter sequence. (Second quarter is existing 15span980). Credit Level: G. Credit Hrs: 4.00

15SPAN980

Seminar: Don Quixote

n Credit Level: G. Credit Hrs: 4.00

15SPAN981

Graduate Research

Cr. according to the amount of work elected. Offered ea. qtr. Credit Level: G. Credit Hrs: 1.00-18.00

15SPAN987

Master's Thesis Research

Cr. according to the amount of work elected. Credit Level: G. Credit Hrs: 1.00-15.00

15SPAN989

Dissertation Seminar

Students will pursue research for their chosen dissertation topics and then write prospectuses to be approved by their dissertation committee. Credit Level: G. Credit Hrs: 4.00

15SPAN990

Doctoral Dissertation Research

Cr. according to the amount of work elected. Credit Level: G. Credit Hrs: 1.00-18.00

Statistics

15STAT146

Statistics for the Health Sciences

Statistical models and inference applied to problems in the health sciences, with emphasis on the role that statistics plays in medical research. Primarily for students in the College of Nursing and Health. Score of 420+ on the Math Placement Test. BoK: QR. Credit Level: U. Credit Hrs: 3.00

15STAT147

Elementary Probability and Statistics

UNDERSTANDING DATA: Distributions and graphs, summarizing data, normal distribution, scatterplots, categorical data, designing samples and experiments, probability. Transfer Module. BoK: QR. Credit Level: U. Credit Hrs: 3.00

15STAT147H

Honors Elementary Probability and Statistics I

Honors version of 15 Math 147. Understanding data: Distributions and graphs, summarizing data, normal distribution, scatterplots, catagorical data, designing samples and experiments, probability. BoK: QR. Credit

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Statistics**15STAT147H****Honors Elementary Probability and Statistics I**

Level: U. Credit Hrs: 3.00

15STAT148**Elementary Probability and Statistics**

PROBABILITY & INFERENCE: Sampling distributions, probability, sample proportions and means, binomial distribution, confidence intervals, inference for means, comparing two means. Prereq.: 15-Math-147 with at least C-. Prereq: 15MATH147. Transfer Module. BoK: QR. Credit Level: U. Credit Hrs: 3.00

15STAT148H**Honors Elementary Probability and Statistics II**

Honors version of 15 Math 148. Understanding inference: Sampling distributions, probability, sample portions and means, binomial distribution, confidence intervals, inference for means, comparing two means, inference for population spread. Prereq.: 15-Math-147 with at least C-. Prereq: 15MATH147. BoK: QR. Credit Level: U. Credit Hrs: 3.00

15STAT149**Elementary Probability and Statistics**

TOPICS IN INFERENCE: Inference for proportions, two-sample inference, two-way tables and Chi Square, one-way analysis of variance (ANOVA), inference for regression. Prereq.: 15-Math-148 with at least C-. Prereq: 15MATH148. Transfer Module. BoK: QR. Credit Level: U. Credit Hrs: 3.00

15STAT149H**Honors Elementary Probability and Statistics III**

Honors version of 15MATH149. Topics in inference: Inference for proportions, two-sample inference, two-way tables and Chi Square, one-way analysis of variance (ANOVA), inference for regression. Prereq.: 15-Math-148 with at least C-. Prereq: 15MATH148. BoK: QR. Credit Level: U. Credit Hrs: 3.00

15STAT361**Probability and Statistics I**

Sample statistics. Probability, sample spaces, counting rules, conditional probability. Discrete and continuous random variables, their distributions and expected values. Binomial, Poisson, hypergeometric, normal, gamma distributions. Covariance, correlation. Sampling distributions of means and sums. Prereq.: 15-Math-253 with at least C-. Prereq: 15MATH253. BoK: QR. Credit Level: U. Credit Hrs: 3.00

15STAT362**Probability and Statistics II**

Point estimation, confidence intervals for means, proportions, variances, and differences of means and proportions. Hypothesis testing. Simple linear regression, multiple linear regression. Model building. SAS software package may be used. Prereq.: 15-Math-361 with at least C-. Prereq: 15MATH361. BoK: QR. Credit Level: U. Credit Hrs: 3.00

15STAT363**Probability and Statistics III**

Analysis of variance and experimental design. Categorical data analysis, chi-square tests, reliability and quality control. SAS software package may be used. Prereq.: 15-Math-362 with at least C-. Prereq: 15MATH362. BoK: QR. Credit Level: U. Credit Hrs: 3.00

15STAT366**Engineering Statistics**

Descriptive statistics, probability, binomial, Poisson, and normal distributions. Confidence intervals, and hypothesis testing, regression analysis. Prereq.: 15-Math-253 with at least C-. Prereq: 15MATH253. BoK: QR. Credit Level: U. Credit Hrs: 3.00

15STAT521**Mathematical Statistics**

Random variables, probability distribution functions, mathematical expectation, Chebyshev's inequality, marginal and conditional

Statistics**15STAT521****Mathematical Statistics**

distributions, independence, binomial, Poisson, Gamma, and normal distribution. Prereq.: Math 264 and 361. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

15STAT522**Mathematical Statistics**

Sampling distributions: transformation of variables, order statistics, moment generating functions, distribution of sample mean and sample variance, stochastic convergence, central limit theorem, maximum likelihood estimation, Bayesian - estimation, confidence intervals. Prereq: 15MATH521. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

15STAT523**Mathematical Statistics**

Hypothesis testing, uniformly most powerful and likelihood ratio tests, sufficient statistics, Rao -Blackwell Theorem, exponential densities, Rao - Cramer inequality, sequential and chi-square tests. Prereq: 15MATH522. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

15STAT531**Applied Statistical Inference**

Quick review of probability distributions. Inferences about population means and variance. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

15STAT532**Applied Regression Analysis**

Correlation, multiple regression, one-way ANOVA, and multiple comparisons. Projects using SAS packages. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

15STAT533**Analysis of Variance**

ANOVA for standard experimental designs and unbalanced designs, repeated measures, and analysis of covariance. Prereq: 15MATH532. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

15STAT534**SAS Programming**

Various aspects of the SAS statistical package from a programming language perspective. Emphasis on SAS data steps, including the infile, input, merge, set, do-loop, if-then commands, writing macros, matrix computations using PROC IML and PROC INSIGHT. Concentration is on programming issues rather than statistical procedures. Prereq: 15MATH363, 15MATH532. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

15STAT535**Applied Statistics Using S-Plus**

To obtain and enhance statistical analysis and programming skills using S-Plus. Various modern techniques in linear statistical modeling, writing statistical functions, and creating graphs. Prereq: 15MATH361, 15MATH362, 15MATH363, 15MATH531, 15MATH532. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

15STAT571**Time Series**

Estimation and use of autocorrelation function (ACF) and partial autocorrelation function (PACF), linear stationary models, including autoregressive (AR), moving average (MA), and ARIMA models; model identification, estimation, and forecasting; spectrum and periodogram of stationary processes. Techniques illustrating computer software on real time series data. Prereq: 15MATH362, 15MATH522. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

15STAT572**Reliability-Survival Analysis**

Applied life data analysis, including reliability analysis (engineering) and survival analysis (medical and actuarial.) Survival and hazard functions, life table, product limits estimates, exponential, Weibull and other parametric models. Censored data, co-variate models, maximum likelihood methods. Examples given and analyzed using PROC LIFETEST, LIFEREG, PHGLM, etc in SAS. BoK: QR. Credit Level: U, G. Credit

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Statistics**15STAT572****Reliability-Survival Analysis**

Hrs: 3.00

15STAT573**Applied Bayesian Analysis**

Basic principles behind Bayesian inference and the concepts of prior and posterior distributions. Bayesian approach to statistical inference (estimation and test of hypotheses.) Differences and similarities between Bayesian and classical (frequentist) approaches featuring selected topics and examples requiring approximate or computer based numerical calculations of Bayesian answers. Prereq: 15MATH522. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

15STAT574**Nonparametric Statistics**

One- and two-sample location problems, Wilcoxon statistics, rank tests, one- and two-way layout, tests for independence, linear rank statistics, Kolmogorov test. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

15STAT575**Robust Statistics**

Methods of data analysis that are used when a sample is not assumed to have come from a normal distribution. Classical methods of inference and estimation; theoretical, applied, and computational aspects of robustness; Monte Carlo adaptive estimation, jackknifing, and bootstrapping. Prereq: 15MATH362. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

15STAT576**Topics in Applied Statistics**

Selected topics in applied statistics, depending on the area of specialty of the instructor. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

15STAT613**Linear Models and Multivariate Analysis**

Review of matrix algebra, multivariate normal distribution; linear models including multiple regression, analysis of variance, analysis of covariance and repeated measurements. Selected topics from experimental design and multivariate analysis. Prereq: 15MATH351, 15MATH362. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

15STAT614**Linear Models and Multivariate Analysis**

Multivariate normal distribution. General linear models. Analysis of experiments. The second offering in a three-part course sequence. Prereq.: Math. 352 or equiv.; 362 or 523 or 708. Prereq: 15MATH613. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

15STAT615**Linear Models and Multivariate Analysis**

Multivariate normal distribution. General linear models. Analysis of experiments. The third part in a three-part course sequence. Prereq.: Math 352 or equiv.; 362 or 523 or 708. Prereq: 15MATH614. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

15STAT631**Advanced Theory of Statistics I**

Review of probability theory; distribution theory, sufficient statistics, maximum likelihood estimators, large sample theory, confidence intervals and testing. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

15STAT632**Advanced Theory of Statistics II**

Elements of decision theory, unbiased estimation, Bayesian analysis, minimax estimators, invariant estimator, Bayes and minimax tests, likelihood ratio tests. Prereq: 15MATH631. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

15STAT633**Advanced Theory of Statistics III**

Uniformly most powerful tests, general linear hypotheses, multiple decision problems, sequential analysis, density estimation, empirical processes. Prereq: 15MATH632. BoK: NA. Credit Level: U, G. Credit

Statistics**15STAT633****Advanced Theory of Statistics III**

Hrs: 4.00

15STAT720**Statistical Consulting**

Working on projects in teams of two, students will interact with researchers to learn statistical techniques and develop consulting and presentation skills. Perm of Instructor. Credit Level: G. Credit Hrs: 3.00

15STAT721**Statistical Consulting**

Working on projects in teams of two, students will interact with researchers to learn statistical techniques and develop consulting and presentation skills. Perm of Instructor. Credit Level: G. Credit Hrs: 3.00

15STAT722**Statistical Consulting**

Working on projects in teams of two, students will interact with researchers to learn statistical techniques and develop consulting and presentation skills. Perm of Instructor. Credit Level: G. Credit Hrs: 3.00

15STAT723**Statistical Consulting**

Working on projects in teams of two, students will interact with researchers to learn statistical techniques and develop consulting and presentation skills. Prereq: 15MATH521, 15MATH531. Credit Level: G. Credit Hrs: 3.00

15STAT831**Practicum in Applied Statistics**

This course enables students to enhance their graduate degree program with some practical experience working on real data analytic problems in applied statistics. Students must obtain an internship or co-operative employment in order to get credit for this class. Prereq: 15MATH533. Credit Level: G. Credit Hrs: 1.00-3.00

15STAT832**Practicum in Applied Statistics**

This course enables students to enhance their graduate degree program with some practical experience working on real data analytic problems in applied statistics. Students must obtain an internship or co-operative employment in order to get credit for this class. Prereq: 15MATH533. Credit Level: G. Credit Hrs: 1.00-3.00

15STAT833**Practicum in Applied Statistics**

This course enables students to enhance their graduate degree program with some practical experience working on real data analytic problems in applied statistics. Students must obtain an internship or co-operative employment in order to get credit for this class. Prereq: 15MATH533. Credit Level: G. Credit Hrs: 1.00-3.00

15STAT834**Practicum in Applied Statistics**

This course enables students to enhance their graduate degree program with some practical experience working on real data analytic problems in applied statistics. Students must obtain an internship or co-operative employment in order to get credit for this class. Prereq: 15MATH533. Credit Level: G. Credit Hrs: 1.00-3.00

15STAT921**Seminar in Statistics**

Seminar in Statistics Credit Level: G. Credit Hrs: 4.00

15STAT922**Seminar in Statistics**

Seminar in Statistics Credit Level: G. Credit Hrs: 4.00

15STAT923**Seminar in Statistics**

Seminar in Statistics Credit Level: G. Credit Hrs: 4.00

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Swahili**15SWAH101****Basic Swahili 1**

Introduce students to basic & advanced linguistic concepts through writing, reading, speaking, and cultural exposition. The history of the Swahili peoples of East and Central Africa will be studied also. BoK: HU., DC. Credit Level: U. Credit Hrs: 5.00

15SWAH102**Basic Swahili 2**

Introduce students to basic & advanced linguistic concepts through writing, reading, speaking, and cultural exposition. The history of the Swahili peoples of East and Central Africa will be studied also. BoK: HU., DC. Credit Level: U. Credit Hrs: 5.00

15SWAH103**Basic Swahili 3**

Introduce students to basic & advanced linguistic concepts through writing, reading, speaking, and cultural exposition. The history of the Swahili peoples of East and Central Africa will be studied also. BoK: HU., DC. Credit Level: U. Credit Hrs: 5.00

15SWAH111**Extended Basic Swahili 1**

An introduction to Swahili language and culture. First quarter in the extended 6-sequence that fulfills the A&S language requirement. BoK: HU., DC. Credit Level: U. Credit Hrs: 3.00

15SWAH112**Extended Basic Swahili 2**

An introduction to Swahili language and culture. Second quarter in the extended 6-quarter sequence that fulfills the A&S language requirement. Prereq: 15AFAM111. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15SWAH113**Extended Basic Swahili 3**

An introduction to Swahili language and culture. Third quarter in the extended 6-quarter sequence that fulfills the A&S language requirement. Prereq: 15AFAM112. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15SWAH114**Extended Basic Swahili 4**

An introduction to Swahili language and culture. Fourth quarter in the extended 6-quarter sequence that fulfills the A&S language requirement. Prereq: 15AFAM113. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15SWAH115**Extended Basic Swahili 5**

An introduction to Swahili language and culture. Fifth quarter in the extended 6-quarter sequence that fulfills the A&S language requirement. Prereq: 15AFAM114. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15SWAH116**Extended Basic Swahili 6**

An introduction to Swahili language and culture. Sixth quarter in the extended 6-quarter sequence that fulfills the A&S language requirement. Prereq: 15AFAM115. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

School of World Languages and Cultures**15SWLC100****Freshman Seminar: Exploring Languages and Intercultural Competence**

Exploration of Issues pertaining to the study of world languages and cultures, as well as resources on concepts, and reasons for studying foreign language and culture. Team-taught with faculty and speakers from a variety of departments and organizations. BoK: DC. Credit Level: U. Credit Hrs: 3.00

School of World Languages and Cultures**15SWLC750****Orientation to Second Language Teaching at UC**

Introduction to teaching methodologies, policies and practices in foreign language programs at UC. This course meets for 2 1/2 weeks before the beginning of Fall quarter and is required for all incoming GTAs in SWLC-affiliated departments. (Replaces 15-GRMN-794 and 15-RLL-750) Credit Level: G. Credit Hrs: 2.00

15SWLC751**Language Teaching Methods**

Introduction to the research and theory of teaching language. Credit Level: G. Credit Hrs: 4.00

15SWLC752**Second Language Acquisition Theory**

Introduction to second language acquisition theory. Credit Level: G. Credit Hrs: 4.00

15SWLC753**Computer Assisted Language Learning**

Introduction to computer assisted language learning. Credit Level: G. Credit Hrs: 4.00

15SWLC801**Introduction to Literary Theory**

An introduction to literary theory and critical approaches to literature beginning with the Greeks. Credit Level: G. Credit Hrs: 4.00

15SWLC802**Topics in Literary Theory I**

An investigation of a variety of literary theories and critical approaches to literatures such as gender-based or psychoanalytic approaches. Credit Level: G. Credit Hrs: 4.00

15SWLC803**Topics in Literary Theory II**

Topic varies: an investigation of a variety of literary theories and critical approaches to literature such as culture-based or historiographic approaches. Credit Level: G. Credit Hrs: 4.00

Teaching Science**15TSCI661****Earth's Surface Environment**

This course will investigate the interrelationships among plants, animals, and their physical environment, and the role that a changing physical world played in the evolution of specific plant and animal adaptations. Perm of Instructor. BoK: NA. Credit Level: G, U. Credit Hrs: 4.00

15TSCI662**Our Physical World**

This course will examine the physics and chemistry of the world around us with an emphasis on understanding forces, energy, motions and equilibrium. Perm of Instructor. BoK: NA. Credit Level: G, U. Credit Hrs: 4.00

15TSCI663**A Journey Through Space**

This course will begin with a brief description of cosmology, galaxies, and stellar life cycles, and investigates the Earth's formation, differentiation, and evolution. Perm of Instructor. BoK: NA. Credit Level: G, U. Credit Hrs: 4.00

15TSCI664**The Chemistry of Life**

This course will explore biochemistry, and molecular and cellular biology, with the aim of understanding how the chemistry of a cell affects its structure and function. Perm of Instructor. BoK: NA. Credit Level: G, U. Credit Hrs: 4.00

15TSCI665**Philosophy of Science**

This course will cover five topics in the Philosophy of Science: scientific explanation, hypothesis testing, theory relations across scientific levels,

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Teaching Science**15TSCI665****Philosophy of Science**

science in value and policy decisions, and the sociology of scientific knowledge. Perm of Instructor. BoK: NA. Credit Level: G, U. Credit Hrs: 3.00

15TSCI671**Internship I**

This course will allow students to work on an independent research project, and by doing so, develop hands-on experience in scientific work, technology, and thinking. Perm of Instructor. BoK: NA. Credit Level: G, U. Credit Hrs: 6.00

15TSCI672**Internship II**

This course will allow students to work on an independent research project, and by doing so, develop hands-on experience in scientific work, technology, and thinking. Perm of Instructor. BoK: NA. Credit Level: G, U. Credit Hrs: 6.00

Women's Studies**15WMST150****"Having It All:" Using the Law to Resolve the Work/Family Conflict**

Explores both legal and gender issues in examining how our society structures the relationship of paid work to work in the family. Offers exposure to prelaw and women's studies, while also providing a practical framework to guide career/family choices. BoK: SE. Credit Level: U. Credit Hrs: 3.00

15WMST160**Revolutionary Women: Wollstonecraft and France's Last Queen**

Mary Wollstonecraft and Marie Antoinette led very different and controversial lives in a Europe under radical change. The British feminist historian and Habsburg Queen of France sought freedom and wrote their own roles with significant social and political impacts on a larger world. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15WMST201**Barriers to Equality**

An examination of age, gender, sexual orientation and race as major influences on the structure of interaction and on access to social opportunity. A comparative approach will be used where the U.S. and other societies are explored. Prereq: 30SOC175, 30SOC176. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15WMST204**Introduction to Black Gender Studies**

Introduction to gender and gender oppression as major organizing principles in African-American social institutions, culture, and politics. BoK: DC. Credit Level: U. Credit Hrs: 3.00

15WMST241**Introduction to Women's Studies I: Feminist Perspectives**

Interdisciplinary survey introduction to women's studies and women-related issues in society from a feminist perspective. Emphasis will be placed on the diversity of women's experience. BoK: SS., SE. Credit Level: U. Credit Hrs: 3.00

15WMST245**Introductory Women, Gender and Race Studies**

Variable topics in the area of women of color studies offered at the introductory level. Prereq: 15WMST241. BoK: DC, SE. Credit Level: U. Credit Hrs: 3.00

15WMST250**Introduction to Black Women's Studies**

The purpose of this course is to familiarize the student with an intersectional analysis of race, class, gender, sexual orientation, while focusing on some of the experiences of Black women in the United States from the Civil War Era to the present. BoK: DC. Credit Level: U. Credit Hrs: 3.00

Women's Studies**15WMST255****Introductory Women, Gender, and Legal Studies**

Variable topics in area of feminist legal studies offered at the introductory level. Prereq: 15WMST241. BoK: SE, SS. Credit Level: U. Credit Hrs: 3.00

15WMST265**Introductory Women, Gender, and Sexuality Studies**

Variable topics in the area of sexuality studies at the introductory level. Prereq: 15WMST241. BoK: DC, SE. Credit Level: U. Credit Hrs: 3.00

15WMST275**Introductory Women, Gender, and Cultural Studies**

Variable topics offered at the introductory level in the area of feminist cultural studies, which critically examines gendered texts and images, including those from popular culture. Prereq: 15WMST241. BoK: DC, HU. Credit Level: U. Credit Hrs: 3.00

15WMST276**Feminism and Popular Culture**

Analyzes popular culture as both a source of anti-feminism and a site of feminist resistance for social change BoK: SE., DC. Credit Level: U. Credit Hrs: 3.00

15WMST280**Women in Native American Literature**

Designed to give students an understanding of the Native American Culture and the role of women within the society, both traditionally and contemporarily BoK: LT. Credit Level: U. Credit Hrs: 3.00

15WMST285**Introductory Women, Gender, and Science Studies**

Variable topics in the area of feminist science studies at the introductory level. Prereq: 15WMST241. BoK: SE. Credit Level: U. Credit Hrs: 3.00

15WMST289**Our Lives: Twentieth-Century Women's Autobiographies**

Through five novels and a collection of diaries, this course studies the lives and achievements of well-known 20th century women from their teen years through old age. BoK: LT. Credit Level: U. Credit Hrs: 3.00

15WMST295**Introductory Women, Gender and Political Studies**

Variable topics in the area of feminist political studies offered at the introductory level. Prereq: 15WMST241. BoK: SE, SS. Credit Level: U. Credit Hrs: 3.00

15WMST298**Outrageous Writings by Women**

Women writers are attracted to certain literary forms scorned by conventional academic critics -- Brown, Rubyfruit Jungle; Wittig, Les Guerillier; Didion, Play It As It Lays; LeGuin, The Dispossessed; poetry by Judy Grahn; journals by May Sarton, Anais Nin. Offered alt. yrs. Transfer Module. BoK: LT, DC. Credit Level: U. Credit Hrs: 3.00

15WMST301**Current Issues in Women's Studies**

Selected readings chosen to highlight topical issues or emerging scholarship in Women's Studies. Individual topics are described in listings available from the Center for Women's Studies each term. Prereq.: 15-WMST-241. BoK: DC., SE. Credit Level: U. Credit Hrs: 3.00 -12.00

15WMST302**Women and Activism**

An investigation of how women, past and present, influence and engage in social justice activism. Includes service/experiential learning assignments in the community. Prereq: 15WMST241. BoK: DC, SE. Credit Level: U. Credit Hrs: 3.00

15WMST304**Gender, Race, Class & Sexuality**

This course will employ social science readings and selected literature and film to provide greater understanding of the ways in which innate gender differences and gender stereotypes influence male-female

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Women's Studies**15WMST304****Gender, Race, Class & Sexuality**

communication and relationships. BoK: HU., DC. Credit Level: U. Credit Hrs: 3.00

15WMST305**Black Women in U.S.Society**

An examination of how systems of race, class, and gender shape the experiences of African-American women. BoK: DC. Credit Level: U. Credit Hrs: 3.00

15WMST310**Feminism and the Future**

This course explores the possibilities for women's futures in diverse cultures. Prereq: 30ENGL103. BoK: SS, DC. Credit Level: U. Credit Hrs: 3.00

15WMST311**Masculinities Studies**

Explores multiple social constructions of masculinity produced through varying cultural social, political, and economic processes. Prereq: 15WMST241. BoK: SE, DC. Credit Level: U. Credit Hrs: 3.00

15WMST312**Psychology of Women**

Examination of various theories of the psychology of women, focusing on women's sense of self in relationship to their culture, other women, and themselves. BoK: SS., DC. Credit Level: U. Credit Hrs: 3.00

15WMST313**Feminism, Gender, and Psychology**

Examines feminist approaches to analyzing women and gender from social psychological perspectives. Prereq: 15WMST241. BoK: SE, DC. Credit Level: U. Credit Hrs: 3.00

15WMST314**Women and Social Action**

A telecourse designed to address the impact of gender stereotypes and how they intersect with other social systems such as age, class, ethnicity, race, and religion. Prereq: 30SOC175. BoK: SS, SE. Credit Level: U. Credit Hrs: 3.00

15WMST315**Women and Aging**

Examines the economics and politics of aging women, as well as their art, writing, and spirituality. BoK: SS., DC. Credit Level: U. Credit Hrs: 3.00

15WMST316**Feminism and Spirituality**

Examines the development of feminist spiritual alternatives to patriarchal religions. Prereq: 15WMST241. BoK: SE, DC. Credit Level: U. Credit Hrs: 3.00

15WMST317**Women and Religion**

Concerns of women that are conditioned by interpretations found to have roots in religious sources are studied through literary form, historical context, and cultural factors. BoK: SE. Credit Level: U. Credit Hrs: 3.00

15WMST318**Women in American History: 1607-1820**

Historical analysis of the roles of native, African and European women in early American society. It will examine women's experiences in the 17th and 18th Centuries and the impact of the American Revolution on women's lives. Transfer Module. BoK: HP, DC. Credit Level: U. Credit Hrs: 3.00

15WMST319**Women in American History: 1820-1920**

Historical analysis of the role of the Nineteenth Century Woman and gain of the vote for women. Transfer Module. BoK: HP, DC. Credit Level: U. Credit Hrs: 3.00

Women's Studies**15WMST321****Witchcraft and Women**

A serious examination of the concept of magic and the role of witchcraft in history from antiquity to the present; an examination of primary and secondary sources on the phenomenon and mechanism of magical thought, and its impact upon persons and societies. Prereq: 15WMST241. BoK: HP, DC. Credit Level: U. Credit Hrs: 3.00

15WMST322**Women and Men, Sex and Gender in Antiquity**

An overview of the textual and material evidence pertaining to women's lives in four ancient cultures. Students synthesize and evaluate this information, weighing the limitations of different types of evidence and considering any possible gender biases of previous scholars. Perm of Instructor. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15WMST324**Science Fiction and Gender**

A new strain of science fiction has emerged which is more concerned with the social and mythical aspects of heroism, and more thoroughly radical in its extrapolations. Focus will be on well-written works which raise questions of the identity of women and men. BoK: LT. Credit Level: U. Credit Hrs: 3.00

15WMST325**Themes in American Literature: Gender Roles**

American authors' treatments of the theme of male-female gender stereotyping. Prereq: 15ENGL103. Transfer Module. BoK: LT. Credit Level: U. Credit Hrs: 3.00

15WMST326**Women's Voices in American Literature**

A study of women writers' commentary on the American Experience from the colonial period to the present. Prereq: 17ENGL103. Transfer Module. BoK: LT. Credit Level: U. Credit Hrs: 3.00

15WMST327**Coming of Age in Fiction by Women**

Course will examine the process of growing up female as it is portrayed in fiction by women. Offered alt. yrs. BoK: LT., DC. Credit Level: U. Credit Hrs: 3.00

15WMST328**Contemporary Short Story**

Twentieth century thought and expression in the short story. Prereq: 17ENGL103. Transfer Module. BoK: LT. Credit Level: U. Credit Hrs: 3.00

15WMST330**Black Women Writers**

A study of the fiction of selected Black women writers from Zora Neale Hurston to Toni Morrison. Special emphasis on developing concepts of Black womanhood. Transfer Module. BoK: LT, DC. Credit Level: U. Credit Hrs: 3.00

15WMST342**Gender in Film**

This course will provide an overview of fundamental neurobiological differences between the sexes and their portrayals in representative film and literature. It will explore concerns about the objectivity and application of brain difference research and should serve as a basis for more in-depth study of gender issues in science and humanities. BoK: DC. Credit Level: U. Credit Hrs: 3.00

15WMST345**Intermediate Women, Gender and Race Studies**

Variable topics in the area of women of color studies offered at the intermediate level. Prereq: 15WMST241. BoK: DC, SE. Credit Level: U. Credit Hrs: 3.00

15WMST350**Women and the Law**

An historical and comparative study of the effect of law on women, the development of women's legal rights in the U.S. and the changes in law

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Women's Studies**15WMST350****Women and the Law**

which resulted from the women's movement. BoK: SE. Credit Level: U. Credit Hrs: 3.00

15WMST355**Intermediate Women, Gender, and Legal Studies**

Variable topics in area of feminist legal studies offered at the intermediate level. Prereq: 15WMST241. BoK: SE, SS. Credit Level: U. Credit Hrs: 3.00

15WMST357**Women and Business in Feminist Perspective**

Analyzes women's changing roles and continued under-representation in as well as contributions to contemporary business and corporate structures and practices from feminist perspectives. BoK: SE., DC. Credit Level: U. Credit Hrs: 3.00

15WMST360**Lesbian, Gay, Bisexual and Transgender Studies**

Examines issues facing LGBT gay & lesbian communities as well as theories that help us analyze them. BoK: DC. Credit Level: U. Credit Hrs: 3.00

15WMST361**Lesbian and Gay Literature**

An exploration of important themes (e.g., childhood and growing up, coming out and finding community, families, oppression and resistance, bisexuality, relationships and friendships, AIDS and aging) in lesbian and gay literature using literary materials as the primary focus (novels, poetry, plays). Prereq: 17ENGL103. BoK: LT. Credit Level: U. Credit Hrs: 3.00

15WMST365**Intermediate Women, Gender, and Sexuality Studies**

Variable topics in the area of sexuality studies at the intermediate level. Prereq: 15WMST241. BoK: DC, SE. Credit Level: U. Credit Hrs: 3.00

15WMST370**Women in Science**

Exploration of how women work in the sciences, how they are perceived by the sciences, and how they are changing the sciences. BoK: SE., DC. Credit Level: U. Credit Hrs: 3.00

15WMST371**Women's Health in Feminist Perspective**

Examines women's bodies and health through feminist perspectives and the development of feminist health movements domestically and internationally. BoK: SE., DC. Credit Level: U. Credit Hrs: 3.00

15WMST375**Intermediate Women, Gender, and Cultural Studies**

Variable topics in the area of feminist cultural studies offered at an intermediate level. Prereq: 15WMST241. BoK: DC, HU. Credit Level: U. Credit Hrs: 3.00

15WMST376**Feminisms and Art**

Explores feminist artistic production and critique for social change examines differing feminist artistic movements Prereq: 15WMST241. BoK: SE, DC. Credit Level: U. Credit Hrs: 3.00

15WMST380**Feminist Critical Readings**

In-depth readings of classic feminist works. This course is designed to stand between "Intro to Women's Studies" and "Feminist Theory" and will focus on developing students' critical reading skills as well as on works by classic feminist thinkers. Prereq: 15WMST241. BoK: SE, DC. Credit Level: U. Credit Hrs: 3.00

15WMST385**Intermediate Women, Gender, and Science Studies**

Variable topics in the area of feminist science studies at the intermediate level. Prereq: 15WMST241. BoK: SE. Credit Level: U. Credit Hrs: 3.00

Women's Studies**15WMST385****Intermediate Women, Gender, and Science Studies**

Variable topics in the area of feminist science studies at the intermediate level. Prereq: 15WMST241. BoK: SE. Credit Level: U. Credit Hrs: 3.00

15WMST395**Intermediate Women, Gender, and Political Studies**

Variable topics in the area of feminist political studies offered at the intermediate level. Prereq: 15WMST241. BoK: SE, SS. Credit Level: U. Credit Hrs: 3.00

15WMST401**Special Topics in Women's Studies**

Special topics in the study of women and gender. Topics will vary. Prereq: 15WMST241, 15WMST380. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15WMST405**Independent Study in Women's Studies**

For independent study of special topics in Women's Studies under faculty supervision. Permission of instructor required Prereq: 15WMST241, 15WMST380. BoK: NA. Credit Level: U. Credit Hrs: 1.00-3.00

15WMST406**Independent Study in Women's Studies**

For independent study of special topics in Women's Studies under faculty supervision. Permission of instructor required Prereq: 15WMST241, 15WMST380. BoK: NA. Credit Level: U. Credit Hrs: 1.00-3.00

15WMST407**Independent Study in Women's Studies**

For independent study of special topics in Women's Studies under faculty supervision. Permission of instructor required Prereq: 15WMST241, 15WMST380. BoK: NA. Credit Level: U. Credit Hrs: 1.00-3.00

15WMST441**Child Sexual Violence in Contemporary Literature and Film**

Examines contemporary treatments, through literature, film, and other media, of childhood sexual violence. It will cover social, cultural, and psychological issues related to sexual violence against children through feminist perspectives. BoK: SE., DC. Credit Level: U. Credit Hrs: 3.00

15WMST443**Global Sexualities**

Examines differing social constructions of sexual identities in cross-cultural perspective to investigate their implications for theorizing sexuality and sexual power relations and developing transnational struggles against discrimination based on sexual orientation. Prereq: 15WMST360. BoK: SE, DC. Credit Level: U. Credit Hrs: 3.00

15WMST445**Advanced Women, Gender and Race Studies**

Variable topics in the area of women of color studies offered at the advanced level. Prereq: 15WMST241. BoK: DC, SE. Credit Level: U. Credit Hrs: 3.00

15WMST446**African Women: Literature, Culture, History**

The fiction of African women reveals hybrid oral and literate aesthetics and differences in the political and economic history and culture situations of women in their respective countries, traditional, modern, and neo-colonial histories, raising pertinent issues of polygamy, feminism, womanism, political power, childbearing and rearing, guerilla warfare, and AIDS. BoK: DC., LT. Credit Level: U. Credit Hrs: 3.00

15WMST447**Ethnic Women: Literature, Culture, History**

Ethnic women, usually facing the double oppression of racism and misogyny, create literature and theory expressing not only this common experience but also, revealing the contrasts among their different ethnic

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Women's Studies**15WMST447****Ethnic Women: Literature, Culture, History**

communities in the U.S. through the lens of sex and gender and experimental narrative. BoK: DC., LT. Credit Level: U. Credit Hrs: 3.00

15WMST448**Native American Women: Literature, Culture, History**

Complementary stories of Native women from different cultures and areas of US create experimental narratives grounded in their culture's oral traditions in conversation with current feminist, womanist, postcolonial and postmodern theoretical approaches in culture. BoK: DC., LT. Credit Level: U. Credit Hrs: 3.00

15WMST449**"Third World" Women: Literature, Culture, History**

Women writers from Egypt, Aboriginal Australia, sub-Saharan Africa, and the borderlands of the U.S. Interrogate tradition, colonialism, neo-colonialism, feminism, Islam, and Christianity. We will study the hybrid nature of these works and read them through contemporary theoretical approaches that insist on engaging the disputed term "third world". BoK: DC., LT. Credit Level: U. Credit Hrs: 3.00

15WMST450**Comparative Black Feminisms**

Examines roles and positionalities of black women within the African diaspora (Continental, British, Caribbean, North American). Takes comparative and historical approach to study of political issues such as reproductive equity and health, state policy on women, religion, sexuality and migration. Prereq: 15WMST241, 15WMST380. BoK: DC, SE. Credit Level: U. Credit Hrs: 3.00

15WMST455**Advanced Women, Gender, and Legal Studies**

Variable topics in area of feminist legal studies offered at the advanced level. Prereq: 15WMST241, 15WMST350. BoK: SE, SS. Credit Level: U. Credit Hrs: 3.00

15WMST456**Women's Human Rights**

Examines the development of women's human rights struggles, norms, conventions, and laws in comparative and international perspective. Prereq: 15WMST350. BoK: SE, DC. Credit Level: U. Credit Hrs: 3.00

15WMST460**Seminar in Lesbian, Gay, Bisexual and Transgender Studies**

An advanced course in LGBT studies that analyzes an array of theories and perspectives. Prereq: 15WMST360. BoK: DC. Credit Level: U. Credit Hrs: 3.00

15WMST461**Feminist Theory: Global**

The second in a three-quarter sequence, this seminar examines feminist theories in national, transnational, and global perspective. Prereq: 15WMST241. BoK: DC, SE. Credit Level: U. Credit Hrs: 3.00

15WMST462**Lesbian/Queer Theory**

Explores contemporary sexuality theories from lesbian and queer perspectives which destabilize assumptions about relationships among chromosomal sex, gender, and sexual desire and develop new thinking about sexual identities and social critiques and movements arising from them. Prereq: 15WMST360. BoK: SE, DC. Credit Level: U. Credit Hrs: 3.00

15WMST463**Lesbian Literature and Psychology**

Study of the definition of lesbianism as expressed by psychologists and writers; study of the complex relationship between images of mainstream psychological theory and lesbian fiction. Prereq: 15WMST360. BoK: DC, LT. Credit Level: U. Credit Hrs: 3.00

15WMST465**Advanced Women, Gender, and Sexuality Studies**

Variable topics in the area of sexuality studies at the advanced level.

Women's Studies**15WMST465****Advanced Women, Gender, and Sexuality Studies**

Prereq: 15WMST241, 15WMST360. BoK: DC, SE. Credit Level: U. Credit Hrs: 3.00

15WMST466**Gender, Sexuality and Culture**

Focuses on the political, cultural, familial production of sexualities and on the complex relations between gender and sexuality, including the way in which gender and sex regulate identity and how that regulation might be contested. Prereq: 15WMST241, 15WMST360. BoK: HU, SE. Credit Level: U. Credit Hrs: 3.00

15WMST475**Advanced Women, Gender, and Cultural Studies**

Variable topics in the area of feminist cultural studies offered at the advanced level. Prereq: 15WMST241, 15WMST380. BoK: SE, HU. Credit Level: U. Credit Hrs: 3.00

15WMST476**Second Wave Feminisms**

Analyzes and historicizes the multiple and interconnecting strands of feminist theory and praxis that constituted the second wave of feminism and their continuing impact on contemporary feminist identification, debates and movements. Prereq: 15WMST241. BoK: SE, DC. Credit Level: U. Credit Hrs: 3.00

15WMST480**Feminist Theory**

An investigation of central texts in feminist thought. Prereq: 15WMST241, 15WMST380. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15WMST480H**Feminist Theory Honors**

An investigation of central texts in feminist thought. Prereq: 15WMST241, 15WMST380. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15WMST485**Advanced Women, Gender, and Science Studies**

Variable topics in the area of feminist science studies at the advanced level. Prereq: 15WMST241, 15WMST370. BoK: SE. Credit Level: U. Credit Hrs: 3.00

15WMST490**Internship in Women's Studies**

Supervised experiences in community organizations active on issues of gender and social justice. Permission of instructor needed. BoK: SE. Credit Level: U. Credit Hrs: 1.00-9.00

15WMST495**Advanced Women, Gender, and Political Studies**

Variable topics in the area of feminist political studies offered at the advanced level. Prereq: 15WMST241, 15WMST480. BoK: SE, SS. Credit Level: U. Credit Hrs: 3.00

15WMST496**Gender and Development**

Critiques through a gender-sensitive lens the main strands of political and economic thought that have informed international socio-economic development policy and challenges the meanings of and institutional formations and practices associated with development through feminist perspectives. Prereq: 15WMST241. BoK: SE, DC. Credit Level: U. Credit Hrs: 3.00

15WMST497**Women, Gender, and Social Movements**

Explores feminist perspectives on and women's participation in select social movements at local, national, and/or transnational levels. Comparatively theorizes women's activism and strategies for social change. Prereq: 15WMST241. BoK: SE, DC. Credit Level: U. Credit Hrs: 3.00

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Women's Studies**15WMST531****Individual Work in Women's Studies**

Individual work in Women's Studies. For completing independent capstone research paper, including undergraduate major paper, under faculty supervision. Permission of instructor BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-4.00

15WMST532**Individual Work in Women's Studies**

Individual work in Women's Studies. For completing independent capstone research paper, including undergraduate major paper, under faculty supervision. Permission of instructor required. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-4.00

15WMST533**Individual Work in Women's Studies**

Individual work in Women's Studies. For completing independent capstone research paper, including undergraduate major paper, under faculty supervision. Permission of instructor required. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-4.00

15WMST580**Feminist Methodologies**

An examination of the contours and practices of feminist research, focusing on epistemological and methodological questions in feminism. A focus on various feminist cultural, political, and science studies methods thru feminist research exercises in preparation for independent research projects. Prereq: 15WMST480. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00-4.00

15WMST588**Latina Feminisms**

Explores the development of women's movement in Latin America and Latina feminist movements across the Americas. Prereq: 15WMST241. BoK: DC, SE. Credit Level: U, G. Credit Hrs: 3.00-4.00

15WMST589**Feminisms in North America**

A comparative examination of feminist theories and movements in Canada, Mexico, and the US as well as examples of cross-border organizing on select issues to investigate women's human rights and citizenships, and identities in a continental context. Prereq: 15WMST241. BoK: DC, SE. Credit Level: U, G. Credit Hrs: 3.00-4.00

15WMST590**Women's Studies Study Abroad**

Designed for eligible advanced undergraduate and graduate students who have completed requisite Women's Studies courses (and, where applicable, foreign language proficiency courses or tests) and been accepted to study Women's Studies abroad in Women's Studies partner institutions currently in Canada or Mexico or other countries where partnerships may be formed in the future. As exchange students, students accepted to study abroad register for the number of credits for this course that are equivalent to the credit amounts of the courses they take abroad for a given term. Interested students must see the Department of Women's Studies for application, requirements, and advisement well in advance (at least six months prior to study abroad) to pursue this option. See Department of Women's Studies for requirements and application. Perm of Department. BoK: DC, SE. Credit Level: U, G. Credit Hrs: 3.00-18.00

15WMST641**Child Sexual Violence in Contemporary Literature and Film Graduate**

Graduate course examines contemporary treatments, through literature, film, and other media of childhood sexual violence. It will cover social, cultural, and psychological issues related to sexual violence against children through feminist perspectives. BoK: DC, SE. Credit Level: G, U. Credit Hrs: 4.00

15WMST643**Global Sexualities Graduate**

Examines differing social constructions of sexual identities in cross-

Women's Studies**15WMST643****Global Sexualities Graduate**

cultural perspective to investigate their implications of theorizing sexuality and sexual power relations and developing transnational struggles against discrimination based on sexual orientation. BoK: DC, SE. Credit Level: G, U. Credit Hrs: 4.00

15WMST645**Graduate Women, Gender and Race Studies**

Variable topics in the area of women of color studies offered at the graduate level. BoK: DC, SE. Credit Level: U, G. Credit Hrs: 3.00-4.00

15WMST650**Comparative Black Feminisms**

Examines roles and positionalities of black women within the African diaspora (Continental, British, Caribbean, North American). Takes comparative and historical approach to study of political issues such as reproductive equity and health, state policy on women, religion, sexuality and migration. BoK: DC, SE. Credit Level: U, G. Credit Hrs: 3.00-4.00

15WMST656**Women's Human Rights Graduate**

Graduate course examines the development of women's human rights struggles, norms, conventions and laws in comparative and international perspective. BoK: DC, SE. Credit Level: G, U. Credit Hrs: 4.00

15WMST660**Seminar in Lesbian, Gay, Bisexual and Transgender Studies**

An advanced course in LGBT studies that analyzes an array of theories and perspectives. BoK: DC, SE. Credit Level: U, G. Credit Hrs: 3.00-4.00

15WMST662**Lesbian/Queer Theory Graduate**

Graduate course explores contemporary sexuality theories from lesbian and queer perspectives which destabilize assumptions about relationships among chromosomal sex, gender, and sexual desire and develop new thinking about sexual identities and social critiques and movements arising from them. BoK: DC, SE. Credit Level: G, U. Credit Hrs: 4.00

15WMST665**Graduate Women, Gender, and Sexuality Studies**

Variable topics in the area of sexuality studies at the graduate level. BoK: DC, SE. Credit Level: U, G. Credit Hrs: 3.00-4.00

15WMST675**Graduate Women, Gender, and Cultural Studies**

Variable topics in the area of feminist cultural studies offered at the graduate level. BoK: SE, HU. Credit Level: U, G. Credit Hrs: 3.00-4.00

15WMST676**Second Wave Feminisms Graduate**

Graduate course that analyzes and historicizes the multiple and interconnecting strands of feminist theory and praxis that constituted the second wave of feminism and their continuing impact on contemporary feminist identification, debates, and movements. BoK: DC, SE. Credit Level: G, U. Credit Hrs: 4.00

15WMST685**Graduate Women, Gender, and Science Studies**

Variable topics in the area of feminist science studies at the graduate level. BoK: SE. Credit Level: U, G. Credit Hrs: 3.00-4.00

15WMST695**Graduate Women, Gender, and Political Studies**

Variable topics in the area of feminist political studies offered at the graduate level. BoK: SE, SS. Credit Level: U, G. Credit Hrs: 3.00-4.00

15WMST696**Gender and Development Graduate**

Graduate course critiques through a gender-sensitive lens the main strands of political and economic thought that have informed

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Women's Studies**15WMST696****Gender and Development Graduate**

international socio-economic development policy and challenges the meanings of and institutional formations and practices associated with development through feminist perspectives. BoK: DC., SE. Credit Level: G, U. Credit Hrs: 4.00

15WMST697**Women, Gender and Social Movements Graduate**

Graduate course explores feminist perspectives on women's participation in select social movements at local, national, and/or transnational levels. Comparatively theorizes women's activism and strategies for social change. BoK: DC., SE. Credit Level: G, U. Credit Hrs: 4.00

15WMST646**African Women: Literature, Culture, History**

The fiction of African women reveals hybrid oral and literate aesthetics and differences in the political and economic history and culture of situations of women in their respective countries; traditional, modern, and neo-colonial histories, raising pertinent issues of polygamy, feminism, womanism, political power, childbearing and rearing guerilla warfare, and AIDS. Credit Level: G. Credit Hrs: 4.00

15WMST647**Ethnic Women: Literature, Culture, History**

Ethnic women, usually facing the double oppression of racism and misogyny, create literature and theory expressing not only this common experience but also, revealing the contrasts among their different ethnic communities in the U.S. through the lens of sex and gender and experimental narrative. Credit Level: G. Credit Hrs: 4.00

15WMST648**Native American Women: Literature, Culture, History**

Complementary studies of native women from different cultures and areas of US create environmental narratives grounded in their cultures' oral traditions in conversation with current feminist womanist postcolonial and post modern theoretical approaches to culture. Credit Level: G. Credit Hrs: 4.00

15WMST649**"Third World" Women: Literature, Culture, History**

Women writers from Egypt, Aboriginal Australia, Sub-Saharan African, and the borderlands of US interrogate tradition, colonialism, neo-colonialism, feminism, Islam and Christianity will be studied The hybrid nature of these works and read them through contemporary theoretical approaches that insist on engaging the disputed term "Third World". Credit Level: G. Credit Hrs: 4.00

15WMST663**Lesbian Literature and Psychology**

Study of the definition of lesbianism as expressed by psychologists and writers; study of the complex relationship between images of mainstream psychological theory and lesbian fiction. Credit Level: G. Credit Hrs: 4.00

15WMST666**Gender, Sexuality, and Culture**

This course focuses on the political, cultural, familial production of sexualities and on the complex relations between gender and sexuality, including the ways in which gender and sex regulate identity and how that regulation might be contested. Credit Level: G. Credit Hrs: 4.00

15WMST700**Introduction to Graduate Women's Studies**

A graduate-level introduction to the history and field of women's studies. Credit Level: G. Credit Hrs: 4.00

15WMST701**Pro-Seminar: Introduction to Graduate Study in Women's Studies**

First-year M.A. students in Women's Studies will be introduced to the structural and theoretical foundations of graduate work in Women's Studies. Credit Level: G. Credit Hrs: 1.00

Women's Studies**15WMST701****Pro-Seminar: Introduction to Graduate Study in Women's Studies**

First-year M.A. students in Women's Studies will be introduced to the structural and theoretical foundations of graduate work in Women's Studies. Credit Level: G. Credit Hrs: 1.00

15WMST702**Proseminar: Feminist Issues**

For participation in special professional development colloquia on select feminist issues offered during the Winter term for Women's Studies graduate students. Credit Level: G. Credit Hrs: 1.00

15WMST703**Pro-Seminar: Introduction to Research Projects in Women's Studies**

First-year M.A. students in Women's Studies begin background study in preparation for their individual research projects. Credit Level: G. Credit Hrs: 1.00

15WMST710**Women's Studies Teaching Practicum**

WS TEACHING PRACTM Credit Level: G. Credit Hrs: 1.00-4.00

15WMST721**Seminar on Race, Gender and Class**

A survey and critical examination of the intersections of race, gender and social class as systems of inequality. Prereq.: Perm. of instr. Credit Level: G. Credit Hrs: 4.00

15WMST722**Seminar on Race, Gender and Nationalism**

A critical examination of the intersections of race, gender and nationalism as systems of inequality. Credit Level: G. Credit Hrs: 4.00

15WMST723**Seminar on Race, Gender and Sexuality**

A critical examination of the intersections of race, gender and sexuality as systems of inequality. Prereq.: Perm. of instr. Credit Level: G. Credit Hrs: 4.00

15WMST725**Foundations of Feminist Theory**

This seminar examines the foundations of feminist theory. Graduate Status Required. Credit Level: G. Credit Hrs: 4.00

15WMST735**Feminist Theory: Race, Class, Nation**

As part of the graduate feminist theory sequence, analyzes feminist theories of intersectional identity constructions based on the interstructuring of gender, race, class, and nation identifications and examines the production of the very categories of gender, race, class and nation and how they are co-implicated in sustaining power relations. Credit Level: G. Credit Hrs: 4.00

15WMST742**Colloquium on Feminist Scholarship, Social Sciences**

Highlights of feminist scholarship which counters the traditional view of women in the social sciences, looks at the biases in traditional social science research, and challenges these assumptions and methods with new feminist constructions. Credit Level: G. Credit Hrs: 4.00

15WMST745**Feminist Theory: Contemporary Issues**

This seminar explores contemporary issues in feminist theory. Graduate Status Required. Credit Level: G. Credit Hrs: 4.00

15WMST751**Special Topics**

Special topics in the study of women and gender in society. The specific topic will vary. Credit Level: G. Credit Hrs: 4.00

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Women's Studies**15WMST752****Special Topics**

Special Topics - Social Sciences Special topics in the study of gender in society. Topics will vary. Credit Level: G. Credit Hrs: 4.00

15WMST754**Gender, Migration and Citizenship**

This course draws on feminist theory to explore the ways in which gender shapes migration and citizenship. Credit Level: G. Credit Hrs: 4.00

15WMST755**Feminist Theory: Global**

The second in a three-quarter sequence, this seminar examines feminist theories in national, transnational, and global perspective. Credit Level: G. Credit Hrs: 4.00

15WMST758**Gender, Geography, and Science**

Gender perspectives and feminist analyses in the social and natural sciences. The future of scientific thought in light of these new perspectives, with emphasis on physical geography, human geography, and environmental science. Credit Level: G. Credit Hrs: 4.00

15WMST771**Women, Gender and Globalization**

Examines the gendered nature and effects of global and regional economic, political, and cultural restructuring assoc. with globalization. Credit Level: G. Credit Hrs: 4.00

15WMST772**World Politics & Global Feminisms**

Examines the positions of women and the power of gender in world politics. Will explore feminist international relations theory, gender analyses of global issues and interstate relations, feminist critiques of international institutions, and women's transnational organizing to make feminist sense of international politics. Credit Level: G. Credit Hrs: 4.00

15WMST780**Feminist Jurisprudence**

Students begin by studying various schools of feminist legal thought, including liberal, radical cultural, postmodern, and critical race feminisms, as well as LGBTQ studies. After grounding in theory, the focus shifts to applied feminist scholarship and practice. Joins 24SPCL712 Perm of Department. Credit Level: G. Credit Hrs: 4.50

15WMST781**International Human Rights: Women's Human Rights**

A study of the status of women's human and legal rights globally. Focus is on the current status of the rights of women in a variety of countries and cultures, as they relate to issues of health, personal and political rights. The role of domestic laws, international human rights instruments, and traditional cultural values as they define the rights of women. Perm of Instructor. Credit Level: G. Credit Hrs: 4.50

15WMST782**Education Law**

EXAMINES LEGAL ISSUES ENCOUNTERED AT ALL LEVELS OF EDUCATION. FOCUS IS ON SUCH PROBLEMS AS ACADEMIC FREEDOM, CURRICULUM CONTROL, CENSORSHIP, MANDATORY EDUCATION, CHURCH-STATE ISSUES, FACULTY AND STUDENTS RIGHTS, TORT AND CIVIL RIGHTS, LIABILITY OF EDUCATIONAL INSTITUTIONS AND EDUCATIONAL OPPORTUNITY, INCLUDING RIGHTS OF THE HANDICAPPED. Perm of Instructor. Credit Level: G. Credit Hrs: 4.50

15WMST783**Employment Discrimination**

Surveys major legislative and executive provision and prohibiting various types of discrimination in employment in the context of hiring, promotion, discharge, benefits, conditions and the like as well as procedures applicable to employment discrimination cases. Joins 24IRTS705 Perm of Department. Credit Level: G. Credit Hrs: 4.50

Women's Studies**15WMST784****Gender and the Law**

Following an overview of the history of discrimination against women in the United States, this course examines the development of sex discrimination law in the context of employment, education, domestic relations, criminal and constitutional law. The course will also consider the work of feminist legal theorist and the advisability of various theoretical approaches. Joins 24IRTS720 Perm of Department. Credit Level: G. Credit Hrs: 4.50

15WMST785**Sexual Orientation and the Law**

EXPLORES THE RELATIONSHIP BETWEEN SEXUAL ORIENTATION AND THE LAW, ENCOMPASSING RECENT DECISIONS BY THE US SUPREME COURT, THE HAWAII TRIAL COURT'S DECISION IN THE GAY MARRIAGE CASE, AND LEGISLATIVE RESPONSES, SUCH AS THE DEFENSE OF MARRIAGE ACT. CONSTITUTIONAL PRIVACY, THE RIGHT TO PUBLIC ACCESS, AND FIRST AMENDMENT ISSUES AS THEY RELATE TO SEXUAL IDENTITY/ ORIENTATION ARE EXAMINED. Perm of Instructor. Credit Level: G. Credit Hrs: 3.00

15WMST786**Title IX Seminar**

Explores the continued vitality of laws proscribing sex discrimination in education, focusing primarily on Title IX of the Education Amendments of 1972, and issues such as Title IX's impact in athletics, its protection against sexual harrassment, and single-sex education. Joins IRTS 725. Perm of Department. Credit Level: G. Credit Hrs: 4.50

15WMST787**Law, Literature and Feminism**

Explores differences and similarities between the languages of the law and the languages of literature between legal thinking and literary thinking between the ways in which literary works construct worlds and the way the law constructs the worlds. Joins 24PRSP713 Perm of Department. Credit Level: G. Credit Hrs: 4.50

15WMST788**Critical Race Theory**

A new scholarly movement developed in legal academe in the mid-1980's, Critical Race Theory challenged both the substance and style of conventional legal scholarship. Race critics rejected formal equality, individual rights, and color-blind approaches to solving legal problems, employing new methodologies for legal scholarship. Joins 24IRTS777. Perm of Department. Credit Level: G. Credit Hrs: 4.50

15WMST789**Family Law**

Primary focus is on the relationship between law and the family in the context, maintenance and restructuring of domestic relations. Special attention is given to the nature of marriage, separation, divorce, dissolution, support, alimony and child custody. Joins IRTS706. Perm of Department. Credit Level: G. Credit Hrs: 4.50

15WMST790**Graduate Internship in Women's Studies**

Critical analysis of relationships between feminist theory and practice, combined with supervised experiences in community organizations active on issues of gender and social justice. Credit Level: G. Credit Hrs: 1.00-12.00

15WMST801**Feminist Research I**

Individual research under faculty supervision. Credit Level: G. Credit Hrs: 4.00

15WMST808**Independent Research**

Allows students to conduct research under direction of faculty. Perm of Instructor. Credit Level: G. Credit Hrs: 1.00-4.00

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Women's Studies**15WMST809****Independent Research**

Allows students to conduct research under direction of faculty. Perm of Instructor. Credit Level: G. Credit Hrs: 1.00-4.00

15WMST810**Independent Research**

Allows students to conduct research under direction of faculty. Perm of Instructor. Credit Level: G. Credit Hrs: 1.00-4.00

15WMST811**Individual Directed Research**

Individual research under faculty supervision. Credit Level: G. Credit Hrs: 1.00-4.00

15WMST812**Individual Directed Research**

Individual research under faculty supervision. Credit Level: G. Credit Hrs: 1.00-4.00

15WMST813**Comprehensive Analysis**

Preparation for oral examination. Perm of Instructor. Credit Level: G. Credit Hrs: 1.00-4.00

COLLEGE OF BUSINESS
COURSE DESCRIPTIONS

(22) College of Business

2008 - 2009

College of Business 1

Accounting

22ACCT281

Introduction to Financial Accounting

Develops foundational knowledge and skills needed to understand, develop and analyze financial reports. Topics include income statements, cash flows, balance sheets and financial performance. Formerly 22 ACCT 261. BoK: QR. Credit Level: U. Credit Hrs: 5.00

22ACCT281H

Introduction to Financial Accounting

Develops foundational knowledge and skills needed to understand, develop and analyze financial reports. Topics include income statements, cash flows, balance sheets and financial performance. Formerly 22 ACCT 261H. BoK: QR. Credit Level: U. Credit Hrs: 5.00

22ACCT282

Introduction to Managerial Accounting

Develops foundational knowledge and skills needed to apply accounting data in planning and controlling business operations. Topics include costs, cost drivers and allocation, contribution margin and managerial budgeting. Formerly 22 ACCT 262 Prereq: 22ACCT281. BoK: QR. Credit Level: U. Credit Hrs: 5.00

22ACCT282H

Introduction to Managerial Accounting

Develops foundational knowledge and skills needed to apply accounting data in planning and controlling business operations. Topics include costs, cost drivers and allocation, contribution margin and managerial budgeting. Formerly 22 ACCT 262H. Prereq: 22ACCT281H. BoK: QR. Credit Level: U. Credit Hrs: 5.00

22ACCT331

Intermediate Accounting I

Application of generally accepted accounting principles to financial statement preparation with emphasis asset accounts. Prereq: 22ACCT282. BoK: NA. Credit Level: U. Credit Hrs: 4.00

22ACCT332

Intermediate Accounting II

Application of generally accepted accounting principles to financial statement preparation with emphasis on liability accounts. Prereq: 22ACCT331. BoK: NA. Credit Level: U. Credit Hrs: 4.00

22ACCT333

Intermediate Accounting III

Application of generally accepted accounting principles to financial statement preparation with emphasis on Owner's Equity accounts. Prereq: 22ACCT332. BoK: NA. Credit Level: U. Credit Hrs: 4.00

22ACCT373

Cost Accounting

Financial accounting for manufacturing and inventories with emphasis on cost of goods sold expense and management decisions involving manufacturing. Prereq: 22ACCT331. BoK: NA. Credit Level: U. Credit Hrs: 4.00

22ACCT401

Financial Accounting and Internal Control I

This course focuses on the financial accounting record keeping processes and related internal control considerations. Controls, policies and conventional procedures commonly applied to initially record transactions and maintain the records of original entry and maintain and adjust the general ledger are treated. Preparation of the Income Statement and Balance Sheet are also covered. Prereq: 22ACCT261, 22ACCT262. BoK: NA. Credit Level: U. Credit Hrs: 3.00

22ACCT402

Financial Accounting and Internal Control II

This course focuses on internal controls, commercial policies, and accounting techniques conventionally applied for inventories, fixed

Accounting

22ACCT402

Financial Accounting and Internal Control II

assets, current liabilities, and long-term debt. The course emphasizes coverage of paperless accounting processes, common hard-copy business forms, commercial financial management business practices and the commercial and accounting measures frequently taken to sonsummate, record and control transactions affecting inventories, fixed assets and current and long-term debt accounts. Prereq: 22ACCT401. BoK: NA. Credit Level: U. Credit Hrs: 3.00

22ACCT403

Financial Accounting and Internal Control III

This course focuses on internal controls, commercial policies, and accounting techniques conventionally applied for investments, leases, income taxes, pensions, and stockholders' equity. The course emphasizes coverage of paperless accounting processes, common hard-copy business forms, commercial financial management business practices and the commercial and accounting measures frequently taken to consummate, record and control transactions. The course also covers accounting and internal control considerations pertaining to the Statement of Cash Flows. Prereq: 22ACCT402. BoK: NA. Credit Level: U. Credit Hrs: 3.00

22ACCT404

Management Accounting & Control I

This is the first of a two course sequence that focuses on how managers use information to monitor and control day-to-day operations and plan for the future. Both courses emphasize how current management and cost accounting techniques are used by controllers and managers to help their firms make sound business decisions. Although each of the two courses covers different topics, both use the same texts and follow a similar course format. The overall emphasis is on learning to use both financial and non-financial accounting information in the decision making process. In addition, given that managers often operate in a team environment, students take part in several hands-on group exercises. Throughout both courses, studnets also have the opportunity to learn how spreadsheet software can be used to efficiently solve complex problems. Prereq: 22ACCT261, 22ACCT262. BoK: NA. Credit Level: U. Credit Hrs: 3.00

22ACCT405

Management Accounting & Control II

This is the second of a two course sequence that focuses on how managers use information to monitor and control day-to-day operations and plan for the future. Before taking this course you should have had OPC I. The texts and course format are similar to OPC I. Prereq: 22ACCT404. BoK: NA. Credit Level: U. Credit Hrs: 3.00

22ACCT406

Internal Auditing & Internal Control Monitoring

The course covers concepts, procedures and techniques that may be applied by management to comply with its legal responsibilities for risk assessment and internal controls as stipulated by current Federal Laws. The subject matter covered includes: the independent audit function, the corporate audit committee, the internal audit function, corporate ethics, threat identification, inherent risk assessment, control risk assessment, tolerable risk specifications, internal control compliance auditing, internal audit reporting, and public reporting of managements' assessments of internal controls. Prereq: 22ACCT403. BoK: NA. Credit Level: U. Credit Hrs: 3.00

22ACCT407

Integrated Controllershship

This capstone case-study course focuses on the controller's function within diverse management teams. Cases treated in the course are selected by the instructor to emphasize how the ontroller can identify and analyze information needed by management teams to solve

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Accounting**22ACCT407****Integrated Controllership**

problems, make strategic decisions, and improve firm performance. Students are provided an opportunity to apply many of the techniques and concepts learned in the Operational Planning and Control 1 & 2 and Corporate Finance prerequisite courses to a variety of decision making settings, while learning how to contribute to, and be a valued member of, an integrated management team. Concepts from other business- related disciplines such as operations management, business economics, will also be needed to successfully complete the case studies used. In addition to the quantitative aspects of a case, students will be expected to analyze the behavioral implications. Prereq: 22ACCT404, 22ACCT405. BoK: NA. Credit Level: U. Credit Hrs: 3.00

22ACCT408**Corporate Taxation**

This course covers the major tax issues and concerns faced by US corporations. Topics covered include: Federal State and Local Income taxes, State and Local property taxes, franchise taxes, sales and use taxes, import taxes and foreign tax issues. Treatments of State and Local taxes emphasize tax laws in the local Tri-State area. The course employs short case studies and small- group problem solving exercises. Most of the short cases and problem solving exercises will require the students to research Federal, State and Local Government level Tax WEB sites. Prereq: 22ACCT401. BoK: NA. Credit Level: U. Credit Hrs: 3.00

22ACCT471**Consolidated Financial Statements**

Combination of parent and subsidiary financial accounting statements for US capital markets. Prereq: 22ACCT333. BoK: NA. Credit Level: U. Credit Hrs: 4.00

22ACCT472**Introduction to Taxation**

Analysis of the implications of taxation for decision making, covering corporate, partnership and individual taxation with a focus on the role of accountants and tax preparers in providing sophisticated tax advice. Prereq: 22ACCT282. BoK: NA. Credit Level: U. Credit Hrs: 4.00

22ACCT474**Accounting Information Systems**

Internal control analysis to identify operations and information system cycle goals, error and fraud threats to assess risk, estimate exposure and evaluate procedural, organizational and especially information technology solutions. Prereq: 22ACCT331. BoK: NA. Credit Level: U. Credit Hrs: 4.00

22ACCT483**Auditing I**

Attestation as to fairness of financial statements for owners, creditors and especially publicly traded corporation investors. Prereq: 22ACCT331. BoK: NA. Credit Level: U. Credit Hrs: 4.00

22ACCT521**Fraud Examination**

Prevention, detection and prosecution of fraud with emphasis on asset misappropriation by employees and managers. Prereq: 22ACCT282. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

22ACCT522**Strategic Partners in Accounting**

This course will help you internalize the core competencies that lead to professional success including: professional presence, personal substance, presentation skills, relationship building, time management and leadership. Prereq: 22ACCT324. BoK: NA. Credit Level: U, G. Credit Hrs: 2.00

22ACCT576**Accounting for Non-Profit Organizations**

Fund accounting requirements and procedures for governmental units, charitable and other non- profit organizations Prereq: 22ACCT331. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

Accounting**22ACCT583****Auditing II**

Audit techniques as they apply to specific balance sheet and related income statement accounts. Management services. Prereq: 22ACCT483. BoK: NA. Credit Level: U. Credit Hrs: 3.00

22ACCT589**Accounting Theory**

Reading and research in current accounting literature. Individual student reports. Prereq: 22ACCT324. BoK: NA. Credit Level: U. Credit Hrs: 3.00

22ACCT598**Professional Ethics and Accounting Environment**

Ethical obligations promised to the public by the accounting profession and development of reasoning skills for ethical decision making. Prereq: 22ACCT282. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

22ACCT599**Independent Study**

Independent study under the direction of a faculty member BoK: NA. Credit Level: U. Credit Hrs: 1.00-6.00

22ACCT711**Financial Accounting**

Prepares the MBA/MS student to read, interpret, and analyze financial statements. Understand financial statement analysis for benchmarking and performance evaluation. Understand how the market reacts to financial reports. Credit Level: G. Credit Hrs: 4.00

22ACCT713**Accounting For Managers**

use of accounting data in planning and controlling business operations. The study of activity-based costing, product pricing and cost allocations in decision-making. Prereq: 22ACCT711. Credit Level: G. Credit Hrs: 2.00

22ACCT781**Individual Study**

Individual study under the direction of a faculty member. Credit Level: G. Credit Hrs: 1.00-4.00

22ACCT782**Special Topics in Accounting**

In-depth study of special topics in Accounting. Credit Level: G. Credit Hrs: 1.00-4.00

22ACCT821**Managerial Accounting**

Dedicated to an exploration of the discipline of managerial accounting, specifically planning and controlling, non-business decision making, and inventory valuation and income determination. Computer spreadsheets will be used extensively. Prereq: 22ACCT713. Credit Level: G. Credit Hrs: 4.00

22ACCT830**Partnership Taxation**

Income tax consequences of the formation, operation, and termination of a partnership; partnership distributions; sale of a partnership interest; and withdrawal from a partnership. Prereq: 22ACCT872. Credit Level: G. Credit Hrs: 4.00

22ACCT831**Corporate Tax I**

Study of federal tax consequences of the formation and operation of a corporation. Includes distribution of cash and property, an introduction to taxation of Subchapter S corporations and tax problems related to the accumulation of income by the corporation. Prereq: 22ACCT472. Credit Level: G. Credit Hrs: 4.00

22ACCT832**Corporate Tax II**

Study of income tax problems related to stock redemptions, partial liquidations, complete liquidations, collapsible corporations, spin-offs, split-ups, and corporate reorganizations. Prereq: 22ACCT831. Credit

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Accounting**22ACCT832****Corporate Tax II**

Level: G. Credit Hrs: 4.00

22ACCT833**Estate and Gift Tax**

Intensive study of federal taxation of estates and transfer of property rights by gift. Determination of the gross estate, taxable estate, taxable gift, and gift tax. Prereq: 22ACCT872. Credit Level: G. Credit Hrs: 4.00

22ACCT838**Deferred Compensation and Other Employee Benefits**

Income tax implications for employer and employees arising from qualified and unqualified pension and profit-sharing plans, accident and health plans, medical reimbursement plans, and other employee benefits are analyzed. Prereq: 22ACCT831, 22ACCT872. Credit Level: G. Credit Hrs: 4.00

22ACCT840**Research in Taxation**

An in-depth income tax research project, approved and supervised by a member of the graduate faculty, is required. Credit Level: G. Credit Hrs: 4.00

22ACCT841**Taxation of Subchapter S Corporations**

An in-depth study of the Internal Revenue laws affecting the organization, capitalization, taxation, and termination of corporations under Subchapter S. Prereq: 22ACCT831. Credit Level: G. Credit Hrs: 4.00

22ACCT842**IRS Practice and Procedure**

An extensive study of the organization of the Internal Revenue Service with emphasis on the practices and procedures available to and used by the Service in its daily dealings with the taxpaying public. Prereq: 22ACCT872. Credit Level: G. Credit Hrs: 4.00

22ACCT843**Advanced Individual Income Taxation**

Examines advanced topics in the area of individual federal income taxation including but not limited to: property transactions, minimum tax, investment interest expense limitations, charitable contributions, property settlements, and tax shelters. Prereq: 22ACCT472. Credit Level: G. Credit Hrs: 4.00

22ACCT844**State and Local Taxation**

Examines structure of state and local laws involving property, sales and use, franchise, and corporate income taxes on the firm operating in either a single or multi-jurisdictional environment. Prereq: 22ACCT831, 22ACCT872. Credit Level: G. Credit Hrs: 4.00

22ACCT845**Tax Accounting Methods and Procedures**

Examines Subchapter E of the Internal Revenue Code. Includes LIFO inventory valuations, accounting periods, installment sales, cash, accrual, hybrid basis accounting, and changes in accounting methods. Prereq: 22ACCT831, 22ACCT872. Credit Level: G. Credit Hrs: 4.00

22ACCT846**Corporate Tax III**

Examines regulations, rulings, and court cases involving all forms of allowable corporate reorganizations under the Internal Revenue Code. Prereq: 22ACCT831, 22ACCT832. Credit Level: G. Credit Hrs: 4.00

22ACCT871**Accounting Theory**

Income, assets, and equities measurement and reporting with emphasis on differences in theory and practice. Prereq: 22ACCT323. Credit Level: G. Credit Hrs: 3.00

Accounting**22ACCT872****Federal Tax Planning and Research**

Methodology and procedures in tax planning and research; study of corporate and shareholder taxation. Prereq: 22ACCT472. Credit Level: G. Credit Hrs: 4.00

22ACCT873**Auditing**

Principles, standards and procedures involved in the conduct of an audit. Internal control, statistical sampling, objectives, and report presentation. Prereq: 22ACCT323. Credit Level: G. Credit Hrs: 4.00

22ACCT874**Advanced Auditing**

Topics covered include advanced financial audit methodologies, professionalism in public accounting arena, audits of computerized systems and advanced quantitative auditing techniques. Prereq: 22ACCT873. Credit Level: G. Credit Hrs: 4.00

22ACCT875**Consolidated Financial Statements**

Accounting for business combinations and the preparation of consolidated financial statements. Prereq: 22ACCT332. Credit Level: G. Credit Hrs: 4.00

22ACCT876**Accounting for Non-Profit Organizations**

Accounting problems for not-for-profit institutions including the fundamentals of fund accounting for governmental units. Prereq: 22ACCT321. Credit Level: G. Credit Hrs: 3.00

22ACCT877**Auditing Transaction Cycles**

This course covers audit field work procedures for examining the acquisition and payment cycle, the inventory and warehousing cycle, the capital acquisition cycle and cash balances. Procedures for closing the audit are also treated. Prereq: 22ACCT873, 22ACCT874. Credit Level: G. Credit Hrs: 4.00

22ACCT879**Accounting Information Systems**

Analysis of accounting information needs of organizations, alternatives for satisfying these needs, and problems in implementation. Prereq: 22ACCT321. Credit Level: G. Credit Hrs: 3.00

22ACCT882**Strategic Cost Management**

Current topics in the area of management accounting including quantitative and behavioral considerations. Prereq: 22ACCT821. Credit Level: G. Credit Hrs: 4.00

22ACCT887**International Accounting**

Theory and practice-analysis of principles and procedures underlying information systems of international business. Terminology, foreign exchange, government regulations and other problem areas are considered. Prereq: 22ACCT321. Credit Level: G. Credit Hrs: 4.00

22ACCT891**Independent Study**

Independent Study in Accounting Credit Level: G. Credit Hrs: 1.00-6.00

22ACCT899**Independent Study in Taxation**

Special topics for students with interests in topics not covered by regular course offerings. With permission of instructor and department chair. Credit Level: G. Credit Hrs: 1.00-6.00

22ACCT901**Accounting Research Workshop**

Evaluating and critiquing current state of the art accounting research. Working papers presented by visiting speakers and faculty in the weekly research workshops. Credit Level: G. Credit Hrs: 1.00-6.00

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Accounting**22ACCT911****Research Seminar in Accounting**

Literature survey and replication of state of the art accounting research.

Credit Level: G. Credit Hrs: 3.00

22ACCT971**Research in Accounting**

Variable credit. Credit Level: G. Credit Hrs: 1.00-15.00

22ACCT991**PhD Dissertation Research**

Variable credit. Credit Level: G. Credit Hrs: 1.00-15.00

Business Administration**22BA101****Learning Strategies**

Presents an overview of strategies for student academic success including: time management, note taking, study skills, and adjustment to university life. BoK: NA. Credit Level: U. Credit Hrs: 1.00

22BA140**Pathways to Business**

Examines career goals and pathways enabled by the College of Business. Topics include the resources, opportunities and choices available to pre-business students. BoK: NA. Credit Level: U. Credit Hrs: 3.00

22BA141**Business Pathways FYE 1**

Develops understandings and skills that support an integrated college experience. Part 1 topics provide an extended orientation, exploring and working with university resources. BoK: NA. Credit Level: U. Credit Hrs: 1.00

22BA141H**Business Pathways - FYE 1 Honors**

Develops understandings and skills that support an integrated college experience. Part 1 topics provide an extended orientation, exploring and working with university resources. BoK: NA. Credit Level: U. Credit Hrs: 1.00

22BA142**Business Pathways FYE 2**

Develops understandings and skills that support an integrated college experience. Part 2 topics focus on College of Business support resources and academic options. BoK: NA. Credit Level: U. Credit Hrs: 1.00

22BA142H**Business Pathways - FYE 2 Honors**

Develops understandings and skills that support an integrated college experience. Part 2 topics focus on College of Business support resources and academic options. BoK: NA. Credit Level: U. Credit Hrs: 1.00

22BA143**Business Pathways FYE 3**

Develops understandings and skills that support an integrated college experience. Part 3 is dedicated to exploring business disciplines and professional goal setting. BoK: NA. Credit Level: U. Credit Hrs: 1.00

22BA143H**Business Pathways - FYE 3 Honors**

Develops understandings and skills that support an integrated college experience. Part 3 is dedicated to exploring business disciplines and professional goal setting. BoK: NA. Credit Level: U. Credit Hrs: 1.00

22BA151**Management Skills Practicum I**

Introduction to the domain of business and microcomputer applications. Using a Total Quality Management framework, explores opportunities and challenges facing business. Introduces students to the College of Business, its programs and resources. BoK: NA. Credit Level: U. Credit

Business Administration**22BA151****Management Skills Practicum I**

Hrs: 2.00

22BA151H**Management Skills Practicum I**

Introduction to the domain of business - the wider environment, career choices and related college and university resources. Through lecture, projects and small breakout groups, this course explores opportunities and challenges facing business, while helping freshmen develop a solid foundation for their academic and business careers. BoK: NA. Credit Level: U. Credit Hrs: 2.00

22BA152**Management Skills Practicum II**

Designed to assist students in developing career objectives, a plan for their own business education, and a plan for improving their personal performance levels. Students also develop a framework for analyzing ethical issues in business settings, and for managing a diverse workforce. Prereq: 22BA151. BoK: SE. Credit Level: U. Credit Hrs: 2.00

22BA152H**Management Skills Practicum II Honors**

Designed to assist students in developing career objectives, a plan for their own business education, and a plan for improving their personal performance levels. Students also develop a framework for analyzing ethical issues in business settings, and for managing a diverse workforce. Prereq: 22BA151H. BoK: NA. Credit Level: U. Credit Hrs: 2.00

22BA181**Personal Money Management**

Helps students learn to manage their financial situation when they enter a university. Topics include cash flow and debt management, time value of money, financing education, saving money and basic taxes. BoK: NA. Credit Level: U. Credit Hrs: 1.00

22BA201**Business Scholars Transition**

This course seeks to help students who have transferred or transitioned into Business Scholars leverage program opportunities. Business Scholars purposefully retains program flexibility and experiential options. Utilizing that flexibility requires substantial understanding of existing opportunities, of one's own strengths, weaknesses and goals, and of effective personal planning. This course focuses on these issues. BoK: NA. Credit Level: U. Credit Hrs: 0.00-1.00

22BA497**Technology Consulting**

Supervised leadership and support experience that involves working with the College of Business Information Technology and/or Distance Learning efforts. No more than six credits from the combination of 22BA497, 22BA498, and 22BA499 may be applied toward the BBA degree. Advanced non-business or free elective credit only. BoK: NA. Credit Level: U. Credit Hrs: 1.00-6.00

22BA498**Teaching Assistant**

Supervised leadership and support experience as a College of Business teaching assistant. No more than six credits from the combinations of 22BA497, 22BA498, and 22BA499 may be applied toward the BBA degree. Advanced non-business or free elective credit only. BoK: NA. Credit Level: U. Credit Hrs: 3.00

22BA499**Peer Advising**

Supervised leadership and support as a peer advisor. No more than six credits from the combination of 22BA497, 22BA498, and 22BA499 may be applied toward the BBA degree. Advanced non-business or free elective credit only. BoK: NA. Credit Level: U. Credit Hrs: 1.00-6.00

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Business Administration**22BA580****Business Strategy**

The capstone course of undergraduate curriculum. Provides a framework for integrating knowledge from all functional areas. Perspective is that of general management of the enterprise. Prereq: 22FIN380, 22INTB380, 22MGMT380, 22QA380, 22OM380. BoK: NA. Credit Level: U. Credit Hrs: 4.00

22BA595**Research in Business Administration**

Research on advanced topic in business administration designed and coordinated by members of the class. BoK: NA. Credit Level: U. Credit Hrs: 1.00-6.00

22BA711**Communication For Managers**

Focuses on communication in organizations, particularly writing, interpersonal communication, small-group communication, and presentational speaking. Issues considered include coherence, clarity, style, tone, empathy, and other basic elements in communication success. Credit Level: G. Credit Hrs: 2.00

22BA712**MBA Capstone Experience**

The capstone course for MBA students that requires integration of the MBA program coursework in the definition and analysis of, and solution development for, a significant business challenge. To be taken during the final quarter of the MBA program. Prereq: 22MGMT712. Credit Level: G. Credit Hrs: 2.00

22BA713**Communications for Managers II**

This course will offer further opportunities to refine and improve key business communication skills, particularly making presentations in a business context and creating concise, error-free business documents. These two congruent skills sets are almost universally identified as values critical to success in management. The common element across all focus areas of an MBA-oriented career is that -- technical and functional expertise notwithstanding -- communication proficiency is critical to obtaining influence in a competitive environment. Prereq: 22BA711. Credit Level: G. Credit Hrs: 2.00

22BA725**Global Entrepreneurship**

This course addresses the following topics: Trends in international business; the global business environment; formulating and implementing a global strategy; and emerging and contemporary issues in global business as they relate to entrepreneurial activity. Credit Level: G. Credit Hrs: 4.00

22BA751**Elective Credit A**

Additional course related study under the direction of a faculty member. Credit Level: G. Credit Hrs: 1.00-4.00

22BA777**Graduate Career Management**

Career development and job search strategies, self assessment, resume and marketing tool development, enhancement of case and behavioral interviewing skills, with a focus on internships and full-time employment after graduation. Credit Level: G. Credit Hrs: 1.00

22BA781**Individual Study**

Individual Study under the direction of a faculty member. Credit Level: G. Credit Hrs: 1.00-4.00

22BA782**Special Topics in Business Administration**

In-depth study of special topics in Business Administration. Credit Level: G. Credit Hrs: 1.00-4.00

Business Administration**22BA791****Global Business Topics**

An intensive study abroad seminar dealing with international management issues. Credit Level: G. Credit Hrs: 1.00-8.00

22BA800**Readings In Business Administration**

Project and research work undertaken by a student with the approval and supervision of a faculty member. Credit Level: G. Credit Hrs: 1.00-3.00

22BA802**Managerial Communications**

Introduces students to the basic concepts of effective oral and written communication and develops strong interpersonal skills. Integration of concepts in presentations in respective areas of business and use of interactive material and exercises will be extensive. Credit Level: G. Credit Hrs: 3.00

22BA870**Competitive Analysis**

This course deals with competition: how to assess it and how to react/anticipate it. As such, the focus is on the environment of, and the strategic options available to, a business unit. Credit Level: G. Credit Hrs: 3.00

22BA890**Strategic Management**

The course focuses on the management of the total enterprise. Emphasis is placed on a student's ability to make decisions in the face of unstructured problems and the integration of knowledge from all functional areas of business. Prereq: 22BA870. Credit Level: G. Credit Hrs: 3.00

22BA895**Special Topics in Business Administration**

In-depth study of selected topics in business administration. Credit Level: G. Credit Hrs: 3.00

22BA990**Introduction to Research and Teaching for Doctoral Students**

Introduces the role of research, writing and teaching in the profession and provides doctoral students with a foundation for success in the academic profession. Credit Level: G. Credit Hrs: 3.00

22BA992**Doctoral Seminar**

1-15 gr cr. Variable cr. Credit Level: G. Credit Hrs: 1.00-15.00

Business Law**22BLAW280****Legal Environment of Business**

Examines the legal and ethical dimensions of managerial decisions. Topics include human resource, consumer protection, antitrust and contract law. Formerly 22 BLAW 271. BoK: SE. Credit Level: U. Credit Hrs: 4.00

22BLAW435**Legal Aspects of Entrepreneurship**

This course will acquaint the student with the various forms of business organizations and ownership so s/he will be able to select the best form for the implementation of business decisions. Prereq: 22BLAW280. BoK: NA. Credit Level: U. Credit Hrs: 4.00

22BLAW445**Global Legal Environment**

Provides the business person with a working knowledge of the ground rules for international trade to help compete successfully. This course is a survey of the significant areas of concern to managers making the decision to compete globally. Prereq: 22BLAW280, 22INTB380. BoK: NA. Credit Level: U. Credit Hrs: 4.00

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Business Law**22BLAW455****The Law of Competitive Behavior**

Course examines impact of law at various stages of product development and marketing. Students become acquainted with law protecting product concept, constitutional considerations in advertising and completion, criminal consequences, and ethical concerns in marketing. Prereq: 22BLAW271. BoK: NA. Credit Level: U. Credit Hrs: 3.00

22BLAW599**Independent Study**

Individual study under the direction of a faculty member BoK: NA. Credit Level: U. Credit Hrs: 1.00-6.00

22BLAW711**Business Law for Managers**

Develops an appreciation for the legal and regulatory environment in which the firm operates. Factors within law and regulation that can influence managerial decision making are explored. The role of antitrust, unfair competition, EEO, labor law, and environmental regulations are examined. Credit Level: G. Credit Hrs: 2.00

22BLAW781**Individual Study**

Individual study under the direction of a faculty member Credit Level: G. Credit Hrs: 1.00-4.00

22BLAW850**Legal and Regulatory Environment**

This course is designed to acquaint students with the legal, regulatory, and ethical issues which are frequently encountered by business managers and their organizations. Credit Level: G. Credit Hrs: 3.00

22BLAW851**Corporate Law I**

Examines the areas of commercial law which affect the decisions of accounting professional and financial managers, including the principles of the Uniform Commercial Code. Credit Level: G. Credit Hrs: 4.00

22BLAW852**Corporate Law II**

Familiarize students with the legal structures of business enterprise and the legal issues, particularly as they relate to legal liability of the accountant. Credit Level: G. Credit Hrs: 4.00

22BLAW891**Independent Study**

Individual study under the direction of a faculty member. Credit Level: G. Credit Hrs: 1.00-6.00

Entrepreneurship/Family Business**22ENTR401****Introduction to Innovation**

This introductory course on innovation and entrepreneurship addresses two major topics. 1. The seven knowledge areas of innovation: intellect, domain knowledge, thinking, problem solving, creativity, innovation and execution. 2. The innovation process model is applied to entrepreneurial ideation, conceptualization and opportunity recognition. BoK: NA. Credit Level: U. Credit Hrs: 4.00

22ENTR410**Management of Closely Held Businesses**

Introduces students to the unique management issues facing family/private owned businesses. Prereq: 22MGMT380. BoK: NA. Credit Level: U. Credit Hrs: 4.00

22ENTR460**Financial Management in Private Firms**

Introduces students to the unique accounting, financial and information issues of private firms. Topics include sources of capital, financial analysis, business valuation, financial management and firm and owner tax and estate implications. Prereq: 22ACCT282, 22BLAW280, 22IS280, 22QA282, 22MKTG280. BoK: NA. Credit Level: U. Credit Hrs:

Entrepreneurship/Family Business**22ENTR460****Financial Management in Private Firms**

4.00

22ENTR501**Corporate Entrepreneurship**

The focus of the undergraduate course is to encourage students to study the theories, principles, concepts, practices and applications of corporate entrepreneurship in order to prepare them to engage effectively in intrapreneurial actions. Case method and lecture will be used. Prereq: 22ACCT282, 22BLAW280, 22IS280, 22QA282, 22MKTG280. BoK: NA. Credit Level: U. Credit Hrs: 4.00

22ENTR570**Entrepreneurship**

Evaluation and initial operation of high potential ventures. Case method. Prereq: 22ACCT282, 22BLAW280, 22IS280, 22QA282, 22MKTG280. BoK: NA. Credit Level: U. Credit Hrs: 4.00

22ENTR593**Special Topics in Family Business/Entrepreneurship**

In depth study of selected topics. Perm of Instructor. BoK: NA. Credit Level: U. Credit Hrs: 4.00

22ENTR598**Capstone in Family Business/Entrepreneurship**

Provides direct assistance to small businesses and provides the student an opportunity to aid in the solution of real-world problems. BoK: NA. Credit Level: U. Credit Hrs: 4.00

22ENTR599**Guided Study in Family Business/Entrepreneurship**

Individual study under direction of a faculty member. Perm of Instructor. BoK: NA. Credit Level: U. Credit Hrs: 4.00

22ENTR705**Entrepreneurship New Venture Creation**

Evaluation and initial operations of high potential ventures. Case method. Credit Level: G. Credit Hrs: 4.00

22ENTR715**Entrepreneurship and E-Business**

This course focuses on e-business design to initiate, support and build entrepreneurial activities. Credit Level: G. Credit Hrs: 4.00

22ENTR725**Global Entrepreneurship**

This course addresses the following topics: trends in international business, the global business environment, formulating and implementing a global strategy, and emerging and contemporary issues in global business as they relate to entrepreneurial activity. Credit Level: G. Credit Hrs: 4.00

22ENTR781**Independent Study in Entrepreneurship**

Student independently pursues small, entrepreneurial and/or family business topics of specific individual interest. Student must obtain a faculty supervisor and approval prior to registration. Perm of Instructor. Credit Level: G. Credit Hrs: 1.00-4.00

22ENTR782**Management of Closely Held and Family Business**

This course emphasis is strategic, aimed at development of a systematic approach for assessing and improving the health of a family/private firm from the perspective of the owner, partner, or CEO. Credit Level: G. Credit Hrs: 4.00

Finance**22FIN281****Personal Finance**

Principles and procedures in planning and management of personal financial problems. Development of personal finance plans and budgets. The role and use of financial intermediaries, such as credit and savings institutions, in family financing; insurance, real estate and

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Finance**22FIN281****Personal Finance**

securities investments; estate planning. BoK: NA. Credit Level: U. Credit Hrs: 3.00

22FIN361**Foundations of Finance: Risk and Value**

Provides the student with an understanding of the theoretical underpinnings of finance. The course covers a set of topics focusing on preparing students for financial decision-making. Prereq: 22FIN352. BoK: NA. Credit Level: U. Credit Hrs: 3.00

22FIN380**Business Finance**

This is the core finance course required of business majors. Business Finance acquaints students with the fundamental principles of finance. Two key concepts developed in the course will be the time value of money and the tradeoff between risk and return. You will develop the analytical tools necessary to interpret corporate financial statements in order to value many financial investments. A major emphasis in the class will be on learning how to think systematically about financial valuation and how to apply these insights to a variety of business (e.g. capital budgeting decisions) and personal (e.g. retirement planning, automobile/mortgage loans) financial problems. Prereq: 15MATH227, 22QA281, 22QA282. BoK: NA. Credit Level: U. Credit Hrs: 4.00

22FIN401**Corporate Finance**

In this course students will develop the analytical tools necessary for analyzing corporate financing decisions. Central to these decisions is the firm's cost of capital. You will learn how to compute the cost of capital and how to apply it to numerous questions like what is the value of the firm, should the firm raise capital, what is the optimal mix of debt and equity, what should the firm's payout (dividend) policy be, and should the firm lease or buy its assets? Financial modeling (in EXCEL) will be a major emphasis in the course. Prereq: 22FIN380. BoK: NA. Credit Level: U. Credit Hrs: 4.00

22FIN402**Raising Capital**

This course covers financial markets, instruments and institutions with the primary focus being on the capital raising and financing activities of firms at different stages in their life cycles. One of the critical activities a company must do well to succeed is the raising of capital. The when, where and how of raising capital is the focus of the course. The perspective will typically be that of a firm wishing to raise capital, though we will also examine financing transactions from the viewpoint of the participating financial intermediary. We analyze financing choices for younger firms, for which there exists little or no security price information and then examine capital raising issues relevant to larger, listed firms. Topics to be covered in this course include the role of financial intermediaries - such as commercial and investment banks - in the capital raising process, the decision to go public, mechanism and pricing of initial public offerings, role of investment banks in IPOs, high-tech firm financing, venture capital, bank debt, private placements, public debt markets, commercial paper and junk bond markets. Prereq: 22FIN401. BoK: NA. Credit Level: U. Credit Hrs: 2.00

22FIN403**Mergers and Acquisitions**

This course uses an analytical framework and real-world applications to introduce the key principles and techniques of successful mergers, acquisitions, divestitures and leverage buyouts. It addresses crucial questions including: Why do mergers that looked great on paper fail in reality? How does one value companies acquiring or being acquired? What is the best negotiation strategy? What does it take to make the "synergy" come to life? How can a merger be funded in such a way as to retain the merged entity's flexibility? When do leveraged buy-outs make sense and how can they be financed? One goal for students is to develop a critical appreciation of key finance criteria in a proposed acquisition, so as to grasp the main strengths and risks of the company's strategic and financial alternatives. Prereq: 22FIN401,

Finance**22FIN403****Mergers and Acquisitions**

22FIN431. BoK: NA. Credit Level: U. Credit Hrs: 2.00

22FIN404**Real Options**

This is a course in capital budgeting under uncertainty and flexibility. The objective is for each student to develop more advanced capital budgeting skills that will enable you to attack real-world corporate investment decisions in a sophisticated manner. Traditional NPV analysis assumes that corporate investment decisions are "now or never" and that they are irreversible. However, most corporate projects have a great deal of flexibility in their timing, scale, etc. After taking this course, students will be able to identify the optionality in corporate investments; choose the proper model for analysis; handle risk appropriately; and clearly and persuasively present a contingent claims analysis of a corporate investment proposal. Prereq: 22FIN401, 22FIN421. BoK: NA. Credit Level: U. Credit Hrs: 4.00

22FIN405**Cases in Corporate Finance**

The goal of this course is to have students apply the financial theory developed in the core finance courses to analyze and make recommendation concerning corporate financial decisions in the context of case studies of actual businesses. This course covers a wide range of finance topics: financial analysis, estimating funds requirements, working capital management, capital structure policies, financing decisions, estimation of the cost of capital, investment decisions and valuation. In addition, we will be integrating oral communication through class participation, written communication and the application of the PC through written cases, the regulatory and legal environment, international finance issues, and the stressing of ethical issues of businesses. Prereq: 22FIN401, 22FIN431. BoK: NA. Credit Level: U. Credit Hrs: 2.00

22FIN406**Treasury**

This course is for an overview of corporate treasury functions. The goal of the course is to have students know how to do the following types of financial analysis concerning corporate treasury functions: maintain optimal cash positioning; employ working capital strategies and tools; utilize various types of payment systems; monitor and control corporate exposure to financial and operational risks; manage cross-border funds movement; coordinate financial functions and sharing of financial information; delineate appropriate ethical behaviors; recognize corporate governance issues; execute fiduciary responsibilities and build relationships with financial services providers. Prereq: 22FIN401. BoK: NA. Credit Level: U. Credit Hrs: 2.00

22FIN407**International Finance**

International finance, and international business finance in particular, is all about making decisions in the context of international financial environment. This course focuses on developing some of the tools that are necessary for students to be able to frame and solve the basic problems in international financial decision-making. We will confine our study to the topics of international financial environment, exchange rate behavior and its management, and investment/financing decisions of multi-national corporations (MNCs). By the end of the course you should be comfortable with the assumptions and techniques required for making financial decisions by the MNCs. Prereq: 22FIN380. BoK: NA. Credit Level: U. Credit Hrs: 4.00

22FIN408**New Venture Finance**

This course is required for all Entrepreneurship majors. The objective is to provide students with a working knowledge of the accounting and finance tools required by entrepreneurs to understand, evaluate, fund and manage new ventures. The class will examine approaches to financing new and growing ventures that will increase the likelihood of success, while avoiding the pitfalls of those which have failed. Prereq:

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Finance**22FIN408****New Venture Finance**

22FIN380. BoK: NA. Credit Level: U. Credit Hrs: 4.00

22FIN411**Investments**

This course provides a detailed overview of investment management. The goal of the course is to provide students an understanding of the key differences in the various investment vehicles as well as a set of general techniques for characterizing and valuing the risks inherent in these various instruments. The course will consider the analysis of both equity and debt instruments, leaving the price of derivative securities (such as options, futures and securitized instruments to FIN 421 (Derivative Securities and Markets). In addition to providing a theoretical treatment of valuation techniques, FIN 411 also provides the practical skills of financial modeling using spreadsheets, enabling the student to conduct applied analysis useful in their future professional careers. The course will also examine the value of active investment management given empirical evidence on the efficiency of various markets and develop methods for evaluating the performance of investment managers. The course will also discuss tax implications and strategies. Prereq: 22FIN380. BoK: NA. Credit Level: U. Credit Hrs: 4.00

22FIN413**Portfolio Management**

This overview of portfolio management presents several views and approaches to investment decision making in today's markets. Portfolio management is the professional management of various securities to meet specified investment goals for the benefit of investors. To accomplish these objectives, we need to learn about pricing models, active and passive management, investment styles and market efficiency. Prereq: 22FIN401, 22FIN411, 22FIN421. BoK: NA. Credit Level: U. Credit Hrs: 4.00

22FIN414**Fixed Income**

The principal objective of this course is to provide a detailed analysis of fixed income securities. By the end of the course students will have a good working knowledge of the analysis of debt investments, including basic characteristics of bonds in alternative sectors, valuation tools, and factors that influence bond yields. Prereq: 22FIN401, 22FIN411, 22FIN421. BoK: NA. Credit Level: U. Credit Hrs: 4.00

22FIN421**Derivatives Markets and Securities**

The principal objective of this course is to provide a detailed examination of option, futures, forwards and swaps. By the end of the course students will have a good knowledge of how these contracts work, how they are traded, how they are used, and how they are priced. A major emphasis in the class will be on learning how to use the binomial model to think systematically about derivative instruments. Prereq: 22FIN380. BoK: NA. Credit Level: U. Credit Hrs: 4.00

22FIN431**Financial Information and Valuation**

The course is about the analysis of financial information particularly firms' financial statements for making decisions to invest in businesses. The primary focus is on equity (share) valuation with some attention given to credit analysis and the valuation of debt. The methods of fundamental analysis will be examined in detail & applied in cases and projects involving listed companies. Topics include models of shareholder value, a comparison of accrual accounting and discounted cash flow approaches to valuation, the analysis of profitability, growth and valuation generation in a firm, diagnosing accounting quality, forecasting earnings and cash flow, proforma analysis for strategy and planning, and the determination of price/earnings (P/E) and market-to-book (P/B) ratios. Prereq: 22ACCT281, 22FIN380. BoK: NA. Credit Level: U. Credit Hrs: 4.00

Finance**22FIN452****Securities Trading**

This course examines the theory and practice of securities trading at exchanges around the world. The goal of the course is to have students understand how trading and the design of markets affects liquidity, informativeness, transparency, volatility and fairness. During the course, students will analyze alternative trading strategies, the cost of trading, innovations in exchanges, and regulatory policy. The course also provides hands-on trading experience using realistic trading simulations. Prereq: 22FIN401. BoK: NA. Credit Level: U. Credit Hrs: 4.00

22FIN453**Financial Institutions**

This course provides a survey of financial institutions. The goal of the course is to characterize the different functions, services and regulatory environments of the various institutions in the financial services industry. The primary focus is on understanding the range of services offered and the typical challenges financial services firms face and how they create value. Prereq: 22FIN401. BoK: NA. Credit Level: U. Credit Hrs: 4.00

22FIN454**Risk Management**

After a brief introduction to the nature of financial institutions, this course focuses on the identification, measurement and management of the risks faced by banks and other financial institutions. The risks identified include interest rate risk, market risk, foreign exchange risk, sovereign risk and liquidity risk. Once the risks are identified, the initial focus is on how to measure them and then on the techniques used to manage them. Prereq: 22FIN401, 22FIN421. BoK: NA. Credit Level: U. Credit Hrs: 4.00

22FIN461**Advanced Corporate Finance**

Develops the analytical framework for making investment, financing, and dividend decisions in the non-financial firm. Prereq: 22FIN361. BoK: NA. Credit Level: U. Credit Hrs: 3.00

22FIN462**Investment Analysis**

Focuses on applying the tools and strategies of investment management in contemporary markets. Prereq: 22FIN361. BoK: NA. Credit Level: U. Credit Hrs: 3.00

22FIN463**Financial Management of Financial Institutions**

Focuses on the financial management of financial institutions operating in a changing environment. Particular stress is given to managing risk. Prereq: 22FIN361. BoK: NA. Credit Level: U. Credit Hrs: 3.00

22FIN465**Treasury Management**

Analysis and efficient management of operating cash flows. Prereq: 22FIN361. BoK: NA. Credit Level: U. Credit Hrs: 3.00

22FIN471**Financial Markets and Institutions**

Applications of derivatives to the analysis and management of portfolio risk and return. Prereq: 22FIN352. BoK: NA. Credit Level: U. Credit Hrs: 3.00

22FIN472**Cases in Finance**

Applications of derivatives to the analysis and management of portfolio risk and return. Prereq: 22FIN361. BoK: NA. Credit Level: U. Credit Hrs: 3.00

22FIN591**Problems in Financial Decision Making**

This capstone finance course provides the student with the opportunity to apply knowledge and skills from earlier finance courses. Prereq: 22FIN461. BoK: NA. Credit Level: U. Credit Hrs: 3.00

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Finance**22FIN593****Special Topics in Finance**

Special offerings under this course number will be publicized on bulletin boards and by classroom announcement. BoK: NA. Credit Level: U. Credit Hrs: 4.00

22FIN596**Guided Study in Finance**

Individual study under the direction of a faculty member. Prereq: 22FIN380. BoK: NA. Credit Level: U. Credit Hrs: 4.00

22FIN701**Investment Professional Ethics**

A survey of essential concepts in micro-economics that influence the financial performance of firms and financial markets. Credit Level: G. Credit Hrs: 2.00

22FIN711**Finance for Managers**

Examines the financial management of the firm including the following topics: risk and return, discounted cash flow techniques, valuation models, cost of capital, analysis of capital expenditures, optimal capital structure, working capital management, and corporate restructuring. Credit Level: G. Credit Hrs: 4.00

22FIN713**Financial Analysis Tools**

The objective of this course is to provide managers facility with the fundamental methods used in financial analysis. These methods will be used extensively in FIN 714 (Financial Management) and throughout the MBA program when financial analysis is required. The set of methods include: time value of money, stock and bond pricing, net present value, risk measurements, risk and return, the capital asset pricing model, and basic capital budgeting. Credit Level: G. Credit Hrs: 2.00

22FIN714**Financial Management**

Using the finance tools developed in FIN 713, this course examines managerial financial decision making, including the following topics: capital budgeting, raising capital, financing policy, capital structure choice, payout policy, the pricing and use of financial options, real options, and selected topics such as mergers and acquisitions, risk management, and bankruptcy. Prereq: 22FIN713. Credit Level: G. Credit Hrs: 4.00

22FIN715**The Global Economic Context of Business**

This course provides future managers with a working knowledge of the major global macroeconomic forces and institutions that affect business. The primary focus of this course is on how managers can optimally respond to these forces. The course focuses on the causes and consequences of changes in the following macroeconomics variables: aggregate demand, employment, labor productivity, interest rates, exchange rates, business cycles, and international flows of goods, services, and capital. Current global economic events will be prominently featured during the course. Credit Level: G. Credit Hrs: 2.00

22FIN725**Financial Economics**

A survey of essential concepts in micro-economics that influence the financial performance of firms and financial markets. Credit Level: G. Credit Hrs: 4.00

22FIN731**Financial Econometrics I**

An in-depth analysis of the empirical foundations of finance. Topics covered include measurement of ex-post returns, estimation of risk and return parameters, probability distributions of asset market returns, empirical asset pricing models, and market efficiency. Credit Level: G. Credit Hrs: 4.00

Finance**22FIN732****Financial Econometrics II**

Continuation of Financial Econometrics I. Focuses on application to financial market data. Prereq: 22FIN731. Credit Level: G. Credit Hrs: 2.00

22FIN735**Financial Information and Valuation**

The evaluation and uses of public financial accounting information and the implications of this information for security analysis and valuation. Credit Level: G. Credit Hrs: 4.00

22FIN736**Equity Securities Analysis and Valuation**

Applications of valuation theory and financial accounting information for the analysis and valuation of equity securities. Prereq: 22FIN711, 22FIN735. Credit Level: G. Credit Hrs: 4.00

22FIN737**Fixed Income Securities Analysis and Valuation**

Applications of valuation theory and financial accounting information for the analysis and valuation of fixed income securities. Prereq: 22FIN713. Credit Level: G. Credit Hrs: 4.00

22FIN741**Investments**

An in-depth analysis of equity, fixed income securities, derivatives, and portfolio formation Prereq: 22FIN711. Credit Level: G. Credit Hrs: 4.00

22FIN742**Options and Futures**

An in-depth analysis of options, futures, swaps and other derivative securities and their role and uses in investments. Prereq: 22FIN711. Credit Level: G. Credit Hrs: 4.00

22FIN745**Portfolio Management I**

An in-depth coverage of portfolio theory and performance evaluation. Prereq: 22FIN735, 22FIN711. Credit Level: G. Credit Hrs: 4.00

22FIN746**Portfolio Management II**

Application of portfolio theory to the construction and management of investment portfolios. Prereq: 22FIN745. Credit Level: G. Credit Hrs: 2.00

22FIN747**Real Estate and Alternative Investments**

A survey of essential topics in real estate and alternative investments and their role in portfolio diversification and portfolio performance. Prereq: 22FIN745. Coreq: 22FIN735, 22FIN711. Credit Level: G. Credit Hrs: 2.00

22FIN751**Money and Capital Markets**

An in-depth analysis of institutions, money markets, bond markets, and equity markets that comprise the financial system. Prereq: 22FIN711. Credit Level: G. Credit Hrs: 4.00

22FIN752**Derivative Markets and Risk Management**

Applications of derivatives to the analysis and management of portfolio risk and return. Prereq: 22FIN711, 22FIN735. Credit Level: G. Credit Hrs: 2.00

22FIN755**International Finance**

An in-depth analysis of the global aspects of financial markets and corporate finance. Prereq: 22FIN711. Credit Level: G. Credit Hrs: 4.00

22FIN756**International Financial Markets and Institutions**

A survey of essential concepts in international macro finance that influence risk and return in global capital markets. Prereq: 22FIN711, 22FIN735. Credit Level: G. Credit Hrs: 2.00

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Finance**22FIN761****Advanced Corporate Finance**

An in-depth analysis of corporate governance and ownership structure, executive compensation and corporate performance, and strategic considerations in financial policies. Prereq: 22FIN711. Credit Level: G. Credit Hrs: 4.00

22FIN762**Advanced Capital Budgeting and Real Options**

An in-depth analysis of capital budgeting decisions. Topics covered include: estimation of the cost-of capital, issues in forecasting and valuing cash flows from projects, and the applications of real options to corporate capital budgeting decisions. Prereq: 22FIN711. Credit Level: G. Credit Hrs: 4.00

22FIN771**Professional Practice**

Applications of investment theory to investment problems faced by practicing professionals. Prereq: 22FIN745. Coreq: 22FIN735, 22FIN711. Credit Level: G. Credit Hrs: 2.00

22FIN781**Individual Study**

Individual study under the direction of a faculty member. Credit Level: G. Credit Hrs: 1.00-4.00

22FIN782**Special Topics in Finance**

In-depth study of special topics in Finance. Credit Level: G. Credit Hrs: 1.00-4.00

22FIN895**Special Topics in Finance**

In-depth study of selected topics in finance. Prereq: 22FIN713. Credit Level: G. Credit Hrs: 3.00

22FIN901**Seminar in Financial Theory**

A review of the theoretical and empirical foundations of current financial thought. Credit Level: G. Credit Hrs: 3.00

22FIN902**Current Topics in Corporate Finance**

In-depth study of selected topics in corporate finance. Emphasis on current literature in this area. Credit Level: G. Credit Hrs: 3.00

22FIN903**Financial Institutions and Markets: A Theoretical Perspective**

In-depth study of selected topics in financial institutions. Emphasis on current literature in this area. Prereq: 22FIN901. Credit Level: G. Credit Hrs: 3.00

22FIN904**Seminar in Investments**

In-depth study of selected topics in investments. Emphasis on current literature in this area. Prereq: 22FIN901. Credit Level: G. Credit Hrs: 3.00

22FIN905**Information and Financial Contracting**

Seminar in the economics of information & financial contracting. Will study equilibria & welfare properties of markets under asymmetric information, contracting in the presence of asymmetric information, bargaining, & auctions. Credit Level: G. Credit Hrs: 3.00

22FIN906**Market Microstructure**

Market microstructure is the study of the process and outcomes of exchanging assets under a specific set of rules. Microstructure theory focuses on how specific trading mechanisms affect the price formation process. Credit Level: G. Credit Hrs: 3.00

22FIN971**Research in Finance**

Variable credit. Credit Level: G. Credit Hrs: 1.00-15.00

Finance**22FIN971****Research in Finance**

Variable credit. Credit Level: G. Credit Hrs: 1.00-15.00

22FIN991**PhD Dissertation Research**

Variable credit. Credit Level: G. Credit Hrs: 1.00-15.00

Honors Plus**22HNPL131H****Freshman Honors-PLUS Seminar I**

First of 2 quarter Honors Seminar sequence for Freshmen participating in the Carl H. Lindner Honors-PLUS program. BoK: NA. Credit Level: U. Credit Hrs: 1.00

22HNPL132H**Freshman Honors-PLUS Seminar II**

Second of two quarter honors seminar sequence for freshmen participating in the Carl H. Lindner Honors-PLUS program. BoK: NA. Credit Level: U. Credit Hrs: 1.00

22HNPL232H**Sophomore Honors-PLUS Seminar**

Honors Seminar for Sophomores participating in the Carl H. Lindner Honors-PLUS program. BoK: NA. Credit Level: U. Credit Hrs: 1.00

22HNPL331H**Issues In Demography**

Identification of demographic issues and trends, and analysis of the challenges and opportunities they create for business and society. BoK: NA. Credit Level: U. Credit Hrs: 2.00

22HNPL332H**Pre-Junior Honors-PLUS Seminar**

Honors Seminar for Pre-Juniors participating in the Carl H. Lindner Honors-PLUS program. BoK: NA. Credit Level: U. Credit Hrs: 1.00

22HNPL391H**HonorsPLUS Global Business Practicum**

Practicum course for students in the Carl H. Lindner Honors-PLUS program who are studying abroad. BoK: NA. Credit Level: U. Credit Hrs: 1.00-6.00

22HNPL431H**Junior Honors-PLUS Seminar**

Honors Seminar for Juniors participating in the Carl H. Lindner Honors-PLUS program. BoK: NA. Credit Level: U. Credit Hrs: 1.00

22HNPL432H**Issues in Science & Technology**

Study of cutting edge topics in science and technology, and their past, present and future impact on business and society. BoK: NA. Credit Level: U. Credit Hrs: 3.00

22HNPL531H**Senior Honors-PLUS Seminar**

Honors Seminar for Seniors participating in the Carl H. Lindner Honors-PLUS program. BoK: NA. Credit Level: U. Credit Hrs: 1.00

22HNPL532H**Issues in Contemporary Business**

Examination of current events and issues affecting business. Guest lecturers, current periodicals and news sources will be used to analyze the relevance and resolution of these issues. BoK: NA. Credit Level: U. Credit Hrs: 3.00

22HNPL593H**Honors PLUS - Special Topics**

Special Topics class offered on an intermittent basis for students participating in the Carl H. Lindner Honors-PLUS program. BoK: NA. Credit Level: U. Credit Hrs: 1.00-6.00

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Honors Plus**22HNPL599H****Honors PLUS - Independent Study**

Independent study course for students participating in the Carl H. Lindner Honors-PLUS program. BoK: NA. Credit Level: U. Credit Hrs: 1.00-6.00

International Business**22INTB214H****Cultural Competency: Understanding the Cultural Gap**

Course will focus on understanding culture and development of skills necessary to work in a global business environment. BoK: NA. Credit Level: U. Credit Hrs: 3.00

22INTB380**Global Business Environment**

Introductory course in international business. Provides an overview of financial, economic, marketing, management, accounting and operations issues related to doing business in a global environment. Also covers trade policy and international institutions involved in global business. Prereq: 22ACCT282, 15ECON101, 15ECON102. BoK: DC. Credit Level: U. Credit Hrs: 4.00

22INTB380H**Global Business Environment - Honors**

Introductory course in international business. Provides an overview of financial, economic, marketing, management, accounting and operations issues related to doing business in a global environment. Also covers trade policy and international institutions involved in global business. Prereq: 22ACCT282, 15ECON101, 15ECON102. BoK: NA. Credit Level: U. Credit Hrs: 4.00

22INTB398**Understanding European Business - Belgium**

Students will develop an understanding of EU business culture and practices through a combination of lectures, discussion, company visits and experiential activities. Prereq: 22INTB380. BoK: NA. Credit Level: U. Credit Hrs: 4.00

22INTB450**International Management**

Development of a global perspective and strategy for the multinational corporation. Impact of foreign environments. Prereq: 22MGMT380. BoK: NA. Credit Level: U. Credit Hrs: 4.00

22INTB501**Study Abroad A**

International course at a foreign institution. BoK: NA. Credit Level: U. Credit Hrs: 1.00-4.00

22INTB502**Study Abroad - Linz, Austria: Intensive German**

Intensive German Language course delivered at Johannes Kepler University, in Linz, Austria as part of study abroad program Prereq: 22INTB390. BoK: NA. Credit Level: U. Credit Hrs: 3.00

22INTB503**Study Abroad - Linz, Austria: Language & Culture**

German Language and Austrian culture course delivered at Johannes Kepler University in Linz, Austria as part of study abroad program. Prereq: 22INTB390. BoK: NA. Credit Level: U. Credit Hrs: 3.00

22INTB504**Study Abroad - Linz, Austria I**

Study Abroad, Linz, Austria: Students will enroll in Business courses at Johannes Kepler University, Linz, Austria Prereq: 22INTB390. BoK: NA. Credit Level: U. Credit Hrs: 3.00-6.00

22INTB505**Study Abroad Linz, Austria II**

Study Abroad, Linz, Austria: Students will enroll in Business courses at Johannes Kepler University, Linz, Austria. Prereq: 22INTB390. BoK: NA. Credit Level: U. Credit Hrs: 3.00-6.00

International Business**22INTB506****Study Abroad - Linz, Austria III**

Study Abroad, Linz, Austria: Students will enroll in Business courses at Johannes Kepler University, Linz, Austria. Prereq: 22INTB390. BoK: NA. Credit Level: U. Credit Hrs: 3.00-6.00

22INTB507**Study Abroad - Linz, Austria**

Study Abroad, Linz, Austria: Students will enroll in Business courses at Johannes Kepler University, Linz, Austria. Prereq: 22INTB390. BoK: NA. Credit Level: U. Credit Hrs: 3.00-6.00

22INTB511**Study Abroad: China**

Students will visit the People's Republic of China and explore economic, political, social and cultural conditions as they apply to doing business in China. Students will attend class sessions that will include lectures by local Chinese experts and foreign business executives. They will visit companies in China and they will visit key cultural sites. Prereq: 22INTB390. BoK: NA. Credit Level: U. Credit Hrs: 3.00

22INTB512**Study Abroad Chile: Doing Business in Chile**

Students will attend classes at the Universidad del Desarrollo, in Santiago, Chile. The course focuses on building understanding of the Chilean business environment, trade relations with the US and development of an enlarged trade agreement between North and South America. BoK: NA. Credit Level: U. Credit Hrs: 4.00

22INTB513**Study Abroad: Mexico**

Students will attend class sessions in Mexico focused on doing business in Mexico. They will visit local companies and visit historic and cultural sites. Prereq: 22INTB380. BoK: NA. Credit Level: U. Credit Hrs: 4.00

22INTB515**Service Learning Study Abroad: Central America**

Students will work on a service learning project in Central America. The project will involve some business consulting to local business. Prereq: 22INTB380. BoK: NA. Credit Level: U. Credit Hrs: 4.00

22INTB516**Study Abroad Ireland**

Students will enroll in business classes at the University College, Cork, Ireland. BoK: NA. Credit Level: U. Credit Hrs: 3.00

22INTB517**Study Abroad Thailand: Doing Business in Thailand**

Students will attend classes in Thailand. The course focuses on building understanding of the Thai business environment and trade relations with the US. Prereq: 22INTB390. BoK: NA. Credit Level: U. Credit Hrs: 3.00

22INTB518**Study Abroad France and Spain**

Students will visit Toulouse, France and Barcelona, Spain and explore economic, political, social and cultural conditions as they apply to doing business in France, Spain and the European Union. Students will attend class sessions that will include lectures by local European experts and foreign business executives. They will visit companies in France and Spain and will visit key cultural sites. BoK: NA. Credit Level: U. Credit Hrs: 4.00

22INTB525**International Accounting and Financial Management**

Identify and explain accounting and financial controls necessary to be an effective global manager. Prereq: 22INTB380, 22ACCT282, 22FIN352. BoK: NA. Credit Level: U. Credit Hrs: 4.00

22INTB530**Management of Cultural Differences**

Students will do extensive reading and review of the literature on managing multi-cultural environments. Students will present analyses of

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International Business**22INTB530****Management of Cultural Differences**

cross-cultural management issues; assessments of business practices in other cultures; and development of cross cultural training principles.

Prereq: 22MGMT380. BoK: NA. Credit Level: U. Credit Hrs: 4.00

22INTB535**Virtual Teams**

This course will focus on cross-cultural communications, teamwork and virtual teams. UC students will work virtually with European students at one of our partner schools in Europe. (No travel is involved.) You will work in team (including UC and European students) using video conference technology, email and Internet/Web camera to do research on teams, teamwork, virtual teams and cross-cultural communication. The course involves assigned readings on teams and teamwork as well as research in particular topical areas. Prereq: 22MGMT380. BoK: NA. Credit Level: U. Credit Hrs: 4.00

22INTB571**International Marketing**

Marketing in the global marketplace. Effects of culture on marketing decision making. Prereq: 22MKTG280. BoK: NA. Credit Level: U. Credit Hrs: 4.00

22INTB587**International Accounting**

Discusses the unique aspects of accounting for multinational corporations, accounting principles, and financial reporting practices of different countries and the development of international accounting and its standards. Prereq: 22INTB380, 22ACCT282. BoK: NA. Credit Level: U. Credit Hrs: 4.00

22INTB593**Special Topics in International Business**

In depth study of selected topics in international business. BoK: NA. Credit Level: U. Credit Hrs: 4.00

22INTB594**Current Issues in International Business**

The purpose of this course is to investigate current issues and controversies in global business. The rising power of China, instability in the Middle East, and north-south economic disparity are just a few of the critical issues in global business today. Through a combination of book chapters, cases and articles in the business press, we will investigate the problems associated with globalization, outsourcing, immigration, political and economic instability, resource scarcity, and cultural differences. This is a project-based seminar/learning community since this is an emerging field. Prereq: 22INTB380. BoK: NA. Credit Level: U. Credit Hrs: 4.00

22INTB599**Guided Study in International Business**

Individual study under the direction of a faculty member. Perm of Instructor. BoK: NA. Credit Level: U. Credit Hrs: 1.00-4.00

22INTB801**International Study Abroad - Location A**

An intensive course in International Management. Credit Level: G. Credit Hrs: 1.00-8.00

22INTB802**International Business: Study Abroad Linz-Prague**

Students will study the expanding European Union and doing business in Central and Eastern Europe. Course will focus on emergence of market economies, cross-cultural management, and the global impact of EU expansion. Credit Level: G. Credit Hrs: 4.00

22INTB803**Study Abroad Chile: Doing Business in Chile**

Students will attend classes in Santiago, Chile. The course focuses on building understanding of the Chilean business environment, trade relations with the US, and development of an enlarged trade agreement between North and South America. Credit Level: G. Credit Hrs: 4.00

International Business**22INTB804****Study Abroad China: Doing Business in China**

Students will attend classes with partner universities at multiple sites in China. Course content focuses on the development of China's market economy, entry into the WTO, and trade relations with the west Credit Level: G. Credit Hrs: 4.00

22INTB805**Study Abroad France: Doing Business in the European Union**

Students will attend classes with partner universities in France and Spain. The course focuses on European culture, business practices and the European Union. Credit Level: G. Credit Hrs: 4.00

22INTB806**Study Abroad Germany: Doing Business in Germany and the European Union**

Students will attend classes with partner universities in Germany. The course focuses on German reunification, European culture, business practices and the European Union. Credit Level: G. Credit Hrs: 4.00

22INTB807**Study Abroad Thailand: Doing Business in Thailand and Southeast Asia**

Students will attend classes in Thailand. The course focuses on developing economies of SE Asia, the influence of Buddhist culture on business, and Thai trade. Credit Level: G. Credit Hrs: 4.00

22INTB891**Independent Study**

Independent study in International Business Credit Level: G. Credit Hrs: 1.00-6.00

Information Systems**22IS212****Foundations of Information Systems**

This course introduces students to the basic building blocks of an information system - hardware, software, and data. In addition, students are taught the fundamentals of structured programming. BoK: NS. Credit Level: U. Credit Hrs: 4.00

22IS280**Computer Problem Solving for Business**

Provides foundational understandings and skills for applying information technology to managerial decision making and problem solving. Topics include information systems such as decision support, enterprise, transaction processing and knowledge management systems. Formerly 22 IS 270. BoK: NA. Credit Level: U. Credit Hrs: 5.00

22IS280H**Computer Problem Solving for Business**

Provide foundational understandings and skills for applying information technology to managerial decision making and problem solving. Topics include information systems such as decision support, enterprise, transaction processing and knowledge management systems. Formerly 22 IS 270. BoK: NA. Credit Level: U. Credit Hrs: 5.00

22IS290**Business Application Development**

This is an introductory course on Web application development, using Microsoft's newest development platform, Visual Studio.Net 2008. This course also covers ASP.Net and VB.Net. Students are expected to develop a simple Web application that incorporates these technologies. The course includes a mandatory lab component where students can practice with the concepts and approaches discussed in the classroom. The objectives of the course are to: introduce students to the basic components of an information system, give students hands-on experience with the development of a simple, dynamic (i.e. data driven) Web-based application, using one of the most popular development platforms in industry (.Net). BoK: NS. Credit Level: U. Credit Hrs: 4.00

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Information Systems**22IS320****Business Process Modeling**

One of the most important activities for an information systems professional is analyzing, modeling and documenting business processes. Process models can greatly benefit organizations by helping them to identify opportunities to use information technology to streamline operations and optimize organizational performance. The objectives of this course are to expose students to the importance of business process modeling, the skills required of effective business analysts, the systems development life cycle, specific process modeling techniques such as Data Flow Diagrams and Use Cases, the role of Business Process Management (BPM) at the organizational level, and one or more specific BPM tools (e.g. BlueSpring or Pro Vision). BoK: NA. Credit Level: U. Credit Hrs: 4.00

22IS330**Database Design**

Data is increasingly recognized as a vital organizational resource. With the growing use of advanced data management technologies and applications, database systems have been recognized as strategic resources to achieve competitive advantage. The objective of this course is to provide students with a comprehensive introduction to the following managerial and technical issues in database design: concepts of data management and database systems, database design life cycle, conceptual data modeling using entity-relationship models, logical database design using relational data model, normalization of relations, and relational algebra and structure query language (SQL). Coreq: 22IS290. BoK: NA. Credit Level: U. Credit Hrs: 4.00

22IS340**IT Architecture and Networks**

This course is designed to give IS students a strong foundation in systems architecture and the principles of data communications. Specifically, this course will give the student an understanding of the following aspects of data communications: technology - the technology underlying computer systems, data communications, networks and communications software; architecture - the way in which computer components, computer and network hardware, software and network services are interconnected; and applications - how data communications can be used to support organizations' business strategies. Coreq: 22IS290. BoK: NA. Credit Level: U. Credit Hrs: 4.00

22IS410**Advanced Application Development**

The objective of this course is to provide students with exposure to application development using Sun's Java language and Java 2 Enterprise Edition development platform. The goals are to give students a firm foundation in the logic of programming, and to expose students to a popular object-oriented language (Java) that is widely used for systems development, particularly for Web-based systems. Coreq: 22IS290. BoK: NA. Credit Level: U. Credit Hrs: 4.00

22IS420**Advanced Systems Design**

This course is a follow on to IS 320 (Business Process Modeling). The specific objectives of this course are to teach students more advanced techniques in information systems design, including to analyze and document the requirements for an information system using an object-oriented approach and UML (Unified Modeling Language); to construct and document sequence and class diagrams; the basic principles of Service-Oriented Architecture (SOA); the technological underpinnings of Web services; and to use Business Process Execution Language to model applications using the SOA paradigm. Prereq: 22IS320, 22IS330. BoK: NA. Credit Level: U. Credit Hrs: 4.00

22IS431**Digital Business Strategy**

This course examines the environment, objectives, technology, and issues relating to the use of the Internet and associated information technologies in business. The course covers a broad range of topics on the subject, including: the role of technology in influencing corporate strategies and industry boundaries, digital business intelligence,

Information Systems**22IS431****Digital Business Strategy**

effective multi-channel strategies, and enterprise software. The objective of the course is to prepare the student to be an effective innovator and change agent capable of using digital technologies to 1) contribute to the enterprise's sales growth and profitability, and 2) enable the enterprise to meet its mission. BoK: NA. Credit Level: U. Credit Hrs: 3.00

22IS435**Data Warehousing and Mining**

A data warehouse is a specially prepared repository of data designed to support decision making. Data are extracted from source systems, transformed, and loaded into data stores. Data mining is an important use of a data warehouse. This course is designed to provide a thorough understanding of data warehousing and mining, how to build and maintain data warehouses, and how to use data warehousing and mining for business advantage. Prereq: 22IS330. BoK: NA. Credit Level: U. Credit Hrs: 3.00

22IS450**Information Systems Security**

This course provides a technical overview of information systems security. The objective is to expose students to the technologies used to implement secure information systems at the network, data, and application levels. Topics covered include: cryptography, authentication, authorization, database security, software security, security protocols, and operating systems security. Students will also be exposed to the principles of planning and performing security assessments, risk analysis and penetration testing. Prereq: 22IS330, 22IS340. BoK: NA. Credit Level: U. Credit Hrs: 4.00

22IS460**Business Intelligence**

Data is a critical resource - the ability to extract meaningful business intelligence from vast amounts of transactional data that most corporations routinely collect is an important key to success in today's competitive landscape. This course will introduce students to two business intelligence technologies: data warehousing and data mining. Specifically, students will learn (a) the differences between data warehouses and OLTP databases; (b) Dimensional Modeling using Star schema; (c) the architecture and infrastructure of data warehousing; and (d) information delivery techniques, including Online Analytic Processing (OLAP) and data mining. Coreq: 22IS330. BoK: NA. Credit Level: U. Credit Hrs: 4.00

22IS550**Database Design and Integration**

Covers the systems design and implementation of a software system using a programming language and the management of these activities. Topics include: project standards, software quality assurance, structured design; program specifications; selection of a programming language environment; coding; testing; configuration management; user tracking; systems delivery; maintenance; post-implementation review; reverse engineering; and re-engineering. Group project. Prereq: 22IS330, 22IS340, 22IS430. BoK: NA. Credit Level: U. Credit Hrs: 3.00

22IS590**IS Project Management**

The goal of this course is to enable students to learn and apply the processes, tools, techniques, and problem-solving approaches needed to successfully manage information system (IS) projects. Working in teams, students will evaluate a real-life business problem and offer an end-to-end IS solution. Students will manage IS projects through the application of theoretical frameworks, appropriate tools and techniques, and business process and change management concepts as they are presented and discussed in the reading materials and the classroom. They include but are not limited to, project management strategies, life cycle, methodology (e.g. RAD), tools (e.g. MS Project), techniques (e.g. GANT, WBS) and performance metrics. Students will analyze real-life mini-business cases throughout the course which will be used to

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Information Systems**22IS590****IS Project Management**

develop and refine their problem-solving approaches. The course culminates with a presentation of a working prototype for addressing a real-life business problem. Prereq: 22IS320, 22IS330. BoK: NA. Credit Level: U. Credit Hrs: 4.00

22IS593**Special Topics in Information Systems**

Special offerings under this course number will be publicized on bulletin boards and by classroom announcement. BoK: NA. Credit Level: U. Credit Hrs: 1.00-4.00

22IS596**Guided Study in Information Systems**

Individual study under the direction of a faculty member. BoK: NA. Credit Level: U. Credit Hrs: 1.00-6.00

22IS711**Information and Technology Management**

This course, taught primarily by the case method, examines the environment, objectives, and issues relating to the management of the information systems function in current business entities. Its goal is to prepare managers and future managers to deal with information systems related issues. The focus is on the fundamental management issues associated with identifying, designing, implementing, supporting, and effectively using information systems; the tradeoffs associated with dealing with these issues, and approaches for resolving them. Credit Level: G. Credit Hrs: 4.00

22IS715**Java in the Enterprise**

This course will serve as an introduction to web application development, using Sun's Java 2 Enterprise Edition development platform. In this regard, we will discuss technologies such as basic HTML, style sheets, Dynamic HTML, JSP, JavaBeans, JDBC, Servlets, and Java 2 programming language. It is the goal of this course to provide students with the necessary skills in designing and developing application systems with a focus on Web based application systems. Credit Level: G. Credit Hrs: 4.00

22IS721**Systems Analysis and Modeling**

There is no activity more fundamental to the field of information systems than the analysis, design, and development of systems. This course teaches students how to analyze and document the requirements for a system. It is based primarily on the object oriented approach - students learn how to construct use case diagrams, sequence diagrams, and class diagrams, and document them using UML (Unified Modeling Language). Students prepare a requirements analysis document for a hypothetical case study, using a CASE tool (Rational Rose). The course also covers one prominent structural modeling technique - data flow diagramming. Prereq: 22IS732. Credit Level: G. Credit Hrs: 4.00

22IS724**IS/IT Architecture**

This course introduces students to the basic building blocks of an information system - hardware, software, data and communication channels - and the role each of these plays in an information system. This course is designed as a technical introduction to information systems. The major topics covered include 1) the role and representation of data, 2) hardware architecture, 3) software architecture and 4) data communications. Credit Level: G. Credit Hrs: 4.00

22IS725**Web Systems and Services**

This is an introductory course on the development of web systems and services, using Microsoft's newest development platform, Visual Studio.Net 2008, and covering ASP.Net (using VB.Net). Students will learn to develop dynamic web-based systems, both stand-alone and component-based. They will learn the principles of Service-Oriented Architecture (SOA) and web services, and enabling

Information Systems**22IS725****Web Systems and Services**

technologies/standards such as XML, SOAP and WSDL. Students will be expected to develop a simple web application that incorporates these technologies. The course includes a mandatory lab component. Prereq: 22IS721. Credit Level: G. Credit Hrs: 4.00

22IS728**PROCESS INTEGRATION WITH ERP**

This course is designed to teach students about business process integration and to configure a company from the group up using SAP R/3. Students will learn about many of the configuration options when implementing SAP. They will use SAP to create the organizational structure, master data and business rules to support the hypothetical company's operations. They will then use test transactions to insure that the processes function as anticipated. Credit Level: G. Credit Hrs: 4.00

22IS732**Data Modeling and Database Design**

The focus of this course is on data modeling and design of database systems. Entity-relationship modeling is used as the vehicle to learn conceptual modeling. Students learn techniques and procedures to map the conceptual model to its logical counterpart. The concept of normalization is stressed in the logical data model. Some exposure to relational algebra is also included. The course includes a mandatory lab component where students implement these concepts using software engineering tools (e.g. ORACLE Designer) and database management software (e.g., ACCESS, ORACLE). Credit Level: G. Credit Hrs: 4.00

22IS736**Network Design and Management**

Businesses today are moving from centralized systems to distributed systems in order to remain competitive in the global economy. This has resulted in a need for a data communications infrastructure that can support distributed systems. Specifically, this course will introduce students to the design, implementation and management of networks and inter-networks. It will examine architectures of computer networks that support distributed applications. In addition, students will be introduced to server software that can be used to implement distributed systems. Prereq: 22IS724. Credit Level: G. Credit Hrs: 4.00

22IS740**Business Intelligence**

The course introduces an emerging data management technology: data warehousing. Data warehouses have been created to integrate data from online production systems so that it can be easily accessed. The specific objectives of this class include: Understand how data warehouses differ from OLTP databases; and from client/server and distributed databases; learn dimensioning modeling using Star schema to build data warehouses; introduce the architecture and infrastructure of data warehousing; learn current applications and trends in data warehousing; and common information delivery techniques for data warehouses. - Prereq: 22IS732. Credit Level: G. Credit Hrs: 4.00

22IS750**Advanced Data Management**

The focus of this course is on database implementation and administration. The topics covered include physical database design, transaction and concurrency control, security, integrity, backup and recovery, database tuning, migration and reengineering, client/server and distributed databases and web/database connectivity. Prereq: 22IS732. Credit Level: G. Credit Hrs: 4.00

22IS751**IT Auditing**

IT Auditing is an examination of the controls within an entity's information technology infrastructure. Its goal is to ensure that the organization's information systems are adequately protected and monitored, meet legal standards, safeguard assets, maintain data integrity, and are operating effectively and efficiently to achieve the organization's goals or objectives. This course will acquaint students with the frameworks, tools and techniques that can be used for such an

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Information Systems**22IS751****IT Auditing**

assessment. Credit Level: G. Credit Hrs: 4.00

22IS755**Information Systems Project Management**

The goal of this course is to enable people to use the processes, tools, techniques, and areas of knowledge needed to successfully manage information system projects. Examples of both successful and failed IS projects will be used to gain a better understanding of the management of IS projects. We will also explore the use of automated tools including various project estimating models, life cycle methodologies (pre-defined tasks and work-breakdown structures), and MS Project. How to manage outsourced IS projects and vendor relationships will also be addressed. Prereq: 22IS721. Credit Level: G. Credit Hrs: 4.00

22IS758**IT Services Management**

This course will discuss critical challenges in the management of the IT function as a service oriented department. Popular frameworks and concepts such as ITIL, CoBIT and SOA will be discussed, along with current issues in IT governance. Credit Level: G. Credit Hrs: 4.00

22IS760**CIO Forum**

This course is an IT management forum in which Chief Information Officers (CIO's) from industry speak and share their views, perspectives, and thoughts on strategic issues and contemporary topics in enterprise IT management. It is a chance for the students to learn from what is actually happening "in the trenches." Students will perform research on specified topics so as to better inform both the in-class debates and executive's decision making on critical strategic issues. In doing so, students can bridge the gap between theory and practice in enterprise IT management. Credit Level: G. Credit Hrs: 4.00

22IS781**Individual Study**

Individual study under the direction of a faculty member. Credit Level: G. Credit Hrs: 1.00-4.00

22IS782**Special Topics in IS**

In-depth study of special topics in Information Systems Credit Level: G. Credit Hrs: 1.00-4.00

22IS790**Industry Practicum I**

All MS-IS students must fulfill an experience- based learning component by doing (1) a supervised industry project; or (2) at least two quarters of supervised co-op work. The project will be supervised by an IS faculty member. The student must prepare an industry practicum proposal which includes the problem statement and a definition of the scope of the project. The final deliverable should be a solution to the defined problem in the form of an actual implementation or design, depending on the scope of the problem addressed. At the end of the project, the student must submit and present a project report. Students doing a co-op must similarly prepare and present a written report on the project they worked on during the co-op. Perm of Instructor. Credit Level: G. Credit Hrs: 2.00

22IS792**Industry Practicum II**

All MS-IS students must fulfill an experience- based learning component by doing (1) a supervised industry project; or (2) at least two quarters of co-op work. The project will be supervised by an IS faculty member. The student must prepare an industry practicum proposal which includes the problem statement and a definition of the scope of the project. The final deliverable should be a solution to the defined problem in the form of an actual implementation or design, depending on the scope of the problem addressed. At the end of the project, the student must submit and present a project report. Students doing a co-op must similarly prepare and present a written report on the project

Information Systems**22IS792****Industry Practicum II**

they worked on during the co-op. Perm of Instructor. Credit Level: G. Credit Hrs: 2.00

22IS794**Industry Practicum III**

All MS-IS students must fulfill an experience- based learning component by doing (1) a supervised industry project; or (2) at least two quarters of supervised co-op work. The project will be supervised by an IS faculty member. The student must prepare an industry practicum proposal which includes the problem statement and a definition of the scope of the project. The final deliverable should be a solution to the defined problem in the form of an actual implementation or design, depending on the scope of the problem addressed. At the end of the project, the student must submit and present a project report. Students doing a co-op must similarly prepare and present a written report on the project they worked on during the co-op. Perm of Instructor. Credit Level: G. Credit Hrs: 2.00

22IS795**Seminar in Information Systems**

This course will cover a current topic in Information Systems. Credit Level: G. Credit Hrs: 2.00-4.00

22IS971**Research in Information Systems**

Var. credit. Credit Level: G. Credit Hrs: 1.00-15.00

22IS981**MBA Thesis Research**

Var. credit. Credit Level: G. Credit Hrs: 1.00-15.00

22IS991**PhD Dissertation Research**

Var. credit. Credit Level: G. Credit Hrs: 1.00-15.00

Management**22MGMT171****Managerial Communication**

This course will challenge students to develop professional communication skills. More specifically, the course emphasizes effective presentations and writing in business contexts. Students will practice related techniques through varied individual and group applications that leverage language, visuals and technology. BoK: NA. Credit Level: U. Credit Hrs: 3.00

22MGMT380**Management**

Students will learn and apply principles of organizational behavior in work settings. Problems & issues facing managers will be examined using behavioral theories and concepts. BoK: DC. Credit Level: U. Credit Hrs: 4.00

22MGMT380H**Management - Honors**

Students will learn and apply principles of organizational behavior in work settings. Problems and issues facing managers will be examined using behavioral theories and concepts. BoK: NA. Credit Level: U. Credit Hrs: 4.00

22MGMT393H**Personal Development and Leadership**

This course is designed to help students explore leadership characteristics and learn related skills. Each class session examines a leadership issue from personal and interpersonal levels. This format rests on the fundamental premise: effective leadership demands that leaders develop deeper understanding of themselves and those they lead. Numerous leadership topics are covered, building a comprehensive model of human attitudes, behaviors and interactions that accentuates the complexities and challenges of leadership. BoK: SS., SE. Credit Level: U. Credit Hrs: 3.00

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Management**22MGMT393H****Personal Development and Leadership**

This course is designed to help students explore leadership characteristics and learn related skills. Each class session examines a leadership issue from personal and interpersonal levels. This format rests on the fundamental premise: effective leadership demands that leaders develop deeper understanding of themselves and those they lead. Numerous leadership topics are covered, building a comprehensive model of human attitudes, behaviors and interactions that accentuates the complexities and challenges of leadership. BoK: SS., SE. Credit Level: U. Credit Hrs: 3.00

22MGMT401**Leadership and Personal Development**

Course designed to assist students to both explore concepts of leadership as well as to assess and develop their own skills. Prereq: 22MGMT380. BoK: NA. Credit Level: U. Credit Hrs: 4.00

22MGMT410**Managerial Effectiveness**

This course covers the second half of the field of organizational behavior and focuses on group and social processes in organizations. Topics such as teams, decision making, ethics, leadership, power, and conflict are explored in a method that interweaves theory, research, and experiential learning. Prereq: 22MGMT405. BoK: NA. Credit Level: U. Credit Hrs: 3.00

22MGMT411**Interpersonal Processes and Teams**

Course designed to provide students with greater understanding of teams and interpersonal processes in the work setting. Prereq: 22MGMT380. BoK: NA. Credit Level: U. Credit Hrs: 4.00

22MGMT485**Human Resource Management**

This course provides an introduction to basic human resource management functions that drive and support the changing world of work. Topics include recruitment, selection, compensation, training, performance management and strategic HRM. Prereq: 22MGMT380. BoK: NA. Credit Level: U. Credit Hrs: 4.00

22MGMT593**Special Topics in Management**

Specialized course taught on an experimental basis. Topic and syllabus available in Management Office when offered. Prereq: 22MGMT380. BoK: NA. Credit Level: U. Credit Hrs: 1.00-4.00

22MGMT596**Managing in a Competitive Environment: A Capstone Experience**

Prepares students through an integrative capstone experience using a field case study or business simulation. Prereq: 22FIN352, 22QA375, 22MKTG377, 22OM385, 22INTB390. BoK: NA. Credit Level: U. Credit Hrs: 3.00

22MGMT599**Independent Study**

Prereq.: Perm. of instr. Perm of Instructor. BoK: NA. Credit Level: U. Credit Hrs: 1.00-6.00

22MGMT710**Teams: Interpersonal Processes: An Experiential Approach**

Provides students with a greater understanding of teams: interpersonal processes that affect the workplace. Credit Level: G. Credit Hrs: 2.00

22MGMT712**Corporate Strategy**

Focuses on both the analytical and structural framework for competitive analysis, as well as the formulation of policy and strategic decisions for the business corporation. This course focuses on the management of the total enterprise. All the basic functional areas are addressed in an integrative manner in terms of the relevance to the entire enterprise. The course emphasizes the ability to make decisions in the face of unstructured problems. Credit Level: G. Credit Hrs: 4.00

Management**22MGMT714****Leadership & Organizations**

Course introduces central concepts, processes, frameworks and practices to assist the student in understanding what it means to both manage others and 'be managers'. Credit Level: G. Credit Hrs: 4.00

22MGMT715**Corporate Responsibility and Business Ethics**

Explores the ethical dimensions and implications of business organizations and practices. Credit Level: G. Credit Hrs: 2.00

22MGMT717**International Business: Managing Across Cultures**

This course increases students' ability to recognize cultural and national differences that impact management; deepens appreciation and understanding of these differences and, enhances work effectively with people from different cultures. Credit Level: G. Credit Hrs: 2.00

22MGMT731**Strategic Alliances: Gaining Competitive Advantage Through Collaborative Enterprise**

Examines the role of strategic alliances and the creation of value including elements of coordination, cooperation and conflict. Prereq: 22MGMT712. Credit Level: G. Credit Hrs: 1.00-4.00

22MGMT732**Strategic Human Resource Management**

Focus is on strategic issues and policy choices related to human resource management, as opposed to personnel management techniques. Prereq: 22MGMT712. Credit Level: G. Credit Hrs: 1.00-4.00

22MGMT733**Organizational Culture**

Explores the concept of organizational culture and its relationship to performance. Prereq: 22MGMT711, 22MGMT712. Credit Level: G. Credit Hrs: 1.00-4.00

22MGMT734**Seminar in Global Management**

Examines threats and opportunities in the global market place. Prereq: 22MGMT712. Credit Level: G. Credit Hrs: 1.00-4.00

22MGMT735**Management and Innovation**

A seminar examining the process and management of innovation, from both theoretical and practical, and short- and long-term perspectives. Relevant for individuals in companies or industries that explicitly conduct R&D, develop new products or services, or experience rapid changes in environment or business practices. Credit Level: G. Credit Hrs: 4.00

22MGMT773**Human Resource Management**

Central personnel concepts, functions, processes, and issues in work organizations. Some case analysis. . Credit Level: G. Credit Hrs: 4.00

22MGMT778**Seminar in International Management**

Examines how the management process is affected by international interdependence and helps develop global perspective for organizational decision makers. Credit Level: G. Credit Hrs: 4.00

22MGMT781**Individual Study**

Individual study under the direction of a faculty member. Credit Level: G. Credit Hrs: 1.00-4.00

22MGMT782**Special Topics in Management**

In-depth study of special topics in management. Prereq: 22MGMT805. Credit Level: G. Credit Hrs: 1.00-4.00

22MGMT784**Management of Organizational Change**

This course examines several key challenges associated with

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Management**22MGMT784****Management of Organizational Change**

organizational change processes, and develops the necessary skills associated with effectively planning and implementing change in organizations. Credit Level: G. Credit Hrs: 4.00

22MGMT785**Leadership**

Addresses theories of leadership focusing on acquiring the ability to lead, power, and the effective exercise of leadership in a managerial position. Credit Level: G. Credit Hrs: 4.00

22MGMT789**International Competitiveness**

This course builds upon the analytical foundations developed in the MBA course, Competitive Analysis (22BA870). It draws upon the academic disciplines of organizational theory, international business and strategic management. Credit Level: G. Credit Hrs: 4.00

22MGMT826**Organizational Research Design and Methodology**

Focuses on the process of empirical research in organizations: strategies, processes, designs and techniques for conducting research. Open to PhD students only. Credit Level: G. Credit Hrs: 3.00

22MGMT895**Special Topics in Management**

This course engages students with in-depth study of specific contemporary topics in the field of management. Different topic offered each time. Credit Level: G. Credit Hrs: 3.00

22MGMT899**Research in Management**

Development of independent research topic with individual faculty. Perm of Instructor. Credit Level: G. Credit Hrs: 1.00-15.00

22MGMT911**PhD Seminar in Organizational Behavior**

Advanced topics course in organizational behavior, focusing on the individual and small-group perspectives. Addresses factors influencing functional and dysfunctional behavior in organizations. Grounding in the basics is assumed. Recent research contributions are emphasized. Credit Level: G. Credit Hrs: 4.00

22MGMT922**PhD Seminar in Organization Theory**

Survey of the major theoretical topics and perspectives in Organization Theory, including issues of organizational effectiveness and organizational life cycles. Evaluates the contributions to organization theory of such perspectives as structural contingency theory, resource dependence, and population ecology. Credit Level: G. Credit Hrs: 4.00

22MGMT933**PhD Seminar in Strategic Management**

Basic grounding in the field of strategic management, from the academic perspective. Covers history and paradigmatic development. Highlights contributions to strategic management of such related perspectives as industrial organization economics and administrative behavior. Credit Level: G. Credit Hrs: 4.00

22MGMT942**Information Technology Seminar**

A doctoral-level seminar designed to expose doctoral candidates to various strategies and techniques for using information technology in their academic careers. Credit Level: G. Credit Hrs: 1.00

22MGMT943**Research Techniques Seminar**

A doctoral level seminar designed to expose doctoral candidates to the requirements, strategies, and techniques necessary to successfully publish research in scholarly journals Credit Level: G. Credit Hrs: 1.00

Management**22MGMT945****Special Topics for Doctoral Students**

Topics of special interest to doctoral students of management. Credit Level: G. Credit Hrs: 1.00-3.00

22MGMT971**Research in Management, PhD**

Research credits for pre-candidacy doctoral students. Credit Level: G. Credit Hrs: 1.00-15.00

22MGMT981**MBA Thesis Research**

Variable Cr. Credit Level: G. Credit Hrs: 1.00-6.00

22MGMT991**PhD Dissertation Research**

Variable cr. Credit Level: G. Credit Hrs: 1.00-15.00

Marketing**22MKTG280****Principles of Marketing Management**

Provides an overview of the managerial areas within the marketing function. Topics include pricing, distribution, promotion and product planning. Formerly 22 MKTG 377. Prereq: 15ECON101. BoK: NA. Credit Level: U. Credit Hrs: 5.00

22MKTG280H**Principles of Marketing Management**

Provides an overview of the managerial areas within the marketing function. Topics include pricing, distribution, promotion and product planning. Formerly 22 MKTG 377H. Prereq: 15ECON101. BoK: NA. Credit Level: U. Credit Hrs: 5.00

22MKTG480**Marketing Research**

Methods of gathering, analyzing and reporting of information used to solve marketing management problems. Prereq: 22MKTG280, 22QA282. BoK: NA. Credit Level: U. Credit Hrs: 4.00

22MKTG485**Buyer Behavior**

Provides a basic understanding of the psychological, sociological, anthropological and economic processes affecting consumer choices and examines the implications of these factors for marketing. Prereq: 22MKTG280. BoK: NA. Credit Level: U. Credit Hrs: 4.00

22MKTG490**Decision Making in Marketing**

Topics include consumer and managerial decision making processes, individual and group decision making, techniques marketers use to shape decisions, and the ethical content in many marketing decisions. Prereq: 22MKTG280. BoK: NA. Credit Level: U. Credit Hrs: 4.00

22MKTG500**Direct Marketing**

Direct Marketing is a form of marketing that seeks a measurable customer response (purchase, inquiry, donation) from any location. Pivoting on precise targeting and database segmentation, this most highly accountable form of marketing includes telemarketing, catalog merchandising, and direct response advertising. Prereq: 22MKTG280. BoK: NA. Credit Level: U. Credit Hrs: 4.00

22MKTG510**Services Marketing**

Understanding the distinctive characteristics of services, the implication of these distinctions for marketing, the role of service quality as a determinant of customer satisfaction, and the measurement of these phenomena. Prereq: 22MKTG280. BoK: NA. Credit Level: U. Credit Hrs: 4.00

22MKTG520**Sports Marketing**

Understand the sports consumer and marketing mix decisions as they

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Marketing**22MKTG520****Sports Marketing**

relate to sports and sports properties. Develop evaluation and control measures to determine the effectiveness of the strategic plan. Examine additional areas of interest in sports marketing including sponsorship, the role of technology and fan development. Prereq: 22MKTG280. BoK: NA. Credit Level: U. Credit Hrs: 4.00

22MKTG572**Business-to-Business Marketing**

Discusses the marketing of goods and services to businesses, governments, institutions and nonprofit organizations for use in producing consumer goods and services. Focus is given to the special character of the business market and the interfacing between the buyer's and the seller's organization. Prereq: 22MKTG280. BoK: NA. Credit Level: U. Credit Hrs: 4.00

22MKTG573**E-Marketing**

Examines the Internet and related technologies as they are used for the marketing, selling and the distribution of goods and services. Develop an understanding of the opportunities and limitations of the Internet (and other information technologies) for marketing and how these technologies influence marketing strategy. Prereq: 22MKTG280. BoK: NA. Credit Level: U. Credit Hrs: 4.00

22MKTG574**Product Management**

The product and brand management decisions that must be made to build and manage brand equity. The tactical elements involved in managing and developing a brand. Prereq: 22MKTG280. BoK: NA. Credit Level: U. Credit Hrs: 4.00

22MKTG575**Retailing**

This course introduces students to retailing from a theoretical and managerial perspective. Major topics covered include consumer behavior, research, store location, service retailing, retail institutions, franchising, operations management, human resources management, merchandising management and retailing in a dynamic environment. Prereq: 22MKTG280. BoK: NA. Credit Level: U. Credit Hrs: 4.00

22MKTG576**Sales Management**

Covers the administration and analysis of policies, personnel, territories and costs. Prereq: 22MKTG280. BoK: NA. Credit Level: U. Credit Hrs: 4.00

22MKTG577**Advertising**

Essentials of advertising and advertising strategy. Trains students to think about advertising problems from the perspective of the managers responsible for solving the problems. Topics include setting objectives, copy and message strategy, media selection, budget decision and audience targeting. Prereq: 22MKTG280. BoK: NA. Credit Level: U. Credit Hrs: 4.00

22MKTG580**Professional Selling**

Presents the role of professional selling within the context of the marketing and promotional mix of the firm. Guides students in their understanding of the principles of professional selling. Prereq: 22MKTG280. BoK: NA. Credit Level: U. Credit Hrs: 4.00

22MKTG585**Marketing Strategy**

Frameworks and tools to solve strategic-level marketing problems. Emphasis on qualitative and quantitative analysis, integrative marketing, decision-making, and strategy formulation. Prereq: 22MKTG280. BoK: NA. Credit Level: U. Credit Hrs: 4.00

Marketing**22MKTG593****Special Topics in Marketing**

Provides in-depth study of selected topics in marketing. Special offerings under this course number will be publicized on bulletin boards and by classroom announcement. Topics could include Marketing Ethics, Pricing, Social Influence Strategies, and Services Marketing. Prereq: 22MKTG410. BoK: NA. Credit Level: U. Credit Hrs: 1.00-8.00

22MKTG594**Current Topics in Marketing**

Provides in-depth study of current topics in Marketing. Special offerings under this course number will be publicized on bulletin boards and by classroom announcement. Topics could include marketing regulation, new media or other issues of current relevance. Prereq: 22MKTG280. BoK: NA. Credit Level: U. Credit Hrs: 1.00-8.00

22MKTG595**Product Design Studio**

Students work in multi-disciplinary teams to complete new product design field projects. Represented disciplines may include Design, Business, Engineering and others. Assignments vary depending on the client needs. Perm of Department. BoK: NA. Credit Level: U. Credit Hrs: 1.00-8.00

22MKTG597**Field Project in Marketing**

Student teams working on real marketing problems supplied by various client organizations. Perm of Instructor. BoK: NA. Credit Level: U. Credit Hrs: 1.00-8.00

22MKTG599**Independent Study**

Student independently pursues marketing topics of specific individual interest. Student must obtain a faculty supervisor and approval prior to registration. BoK: NA. Credit Level: U. Credit Hrs: 1.00-8.00

22MKTG710**Marketing Planning**

Students will examine the marketing planning process, develop an awareness of major marketing problems that organization face, and cultivate proficiency through development of a marketing plan. Perm of Instructor. Credit Level: G. Credit Hrs: 4.00

22MKTG711**Marketing for Managers**

Provides students with a thorough appreciation for the benefits and pitfalls of executing a customer orientation. Market segmentation is introduced as a process for opportunity analysis and prioritization in organizations. Critical factors in the management of mature products and the introduction of new products and services are considered. Major emphasis is given to those practices and procedures that yield long-term relationships with one's customers. Credit Level: G. Credit Hrs: 4.00

22MKTG712**Marketing Research for Managers**

Explores the role of marketing research in marketing management. Students do hands-on tasks to perfect their understanding of methods for collecting, analyzing, and summarizing data pertinent to solving marketing problems. Effective oral and written communication of research results is stressed. Prereq: 22MKTG710, 22MKTG711. Credit Level: G. Credit Hrs: 4.00

22MKTG715**Consumer and Institutional Purchasing Behavior**

Emphasizes behavioral science concepts in an application-oriented environment as they relate to the process of consumption. Prereq: 22MKTG710, 22MKTG711. Credit Level: G. Credit Hrs: 4.00

22MKTG720**Product Development and Management**

Discusses product mix, development and strategy; product-market integration, acquisitions and mergers. Prereq: 22MKTG710,

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Marketing**22MKTG720****Product Development and Management**

22MKTG711. Credit Level: G. Credit Hrs: 4.00

22MKTG722**Business-to-Business Marketing for Managers**

Covers analysis, planning, and strategy for marketing to business customers. Prereq: 22MKTG710, 22MKTG711, 22MKTG800. Credit Level: G. Credit Hrs: 4.00

22MKTG723**Pricing**

Demand estimation, pricing models, and pricing strategy. Prereq: 22MKTG711. Credit Level: G. Credit Hrs: 4.00

22MKTG724**Services Marketing**

Marketing problems and strategies specific to services organizations. Prereq: 22MKTG711. Credit Level: G. Credit Hrs: 4.00

22MKTG725**Advertising and Promotions**

Provides an overview of the components of an integrated marketing communications plan. Topics include setting objectives, message strategy, media strategy, and measuring effectiveness. Prereq: 22MKTG710, 22MKTG711. Credit Level: G. Credit Hrs: 4.00

22MKTG726**Applied Social Influence Strategies**

Principles of social influence and their applications in marketing. Prereq: 22MKTG711, 22MKTG710. Credit Level: G. Credit Hrs: 2.00

22MKTG727**E-Marketing for Managers**

Introduces the Internet, the World Wide Web and related technologies as they are used for the marketing, selling, and distribution of goods and services. Students develop an understanding of opportunities and limitations and how to use these technologies to improve marketing practice. The course makes use of lectures, readings, cases, guest speakers, and student projects. Prereq: 22MKTG800, 22MKTG710, 22MKTG711. Credit Level: G. Credit Hrs: 4.00

22MKTG728**Marketing Ethics**

Acquire and refine analytical and managerial decision-making skills through the application of ethical principles. Develop an understanding of the subjective biases to which individual human judgments and group decisions are prone. Prereq: 22MKTG711, 22MKTG710. Credit Level: G. Credit Hrs: 2.00

22MKTG731**International Marketing for Managers**

Provides the fundamentals of sales management and integrates related topics such as database marketing, customer retention, relationship marketing and the impact of the Internet. Prereq: 22MKTG711, 22MKTG710. Credit Level: G. Credit Hrs: 1.00-4.00

22MKTG732**Management of the Sales Function**

Discusses marketing opportunities abroad and development of appropriate marketing structure and process. Prereq: 22MKTG711, 22MKTG710. Credit Level: G. Credit Hrs: 1.00-4.00

22MKTG735**Marketing Strategy for Managers**

Familiarizes student with concepts of market analysis and planning of direct practical relevance to the decision-making process. Prereq: 22MKTG710, 22MKTG711. Credit Level: G. Credit Hrs: 4.00

22MKTG740**Contemporary Issues in Marketing**

Deals with different topics each quarter. May be taken more than once; see department for current topics. Prereq: 22MKTG710, 22MKTG711. Credit Level: G. Credit Hrs: 4.00

Marketing**22MKTG781****Individual Study**

Student independently pursues marketing topics of specific individual interest. Student must obtain a faculty supervisor and approval prior to registration. Prereq: 22MKTG710, 22MKTG711. Credit Level: G. Credit Hrs: 1.00-4.00

22MKTG782**Special Topics in Marketing**

Provides in-depth study of selected topics in marketing. Special offerings under this course number will be publicized on bulletin boards and by classroom announcement. Topics could include Marketing Ethics, Pricing, Social Influence Strategies, Direct Marketing and Services Marketing. Prereq: 22MKTG710, 22MKTG711. Credit Level: G. Credit Hrs: 1.00-4.00

22MKTG791**Master of Science In Marketing Capstone I**

Capstone Field Project for MS Marketing degree. Prereq: 22MKTG710, 22MKTG711. Credit Level: G. Credit Hrs: 4.00

22MKTG792**Master of Science in marketing Capstone II**

Capstone Field Project for MS Marketing degree. Prereq: 22MKTG791. Credit Level: G. Credit Hrs: 4.00

22MKTG795**Product Design Studio**

Students work in multi-disciplinary teams to complete new product design field projects. Represented disciplines may include Business, Design, Engineering and others. Assignments vary depending on client needs. Perm of Instructor. Credit Level: G. Credit Hrs: 1.00-8.00

22MKTG797**Field Project in Marketing**

Student teams working on real marketing problems supplied by various client organizations. Perm of Instructor. Credit Level: G. Credit Hrs: 1.00-8.00

22MKTG800**Marketing Management**

Examines the marketing task, critically analyzing the marketing process, developing an awareness of the major marketing problems faced by organizations and cultivating proficiency in developing marketing strategies and tactics. MBA requirement. Prereq: 22MKTG710, 22MKTG711. Credit Level: G. Credit Hrs: 3.00

22MKTG841**Contemporary Issues & Tools Session I**

Provides advanced coverage of current issues, developing fields of marketing practice, and special tools in marketing. Topics vary. Prereq: 22MKTG800, 22MKTG710, 22MKTG711. Credit Level: G. Credit Hrs: 1.00-6.00

22MKTG842**Contemporary Issues & Tools Session II**

Provides advanced coverage of current issues, developing fields of marketing practice, and special decision tools in marketing. Topics vary. Prereq: 22MKTG800, 22MKTG710, 22MKTG711. Credit Level: G. Credit Hrs: 1.00-6.00

22MKTG843**Contemporary Issues & Tools Session III**

Provides advanced coverage of current issues, developing fields of marketing practice, and special decision tools in marketing. Topics vary. Prereq: 22MKTG711, 22MKTG710, 22MKTG800. Credit Level: G. Credit Hrs: 1.00-6.00

22MKTG844**Contemporary Issues & Tools Session IV**

Provides advanced coverage of current issues, developing fields of marketing practice, and special decision tools in marketing. Topics vary. Prereq: 22MKTG800, 22MKTG710, 22MKTG711. Credit Level: G. Credit Hrs: 1.00-6.00

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Marketing**22MKTG879****Marketing Models**

Offers a treatment of marketing problems emphasizing a quantitative approach. Credit Level: G. Credit Hrs: 3.00

22MKTG887**Advanced Measurement and Analysis Methods**

Covers applications of psychometric measurement theory to business research situations. Topics include validity, reliability, factor analysis and structural equations modeling. Designed to teach students how to conduct academic research. Credit Level: G. Credit Hrs: 3.00

22MKTG889**Pro Seminar in Marketing**

Presentations of individual faculty research at the PhD level. Credit Level: G. Credit Hrs: 3.00

22MKTG891**Independent Study in Marketing**

Student independently pursues marketing topics of specific individual interest. Student must obtain a faculty supervisor and approval prior to registration. Credit Level: G. Credit Hrs: 1.00-6.00

22MKTG892**Linear Models**

Provides an overview of linear models, regression and correlation, and ANOVA as applied to marketing. Credit Level: G. Credit Hrs: 3.00

22MKTG893**Multivariate Statistics**

Offers a comprehensive treatment of multivariate statistics, including regression, discriminant, factor, canonical, and cluster analysis. Prereq: 22MKTG892. Credit Level: G. Credit Hrs: 3.00

22MKTG895**Special Topics in Marketing**

Provides in-depth study of selected topics in marketing. Special offerings under this course number will be publicized on bulletin boards and by classroom announcement. Topics could include Marketing Ethics, Pricing, Social Influence Strategies, Direct Marketing and Services Marketing. Credit Level: G. Credit Hrs: 1.00-6.00

22MKTG898**Behavioral Seminar in Marketing**

Offers an analysis of theories and current research in the field. Credit Level: G. Credit Hrs: 3.00

22MKTG971**Research in Marketing**

Development of independent research topic with individual faculty. Credit Level: G. Credit Hrs: 1.00-15.00

22MKTG981**MS/MBA Thesis Research**

Variable cr. Credit Level: G. Credit Hrs: 1.00-6.00

22MKTG991**PhD Dissertation Research**

Variable cr. Credit Level: G. Credit Hrs: 1.00-15.00

Operations Management**22OM380****Operations Management**

Survey of the operations function in industrial, service and public organizations. Includes forecasting, line balancing, aggregate scheduling, layout, inventory planning, work measurement, quality control, quality improvement, MRP. Prereq: 22QA281, 22QA282. BoK: NA. Credit Level: U. Credit Hrs: 4.00

22OM475**Quality Management**

The role of total quality in modern business. The course focuses on both technical and statistical methodology and managerial practices to achieve high quality and organizational performance. Prereq:

Operations Management**22OM475****Quality Management**

22OM380. BoK: NA. Credit Level: U. Credit Hrs: 4.00

22OM476**Operations Planning and Scheduling**

Introduces the student to planning and control as practiced in state-of-the-arts firms. The principles of inventory and capacity are covered. Prereq: 22OM380. BoK: NA. Credit Level: U. Credit Hrs: 4.00

22OM480**Project Management and New Product Development**

Explores the issues of Project organization, budgeting, control, leadership, risk management, new product development and conflict resolution throughout the life cycles of a project. Students will consider resource allocation and scheduling using PERT/CPM and Project Mgt. software and are introduced to PMI's PMBOK. Prereq: 22OM380. BoK: NA. Credit Level: U. Credit Hrs: 4.00

22OM481**Supply Chain Management**

Supply chain management deals with the flow of goods and information through a production or distribution network to ensure that the right products are delivered to the right place in the right quantity at the right time to meet customer expectations. The course covers both strategic and operational aspects of managing a supply chain. Possible topics include network design, logistics, inventory management, coordination and contracting. Prereq: 22OM380. BoK: NA. Credit Level: U. Credit Hrs: 4.00

22OM488**Service Sector Operations**

An introduction to managing service businesses, primarily from an operational perspective. Topics include capacity and demand management, the use of queuing concepts, facility location and layout, designing processes and systems for good customer experience, aligning the front and back office, managing customer service operations, and methods for designing innovative new services. Prereq: 22OM380. BoK: NA. Credit Level: U. Credit Hrs: 4.00

22OM490**Forecasting and Risk Management**

A survey of analytical techniques used to assist in managing under uncertainty. Topics include time series and other forecasting techniques, as well as Monte Carlo simulation to assess the risk associated with managerial decisions. Prereq: 22QA380. BoK: NA. Credit Level: U. Credit Hrs: 4.00

22OM585**Operations Policy and Strategy**

Case treatment of operations strategy and policy at the executive level. As the capstone, integrative course, emphasis is placed on synthesis, as well as analysis, and oral and written communication. Prereq: 22OM475, 22OM476. BoK: NA. Credit Level: U. Credit Hrs: 4.00

22OM593**Hot Topics in Operations Management**

Contemporary OM topics will be discussed in this irregularly scheduled seminar-style course. BoK: NA. Credit Level: U. Credit Hrs: 4.00

22OM594**Readings In Operations Management**

Advanced studies in selected issues. BoK: NA. Credit Level: U. Credit Hrs: 3.00

22OM595**Research In Operations Management**

Structured research in OM. BoK: NA. Credit Level: U. Credit Hrs: 3.00

22OM596**Guided Study in Operations Management**

Individual study under the direction of a faculty member. BoK: NA. Credit Level: U. Credit Hrs: 1.00-6.00

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Operations Management**22OM711****Management of Operations**

Introduces basic operations principles through case studies and explores major operations problems. Areas of concentration are decisions and activities involving process design, the use and control of resources, scheduling and quality management. Prereq: 22QA711, 22QA712, 22QA713. Credit Level: G. Credit Hrs: 4.00

22OM744**International Operations Strategy**

This integrative course emphasizes case analysis and state of the art discussion of operations management challenges. The course particularly focuses on new methods, principles, techniques and technologies that leverage the operations function for competitive advantage. Prereq: 22OM711. Credit Level: G. Credit Hrs: 4.00

22OM761**Project Management**

Explores the fundamental and advanced concepts in project management including project initiation, justification, design, planning, budgeting and control. It pays detailed attention to conflicts and conflict resolution, and scheduling and control using PERT/CPM and project management software. Prereq: 22OM711. Credit Level: G. Credit Hrs: 4.00

22OM762**Managing Service Operations**

Examines the problems facing managers in various service industries and provides strategic, managerial, and operational tools and techniques for improving how service firms operate. The course employs a combination of conceptual, analytical, case study, and field study approaches to investigate contemporary service operations issues. Prereq: 22OM711. Credit Level: G. Credit Hrs: 4.00

22OM771**Managing for Quality and High Performance**

Provides students with knowledge of several advanced topics in total quality management (TQM), as well as experience in applying TQM tools and principles in organizations. Prereq: 22OM711. Credit Level: G. Credit Hrs: 4.00

22OM772**Six Sigma & Process Improvement**

This course focuses on fundamental concepts and methods of statistical thinking and process improvement in manufacturing and service organizations. Prereq: 22OM711, 22QA712. Credit Level: G. Credit Hrs: 2.00

22OM781**Individual Study**

Individual study under the direction of a faculty member. Credit Level: G. Credit Hrs: 1.00-4.00

22OM782**Special Topics in Operations Management**

In-depth study of special topics in Operations Management. Credit Level: G. Credit Hrs: 1.00-4.00

22OM783**Supply Chain Strategy and Analysis**

Presents an overview of issues relating to the design and operation of supply chains. Information is presented as a mix of technical models and applied case studies. Topics in inventory, transportation, and supply chain collaboration are covered. Prereq: 22OM711. Credit Level: G. Credit Hrs: 4.00

22OM784**Supply Chain Models**

Focuses on technical models and techniques used to design and evaluate the performance of supply chains. Models include logistical network design and multiechelon inventory theory. Prereq: 22OM711, 22QA712. Credit Level: G. Credit Hrs: 2.00

Operations Management**22OM785****Enterprise Resource Planning**

This course focuses on the methodologies and practices of ERP as a complete enterprise wide business solution. An ERP system consists of software support modules such as: marketing and sales; field service; product design and development; production and inventory control; procurement; distribution; industrial facilities management; process design and development; manufacturing; quality; human resources; finance and accounting; and information services. In this course we will focus on the Production Planning (PP) and Materials Management (MM) modules of an ERP system, with peripheral attention to other business functions. Prereq: 22OM711. Credit Level: G. Credit Hrs: 4.00

22OM786**Forecasting and Time Series Analysis**

Univariate Box-Jenkins time series modeling for stationary and nonstationary processes. Forecasting seasonal and nonseasonal time series. Special forecasting techniques such as transfer function modeling, and intervention analysis. Prereq: 22QA721. Credit Level: G. Credit Hrs: 4.00

22OM895**Special Topics in Operations Management**

Varying subjects of topical interest in operations. Credit Level: G. Credit Hrs: 1.00-4.00

22OM899**Research in Operations Management**

Perm. of instr. Credit Level: G. Credit Hrs: 1.00-15.00

22OM971**Research in Operations Management**

For PhD students only. Credit Level: G. Credit Hrs: 1.00-15.00

22OM981**MBA Thesis Research**

Var. credit. Credit Level: G. Credit Hrs: 1.00-15.00

22OM991**PhD Dissertation Research**

Var. cr. Credit Level: G. Credit Hrs: 1.00-15.00

Professional Development**22PD502****Professional Development II: Business Career Planning and Placement**

Self-assessment, resume writing, career exploration, and interviewing. BoK: NA. Credit Level: U. Credit Hrs: 1.00

Product Information and Supply Management**22PRSM410****Product Information and Supply Management I**

Exposes the complex exchange systems that comprise the network of organizations and activities which add value to products. Students will develop a global system perspective as designers, leaders and custodians of the network. Prereq: 22FIN352, 22QA375, 22MKTG377, 22OM385, 15ECON271. BoK: NA. Credit Level: U. Credit Hrs: 3.00

22PRSM593**Special Topics in Product Information and Supply Management**

Provides in-depth study of selected topics. BoK: NA. Credit Level: U. Credit Hrs: 3.00

22PRSM598**Product Information and Supply Management II**

Provides a case-based managerial course with a focus on integrating the marketing efforts of vertical players whose assumed common objective is to maximize cost-efficiencies and deliver net value to their customers, using collaborative designs. Field projects are used to apply skills and acquire experiential learning. Prereq: 22PRSM410. BoK: NA. Credit Level: U. Credit Hrs: 3.00

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Product Information and Supply Management**22PRSM599****Guided Study in Product Information and Supply Management**

Individual study under direction of a faculty member. BoK: NA. Credit Level: U. Credit Hrs: 1.00-6.00

Quantitative Analysis**22QA251****Mathematical Statistics I**

Foundations of probability, discrete and continuous random variables, special probability distributions. Prereq: 15MATH253, 32IT141. BoK: QR. Credit Level: U. Credit Hrs: 3.00

22QA252**Mathematical Statistics II**

Second course in sequence with Mathematical Stat I. Prereq: 22QA251. BoK: QR. Credit Level: U. Credit Hrs: 3.00

22QA281**Business Statistics I**

Develops fundamental knowledge and skills for applying statistics in business decision making. Part I topics include descriptive statistics, probability and sampling distribution. Formerly 22 QA 241. BoK: QR. Credit Level: U. Credit Hrs: 4.00

22QA281H**Business Statistics I**

Develops fundamental knowledge and skills for applying statistics to business decision making. Part I topics include descriptive statistics, probability and sampling distribution. Formerly 22 QA 241H BoK: QR. Credit Level: U. Credit Hrs: 4.00

22QA282**Business Statistics II**

Develops fundamental knowledge and skills for applying statistics in business decision making. Part II topics include hypothesis testing, simple and multiple regression and experimental design. Formerly 22 QA 242. Prereq: 22QA281. BoK: QR. Credit Level: U. Credit Hrs: 4.00

22QA282H**Business Statistics II**

Develops fundamental knowledge and skills for applying statistics in business decision making. Part II topics include hypothesis testing, simple and multiple regression and experimental design. Formerly 22 QA 242H. Prereq: 22QA281H. BoK: QR. Credit Level: U. Credit Hrs: 4.00

22QA345**Mathematical Statistics III**

Third course in sequence with Mathematical Stat I, II. Prereq: 22QA252. BoK: NA. Credit Level: U. Credit Hrs: 3.00

22QA380**Business Analytics**

Analytical approaches to decision making. Topics include optimization, simulation models and other analytical techniques, such as PERT/CPM, decision analysis and waiting line models. Prereq: 22QA281, 22QA282. BoK: NA. Credit Level: U. Credit Hrs: 4.00

22QA380H**Business Analytics - Honors**

Analytical approach to decision making. Topics include optimization, simulation models and other analytical techniques, such as PERT/CPM, decision analysis and waiting line models. Prereq: 22QA282H, 22QA281H. BoK: NA. Credit Level: U. Credit Hrs: 4.00

22QA490**Forecasting and Risk Analysis**

This course covers the basic concepts and approaches to forecasting and risk analysis in business, including regression, exponential smoothing, ARIMA models and Monte Carlo simulation. Prereq: 22QA380. BoK: NA. Credit Level: U. Credit Hrs: 4.00

Quantitative Analysis**22QA550****Optimization Modeling**

Model formulation, graphical analysis, computer solution and application for linear, nonlinear, continuous, integer, deterministic, and probabilistic mathematical optimization models. Required projects in modeling and solving applications. Prereq: 22QA380. BoK: NA. Credit Level: U. Credit Hrs: 4.00

22QA571**Simulation Modeling**

Building simulation models of complex dynamic, stochastic, discrete-event systems using high level simulation software. Topics include modeling, input, and output analysis and managing simulation projects. Prereq: 22QA242. BoK: NA. Credit Level: U. Credit Hrs: 4.00

22QA585**Applications Development Using VBA**

This course covers the use of visual basic for application for the development of applications of management science models for planning and decision support in a spreadsheet environment. Prereq: 22QA380. BoK: NA. Credit Level: U. Credit Hrs: 4.00

22QA596**Guided Study In Quantitative Analysis**

Project and research work undertaken by a student with the approval and supervision of a faculty member. BoK: NA. Credit Level: U. Credit Hrs: 1.00-6.00

22QA701**Business Statistics**

Introduction to statistical and probabilistic analysis with focus on practical decisions and risk using quantitative models & Microsoft Excel. Topics include descriptive and graphical statistical methods, sampling and sampling distributions, estimation and hypothesis testing. This course assumes prior knowledge of Excel. This course is the first in a required series of core quantitative analysis courses in the full-time MBA curriculum. The subsequent courses are QA 702 and QA 703. Credit Level: G. Credit Hrs: 2.00

22QA702**Decision Models for Managers**

This course is the second in a required sequence of core quantitative analysis in the full-time MBA curriculum that provides an introduction to statistical and probabilistic analysis with a focus on practical decisions and risk analysis using quantitative models and Microsoft Excel. The topics covered in this course and QA 701 include descriptive and graphical statistical methods, sampling and sampling distribution, estimation, hypothesis testing, analysis of variance, regression, decision modeling and simulation. This course assumes prior basic knowledge of Excel. The third required course in this sequence is QA 703. Prereq: 22QA701. Credit Level: G. Credit Hrs: 2.00

22QA703**Optimization Models for Managers**

Overview of linear, integer and nonlinear optimization models in business, focusing on modeling, solution and interpretation of results. Substantial use of spreadsheet modeling and analysis. This course is the third in a required sequence of core quantitative analysis courses in the full-time MBA curriculum that provide an introduction to statistical and probabilistic analysis with a focus on practical decisions and risk analysis using quantitative models and Microsoft Excel. The first two courses in the sequence are QA 701 and QA 702. Prereq: 22QA701, 22QA702. Credit Level: G. Credit Hrs: 2.00

22QA711**Statistics and Decision Models for Managers**

Introduction to statistical and probabilistic analysis with focus on practical decisions and risk using quantitative models and Microsoft Excel. Topics include descriptive and graphical statistical methods, sampling and sampling distributions, estimation, hypothesis testing, analysis of variance, regression, decision modeling, and simulation. Assumes prior basic knowledge of Excel. Credit Level: G. Credit Hrs: 4.00

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Quantitative Analysis**22QA711****Statistics and Decision Models for Managers**

Introduction to statistical and probabilistic analysis with focus on practical decisions and risk using quantitative models and Microsoft Excel. Topics include descriptive and graphical statistical methods, sampling and sampling distributions, estimation, hypothesis testing, analysis of variance, regression, decision modeling, and simulation. Assumes prior basic knowledge of Excel. Credit Level: G. Credit Hrs: 4.00

22QA712**Optimization Models for Managers**

Overview of linear, integer, and nonlinear optimization models in business, focusing on modeling, solution, and interpretation of results. Substantial use of spreadsheet modeling and analysis. Prereq: 22QA711. Credit Level: G. Credit Hrs: 2.00

22QA721**Methods of Statistics**

A survey of statistical methodologies useful for research in a variety of disciplines. Estimation, significance testing, regression, ANOVA and computer applications. Credit Level: G. Credit Hrs: 4.00

22QA722**Regression Analysis**

Estimation and inference making using regression models; method of least squares, formal methods of inference, model diagnostics based on analysis of residuals, use of dummy variables, variable selection and model building. Introduction to logistic models. Prereq: 22QA721. Credit Level: G. Credit Hrs: 4.00

22QA723**Sample Survey**

Statistical aspects of sample survey. Survey designs; simple random, stratified, cluster, multi-stage, and probability proportional to size sampling. Estimation methods for means, totals, ratios, and proportions. Planning and implementing surveys. Prereq: 22QA721. Credit Level: G. Credit Hrs: 4.00

22QA724**Multivariate Methods**

Multivariate normal distribution, its parameters and model diagnostics. Statistical analyses involving multivariate means, covariance and correlation matrices; Special multivariate techniques; principle components, canonical, discriminant, and factor analyses. Prereq: 22QA722, 22QA731. Credit Level: G. Credit Hrs: 4.00

22QA725**Forecasting and Time Series Analysis**

Univariate Box-Jenkins time series modeling for stationary and nonstationary processes. Forecasting seasonal and nonseasonal time series. Special forecasting techniques such as transfer function modeling, and intervention analysis. Prereq: 22QA721. Credit Level: G. Credit Hrs: 4.00

22QA726**Design of Experiments**

Basic concepts of experimental design. Linear statistical models; analysis of variance and estimation for completely randomized and various blocked designs; analysis of covariance; analysis of unbalanced data; random and mixed models; repeated measures, split-plot, and nested designs. Prereq: 22QA722. Credit Level: G. Credit Hrs: 4.00

22QA727**Data Mining**

Hands-on data analysis experiences on real world data with varying topics from year to year using major statistical software, such as SAS and Splu. Case studies involving data management and model fitting; model interpretation and diagnostics. Model approaches including exploratory data analysis; linear models; generalized linear models; classification and regression trees; kernel, splines, and additive models. Prereq: 22QA722. Credit Level: G. Credit Hrs: 4.00

Quantitative Analysis**22QA731****Probability**

A solid conceptual foundation for students who require a moderately rigorous treatment of probability. Random variables, stochastic independence, probability distributions, moments, functions of random variables, asymptotic statistics. Credit Level: G. Credit Hrs: 4.00

22QA732**Fundamentals of Statistical Inference**

Foundations in statistical estimation and hypothesis testing from frequentist and Bayesian perspectives; sufficiency, efficiency, minimum variance unbiased estimation, maximum likelihood estimation, likelihood ratio testing. Prereq: 22QA731. Credit Level: G. Credit Hrs: 4.00

22QA733**Statistical Decision Theory and Bayesian Analysis**

Elements of the basic decision theoretic paradigm from the Bayesian and frequentist view point. Introduction to game theory, utility theory, and subjective probability. Bayesian statistical methods. Prereq: 22QA731, 22QA732. Credit Level: G. Credit Hrs: 4.00

22QA750**Optimization Modeling**

Model formulation, graphical analysis, computer solution and application, for linear, nonlinear, continuous, integer, deterministic, and probabilistic mathematical optimization models. Required projects in modeling and solving applications. Prereq: 22QA712. Credit Level: G. Credit Hrs: 4.00

22QA751**Optimization Analysis**

Solution techniques and analyses for linear, non-linear, network and integer optimization models including: optimization criteria, simplex routines, duality, sensitivity; Lagrangian duality, gradient, and penalty methods for constrained and unconstrained nonlinear models; and branch-and-bound and cutting plane methods for integer models. Prereq: 22QA750. Credit Level: G. Credit Hrs: 4.00

22QA752**Advanced Topics in Optimization**

Solution techniques and analyses for linear, non-linear, network and integer optimization models including: optimization criteria, simplex routines, duality, sensitivity; Lagrangian duality, gradient, and penalty methods for constrained and unconstrained nonlinear models; and branch-and-bound and cutting plane methods for integer models. Prereq: 22QA751. Credit Level: G. Credit Hrs: 4.00

22QA760**Stochastic Modeling**

Formulation and analysis of discrete and continuous Markov chains, Poisson process, and birth-death processes. Application in queuing, inventory, and reliability. Required project in modeling and solving applications. Prereq: 15MATH264, 22QA731. Credit Level: G. Credit Hrs: 4.00

22QA761**Advanced Topics in Stochastic Modeling**

Construction and application of stochastic models including Markov processes, birth and death processes, branching and queuing processes; Poisson process, Gaussian process, Brownian motion; introduction to stochastic calculus. Prereq: 22QA760. Credit Level: G. Credit Hrs: 4.00

22QA770**Risk Modeling**

Static simulation models using Monte Carlo simulation to assess risk with applications in the functional areas of business. Prereq: 22QA712. Credit Level: G. Credit Hrs: 2.00

22QA771**Simulation Modeling**

Building simulation models of complex dynamic, stochastic, discrete-event systems using high level simulation software. Topics include modeling, input and output analysis and managing simulation projects.

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Quantitative Analysis**22QA771****Simulation Modeling**

Prereq: 22QA711. Credit Level: G. Credit Hrs: 4.00

22QA772**Simulation Analysis**

Probabilistic and statistical underpinnings of simulation modeling.

Topics include random number generators, generating random variates and processes, design and analysis of simulation experiments, variance reduction techniques, gradient estimation and simulation optimization.

Prereq: 22QA771. Credit Level: G. Credit Hrs: 4.00

22QA781**Individual Study**

Individual study under the direction of a faculty member. Credit Level:

G. Credit Hrs: 1.00-4.00

22QA782**Special Topics in QA**

In-depth study of special topics in Quantitative Analysis. Credit Level:

G. Credit Hrs: 1.00-4.00

22QA785**Applications Development Using VBA**

The use of visual basic for applications for the development of applications of management science models for planning and decision support in a spreadsheet environment. Prereq: 22QA750. Credit Level: G. Credit Hrs: 4.00

22QA786**Case Studies in Management Science**

Cases and applications of group-oriented operations research for real-world management applications. Prereq: 22QA750. Credit Level: G. Credit Hrs: 4.00

22QA895**Seminar in Quantitative Analysis**

Recent journal articles dealing with the state-of-the-art development will be covered. Variable cr. Credit Level: G. Credit Hrs: 1.00-6.00

22QA971**Research in Quantitative Analysis**

Variable cr. Credit Level: G. Credit Hrs: 1.00-15.00

22QA981**MS Thesis Research**

Variable cr. Credit Level: G. Credit Hrs: 1.00-9.00

22QA991**PhD Dissertation Research**

Variable cr. Credit Level: G. Credit Hrs: 1.00-15.00

Real Estate**22RE391****Principles of Real Estate**

Survey of real estate industry. Emphasis on housing market analysis, city growth; valuation and finance. Methods of determining land use and evaluation. Prereq: 22FIN352, 22QA375, 22MKTG377, 22OM385, 22INTB390. BoK: NA. Credit Level: U. Credit Hrs: 4.00

22RE395**Real Estate Finance**

This course focuses on the technical skills required to value, finance and structure real estate transactions. Topics include basic mortgage calculation and analysis using FRM and ARM examples; investment analysis for existing income properties (Proforma cash flow projections, financial ratios, alternative debt and equity structures and risk analysis); ownership, taxation, and financial structures; financing of real estate development; and the securitization of debt and equity interests in real estate (REITs and CMBS). Prereq: 22RE391. BoK: NA. Credit Level: U. Credit Hrs: 4.00

Real Estate**22RE400****Property and Asset Management**

The course is designed to introduce the student to the field of real estate property management by reviewing the basic functions, roles and responsibilities of the property manager and the differing property types managed. Within the scope & responsibilities of the property manager, we shall also study tenant, asset manager and owner relations, landlord/tenant laws, lease forms, building maintenance and capital replacement issues, and gain on-site insights of key property cost centers such as roofs, paving, mechanical systems and property tax appeals. Prereq: 22RE391. BoK: NA. Credit Level: U. Credit Hrs: 4.00

22RE492**Real Estate Valuation**

This course develops the theory and application of methods to value real property. Specifically, the course examines systematic methods to value residential and income producing property, influences upon market value, and trends in the appraisal industry. Prereq: 22RE391. BoK: NA. Credit Level: U. Credit Hrs: 4.00

22RE497**Real Estate Law**

Nature of ownership rights; sale of land; broker-agency relationship; real estate finance; landlord-tenant relationship, control of land use; commercial development; succession of estates. Prereq: 22BLAW271, 22RE391. BoK: NA. Credit Level: U. Credit Hrs: 4.00

22RE593**Special Topics in Real Estate**

Usually offered as a research and writing class with each student selecting their own topics to research. Emphasis on research and writing skills. BoK: NA. Credit Level: U. Credit Hrs: 1.00-4.00

22RE596**Guided Study in Real Estate**

Individual study under the direction of a faculty member. Variable cr. Offered ea. qtr. BoK: NA. Credit Level: U. Credit Hrs: 3.00

22RE598**Real Estate Development**

The purpose of this course is to review property trends and market analysis techniques, as well as the general process of development from a business perspective. The emphasis is upon market and feasibility analysis methods as applied to real estate. In addition, the purpose of this course is to explore different negotiation strategies and models within the context of well prepared real estate and development projects, and use whatever methodologies are appropriate in preparation for the negotiation cases. Prereq: 22RE395, 22RE391. BoK: NA. Credit Level: U. Credit Hrs: 4.00

22RE731**Real Estate Analysis**

This is the introductory real estate course. It focuses on urban economics and real estate market analysis. Topics include the determination of land use, rents, and values and the impact of transportation costs on these. An introduction to valuation, financing and investment methods is also provided. Prereq: 22FIN711. Credit Level: G. Credit Hrs: 4.00

22RE742**Real Estate Finance and Investment**

This course combines two courses in five-week modules, real estate finance and real estate investment. It focuses upon technical skills required to analyze and finance income producing property. Proforma cash flow projections, financial ratios, debt financing sources and structures are covered including the CMBS market. Real estate investment risk analysis portfolio theory, as well as REITs and current real estate capital market trends are also examined. Prereq: 22FIN711. Credit Level: G. Credit Hrs: 4.00

22RE750**Real Estate Cases, Development and Negotiation**

This course covers real estate feasibility analysis, development,

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Real Estate**22RE750****Real Estate Cases, Development and Negotiation**

leasing, and negotiation within a case study framework. Teams may engage in negotiation exercises using real life cases. Special projects and speakers are also brought into this course. Prereq: 22FIN711. Credit Level: G. Credit Hrs: 4.00

22RE781**Individual Study**

Individual study under the direction of a faculty member Credit Level: G. Credit Hrs: 1.00-4.00

22RE851**Real Estate Management Strategies, Negotiations, & Case Analysis**

Management of development, leasing, negotiation, & marketing activities in a real estate firm. Case practices. Prereq: 22FIN811. Credit Level: G. Credit Hrs: 3.00

COLLEGE-CONSERVATORY OF MUSIC

COURSE DESCRIPTIONS

(16) College-Conservatory of Music

2008 - 2009

College-Conservatory of Music 1

Arts Administration

16AADM560

Independent Study

Practicum covers the basic operations of performing arts institutions by assigning students to specific tasks with practicing arts organizations or in research study related to same. Students work as assigned in the areas of publicity, concert management, marketing, grant and funding projects, tour arrangements, etc. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-12.00

16AADM630

Special Topics

Topics established every quarter by Department/Division. Permission of instructor and division. BoK: NA. Credit Level: U, G. Credit Hrs: 0.00-3.00

16AADM660

Arts Administration for Non-Majors

A survey of the structure, governance, and management problems of Arts Institutions, including finance management, fund raising, marketing, and legal issues. BoK: FA. Credit Level: U, G. Credit Hrs: 3.00

16AADM760

Computer Skills in the Arts

Basic computer skills necessary to operate spreadsheet and database software for nonprofit organization management. Area majors only. Credit Level: G. Credit Hrs: 1.00

16AADM771

Introduction to Arts Administration

An overview of the problems and issues involved in managing a nonprofit cultural organization in America. Credit Level: G. Credit Hrs: 3.00

16AADM781

Funding and Grants

Studies methods of securing funds from private and public sector sources. Grants research and writing included. Credit Level: G. Credit Hrs: 3.00

16AADM788

Marketing the Arts

Survey of marketing theories and practices as they apply to arts products and services. Emphasis placed upon applying marketing principles in the strategic planning process. Credit Level: G. Credit Hrs: 3.00

16AADM798

Performing Arts Production Management

Survey of concepts and management practices as they apply to venue and production management, including the legal and operational aspects of performing arts institutions. Credit Level: G. Credit Hrs: 3.00

16AADM799

Museum Management

An introduction to the basic principles, concerns, and functions of museum management including problems of collections, exhibits, conservation, and education. Credit Level: G. Credit Hrs: 3.00

16AADM801

Financial and Strategic Management

Survey of financial and strategic management principles, theories, and practices as they apply to arts organizations. Emphasis placed upon the development of budgets and financial reporting and control procedures. Credit Level: G. Credit Hrs: 3.00

16AADM802

Organization Structure and Staffing

An application of the principles of organizational management for arts administration, with particular focus on board of trustees, relationships

Arts Administration

16AADM802

Organization Structure and Staffing

with artistic staff, and volunteers, and the legal aspects of HR management and contracts. Prereq: 16AADM801. Credit Level: G. Credit Hrs: 3.00

16AADM803

Public Policy and the Arts

A study of the public policies and public agencies which affect the nonprofit cultural organizations in America including tax policies, censorship, federal-state conflicts and cooperative programs, advocacy and political action, and the impact of funding agency programs. Credit Level: G. Credit Hrs: 3.00

16AADM811

Public Relations and Communications

Through a series of exercises in written and oral communication, the course enhances a student's ability to express themselves clearly and efficiently and to successfully manage a public relations program for an arts organization. Credit Level: G. Credit Hrs: 3.00

16AADM812

Arts and Education

Survey of current education programs and practices in professional arts organizations as they relate to the role of the arts in elementary and secondary schools. Emphasis placed upon cooperative programs among arts organizations, schools, and school systems to integrate the arts into the general curriculum. Credit Level: G. Credit Hrs: 3.00

16AADM813

Internet Marketing and PR for the Arts

Covers best practices of arts marketing, public relations, and other arts administration concentration as they relate to using the internet and database management. Prereq: 16AADM788. Credit Level: G. Credit Hrs: 3.00

16AADM840

Internship

Field experience in a given arts field with a producing organization. Credit Level: G. Credit Hrs: 1.00-18.00

16AADM860

Independent Study

In-depth study of a topic in arts administration selected by the student in consultation with a member of the faculty. Credit Level: G. Credit Hrs: 1.00-9.00

16AADM870

Current Issues Forum

Weekly roundtable discussion of current issues in arts management led by faculty in the program and guest speakers. Credit Level: G. Credit Hrs: 0.00-1.00

16AADM872

Legal Aspects of Arts Administration

The legal problems of managing a nonprofit cultural organization. A basic introduction to copyright law, contracts, employment issues, tax structures, and other legal and business concerns of the Arts Manager. Credit Level: G. Credit Hrs: 4.00

16AADM880

Research Problems in the Arts

Each student is asked to examine, independently, research and develop an arts-related topic based on internship experiences. The study is used as the basis of the graduate student's oral examination. Credit Level: G. Credit Hrs: 1.00-9.00

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Arts Administration**16AADM899****Master's Candidacy**

Retention of eligibility for graduation. Credit Level: G. Credit Hrs: 1.00

Bassoon**16BSN100****Bassoon Major Study**

Selected studies for the refinement of basic techniques; development of facility in middle and upper range and in tenor clef; refinement of vibrato; extension of phrasing concepts; study of major and minor scales in two octaves. Reed-making. Weissenborn, 50 Studies; Valet, 20 Studies; Oubradous, Enseignement I; Telemann, Sonata in f; Stevens, 3 Pieces; Phillips, Concert-piece; Vivaldi, Concerti F #1, #5, #7. BoK: FA. Credit Level: U. Credit Hrs: 3.00

16BSN110**Bassoon Concentration**

First year study for bassoon students in the B.A. program in music. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16BSN120**Bassoon Secondary**

First-year secondary study in bassoon as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16BSN200**Bassoon Major Study**

Selected studies for increased facility in upper range; all scales at increased speeds; tonic arpeggios in all keys. Independent reed-making required. Orchestral studies. Milde, Concert Studies I; Orefici, Melodic Studies; Jancourt, 26 Melodic Studies; Oubradous, Enseignement II; Hindemith, Sonata; Mozart, Concerto; Vivaldi, Concerti F. #13, #17; Fasch, Sonata; David, Concertino. BoK: FA. Credit Level: U. Credit Hrs: 4.00

16BSN210**Bassoon Concentration**

Second-year study for bassoon students in the B.A. program in music or in the music education program. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16BSN220**Bassoon Secondary**

Second-year secondary study in bassoon as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16BSN300**Bassoon Major Study**

Selected studies for increased facility in extreme ranges; concentration on musical and stylistic concepts; integration of previously studied skills; all scales and arpeggios with increased range and speed of articulation; major scales in thirds; extension of upper range. Orchestral studies and chamber music excerpts. Milde, Concert Studies I and II; Gambaro, 18 Studies; Oubradous, Enseignement III; Weber, Andante and Hungarian Fantasy; Osborne, Rhapsody; Etler, Sonata. BoK: FA. Credit Level: U. Credit Hrs: 4.00

16BSN310**Bassoon Concentration**

Third-year study for bassoon students in the B.A. program in music or in the music education program. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16BSN320**Bassoon Secondary**

Third-year secondary study in bassoon as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16BSN400**Bassoon Major Study**

Selected studies for concentration on musical and stylistic concepts; beginning study of double tonguing; all scales and arpeggios at increased speeds; Orefici, Bravura Studies; Giampieri, Daily Studies for

Bassoon**16BSN400****Bassoon Major Study**

Perfection; Orchestral studies; Jacob, Concerto; Bozza, Fantaisie; Tansman, Sonatine; Weber, Concerto; Mozart, Duo Sonata; Bach, Unaccompanied Cello Suites; Hummel, Concerto. Preparation of Senior Recital. BoK: FA. Credit Level: U. Credit Hrs: 4.00

16BSN410**Bassoon Concentration**

Fourth-year study for bassoon students in the B.A. program in music or in the music education program. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16BSN420**Bassoon Secondary**

Fourth-year secondary study in bassoon as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16BSN500**Bassoon Major**

Additional study for undergraduate bassoon majors who have completed the basic degree requirements; offered for undergraduate and graduate bassoon majors during the Summer Session. BoK: FA. Credit Level: U, G. Credit Hrs: 4.00

16BSN510**Bassoon Concentration**

Additional study in bassoon for undergraduate students at the concentration level who have completed the basic degree requirements; offered to all concentration-level bassoon students during the Summer Session. BoK: FA. Credit Level: U, G. Credit Hrs: 2.00

16BSN530**Bassoon Elective**

Nonrequired private study in bassoon; requires permission of the department and the college. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00-2.00

16BSN560**Independent Study**

In-depth study of a topic related to the bassoon, selected by the student in consultation with a member of the faculty. Permission of instructor and division. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00-12.00

16BSN680**Bassoon Master Class**

Forum for performance and discussion of topics related to bassoon performance. BoK: FA. Credit Level: U, G. Credit Hrs: 0.00-1.00

16BSN800**Bassoon Graduate Major Study**

Selected studies for continued refinement of previous skills. Memorized solos from orchestral and chamber music works. Bozza, Etudes Journalieres; Orefici, Bravura Studies; Piard, Etudes sur le Style; Giampieri, Daily Studies for Perfection; Mozart, Concerto; Bach, Unaccompanied Cello Suites; Villa-Lobos, Ciranda das Sete Notas; Jolivet, Concerto. Credit Level: G. Credit Hrs: 4.00

16BSN810**Bassoon Concentration**

Master's level study for students accepted for a cognate in bassoon performance. Credit Level: G. Credit Hrs: 2.00

16BSN820**Bassoon Secondary**

Secondary study in bassoon for master's-degree students. Credit Level: G. Credit Hrs: 1.00

16BSN850**Artist Diploma in Bassoon**

First-year major study in bassoon for students accepted into the artist diploma program. Credit Level: G. Credit Hrs: 6.00

H=University Honors course.

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Bassoon**16BSN855****Artist Diploma Recital**

Public performance by an artist diploma student in bassoon of selected compositions; approved and graded by the faculty. Credit Level: G. Credit Hrs: 2.00

16BSN880**Master Recital**

Public performance by a master's degree student in bassoon of selected compositions; approved and graded by the faculty. Credit Level: G. Credit Hrs: 1.00-2.00

16BSN895**Practicum**

Practical experience in the professional world. Credit Level: G. Credit Hrs: 1.00

16BSN899**Master's Candidacy**

Retention of eligibility for graduation. Credit Level: G. Credit Hrs: 1.00

16BSN900**Bassoon Doctoral Major Study**

Selected studies for continued refinement of previous skills. Repertoire similar to listing under Graduate Major Study above. Credit Level: G. Credit Hrs: 4.00

16BSN910**Bassoon Concentration**

Doctoral-level study for students accepted for a cognate in bassoon performance. Credit Level: G. Credit Hrs: 2.00

16BSN920**Bassoon Secondary**

Secondary study in bassoon for doctoral-level students. Credit Level: G. Credit Hrs: 1.00

16BSN930**Bassoon Elective**

Nonrequired private study in bassoon for doctoral students; requires permission of the department and the college. Credit Level: G. Credit Hrs: 1.00-2.00

16BSN950**Artist Diploma in Bassoon**

Second-year major study in bassoon for students accepted into the artist diploma program. Credit Level: G. Credit Hrs: 6.00

16BSN960**Bassoon Concerto**

Public performance of a concerto with one of the major performing ensembles. Credit Level: G. Credit Hrs: 2.00

16BSN970**Doctoral Recital**

Public performance by a doctoral student in bassoon of selected compositions; approved and graded by the faculty. Credit Level: G. Credit Hrs: 3.00

16BSN980**Lecture Recital**

Combined public lecture and performance of a selected topic in the bassoon repertoire; approved and graded by the faculty. Credit Level: G. Credit Hrs: 3.00

16BSN990**DMA Document**

Research and preparation of the final written project for the DMA degree in bassoon; topic to be approved and supervised by the faculty. Credit Level: G. Credit Hrs: 1.00-15.00

ClarinetClarinet**16CLAR100****Clarinet Major Study**

Technical requirements: development of the embouchure, articulations, hand and finger positions, breath support, reed preparation, tone studies, scales and intervals. Studies by Rose, KlosÖ, Lazarus, Rode or Perier. Selected repertoire: von Weber -- Concertino or Concerto in F Minor, Karl Stamitz -- Concerto in B-Flat, Tartini-Jacob -- Concertino, Guilhaud -- First Concertino, Rossini -- Theme and Variations, Hindemith -- Pflner Musiktag. BoK: FA. Credit Level: U. Credit Hrs: 3.00

16CLAR110**Clarinet Concentration**

First-year study for clarinet students in the B.A. program in music. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16CLAR120**Clarinet Secondary**

First-year secondary study in clarinet as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16CLAR200**Clarinet Major Study**

Technical requirements: continued emphasis on tone production, phrasing, transposition, and intonation; refinement of articulation. Studies by Capelle, KlosÖ, Stark, and Uhl; introduction to orchestral repertoire. Selected repertoire von Weber -- Concerto. In E-Flat, Schumann -- Fantasy-Pieces, Bernstein -- Sonata, Spohr -- Concerti Nos. I and III, Milhaud -- Trio, Solos de Concours by Messenger, Rabaud, or works of similar difficulty. BoK: FA. Credit Level: U. Credit Hrs: 4.00

16CLAR210**Clarinet Concentration**

Second-year study for clarinet students in the B.A. program in music or in the music education program. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16CLAR220**Clarinet Secondary**

Second-year secondary study in clarinet as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16CLAR300**Clarinet Major Study**

Continued concentration on fundamentals of technique. Orchestral repertoire of all periods; style in orchestral playing. Studies by Jean-Jean and Lazarus. Selected repertoire. Mozart -- Trio, Symphonie Concertante; Hindemith -- Sonata for Clarinet, Quartet; Beethoven -- Clarinet Trio; Brahms -- Sonata in F Minor; Debussy -- Rhapsody. BoK: FA. Credit Level: U. Credit Hrs: 4.00

16CLAR310**Clarinet Concentration**

Third-year study for clarinet students in the B.A. program in music or in the music education program. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16CLAR320**Clarinet Secondary**

Third-year secondary study in clarinet as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16CLAR400**Clarinet Major Study**

Study of orchestral repertoire; specialized technique of orchestral playing; audition preparation. Selected repertoire: Mozart -- Concerto in A Major, K. 622, Clarinet Quintet; Brahms -- Sonata in E-Flat Major, Quintet in B Minor; Stravinsky -- Three Pieces, L'Historie du Soldat; Bartók -- Contrasts; Dahl -- Concerto a TrÖ. Preparation of Senior Recital. BoK: FA. Credit Level: U. Credit Hrs: 4.00

16CLAR410**Clarinet Concentration**

Fourth-year study for clarinet students in the B.A. program in music or

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Clarinet**16CLAR410****Clarinet Concentration**

in the music education program. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16CLAR420**Clarinet Secondary**

Fourth-year secondary study in clarinet as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16CLAR500**Clarinet Major**

Additional study for undergraduate clarinet majors who have completed the basic degree requirements; offered for undergraduate and graduate clarinet majors during the Summer Session. BoK: FA. Credit Level: U, G. Credit Hrs: 4.00

16CLAR510**Clarinet Concentration**

Additional study in clarinet for undergraduate students at the concentration level who have completed the basic degree requirements; offered to all concentration-level clarinet students during the Summer Session. BoK: FA. Credit Level: U, G. Credit Hrs: 2.00

16CLAR530**Clarinet Elective**

Nonrequired private study in clarinet; requires permission of the department and the college. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00-2.00

16CLAR560**Independent Study**

In-depth study of a topic related to the clarinet, selected by the student in consultation with a member of the faculty. Permission of instructor and division. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00-12.00

16CLAR670**Clarinet Studio Class**

Survey and study of repertoire and pedagogical methods for the clarinet. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00

16CLAR800**Clarinet Graduate Major Study**

Preparation of two recital programs, one to be performed in public. Graduate repertoire to be selected from works of advanced technical difficulty as approved by the department. Orchestral studies. Credit Level: G. Credit Hrs: 4.00

16CLAR810**Clarinet Concentration**

Master's-level study for students accepted for a cognate in clarinet performance. Credit Level: G. Credit Hrs: 2.00

16CLAR820**Clarinet Secondary**

Secondary study in clarinet for master's-degree students. Credit Level: G. Credit Hrs: 1.00

16CLAR850**Artist Diploma in Clarinet**

First-year major study in clarinet for students accepted into the artist diploma program. Credit Level: G. Credit Hrs: 6.00

16CLAR855**Artist Diploma Recital**

Public performance by an artist diploma student in clarinet of selected compositions; approved and graded by the faculty. Credit Level: G. Credit Hrs: 2.00

16CLAR880**Master Recital**

Public performance by a master's degree student in clarinet of selected compositions; approved and graded by the faculty. Credit Level: G. Credit Hrs: 1.00-2.00

Clarinet**16CLAR895****Practicum**

Practical experience in the professional world. Credit Level: G. Credit Hrs: 1.00

16CLAR899**Master's Candidacy**

Retainment of eligibility for graduation. Credit Level: G. Credit Hrs: 1.00

16CLAR900**Clarinet Doctoral Major Study**

Selected studies for continued refinement of previous skills. Repertoire to be selected from works of advanced technical difficulty. Preparation of required doctoral recitals. Credit Level: G. Credit Hrs: 4.00

16CLAR910**Clarinet Concentration**

Doctoral-level study for students accepted for a cognate in clarinet performance. Credit Level: G. Credit Hrs: 2.00

16CLAR920**Clarinet Secondary**

Secondary study in clarinet for doctoral-level students. Credit Level: G. Credit Hrs: 1.00

16CLAR930**Clarinet Elective**

Nonrequired private study in clarinet for doctoral students; requires permission of the department and the college. Credit Level: G. Credit Hrs: 1.00-2.00

16CLAR950**Artist Diploma in Clarinet**

Second-year major study in clarinet for students accepted into the artist diploma program. Credit Level: G. Credit Hrs: 6.00

16CLAR960**Clarinet Concerto**

Public performance of a concerto with one of the major performing ensembles. Credit Level: G. Credit Hrs: 2.00

16CLAR970**Doctoral Recital**

Public performance by a doctoral student in clarinet of selected compositions; approved and graded by the faculty. Credit Level: G. Credit Hrs: 3.00

16CLAR980**Lecture Recital**

Combined public lecture and performance of a selected topic in the clarinet repertoire; approved and graded by the faculty. Credit Level: G. Credit Hrs: 3.00

16CLAR990**DMA Document**

Research and preparation of the final written project for the DMA degree in clarinet; topic to be approved and supervised by the faculty. Credit Level: G. Credit Hrs: 1.00-15.00

Coaching**16COAC511****Workshops in Orchestral Auditions and Repertoire for Violin and Viola**

Survey and study of audition material and repertoire for violin and viola. Perm. of instr. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00

16COAC512**Workshops in Orchestral Auditions and Repertoire for Violin and Viola**

Survey and study of audition material and repertoire for violin and viola. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00

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Coaching**16COAC513****Workshops in Orchestral Auditions and Repertoire for Violin and Viola**

Survey and study of audition material and repertoire for violin and viola. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00

16COAC514**Orchestral Audition and Repertoire (Cello)**

Survey and study of audition material and repertoire for violoncello. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00

16COAC560**Independent Study and Coaching**

In-depth study of a topic related to coaching of individuals and musical groups, selected by the student in consultation with a member of the faculty. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00-12.00

16COAC671**Orchestral Repertoire: Woodwinds**

Coaching in standard repertoire in the usual orchestral wind sectional concept. Prereq.: By audition. BoK: FA. Credit Level: U, G. Credit Hrs: 2.00

16COAC672**Brass and Woodwind Orchestral Repertoire**

Reading and study of standard orchestral repertoire. Class limited to symphonic instrumentation. Admission by audition and/or recommendation of instructor. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00

16COAC673**Chamber Music Ensemble**

Coaching in representative repertoire for all instrumental combinations, including keyboard. BoK: FA. Credit Level: U, G. Credit Hrs: 0.00-2.00

16COAC674**Second Chamber Music Ensemble**

Coaching in representative repertoire for all instrumental combinations, including keyboard. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00

16COAC679**Chamber Music Master Class**

Weekly master class taught by the Eminent Scholar in Chamber Music. BoK: FA. Credit Level: U, G. Credit Hrs: 2.00

16COAC850**Chamber Music Major Study**

Regular coaching of chamber music groups enrolled in the Chamber Music track of the Artist Diploma degree program. Credit Level: G. Credit Hrs: 4.00

16COAC950**Chamber Music Major Study**

Regular coaching of chamber music groups enrolled in the Chamber Music track of the Artist Diploma degree program. Credit Level: G. Credit Hrs: 4.00

16COAC960**Artist Diploma Chamber Recital**

A 60-minute recital performed by chamber music groups enrolled in the Chamber Music track of the Artist Diploma degree program. Credit Level: G. Credit Hrs: 2.00

Conducting**16COND171****Introduction to Conducting**

Fundamentals of conducting technique; laboratory experience in conducting choral and instrumental works; scorereading and terminology. BoK: NA. Credit Level: U. Credit Hrs: 1.00

16COND300**Major Study for Orchestral Conducting Majors**

Private study for undergraduate students accepted into the instrumental conducting program. BoK: FA. Credit Level: U. Credit Hrs: 4.00

Conducting**16COND400****Major Study for Orchestral Conducting Majors**

Private study for undergraduate students accepted into the instrumental conducting program. BoK: FA. Credit Level: U. Credit Hrs: 4.00

16COND470**Directed Readings in Conducting**

Specialized study on a conducting topic selected by the student in consultation with a member of the faculty. BoK: FA. Credit Level: U. Credit Hrs: 1.00-3.00

16COND500**Major Study for Orchestral Conducting Majors**

Private study for undergraduate students accepted into the instrumental conducting program. BoK: FA. Credit Level: U. Credit Hrs: 4.00

16COND511**Instrumental Conducting**

Development of verbal and nonverbal conducting techniques, stressing baton technique, score reading and analysis, and rehearsal techniques. Emphasis on laboratory conducting experiences. Prereq: 16COND171. BoK: FA. Credit Level: U, G. Credit Hrs: 3.00

16COND512**Instrumental Conducting**

Development of verbal and nonverbal conducting techniques, stressing baton technique, score reading and analysis, and rehearsal techniques. Emphasis on laboratory conducting experiences. Prereq: 16COND511. BoK: FA. Credit Level: U, G. Credit Hrs: 3.00

16COND513**Instrumental Conducting**

Development of verbal and nonverbal conducting techniques, stressing baton technique, score reading and analysis, and rehearsal techniques. Emphasis on laboratory conducting experiences. Prereq: 16COND512. BoK: FA. Credit Level: U, G. Credit Hrs: 3.00

16COND521**Choral Conducting**

Conducting and rehearsal techniques appropriate for various styles of choral music. Prereq: 16COND171. BoK: FA. Credit Level: U, G. Credit Hrs: 3.00

16COND522**Choral Conducting**

Conducting and rehearsal techniques appropriate for various styles of choral music. Prereq: 16COND521. BoK: FA. Credit Level: U, G. Credit Hrs: 3.00

16COND523**Choral Conducting**

Conducting and rehearsal techniques appropriate for various styles of choral music. Prereq: 16COND522. BoK: FA. Credit Level: U, G. Credit Hrs: 3.00

16COND550**Choral Conducting Workshop**

Specialized workshop with a guest clinician offered during the summer session for choral conductors. BoK: FA. Credit Level: U, G. Credit Hrs: 0.00-3.00

16COND560**Independent Study**

In-depth study of a topic related to conducting, selected by the student in consultation with a member of the faculty. Perm. of instr. and div. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00-12.00

16COND600**Lucca: Techniques in Opera Conducting**

Teaching aspiring conductors skills specific to opera conducting and rehearsing. Study of opera orchestral scores, text, traditions, and conducting technique. BoK: FA. Credit Level: U, G. Credit Hrs: 7.00

Conducting**16COND630****Special Topics**

Topics established every quarter by Department/Division. BoK: FA.
Credit Level: U, G. Credit Hrs: 0.00-3.00

16COND660**Special Topics**

Topics established every quarter by Department/Division. BoK: FA.
Credit Level: U, G. Credit Hrs: 0.00-6.00

16COND800**Applied Major Study-Conducting**

Hourly private lessons for conducting majors in the master's degree program. Credit Level: G. Credit Hrs: 3.00

16COND811**Instrumental Conducting**

Editing and marking orchestral string parts; fingering, bowing, and string pedagogy; application to short works for string orchestra. Credit Level: G. Credit Hrs: 3.00

16COND812**Instrumental Conducting**

Preparing full orchestra scores; transposition and wind and percussion pedagogy; application to symphonic works. Prereq: 16COND811. Credit Level: G. Credit Hrs: 3.00

16COND813**Instrumental Conducting**

Refinement of verbal and nonverbal conducting techniques; stressing score study and preparation of orchestral and wind works. Emphasis on laboratory conducting experiences. Credit Level: G. Credit Hrs: 3.00

16COND814**Instrumental Conducting**

Second-year core conducting class for orchestral conducting majors. Covers all aspects of conducting techniques and preparation required of conductors. Credit Level: G. Credit Hrs: 3.00

16COND815**Instrumental Conducting**

Second-year core conducting class for orchestral conducting majors. Covers all aspects of conducting techniques and preparation required of conductors. Second quarter of three quarter sequence. Credit Level: G. Credit Hrs: 3.00

16COND816**Instrumental Conducting**

Second-year core conducting class for orchestral conducting majors. Covers all aspects of conducting techniques and preparation required of conductors. Third quarter of three quarter sequence. Credit Level: G. Credit Hrs: 3.00

16COND821**Choral Conducting Techniques**

Refinement of conducting and rehearsal techniques; emphasis on score preparation and tone-gesture relationship. Credit Level: G. Credit Hrs: 3.00

16COND822**Choral Conducting Techniques**

Refinement of conducting and rehearsal techniques; emphasis on score preparation and tone-gesture relationship. Credit Level: G. Credit Hrs: 3.00

16COND823**Choral Conducting Techniques**

Refinement of conducting and rehearsal techniques; emphasis on score preparation and tone-gesture relationship. Credit Level: G. Credit Hrs: 3.00

16COND895**Practicum**

Practical experience in the professional world. Credit Level: G. Credit Hrs: 1.00

Conducting**16COND899****Master's Candidacy**

Retainment of eligibility for graduation. Credit Level: G. Credit Hrs: 1.00

16COND900**Applied Major Study-Conducting**

Hourly private lessons for conducting majors in the doctoral degree program. Credit Level: G. Credit Hrs: 3.00

16COND960**Conducting Performance**

Public performance of selected repertoire with an ensemble appropriate to the specific degree program; approved and graded by the faculty. Credit Level: G. Credit Hrs: 1.00-6.00

16COND980**Lecture Recital**

Combined public lecture and performance of a selected topic in the appropriate ensemble repertoire; approved and graded by the faculty. Credit Level: G. Credit Hrs: 3.00

16COND981**Seminar in Conducting**

Selected readings and discussion of various topics and repertoire in the appropriate conducting field. Credit Level: G. Credit Hrs: 2.00-4.00

16COND990**DMA Document**

Research and preparation of the final written project for the DMA degree in conducting; topic to be approved and supervised by the faculty. Credit Level: G. Credit Hrs: 1.00-15.00

Double Bass**16DBBS100****Double Bass Major Study**

Major and minor scales and arpeggios. Technical studies for the instrument and orchestral repertoire. BoK: FA. Credit Level: U. Credit Hrs: 3.00

16DBBS110**Double Bass Concentration**

First-year study for double bass students in the B.A. program in music. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16DBBS120**Double Bass Secondary**

First-year secondary study in double bass as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16DBBS200**Double Bass Major Study**

Further advanced technical studies and compositions for the instrument covering different styles and orchestral repertoire. BoK: FA. Credit Level: U. Credit Hrs: 4.00

16DBBS210**Double Bass Concentration**

Second-year study for double bass students in the B.A. program in music or in the music education program. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16DBBS220**Double Bass Secondary**

Second-year secondary study in double bass as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16DBBS300**Double Bass Major Study**

Further advanced technical studies and compositions for the instrument covering different styles and orchestral repertoire. BoK: FA. Credit Level: U. Credit Hrs: 4.00

H=University Honors course.

BoK (Breadth of Knowledge) Coding. DC: Diversity & Culture. EC: English composition. FA: Fine Arts. HP: Historical Perspectives. HU: Humanities.

LT: Literature. NS: Natural Sciences. QR: Quantitative Reasoning. SE: Social & Ethical Issues. SS: Social Sciences.

Double Bass**16DBBS310****Double Bass Concentration**

Third-year study for double bass students in the B.A. program in music or in the music education program. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16DBBS320**Double Bass Secondary**

Third-year secondary study in double bass as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16DBBS400**Double Bass Major Study**

Advanced technical studies and orchestral repertoire. Preparation of Senior Recital including compositions of different styles. BoK: FA. Credit Level: U. Credit Hrs: 4.00

16DBBS410**Double Bass Concentration**

Fourth-year study for double bass students in the B.A. program in music or in the music education program. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16DBBS420**Double Bass Secondary**

Fourth-year secondary study in double bass as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16DBBS500**Double Bass Major**

Additional study for undergraduate double bass majors who have completed the basic degree requirements; offered for undergraduate and graduate double bass majors during the Summer Session. BoK: FA. Credit Level: U, G. Credit Hrs: 4.00

16DBBS510**Double Bass Concentration**

Additional study in double bass for undergraduate students at the concentration level who have completed the basic degree requirements; offered to all concentration-level double bass students during the Summer Session. BoK: FA. Credit Level: U, G. Credit Hrs: 2.00

16DBBS530**Double Bass Elective**

Nonrequired private study in double bass; requires permission of the department and the college. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00-2.00

16DBBS560**Independent Study**

In-depth study of a topic related to the double bass, selected by the student in consultation with a member of the faculty. Perm. of instr. and div. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00-12.00

16DBBS630**Special Topics**

Topics established every quarter by Department/Division. BoK: FA. Credit Level: U, G. Credit Hrs: 0.00-3.00

16DBBS670**Double Bass Ensemble**

Study and performance of appropriate repertoire. BoK: FA. Credit Level: U, G. Credit Hrs: 0.00-1.00

16DBBS800**Double Bass Graduate Major Study**

Preparation of two recital programs, one to be performed in public. Graduate repertoire includes the major double bass literature in all major styles and some chamber music. Master's degree students. Credit Level: G. Credit Hrs: 4.00

16DBBS810**Double Bass Concentration**

Master's-level study for students accepted for a cognate in double bass performance. Credit Level: G. Credit Hrs: 2.00

Double Bass**16DBBS820****Double Bass Secondary**

Secondary study in double bass for master's degree students. Credit Level: G. Credit Hrs: 1.00

16DBBS850**Artist Diploma in Double Bass**

First-year major study in double bass for students accepted into the artist diploma program. Credit Level: G. Credit Hrs: 6.00

16DBBS855**Artist Diploma Recital**

Public performance by an artist diploma student in double bass of selected compositions; approved and graded by the faculty. Credit Level: G. Credit Hrs: 2.00

16DBBS880**Master Recital**

Public performance by a master's degree student in double bass of selected compositions; approved and graded by the faculty. Credit Level: G. Credit Hrs: 1.00-2.00

16DBBS895**Practicum**

Practical experience in the professional world. Credit Level: G. Credit Hrs: 1.00

16DBBS899**Master's Candidacy**

Retainment of eligibility for graduation. Credit Level: G. Credit Hrs: 1.00

16DBBS900**Double Bass Doctoral Major Study**

Selected studies for continued refinement of previous skills. Repertoire to be selected from works of advanced technical difficulty. Preparation of required doctoral recitals. Credit Level: G. Credit Hrs: 4.00

16DBBS910**Double Bass Concentration**

Doctoral-level study for students accepted for a cognate in double bass performance. Credit Level: G. Credit Hrs: 2.00

16DBBS920**Double Bass Secondary**

Secondary study in double bass for doctoral-level students. Credit Level: G. Credit Hrs: 1.00

16DBBS930**Double Bass Elective**

Nonrequired private study in double bass for doctoral students; requires permission of the department and the college. Credit Level: G. Credit Hrs: 1.00-2.00

16DBBS950**Artist Diploma in Double Bass**

Second-year major study in double bass for students accepted into the artist diploma program. Credit Level: G. Credit Hrs: 6.00

16DBBS960**Double Bass Concerto**

Public performance of a concerto with one of the major performing ensembles. Credit Level: G. Credit Hrs: 2.00

16DBBS970**Doctoral Recital**

Public performance by a doctoral student in double bass of selected compositions; approved and graded by the faculty. Credit Level: G. Credit Hrs: 3.00

16DBBS980**Lecture Recital**

Combined public lecture and performance of a selected topic in the double bass repertoire; approved and graded by the faculty. Credit Level: G. Credit Hrs: 3.00

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Double Bass

16DBBS990

DMA Document

Research and preparation of the final written project for the DMA degree in double bass; topic to be approved and supervised by faculty. Credit Level: G. Credit Hrs: 1.00-15.00

Dance

16DNCE100

Ballet Technique

Advanced study in classical ballet, pointe, male female variations. Women: Sec. 001-level one; Sec. 002-level two; Sec. 003-level three; Men: Sec. 004-level one; Sec. 005-level two; Sec. 006-level three. First-year dance majors only. BoK: FA. Credit Level: U. Credit Hrs: 4.00

16DNCE101

Musical Theater Dance: Ballet

Basic dance training for musical theater major with studies in basic ballet, character, and musical theater dance forms. Musical theater majors only. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16DNCE102

Musical Theater Dance: Ballet

Basic dance training for the musical theater major with studies in basic ballet, character, and musical theater dance forms. Musical theater majors only. Prereq.: 16-DNCE-102. Prereq.: 16DNCE101. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16DNCE103

Musical Theater Dance: Ballet

Basic dance training for the musical theater major with studies in basic ballet, character, and musical theater dance forms. Musical theater majors only. Prereq.: 16-DNCE-103. Prereq.: 16DNCE102. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16DNCE110

Modern Dance Technique

First-year dance majors only. Intermediate modern dance expanding on fundamental movement principles emphasizing development of technical, improvisational, and performance skills. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16DNCE111

Ballet Basics

A one-quarter, non-repeating course for non-dance majors, providing an introduction to ballet techniques and vocabulary. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16DNCE115

Beginning Ballet Technique

First quarter of a three-quarter sequence of courses for nondance majors providing an introduction to ballet technique and vocabulary. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16DNCE116

Intermediate Beginning Ballet Technique

Second quarter of a three-quarter sequence for non-dance majors providing continuation of ballet technique skills and vocabulary at a more accelerated level. Prereq.: 16-DNCE-115 or perm. of instructor. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16DNCE117

Advanced Beginning Ballet Technique

Third quarter of a three-quarter sequence for non-dance majors providing continuation of ballet technique skills and vocabulary at a more accelerated level. Prereq.: 16-DNCE-116 or perm. of instructor. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16DNCE121

Modern Dance Basics

A one-quarter, non-repeating course for non-dance majors providing an introduction to techniques of contemporary dance. BoK: FA. Credit Level: U. Credit Hrs: 2.00

Dance

16DNCE125

Beginning Modern Dance Technique

First quarter of a three-quarter sequence for nondance majors providing an introduction to techniques of contemporary dance. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16DNCE126

Intermediate Beginning Modern Dance Technique

Second quarter of a three-quarter sequence for nondance majors providing continuation of movement skills and technique at a more accelerated level. Prereq.: 16-DNCE-125 or perm. of instructor. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16DNCE127

Advanced Beginning Modern Dance Technique

Third quarter of a three-quarter sequence for nondance majors providing continuation of dance movement skill and modern technique at a more accelerated level. Prereq.: 16-DNCE-127 or perm. of instructor. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16DNCE130

Dance Conditioning

Involves the teaching of cross-training modalities in order to develop fit, tone, strong yet flexible dancers. Cardiovascular training, barre work in the pool, yoga, ideokinesis, Pilates reformer and spring work, etc. will be utilized toward this end. Dance majors only. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16DNCE131

Somatic Studies for Dance

First quarter of a three-quarter sequence. Mind/body systems including the Alexander Technique, The Pilates Method, Ideokinesis mind/body centering will be introduced and explored to bring about re-education and change in habitual ways of dancing and moving. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16DNCE132

Somatic Studies for Dance

Second-quarter of a three-quarter sequence. A continuation from the first quarter. Pilates spring work introduced. Prereq.: 16DNCE131. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16DNCE133

Somatic Studies for Dance

Third-quarter of a three-quarter sequence. A continuation from the first quarter. Feldenkrais method is introduced. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16DNCE200

Ballet Technique

Advanced study in classical ballet, pointe, male and female variations. Women: Sec. 001-level one; Sec. 002-level two; Sec. 003-level three; Men: 004-level one; Sec. 005-level two; Sec. 006-level three. Second-year dance majors only. Prereq.: 16-DNCE-100. Prereq.: 16DNCE100. BoK: FA. Credit Level: U. Credit Hrs: 4.00

16DNCE201

Musical Theater Dance: Modern

First-quarter of a three-quarter sequence. Dance class for musical theater majors, with an emphasis on modern dance. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16DNCE202

Musical Theater Dance: Modern

Second-quarter of a three-quarter sequence. Dance class for musical theater majors, with an emphasis on modern dance. Prereq.: 16-DNCE-201. Prereq.: 16DNCE201. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16DNCE203

Musical Theater Dance: Modern

Third-quarter of a three-quarter sequence. Dance class for musical theater majors, with an emphasis on modern dance. Prereq.: 16-DNCE-202. Prereq.: 16DNCE202. BoK: FA. Credit Level: U. Credit Hrs: 1.00

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Dance**16DNCE210****Modern Dance Technique**

Second-year dance majors only. Intermediate/ Advanced modern dance class to further develop and refine technical, improvisational and performance skills/artistry. Prereq.: 16-DNCE-110. Prereq: 16DNCE110. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16DNCE215**Intermediate Ballet**

Intermediate-level study of classical ballet. Repeatable for credit. Prereq.: perm. of instr. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16DNCE217**Advanced Intermediate Ballet Technique**

Advanced-intermediate level study of ballet technique. Repeatable for credit. Prereq.: perm. of instr. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16DNCE221**Partnering**

First-quarter of a three-quarter sequence. Beginning partnering skills in the classical ballet idiom are taught for both men and women. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16DNCE222**Partnering**

Second quarter of a three-quarter sequence. Continuation from first quarter. Intermediate to advanced beginning partnering skills in the classical ballet idiom are developed. Prereq.: 16-DNCE-221. Prereq: 16DNCE221. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16DNCE223**Partnering**

Third quarter of a three-quarter sequence. Continuation from second quarter. Advanced beginning to intermediate classical ballet partnering is explored and refined. Prereq.: 16-DNCE-222. Prereq: 16DNCE222. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16DNCE241**Character Dance**

Basic ethnic and national dance styles of Eastern European origin within the context of ballet performance. Flamenco dance is introduced as well. Prereq.: Dance majors only. BoK: NA. Credit Level: U. Credit Hrs: 1.00

16DNCE251**Dance History**

A general survey course tracing the major forms of theatrical dance from indigenous cultures to contemporary classical dance in the Western hemisphere. BoK: FA., HP. Credit Level: U. Credit Hrs: 3.00

16DNCE271**Basic Modern Dance II**

Intermediate level study of modern dance technique. Repeatable for credit. Prereq.: perm. of instr. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16DNCE300**Ballet Technique**

Advanced study in classical ballet, pointe, male and female variations. Women: Sec. 001-level; Sec. 002-level two; Sec. 003-level three; Men: Sec. 004-level one; Sec. 005-level two; Sec. 006- level three. Prereq.: 16-DNCE-200. Prereq: 16DNCE200. BoK: FA. Credit Level: U. Credit Hrs: 4.00

16DNCE301**Musical Theater Dance: Ballet III**

A second course in ballet for musical theater and opera majors, with emphasis on more advanced techniques. Prereq.: 16-DNCE-203. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16DNCE302**Musical Theater Dance: Ballet III**

A second course in ballet for musical theater and opera majors, with emphasis on more advanced techniques. Prereq.: 16-DNCE-203. Prereq: 16DNCE301. BoK: FA. Credit Level: U. Credit Hrs: 1.00

Dance**16DNCE303****Musical Theater Dance: Ballet III**

A second course in ballet for musical theater and opera majors, with emphasis on more advanced techniques. Prereq.: 16-DNCE-203. Prereq: 16DNCE302. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16DNCE310**Modern Dance Technique**

Third-year dance majors only. Intermediate/ Advanced modern dance class to further develop and refine technical, improvisational, and performance skills/artistry. Prereq.: 16-DNCE-210. Prereq: 16DNCE210. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16DNCE321**Pas de Deux**

Designed to further develop partnering skills, including lifts and more technically challenging movement sequences. Prereq.: 16-DNCE-223. Prereq: 16DNCE223. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16DNCE351**Ballet History**

An intensive study of ballet history from its origin in the 16th century through the 21st century including the development of ballet in America. BoK: FA., HP. Credit Level: U. Credit Hrs: 3.00

16DNCE371**Choreography I**

First-quarter of a six-quarter sequence. Basic elements of choreography which include energy, space, and time with attention to various aspects of the choreographic process and the choreographer's role and responsibilities. BoK: FA., QR. Credit Level: U. Credit Hrs: 2.00

16DNCE372**Choreography II**

Second quarter of a six-quarter sequence. Continuation of Choreography I with emphasis on nurturing creativity through the introduction of improvisation and exploration with studies in motivation and gesture, music and use of props. Prereq.: 16-DNCE-371. Prereq: 16DNCE371. BoK: FA, QR. Credit Level: U. Credit Hrs: 2.00

16DNCE373**Choreography III**

Third quarter of a six-quarter sequence. Continuation of Choreography II focusing on the exploration of movement to express the emotions with attention to aesthetic awareness. Creation of a solo work is required. Prereq.: 16-DNCE-372 Prereq: 16DNCE372. BoK: FA, QR. Credit Level: U. Credit Hrs: 2.00

16DNCE381**Anatomy for Dancers**

Introduction to the function of the skeletal and muscular systems in reference to their support of human dance movement. Prereq.: Dance majors only. BoK: FA., NS. Credit Level: U. Credit Hrs: 3.00

16DNCE382**Dance Injuries and Prevention**

Introduction to the analysis of biomechanical dance-related injuries and the factors involved in preventing such injuries. Prereq.: 16-DNCE-381. Prereq: 16DNCE381. BoK: FA, NS. Credit Level: U. Credit Hrs: 3.00

16DNCE385**Introduction to the Alexander Technique**

Examination of the teachings of F.M. Alexander: a mind/body self-study into personal awareness and discovery. BoK: NA. Credit Level: U. Credit Hrs: 2.00

16DNCE400**Ballet Technique**

Advanced study in classical ballet, pointe, male and female variations. Women: Sec. 001-level one; Sec. 002-level two; Sec. 003-level three; Men: Sec. 004-level one; Sec. 005-level two; Sec. 006- level three. Fourth year dance majors only. Prereq.: 16-DNCE-300. Prereq: 16DNCE300. BoK: FA. Credit Level: U. Credit Hrs: 4.00

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Dance**16DNCE401****Musical Theater Dance: Styles**

A course in period dance, partnering and combinations and the rudiments of tap and jazz. Prereq.: Musical Theater Majors only. Prereq: 16DNCE302. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16DNCE402**Musical Theater Dance: Styles**

A course in period dance, partnering and combinations, and the rudiments of tap and jazz. Prereq: Musical Theater Majors only, 16-DNCE-401. Prereq: 16DNCE401. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16DNCE403**Musical Theater Dance: Styles**

A course in period dance, partnering and combinations, and the rudiments of tap and jazz. Prereq: Musical Theater Majors only, 16-DNCE-402. Prereq: 16DNCE402. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16DNCE410**Modern Dance Technique**

Fourth-year dance majors only. Intermediate/ Advanced modern dance class to further develop and refine technical, improvisational, and performance skills/artistry. Prereq.: 16-DNCE-310. Prereq: 16DNCE310. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16DNCE440**Repertoire**

Historical understanding of ballet through the learning of classical repertoire with emphasis on technique and style. Prereq: 16-DNCE-100. BoK: FA., HP. Credit Level: U. Credit Hrs: 1.00

16DNCE471**Choreography IV**

Fourth-quarter of a six-quarter sequence. Continuation of Choreography III with emphasis on form, style and content. Experimentation will focus on composition for two dancers. Analysis and critique of students' work. Prereq.: 16-DNCE-373. BoK: FA., QR. Credit Level: U. Credit Hrs: 3.00

16DNCE472**Choreography V**

Fifth quarter of a six-quarter sequence. Continuation of Choreography IV focusing on abstraction and other stylistic approaches. g Choreographnic experience broadened by working with three or more dancers to create a group piece. Analysis and written critiques of noted choreographed works. Analysis and critique of students' works. Prereq.: 16-DNCE-471. Prereq: 16DNCE471. BoK: FA, QR. Credit Level: U. Credit Hrs: 3.00

16DNCE473**Choreography VI**

Sixth quarter of a six-quarter sequence. Continuation of Choreography V with emphasis on other choreographnic approaches which may include Dance and Video technology. Analysis and critique of students' works. Prereq.: 16-DNCE-472. Prereq: 16DNCE472. BoK: FA, QR. Credit Level: U. Credit Hrs: 3.00

16DNCE531**Techniques of Ballet Instruction**

Restricted to Dance majors. Observations, readings, discussions and practical experience with problems in teaching classical ballet at all levels. BoK: FA., HP. Credit Level: U, G. Credit Hrs: 3.00

16DNCE560**Independent Study**

In-depth study of a topic related to dance, selected by the student in consultation with a member of the faculty. Perm. of instr. and div. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00-12.00

16DNCE600**Ballet Technique**

See 16-DNCE-100. For dance majors performing with the Cincinnati

Dance**16DNCE600****Ballet Technique**

Ballet COmpany or other regional professional dance companies. BoK: FA. Credit Level: U, G. Credit Hrs: 4.00

16DNCE630**Special Topics**

Topics established every quarter by Department/Division. BoK: FA. Credit Level: U, G. Credit Hrs: 0.00-3.00

16DNCE650**Performing Ensemble**

Restricted to Dance majors who qualify through audition. BoK: FA. Credit Level: U. Credit Hrs: 1.00-3.00

16DNCE811**Theater Dance**

Graduate-level course number for musical theater majors taking one of the specialized courses for musical theater dance. Credit Level: G. Credit Hrs: 2.00

16DNCE812**Theater Dance**

Graduate-level course number for musical theater majors taking one of the specialized courses for musical theater dance. Credit Level: G. Credit Hrs: 2.00

Dramatic Performance**16DRPF101****Voice Production I**

Basic study in the concepts of relaxation, alignment, breathing, articulation, and tone production as related to speech for the stage. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16DRPF102**Voice Production I**

The notation of the sounds of Italian, German, and French in singing, using the International Phonetic Alphabet. Written and oral presentation. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16DRPF103**Voice Production I**

The notation of the sounds of Italian, German, and French in singing, using the International Phonetic Alphabet. Written and oral presentation. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16DRPF111**Acting I**

Beginning investigation of the aspects of the actor's craft; to include improvisation, motivational analysis, sensitivity and imagination as a function of technique. Area majors only. BoK: FA. Credit Level: U. Credit Hrs: 3.00

16DRPF112**Acting I**

Beginning investigation of the aspects of the actor's craft; to include improvisation, motivational analysis, sensitivity and imagination as a function of technique. Area majors only. Prereq: 16DRPF111. BoK: FA. Credit Level: U. Credit Hrs: 3.00

16DRPF113**Acting I**

Beginning investigation of the aspects of the actor's craft; to include improvisation, motivational analysis, sensitivity and imagination as a function of technique. Area majors only. Prereq: 16DRPF112. BoK: FA. Credit Level: U. Credit Hrs: 3.00

16DRPF114**Acting II**

Sequential continuation of Acting I involving the actor with the examination of the dramatic text as a blueprint for the organic gesture and emotional and physical imagination. BoK: FA. Credit Level: U. Credit Hrs: 3.00

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Dramatic Performance**16DRPF115****Acting II**

Sequential continuation of Acting I involving the actor with the examination of dramatic text as a blueprint for the organic gesture and emotional and physical imagination. BoK: FA. Credit Level: U. Credit Hrs: 3.00

16DRPF116**Acting II**

Sequential continuation of Acting I involving the actor with the examination of the dramatic text as a blueprint for the organic gesture and emotional and physical imagination. BoK: FA. Credit Level: U. Credit Hrs: 3.00

16DRPF175**First Year Performance Project**

Selection, creation, rehearsal and presentation of a performance project by all first-year dramatic performance majors. BoK: FA. Credit Level: U. Credit Hrs: 3.00

16DRPF201**Voice Production II**

A sequential continuation of Voice Production I, with greater emphasis placed upon individual vocal diagnosis. Special attention is paid to theater "speech" training and effort is made to assist students with strong regionalisms. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16DRPF202**Voice Production II**

A sequential continuation of Voice Production I, with greater emphasis placed upon individual vocal diagnosis. Special attention is paid to theater "speech" training and effort is made to assist students with strong regionalisms. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16DRPF203**Voice Production II**

A sequential continuation of Voice Production I, with greater emphasis placed upon individual vocal diagnosis. Special attention is paid to theater "speech" training and effort is made to assist students with strong regionalisms. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16DRPF221**Voice and Speech**

Fundamentals of basic voice production techniques and principles of stage speech for the musical theater performer. BoK: NA. Credit Level: U. Credit Hrs: 3.00

16DRPF222**Voice and Speech**

Continuation of 16 DRPF 221. BoK: NA. Credit Level: U. Credit Hrs: 3.00

16DRPF223**Voice and Speech**

Continuation of 16 DRPF 222. BoK: NA. Credit Level: U. Credit Hrs: 3.00

16DRPF271**Acting for Nonmajors**

An introductory course in the craft of acting designed primarily for CCM students who are not acting majors. Students will work on scripted and unscripted material; will study the history of the development of the "Method"; and will learn basic actor vocabulary common to all styles of performance. BoK: FA. Credit Level: U. Credit Hrs: 3.00

16DRPF272**Acting Workshop: Techniques of Acting**

Advanced consideration of character projection and defined stage movement; character study from improvisation; vocal projection through mental and muscular involvement. BoK: FA. Credit Level: U. Credit Hrs: 3.00

Dramatic Performance**16DRPF273****Acting Workshop: Theory of Ensemble Acting**

The actor within the complete theater piece. One acts and others prepared and presented; development of ability to analyze, prepare and present characters. BoK: FA. Credit Level: U. Credit Hrs: 3.00

16DRPF301**Voice Production III**

Continue advanced techniques of vocal production with applications in the stage dialects of General American, Stage Standard, and heightened text. Prereq: 16DRPF203. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16DRPF302**Voice Production III**

Continue advanced techniques of vocal production with applications in the stage dialects of General American, Stage Standard, and heightened text. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16DRPF303**Voice Production III**

Continue advanced techniques of vocal production with applications in the stage dialects of General American, Stage Standard, and heightened text. Prereq: 16DRPF302. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16DRPF311**Acting III**

Continuation of Acting II (sequential). Investigation of the problems of style in the classical drama; scenework centering on the Elizabethan, Jacobean, Classical Greek, Restoration and Russian repertoire. BoK: FA. Credit Level: U. Credit Hrs: 3.00

16DRPF312**Acting III**

Continuation of Acting II (sequential). Investigation of the problems of style in the classical drama; scenework centering on the Elizabethan, Jacobean, Classic Greek, Restoration and Russian repertoire. BoK: FA. Credit Level: U. Credit Hrs: 3.00

16DRPF313**Acting III**

Continuation of Acting II (sequential). Investigation of the problems of style in the classical drama; scenework centering on the Elizabethan, Jacobean, Classical Greek, Restoration and Russian repertoire. BoK: FA. Credit Level: U. Credit Hrs: 3.00

16DRPF395**Improvisation for Playwrights**

Improvisation for Playwrights is designed to fill a niche between the literary art of play writing and the performance savvy that stems from the on-stage experience of the art of acting. By experiencing the guidelines of improvisation, as detailed by Viola Spolin's theater games, writers will discover through experience what makes a scene live and breathe or flounder and die. Prereq: 30ENGL389. BoK: NA. Credit Level: U. Credit Hrs: 3.00

16DRPF401**Voice Production IV**

Continue advanced techniques of vocal production with applications in dialects and accents. Prereq: 16DRPF303. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16DRPF402**Voice Production IV**

Continue advanced techniques of vocal production with applications in dialects and accents. Prereq: 16DRPF401. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16DRPF403**Voice Production IV**

Continue advanced techniques of vocal production with applications in dialects and accents. Prereq: 16DRPF402. BoK: FA. Credit Level: U. Credit Hrs: 2.00

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Dramatic Performance**16DRPF411****Acting IV**

Work involving advanced students in ensemble techniques producing works of the Modern World Theater; includes styles work beginning with the Greeks. BoK: FA. Credit Level: U. Credit Hrs: 3.00

16DRPF412**Acting IV**

Work involving advanced students in ensemble techniques producing works of the Modern World Theater; includes styles work beginning with the Greeks. BoK: FA. Credit Level: U. Credit Hrs: 3.00

16DRPF413**Acting IV**

Work involving advanced students in ensemble techniques producing works of the Modern World Theater; includes styles work beginning with the Greeks. BoK: FA. Credit Level: U. Credit Hrs: 3.00

16DRPF420**Rehearsal and Performance for the Dramatic Actor**

Rehearsal and performance of repertoire assigned by faculty to be presented in the various performance spaces. BoK: FA., DC. Credit Level: U. Credit Hrs: 1.00-3.00

16DRPF434**Drama Workshop**

Lab course focusing on the practical approach to production. Extension of work of the performance classes (Acting I,II,III,IV) into performance for audiences. Assignment to roles in several workshop projects. Assignment to roles in productions on the basis of audition. BoK: FA., DC. Credit Level: U. Credit Hrs: 1.00-3.00

16DRPF435**Drama Workshop**

Lab course focusing on the practical approach to production. Extension of work of the performance classes (Acting I, II, III, IV) into performance for audiences. Assignment to roles in several workshop projects. Assignment to roles in productions on the basis of audition. BoK: FA., DC. Credit Level: U. Credit Hrs: 1.00-3.00

16DRPF436**Drama Workshop**

Lab course focusing on the practical approach to production. Extension of work of the performance classes (Acting I, II, III, IV) into performance for audiences. Assignment to roles in several workshop projects. Assignment to roles in productions on the basis of audition. BoK: FA., DC. Credit Level: U. Credit Hrs: 1.00-3.00

16DRPF475**Senior Showcase**

Selection, creation, rehearsal, and presentation of showcase to industry professionals by senior dramatic performance majors. BoK: FA. Credit Level: U. Credit Hrs: 3.00

16DRPF500**Audition Techniques for the Dramatic Actor**

Techniques of monologue preparation and delivery; also covers "cold readings" of scripts. Student should complete the course with 5-10 fully prepared monologues. BoK: FA. Credit Level: U, G. Credit Hrs: 3.00

16DRPF513**Acting for the Camera**

Survey of and practice in audition and acting techniques. Senior MUST & DRPF majors only! BoK: FA. Credit Level: U, G. Credit Hrs: 3.00

16DRPF531**Theatre Movement I**

Designed to help actors develop a keener kinesthetic awareness via a variety of movement techniques. Special emphasis will be given to work in alignment and spatial relationships. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00

Dramatic Performance**16DRPF532****Theatre Movement I**

Designed to help actors develop a keener kinesthetic awareness via a variety of movement techniques. Special emphasis will be given to work in alignment and spatial relationships. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00

16DRPF533**Theatre Movement I**

Designed to help actors develop a keener kinesthetic awareness via a variety of movement techniques. Special emphasis will be given to work in alignment and spatial relationships. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00

16DRPF541**Theatre Movement II**

Additional training in specialized movement skills for the actor, includes primitive full-face mask work and Laban based work. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00

16DRPF542**Theatre Movement II**

Additional training in specialized movement skills for the actor, includes primitive full-face mask work and Laban based work. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00

16DRPF543**Theatre Movement II**

Additional training in specialized movement skills for the actor, includes primitive full-face mask work and Laban based work. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00

16DRPF544**Theatre Movement III**

Additional training in specialized movement skills for the actor. Focus on stage combat. Prereq: 16DRPF543. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00

16DRPF545**Theatre Movement III**

Additional training in specialized movement skills for the actor. Focus on stage combat. Prereq: 16DRPF544. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00

16DRPF546**Theatre Movement III**

Additional training in specialized movement skills for the actor. Focus on stage combat. Prereq: 16DRPF545. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00

16DRPF547**Theatre Movement IV**

Additional training in specialized movement skills for the actor. Focus on stage combat. Prereq: 16DRPF546. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00

16DRPF548**Theatre Movement IV**

Additional training in specialized movement skills for the actor. Focus on stage combat. Prereq: 16DRPF547. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00

16DRPF549**Theatre Movement IV**

Additional training in specialized movement skills for the actor. Focus on stage combat. Prereq: 16DRPF548. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00

16DRPF551**Introduction to Dramaturgy**

Workshop and practicum in the art of dramaturgy. Lecture/Demonstration format; will meet in conjunction with productions (from pre-production to wrap sessions). BoK: LT., DC. Credit Level: U, G. Credit Hrs: 3.00

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Dramatic Performance**16DRPF560****Independent Study**

In-depth study of a topic related to dramatic performance, selected by the student in consultation with a member of the faculty. Perm. of instr. and div. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00-12.00

16DRPF600**Business Skills for the Actor**

Making and updating resumes; getting headshots; audition follow-up; economic matters such as budgeting, bookkeeping, and taxes; professional manners and deportment. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

16DRPF630**Special Topics in Dramatic Performance**

Developed yearly according to specialty being offered. BoK: FA. Credit Level: U, G. Credit Hrs: 0.00-3.00

16DRPF660**Special Topics**

Topics established every quarter by Department/Division. BoK: FA. Credit Level: U, G. Credit Hrs: 0.00-6.00

16DRPF701**Voice Production I**

Basic study in the concepts of relaxation, alignment, breathing, articulation, and tone production, as related to speech for the stage. Credit Level: G. Credit Hrs: 2.00

16DRPF702**Voice Production I**

Basic study in the concepts of relaxation, alignment, breathing, articulation, and tone production, as related to speech for the stage. Prereq: 16DRPF701. Credit Level: G. Credit Hrs: 2.00

16DRPF703**Voice Production I**

Basic study in the concepts of relaxation, alignment, breathing, articulation, and tone production, as related to speech for the stage. Prereq: 16DRPF702. Credit Level: G. Credit Hrs: 2.00

16DRPF704**Voice Production II**

A sequential continuation of Voice Production I, with greater emphasis placed upon individual vocal diagnosis. Special attention is paid to theater "speech" training and effort is made to assist students with strong regionalisms. Credit Level: G. Credit Hrs: 2.00

16DRPF705**Voice Production II**

A sequential continuation of Voice Production I, with greater emphasis placed upon individual vocal diagnosis. Special attention is paid to theater "speech" training and effort is made to assist students with strong regionalisms. Credit Level: G. Credit Hrs: 2.00

16DRPF706**Voice Production II**

A sequential continuation of Voice Production I, with greater emphasis placed upon individual vocal diagnosis. Special attention is paid to theater "speech" training and effort is made to assist students with strong regionalisms. Credit Level: G. Credit Hrs: 2.00

16DRPF711**Acting I**

Beginning investigation of the aspects of the actor's craft; to include improvisation of the dramatic text as a blueprint for the organic gesture and emotional and physical imagination. Credit Level: G. Credit Hrs: 3.00

16DRPF712**Acting I**

Beginning investigation of the aspects of the actor's craft; to include improvisation, motivational analysis, sensitivity and imagination as a function of technique. Credit Level: G. Credit Hrs: 3.00

Dramatic Performance**16DRPF713****Acting I**

Beginning investigation of the aspects of the actor's craft; to include improvisation, motivational analysis, sensitivity and imagination as a function of technique. Credit Level: G. Credit Hrs: 3.00

16DRPF714**Acting II**

Sequential continuation of Acting I involving the actor with the examination of the dramatic text as a blueprint for the organic gesture and emotional and physical imagination. Credit Level: G. Credit Hrs: 3.00

16DRPF715**Acting II**

Sequential continuation of Acting I involving the actor with the examination of the dramatic text as a blueprint for the organic gesture and emotional and physical imagination. Credit Level: G. Credit Hrs: 3.00

16DRPF716**Acting II**

Sequential continuation of Acting I involving the actor with the examination of the dramatic text as a blueprint for the organic gesture and emotional and physical imagination. Credit Level: G. Credit Hrs: 3.00

16DRPF801**Graduate Acting I**

Continuation of Acting II (sequential). Investigation of the problems of style in the classical drama; scenework centering on the Elizabethan, Jacobean, Classical Greek, Restoration and Russian repertoire. Credit Level: G. Credit Hrs: 3.00

16DRPF802**Graduate Acting I**

Continuation of Acting II (sequential). Investigation of the problems of style in the classical drama; scenework centering on the Elizabethan, Jacobean, Classical Greek, Restoration and Russian repertoire. Credit Level: G. Credit Hrs: 3.00

16DRPF803**Graduate Acting I**

Continuation of Acting I (sequential). Investigation of the problems of style in the classical drama; scenework centering on the Elizabethan, Jacobean, Classical Greek, Restoration and Russian repertoire. Credit Level: G. Credit Hrs: 3.00

16DRPF811**Graduate Acting II**

Work involving advanced students in ensemble techniques producing works of the Modern World Theater; includes styles work beginning with the Greeks. Credit Level: G. Credit Hrs: 3.00

16DRPF812**Graduate Acting II**

Work involving advanced students in ensemble techniques producing works of the Modern World Theater; includes styles work beginning with the Greeks. Credit Level: G. Credit Hrs: 3.00

16DRPF813**Graduate Acting II**

Work involving advanced students in ensemble techniques producing works of the Modern World Theater; includes styles work beginning with the Greeks. Credit Level: G. Credit Hrs: 3.00

16DRPF820**Rehearsal and Performance for the Dramatic Actor**

Rehearsal and performance of repertoire assigned by faculty to be presented in the various performance spaces. By assignment or audition. Credit Level: G. Credit Hrs: 1.00-3.00

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Dramatic Performance**16DRPF821****Voice Production III**

Continue advanced techniques of vocal production with applications in the stage dialects of General American, Stage Standard, and heightened text. Perm of Instructor. Credit Level: G. Credit Hrs: 2.00

16DRPF822**Voice Production III**

Continuation of 16DRPF821. Prereq: 16DRPF821. Credit Level: G. Credit Hrs: 2.00

16DRPF823**Voice Production III**

Continuation of 16DRPF821 and 822. Prereq: 16DRPF822. Credit Level: G. Credit Hrs: 2.00

16DRPF831**Voice Production IV**

Continue advanced techniques of vocal production with application in dialects and accents. Perm of Instructor. Credit Level: G. Credit Hrs: 2.00

16DRPF832**Voice Production IV**

Continuation of 16DRPF831. Prereq: 16DRPF831. Credit Level: G. Credit Hrs: 2.00

16DRPF833**Voice Production IV**

Continuation of 16DRPF831 and 832. Prereq: 16DRPF832. Credit Level: G. Credit Hrs: 2.00

16DRPF834**Drama Workshop**

Lab course focusing on the practical approach to production. Extension of work of the performance classes (Acting I, II, III, IV) into performance for audiences. Assignment to roles in several workshop projects. Assignment to roles in productions on the basis of audition. Credit Level: G. Credit Hrs: 1.00-3.00

16DRPF835**Drama Workshop**

Lab course focusing on the practical approach to production. Extension of work of the performance classes (Acting I, II, III, IV) into performance for audiences. Assignment to roles in several workshop projects. Assignment to roles in productions on the basis of audition. Credit Level: G. Credit Hrs: 1.00-3.00

16DRPF836**Drama Workshop**

Lab course focusing on the practical approach to production. Extension of work of the performance classes (Acting I, II, III, IV) into performance for audiences. Assignment to roles in several workshop projects. Assignment to roles in productions on the basis of audition. Credit Level: G. Credit Hrs: 1.00-3.00

16DRPF880**Graduate Acting Seminar**

Prereq.: Perm. of instr. Credit Level: G. Credit Hrs: 6.00

16DRPF890**Professional Acting Internship**

Prereq.: Perm. of instr. Credit Level: G. Credit Hrs: 6.00

16DRPF899**Master's Candidacy**

Retainment of eligibility for graduation. Credit Level: G. Credit Hrs: 1.00

Directing**16DRTG210****The Artist in Society**

The relationship of contemporary aesthetic and social theory to theater practice; aiming to define performance both in its aesthetic dimension

Directing**16DRTG210****The Artist in Society**

and in the dimension of ritual public ceremony, and "life events." Source materials should include Suzanne Langer and Susan Sontag, etc. BoK: HU., SE. Credit Level: U. Credit Hrs: 3.00

16DRTG231**History of the Theater**

Introduction to the history of the theater, with emphasis on its most notable periods in western civilization. Focus on the integrated contribution of the performer, designer, and writer to the theatrical event and on the interests and perspectives of their audience. BoK: FA., HP. Credit Level: U. Credit Hrs: 3.00

16DRTG232**History of the Theater**

Introduction to the history of the theater, with emphasis on its most notable periods in western civilization. Focus on the integrated contribution of the performer, designer, and writer to the theatrical event and on the interests and perspectives of their audience. Prereq: 16DRTG231. BoK: FA, HP. Credit Level: U. Credit Hrs: 3.00

16DRTG233**History of the Theater**

Introduction to the history of the theater, with emphasis on its most notable periods in western civilization. Focus on the integrated contribution of the performer, designer, and writer to the theatrical event and on the interests and perspectives of their audience. Prereq: 16DRTG232. BoK: FA, HP. Credit Level: U. Credit Hrs: 3.00

16DRTG311**Script Analysis**

Focuses on structural elements that go into making plays. Emphasis is placed on realistic drama and selected examples of the historical avant-garde. The intention of the course is not necessarily to expose the student to "new" plays, but rather to an analytical methodology that can be applied to understanding any play one comes in contact with as an actor, director/designer. BoK: FA., LT. Credit Level: U. Credit Hrs: 3.00

16DRTG312**Script Analysis**

Focuses on structural elements that go into making plays. Emphasis is placed on realistic drama and selected examples of the historical avant-garde. The intention of the course is not necessarily to expose the student to "new" plays, but rather to an analytical methodology that can be applied to understanding any play one comes in contact with as an actor, director/designer. Prereq: 16DRTG311. BoK: FA, LT. Credit Level: U. Credit Hrs: 3.00

16DRTG313**Advanced Script Analysis**

Discussion and practical guidance in techniques of script analysis used by various disciplines in theater arts to prepare for production of plays or musicals. Includes theoretical readings, lecture/discussions, guest lecturer/demonstrations, and practice sessions. Prereq: 16DRTG312. BoK: FA, LT. Credit Level: U. Credit Hrs: 3.00

16DRTG321**Directing Lab for Actors**

Actors will have the opportunity to work with a variety of directing candidates in a variety of styles, using a variety of techniques, on scene preparation. Perm of Instructor. BoK: FA. Credit Level: U. Credit Hrs: 0.00-1.00

16DRTG501**Fundamentals of Directing**

Basic aspects of the director's craft from play selection through opening night. Includes an historical overview of techniques used by the acknowledged modern masters, including George II, Harold Clurman, and Konstantin Stanislavsky, put to use on a directorial analysis of a play of the student's choosing. BoK: FA. Credit Level: U, G. Credit Hrs: 3.00

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Directing**16DRTG560****Independent Study**

In-depth study of a topic related to the directing area, selected by the student in consultation with a member of the faculty. Perm. of instr. and div. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00-12.00

16DRTG571**History and Theory of Stage Direction**

A history of stage direction from George II to the present, with particular emphasis on Reinhardt, Stanislavski, Copeau, Brecht, Grolowski, and Chaikin. BoK: FA., HP. Credit Level: U, G. Credit Hrs: 3.00

16DRTG572**History and Theory of Stage Direction**

A history of stage direction from George II to the present, with particular emphasis on Reinhardt, Stanislavski, Copeau, Brecht, Grotowski, and Chaikin. BoK: FA., HP. Credit Level: U, G. Credit Hrs: 3.00

16DRTG701**Directing I**

First-year study for MFA candidates in directing. Directed readings and discussion of relevant issues. Practical applications in various settings. Credit Level: G. Credit Hrs: 3.00

16DRTG702**Directing I**

Continuation of 16DRTG701. Prereq: 16DRTG701. Credit Level: G. Credit Hrs: 3.00

16DRTG703**Directing I**

Continuation of 16DRTG702 and preparation for more advanced study in Directing II. Prereq: 16DRTG702. Credit Level: G. Credit Hrs: 3.00

16DRTG710**The Artist in Society**

The relationship of contemporary aesthetic and social theory to theater practice; aiming to define performance both in its aesthetic dimension and in the dimension of ritual public ceremony, and "life events." Source materials should include Suzanne Langer and Susan Sontag, etc. Credit Level: G. Credit Hrs: 3.00

16DRTG750**Assistant Director Practicum**

Analysis and discussion of different kinds of performance structure; action (psychological and physical), information structure, thematic structure, logical structures (including patterning), etc. Most of the work is on written material--scripts and descriptions. Coursework will also include work with the actor in the process of rehearsal on assigned scripts to be produced in the experimental workshop setting. Credit Level: G. Credit Hrs: 3.00

16DRTG800**Aesthetics**

A course in the study of aesthetics for graduate actors, directors, and designers. Credit Level: G. Credit Hrs: 3.00

16DRTG801**Directing I**

Analysis and concept: training students in a system of text analysis for directors and honing skills to develop a unified production concept. Emphasis will be placed on the director's voice and on developing the articulation of each student's unique ideas and responses to material. Credit Level: G. Credit Hrs: 2.00

16DRTG802**Directing II**

The Director/Actor process: explores various approaches to working with actors. methods to include actioning techniques, improvisation, and character development. Prereq: 16DRTG801. Credit Level: G. Credit Hrs: 2.00

Directing**16DRTG803****Directing III**

Stage, space, and composition: developing the visual tools necessary to stage a production -- visualization, composition, picturization, and the challenges unique to different venues (proscenium, three-quarter, the round, found space). Prereq: 16DRTG802. Credit Level: G. Credit Hrs: 2.00

16DRTG804**Directing IV**

Verse Drama: provides students with approaches to directing verse drama, including the Greeks and Shakespeare. Emphasis will be given to period style, with experimentation in realistic and non- realistic approaches. Prereq: 16DRTG803. Credit Level: G. Credit Hrs: 2.00

16DRTG805**Directing V**

Comic styles: builds upon the styles work covered in Directing IV, with emphasis place on comic styles from various periods, including the Greeks, Moliere, Restoration, and Noel Howard. Prereq: 16DRTG804. Credit Level: G. Credit Hrs: 2.00

16DRTG806**Directing VI**

Alternative Forms: students explore their creative imagination and create alternative forms of theatre performance. While the works of contemporary theatre groups and performance artists will be referenced, it is expected that each student explore his/her own interests and impulses to create something that is potentially new and cutting edge. Prereq: 16DRTG805. Credit Level: G. Credit Hrs: 2.00

16DRTG810**Research Methods for Directors**

Acquaints students with the research process and materials necessary for directors to achieve a fully realized concept for production. Emphasis will be placed on defining the cultural, social, and historical context--or worldview-- of the play and production. Credit Level: G. Credit Hrs: 1.00

16DRTG811**Script Analysis**

Focuses on structural elements that go into making plays. Emphasis is placed on realistic drama and selected examples of the historical avant-garde. The intention of the course is not necessarily to expose the student to "new" plays, but rather to an analytical methodology that can be applied to understanding any play one comes in contact with as an actor, director/designer. Credit Level: G. Credit Hrs: 3.00

16DRTG812**Script Analysis**

Focuses on structural elements that go into making plays. Emphasis is placed on realistic drama and selected examples of the historical avant-garde. The intention of the course is not necessarily to expose the student to "new" plays, but rather to an analytical methodology that can be applied to understanding any play one comes in contact with as an actor, director/designer. Prereq: 16DRTG811. Credit Level: G. Credit Hrs: 3.00

16DRTG813**Advanced Script Analysis**

Discussion and practical guidance in techniques of script analysis used by various disciplines in theater arts to prepare for production of plays or musicals. Includes theoretical readings, lecture/discussions, guest lecture/demonstrations, and practice sessions. Prereq: 16DRTG812. Credit Level: G. Credit Hrs: 3.00

16DRTG820**Career Planning Seminar**

Acquaints students with the business aspects of the directing profession and helps them to strategize career goals; resumes contacts and follow-up, agents, unions, working abroad, personal finances, and investing in their future. Credit Level: G. Credit Hrs: 1.00

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Directing**16DRTG821****Directing I Lab**

Practicum for Directing I; includes a final performance project. Perm of Instructor. Credit Level: G. Credit Hrs: 1.00

16DRTG822**Directing II Lab**

Practicum for Directing II; includes a final performance project. Prereq: 16DRTG821. Credit Level: G. Credit Hrs: 1.00

16DRTG823**Directing III Lab**

Practicum for Directing III; includes a final performance project. Prereq: 16DRTG822. Credit Level: G. Credit Hrs: 1.00

16DRTG824**Directing IV Lab**

Practicum for Directing IV; includes a final performance project. Prereq: 16DRTG823. Credit Level: G. Credit Hrs: 1.00

16DRTG825**Directing V Lab**

Practicum for Directing V; includes a final performance project. Prereq: 16DRTG824. Credit Level: G. Credit Hrs: 1.00

16DRTG826**Directing VI Lab**

Practicum for Directing VI; includes a final performance project. Prereq: 16DRTG825. Credit Level: G. Credit Hrs: 1.00

16DRTG831**History of the Theater**

Introduction to the history of the theater, with emphasis on its most notable periods in western civilization. Focus on the integrated contribution of the performer, designer, and writer to the theatrical event and on the interests and perspectives of their audience. Credit Level: G. Credit Hrs: 3.00

16DRTG832**History of the Theater**

Introduction to the history of the theater, with emphasis on its most notable periods in western civilization. Focus on the integrated contribution of the performer, designer, and writer to the theatrical event and on the interests and perspectives of their audience. Credit Level: G. Credit Hrs: 3.00

16DRTG833**History of the Theater**

Introduction to the history of the theater, with emphasis on its most notable periods in western civilization. Focus on the integrated contribution of the performer, designer, and writer to the theatrical event and on the interests and perspectives of their audience. Credit Level: G. Credit Hrs: 3.00

16DRTG841**Directing Project I**

Workshop or studio theater production. Perm of Instructor. Credit Level: G. Credit Hrs: 3.00

16DRTG842**Directing Project II**

Workshop or studio theater production. Perm of Instructor. Credit Level: G. Credit Hrs: 3.00

16DRTG870**Approaches to Production**

A graduate seminar on the topic of theatrical collaboration. Credit Level: G. Credit Hrs: 3.00

16DRTG880**Graduate Directing Seminar**

Prereq.: Perm. of instr. Credit Level: G. Credit Hrs: 6.00

Directing**16DRTG881****Advanced Directing Practicum**

Fully directed classroom production independent of the Lab component of the Core Directing sequence. Classroom production in advanced topics, such as, but not limited to, period styles, alternative forms, or a production outside each student's area of specialization. May be repeated for credit. Credit Level: G. Credit Hrs: 1.00-3.00

16DRTG882**Thesis Tutorial**

To be taken during the quarter of the director's thesis production. Student and faculty advisor will meet in tutorial fashion to discuss the progress of the student's thesis production and written thesis. Credit Level: G. Credit Hrs: 3.00

16DRTG883**Thesis Production**

Design, collaboration, rehearsal, and performance of thesis production. Credit Level: G. Credit Hrs: 3.00

16DRTG890**Professional Directing Internship**

Prereq.: Perm. of instr. Credit Level: G. Credit Hrs: 6.00

16DRTG899**Master's Candidacy**

Retainment of eligibility for graduation. Credit Level: G. Credit Hrs: 1.00

Electronic Media**16EMED100****Introduction to the E-Media Division**

An introduction for new majors to the Electronic Media Division with guidelines for successfully completing the program course of study. Required for all new Electronic Media students. BoK: NA. Credit Level: U. Credit Hrs: 1.00

16EMED101**UCast/TV51**

A practicum for students involved in the management and operations of UCAST/TV51, University of Cincinnati All Student Television. Students will contribute in various capacities and at different levels of involvement in the production and dissemination of television programming content for the University's only student-run television channel. Open to non-majors. BoK: NA. Credit Level: U. Credit Hrs: 1.00-3.00

16EMED102**Bearcast**

Provides students hands-on experience in the day-to-day operations of Bearcast, the Electronic Media Division's student-run internet radio station. Students will focus their work within a particular area of Bearcast operations, involving, one or more of the following: programming, news/ sports, music, production, promotion, web design, or sales. BoK: NA. Credit Level: U. Credit Hrs: 1.00-3.00

16EMED105**History of Electronic Media**

Historical survey from 1900 to present. Emphasis on social, political, economic, and cultural influences of electronic media on society. Major areas covered: advertising, programming, noncommercial, law, cable. BoK: HP. Credit Level: U. Credit Hrs: 3.00

16EMED109**Digital Core I**

Required of all incoming freshman and transfer students as part of the first-year digital experience. This introductory E-Media course focuses on the areas of acquisition, editing, exporting of digital images, digital audio and digital video, while offering students a comprehensive hands-on experience with Mac-OS X. All course work will be completed via the iLife '06 creative suit pre-installed on all new Apple computers. This software suite includes iPhoto, iWeb, iMovie HD, iDVD and iMovie. The use of these introductory digital tools at an early age will enable students a smooth transition to the Pro Applications later in

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Electronic Media**16EMED109****Digital Core I**

their college career. BoK: NA. Credit Level: U. Credit Hrs: 3.00

16EMED110**Digital Core II**

Required of all incoming Freshman and transfer students as part of the first-year digital experience. This introductory E-Media course focuses on the areas of acquisition, editing, exporting of digital images, digital audio and digital video, while offering students a comprehensive hands-on experience with MAC OS X. All course work will be completed via the iLife '06 creative suit pre-installed on all new Apple computers. This software suit includes iPhoto, iWeb, iMovie HD, iDVD and Garageband. The use of these introductory digital tools at an early age will enable students a smooth transition to the Pro Applications later in their college career. BoK: NA. Credit Level: U. Credit Hrs: 3.00

16EMED115**Sight, Sound and Motion**

A study of applied media aesthetics based upon an analysis of fundamental image elements -- light, space, time-motion, and sound. BoK: NA. Credit Level: U. Credit Hrs: 3.00

16EMED175**Survey of Film**

Evolution of the motion picture as a unique and significant form of expression. Investigation into film style and structure, distribution and consumption. Development of aesthetic criteria for critical examination. Viewing of representative films. Open to nonmajors. BoK: HP. Credit Level: U. Credit Hrs: 3.00

16EMED200**Media Research and Resources**

Introduction to methods, research strategies, electronic resources, and applications of contemporary scholastic and practical research in the media arts. Surveys, bibliographical material, archival resources, media organizations and associations, and proper research paper formats. Required of Elec. Media majors. Successful completion of this course with a grade of "C" or better, before permission is granted to enroll in any upper E-Media class. Prereq: 16EMED105, 15ENGL103. BoK: QR. Credit Level: U. Credit Hrs: 3.00

16EMED205**Introduction to Broadcast Performance**

Basic skills, terminology, and demands of acting. Performance in pantomime, monologues, 2-person scenes, and radio/TV commercials. BoK: NA. Credit Level: U. Credit Hrs: 3.00

16EMED210**Survey of Media Technologies**

History and contemporary role of communication delivery, storage and playback systems, including cable, VCRs, CDs, Pay TV, satellite distribution, etc. Their effect on over-the-air broadcasting, the public, and communication policy will be studied. Prereq: 16EMED105. BoK: HP. Credit Level: U. Credit Hrs: 3.00

16EMED220**Introduction to Electronic Media Writing**

A course stressing writing for the broadcast media and the differences between broadcast and print. Students will write newscasts, commercials and scripts for radio and TV. Successful completion of this course with a grade of "C" or better, before permission is granted to enroll in any upper division E-Media production class. Prereq: 16EMED105, 15ENGL103. BoK: NA. Credit Level: U. Credit Hrs: 3.00

16EMED221**News Writing**

A writing lab, newsroom atmosphere. Students will write news stories for radio, television, and online journalism. Prerequisite: 16EMED100, 105 and Freshman English. Prereq: 16EMED230. BoK: NA. Credit Level: U. Credit Hrs: 3.00

Electronic Media**16EMED225****Introduction to E-Media Performance**

Basic skills, terminology, and demands of acting. Performance in pantomime, monologues, 2-person scenes, and radio/TV commercials. BoK: NA. Credit Level: U. Credit Hrs: 3.00

16EMED230**Survey of Electronic Journalism**

This course encourages students to become better citizens by keeping up with the news and thereby increasing their understanding of the serious issues that confront our community, nation and world. Course also covers the role of the journalist and the news media in our society. Prereq: 16EMED105. BoK: HP. Credit Level: U. Credit Hrs: 3.00

16EMED240**Digital Audio Production**

An in-depth study of audio recording systems, components, and philosophies. Emphasis will be on internet radio production including viable radio program format creation, proper voice recording, loop music reation, digital audio editing and mixing. Adobe Audition is the featured software for this course. BoK: NA. Credit Level: U. Credit Hrs: 3.00

16EMED250**Studio TV Production**

Introduction to multiple-camera studio television production in the switched-feed tradition. Provides training in the use of various technologies and equipment and orients students to duties and crew positions of studio television. Prereq: 16EMED115. BoK: NA. Credit Level: U. Credit Hrs: 3.00

16EMED251**Digital Sight, Sound and Motion**

Application of media aesthetic theory, process and technique in communicating ideas to a specified audience via the digital video production process. During the quarter, each student is required to write, produce, shoot and edit several projects using digital video cameras, working in a digital nonlinear editing environment and delivering their content on interactive DVDs. Prereq: 16EMED115. BoK: NA. Credit Level: U. Credit Hrs: 3.00

16EMED310**Survey of Mass Media Technologies**

Analysis and contemporary role of electronic mass media. Emphasis will be placed on acquiring foundation knowledge, including the Radio Frequency Spectrum. Coaxial Cable, Fiber Optics, Digitalization and Compression Techniques and components of the internet before engaging in an analysis of contemporary electronic mass media convergence, assessing change, challenges, and opportunities faced by electronic media industries, their regulatory agencies and the public. BoK: NA. Credit Level: U. Credit Hrs: 3.00

16EMED321**News Writing**

A writing lab, newsroom atmosphere. Students will write news stories for radio, television, and online journalism. Prerequisite: 16EMED100, 105 and Freshman English. Prereq: 16EMED230, 15ENGL103, 16EMED100, 16EMED105. BoK: NA. Credit Level: U. Credit Hrs: 3.00

16EMED322**Writing for the Web**

Students will learn the steps in developing a web project from the writer/producer's point of view, analyzing the target audience, determining the message to be conveyed, and presenting the content in readable, user-friendly manner. Photography and graphics preparation in addition to text. Opportunities for online journalism and development of promotional/educational material will be presented. Students will supply content for university-based websites. BoK: NA. Credit Level: U. Credit Hrs: 3.00

16EMED330**Survey of Electronic Media Advertising**

Methods and techniques of advertising as they relate to the marketing

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Electronic Media**16EMED330****Survey of Electronic Media Advertising**

cycle, media, and the communication and behavioral fields. Topics include: marketing, positioning, creating strategies, media planning and buying, creativity, and regulations. Required of Electronic Media majors. Open to nonmajors. Prereq: 16EMED105, 15ENGL103. BoK: SE. Credit Level: U. Credit Hrs: 3.00

16EMED340**Commercial Audio Production**

An in-depth study of commercial audio production for "real world" clients. Emphasis will be on the creative aspects of brain storming advertising, marketing, copy writing, recording voice talent, and digital audio post-production techniques. Adobe Audition is the featured software for this course. Prereq: 16EMED240. BoK: NA. Credit Level: U. Credit Hrs: 3.00

16EMED350**TV Production II**

More advanced studio production disciplines, introducing/ incorporating single camera field production and video editing techniques. Required of Electronic Media majors. Prereq: 16EMED250. BoK: NA. Credit Level: U. Credit Hrs: 3.00

16EMED351**Producing**

Students will produce individual and challenging production assignments, and work in various capacities in fellow students' productions. Prereq: 16EMED350. BoK: NA. Credit Level: U. Credit Hrs: 3.00

16EMED352**Documentary Production**

Basic principles, procedures and techniques applicable to nonfiction production. Through lecture and written analysis, students contextualize documentary form and narrative structure, cinema verite/direct cinema and reflexive/transparent directorial approaches, subjective and objective camera and issues of voice, p.o.v. and verisimilitude. BoK: NA. Credit Level: U. Credit Hrs: 3.00

16EMED354**Postproduction I**

This course examines the mechanics, aesthetics and theory involved in the juxtaposition and sequencing of images and sounds that develop over time in a coherent narrative manner to evoke a desired viewer response. During the quarter, each student will learn to deconstruct and analyze video and film sequences while also spending a minimum of 50 hours of hands-on time editing assignments on a state-of-the-art Avid Adrenaline digital editing system. By quarter's end, each student will work with producers from the Producing for Single-Camera Production class in taking a professional project through the entire off-line and on-line postproduction process- logging footage, using the Avid Media Log, digitization, preparing a rough cut, importing graphics and animation, audio sweetening and final cut. BoK: NA. Credit Level: U. Credit Hrs: 3.00

16EMED355**Producing for Single-Camera Productions**

This course explores the theory, technique and aesthetics involved in producing professional single-camera productions. Through hands-on applications in the field, students will learn the professional practices involved in acquiring images and sounds that evoke a desired viewer response. During the quarter, students work in groups to conceptualize, write and produce a professional quality production that incorporates aspects of the preproduction, production, and in-collaboration with the Postproduction I class-postproduction processes. Prereq: 16EMED251. BoK: NA. Credit Level: U. Credit Hrs: 3.00

16EMED356**Videographics**

Introduction to the creation of electronically generated graphics. Graphic images and texts, created from scratch or from other existing images. Techniques include free-hand drawing with a variety of brush

Electronic Media**16EMED356****Videographics**

strokes, sizes, and shapes. Control of picture creation and coloration is achieved on a pixel-by-pixel basis. Linear and curvilinear motion is also explored by further digitizing the video, experimenting with flips, tumbles, zooms, and variable positions. Prereq: 16EMED350. BoK: NA. Credit Level: U. Credit Hrs: 3.00

16EMED357**Uptown -- CCM/TV**

Students assume all roles in producing "Uptown"-- a campus-oriented news featured program. When interest warrants students also produce a sports-oriented television program. Both are aired on the University's closed circuit Channel 51. Prereq: 16EMED250, 16EMED251. BoK: NA. Credit Level: U. Credit Hrs: 3.00

16EMED360**Multitrack Music Production I**

An in-depth study of studio music production in a multitrack recording format. Emphasis will be on the production process including, studio recording techniques, recording session processes and final production mix down. Pro Tools is the featured software for this course. BoK: NA. Credit Level: U. Credit Hrs: 3.00

16EMED361**Multitrack Music Production II**

Advanced level audio production course dealing exclusively with multitrack applications in audio music recording. Extensive intermediate and advanced techniques will be explained such as automated mixing. CCM ensembles and local bands will provide challenging real world recording experiences. Projects will provide opportunity for demo reel materials. BoK: NA. Credit Level: U. Credit Hrs: 3.00

16EMED370**Sound for Picture**

An in-depth study of commercial audio production for sound for picture applications. Emphasis will be on the production process of generating timing information, meeting clients' needs, loop music creation and post-production techniques. Sound Track Pro and Pro Tools are the featured software for this course. Prereq: 16EMED361. BoK: NA. Credit Level: U. Credit Hrs: 3.00

16EMED372**Postproduction II**

This course builds upon the theory and techniques introduced in the Postproduction I class to apply advanced editing techniques for various electronic media genre. During the quarter, each student will produce a number of shot-by-shot analysis for various continuity, montage, and non-fiction sequences. By quarter's end, students will learn to use the components, techniques and processes involved in the advanced operation of the Avid Adrenaline and Final Cut Pro editing systems including effect editing, compositing, media management and various compression/decompression algorithms for delivery of their programs for a variety of media. BoK: NA. Credit Level: U. Credit Hrs: 3.00

16EMED380**New Media Studio I**

An introduction to the fundamental skills and tools employed by industry professionals to create effective web-based digital content. During this fast-paced ten-week digital experience, students will explore both the technical and creative aspects of web-based content creation. Students will develop online content using traditional hand-coding techniques, popular professional WYS/WYG tools, and industry standard image acquisition and editing application Adobe Photoshop. Students will gain familiarity with the Mac OS X operating system and basic web terminology. Prereq: 16EMED109, 16EMED110. BoK: NA. Credit Level: U. Credit Hrs: 3.00

16EMED381**New Media Studio II**

An introduction to time-based interactive content creation with industry standard animation and authoring environment Macromedia Flash.

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Electronic Media**16EMED381****New Media Studio II**

During the ten-week quarter, students will produce a range aesthetically pleasing rich media projects containing text, animation, sound and video. Students should be familiar with Max OS X, file management and basic web terminology. Prereq: 16EMED380. BoK: NA. Credit Level: U. Credit Hrs: 3.00

16EMED382**New Media Studio III**

During this advanced ten-week experience students will explore the world of motion graphics creation and visual effects for film, broadcast, DVD and the web using Adobe After Effects. All work created in this motion graphics class will be authored to DVD using DVD Studio Pro. Students should be familiar with MAC S X, Adobe Photoshop, Final Cut Pro and Quicktime. Prereq: 16EMED381. BoK: NA. Credit Level: U. Credit Hrs: 3.00

16EMED400**E-Media Programming**

Explores the strategic thinking involved in the development, production, marketing and distribution of electronic media content. Some key areas of emphasis for this course include interpreting and applying audience research, exploration of traditional and contemporary programming theory, and assessing the impact of new media technology on programming decisions. BoK: NA. Credit Level: U. Credit Hrs: 3.00

16EMED440**E-Media Sales**

A practical investigation of the procedures used in the selling of electronic media advertising. Emphasizes contemporary sales theory, the assessment of business marketing needs, interpersonal communication skills and hands on selling experience BoK: NA. Credit Level: U. Credit Hrs: 3.00

16EMED470**BearCast Management**

Available only to those students appointed as student directors of BearCast, the Electronic Media Division's student-run, Internet radio station. The course is designed to provide students with practical media management experience. An emphasis will be placed on the application of management theory, personnel management, time management and project management. BoK: NA. Credit Level: U. Credit Hrs: 3.00

16EMED471**UCast Management**

Available only to those students appointed as student directors of UCast, the Electronic Media Division's student-run cable television station. The course is designed to provide students with practical media management experience. An emphasis will be placed on the application of management theory, personnel management, time management and project management. BoK: NA. Credit Level: U. Credit Hrs: 3.00

16EMED475**Global E-Media Communication**

The course will expose students to selected countries and their respective internal and external broadcasting systems. Understanding geographic locations, cultural and historical developments will prepare the students to appreciate differences among foreign broadcasting systems. Moreover, global and international organizations and policy groups, and satellite and satellite service providers will be highlighted, aiming for an understanding of supranational satellite/television/multimedia/telecommunication developments and businesses. BoK: NA. Credit Level: U. Credit Hrs: 3.00

16EMED476**E-Media Criticism**

Critical study of electronic media, with detailed examination of programs, cultural relationships, and essential characteristics of electronic media. BoK: NA. Credit Level: U. Credit Hrs: 3.00

Electronic Media**16EMED480****Electronic Media Law**

Legal aspects of the broadcasting industry examined in the historical and current perspectives. Case studies focus on specific areas of electronic media practices and problems. BoK: SE. Credit Level: U. Credit Hrs: 3.00

16EMED485**Ethics of Mass Media**

Development of a strong ethical structure for media as an industry, and for the media professional as an individual and as part of a collective body. BoK: SE. Credit Level: U. Credit Hrs: 3.00

16EMED495**Internship**

On-the-job training in broadcasting and allied fields. Enrollment by faculty invitation only. Interviewing required. Six credit hours required; in addition, six credit hours can count as Applied or General E-Media electives. BoK: NA. Credit Level: U. Credit Hrs: 1.00-12.00

16EMED498**Senior Project**

This course will provide electronic media seniors with the opportunity to fuse all elements of the electronic media curriculum into a capstone experience - a single digital video project. This class will be comprised of three to four production teams made up of some combination of writer/producer, director, director of photography and editor. By the end of the quarter, each production team will be responsible for successfully completing the preproduction, production, postproduction and distribution aspects of an original digital video program. During the course of the quarter, students will also be required to present and discuss postgraduate plans, resumes, cover letters and demo reels. BoK: NA. Credit Level: U. Credit Hrs: 3.00

16EMED499**Capstone Experience Seminar**

This experience is designed to help Electronic Media Division B.F.A. candidates prepare for a presentation to Divisional faculty that encompasses each student's overall development during their academic experience at the University of Cincinnati in those baccalaureate competencies of the General Education Breadth of Knowledge areas for the Fine Arts and Humanities: critical thinking, effective communication, social responsibility and knowledge integration. BoK: NA. Credit Level: U. Credit Hrs: 0.00-3.00

16EMED550**Directed Research**

Prereq.: Perm. of Div. Head. BoK: NA. Credit Level: U. Credit Hrs: 1.00-3.00

16EMED560**Independent Study**

Prereq.: Perm. of Div. Head. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-12.00

16EMED598**Special Topics on Broadcasting**

Topic is determined by student interest and faculty expertise. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

16EMED630**Special Topics in Electronic Media**

This course is designed to fill in temporary gaps in electronic media offerings. This particular topic is determined by student interest and expertise. Specialized talents of visiting faculty and professional are used. BoK: NA. Credit Level: U. Credit Hrs: 3.00

English Horn**16ENHN680****English Horn Master Class**

A weekly seminar in English Horn performance covering English Horn and reed-making techniques, etudes, Bach arias, sonatas and concerti, orchestral excerpts. BoK: FA. Credit Level: U, G. Credit Hrs: 2.00

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Ensemble**16ENSM171****Bearcat Marching Band**

Ensemble which presents pre-game, half-time, and post-game entertainment at all home football games. Class includes Pre-school Camp and required performances. BoK: FA. Credit Level: U. Credit Hrs: 0.00-1.00

16ENSM175**Bearcat Varsity Band**

Required performances at basketball games and various events. Brass, woodwind, percussion and jazz ensembles meet at various times. BoK: FA. Credit Level: U. Credit Hrs: 0.00-1.00

16ENSM181**UC Men's Chorus**

A 50-voice ensemble performing classical and popular choral literature on campus, locally, and on national tours. BoK: FA. Credit Level: U. Credit Hrs: 0.00-1.00

16ENSM185**UC Women's Chorus**

A 50-voice ensemble performing classical and popular choral literature on campus, locally, and on annual national tours. BoK: FA. Credit Level: U. Credit Hrs: 0.00-1.00

16ENSM191**University of Cincinnati Symphony Orchestra**

This orchestra is specifically for nonmusic majors and is designed to provide students with an opportunity to rehearse and perform orchestral repertoire. It is open to qualified instrumentalists as determined by audition. BoK: FA. Credit Level: U. Credit Hrs: 0.00-1.00

16ENSM550**Lucca Festival Ensemble**

Preparation and presentation of orchestral programs and chamber music concerts. BoK: FA. Credit Level: U, G. Credit Hrs: 7.00

16ENSM570**Chamber Orchestra**

An orchestral experience exposing students to music of the 17th through 20th centuries for chamber orchestra. By audition only. Perm of Instructor. BoK: FA. Credit Level: U, G. Credit Hrs: 0.00-1.00

16ENSM571**Brass Choir**

A small virtuoso organization for brass and percussion players, performing standard brass literature in various styles and from all historical periods. BoK: FA. Credit Level: U, G. Credit Hrs: 0.00-1.00

16ENSM572**Jazz Lab Band**

An 18-member ensemble which performs a wide range of historical and contemporary literature, including swing era, bebop, mainstream, latin, jazz/rock fusion, and avant-garde. Student compositions and arrangements are frequently performed. By audition only. BoK: FA. Credit Level: U, G. Credit Hrs: 0.00-1.00

16ENSM573**Jazz Ensemble**

An 18-member ensemble which performs a wide range of historical and contemporary literature, including swing era, bebop, mainstream, latin, jazz/rock fusion, and avant-garde. Student compositions and arrangements are frequently performed. By audition only. BoK: FA. Credit Level: U, G. Credit Hrs: 0.00-1.00

16ENSM575**Concert Orchestra**

A full symphony orchestra performing symphonic literature of all periods. BoK: FA. Credit Level: U, G. Credit Hrs: 0.00-1.00

16ENSM576**Contemporary Music Ensemble**

An ensemble/repertoire course devoted to the study and performance of representative and experimental works of the twentieth century. BoK: FA. Credit Level: U, G. Credit Hrs: 0.00-1.00

Ensemble**16ENSM576****Contemporary Music Ensemble**

An ensemble/repertoire course devoted to the study and performance of representative and experimental works of the twentieth century. BoK: FA. Credit Level: U, G. Credit Hrs: 0.00-1.00

16ENSM577**Repertory Orchestra**

An orchestral experience exposing instrumentalists to a broad orchestral repertory and providing training for conducting majors. By audition only. Perm of Instructor. BoK: FA. Credit Level: U, G. Credit Hrs: 0.00-1.00

16ENSM579**Philharmonia Orchestra**

A full symphony orchestra which prepares concert and opera performances, and produces recordings on a regular basis. BoK: FA. Credit Level: U, G. Credit Hrs: 0.00-1.00

16ENSM581**Wind Ensemble**

A select ensemble of wind and percussion instrumentation which performs traditional and contemporary literature of the highest quality. BoK: FA. Credit Level: U, G. Credit Hrs: 0.00-1.00

16ENSM582**Wind Symphony**

A highly select ensemble of wind and percussion students dedicated to studying, performing, and recording the finest repertoire from all musical periods. BoK: FA. Credit Level: U, G. Credit Hrs: 0.00-1.00

16ENSM585**Chamber Winds**

A select group which promotes the advancement of wind music of artistic and historical significance through one-on-a-part performances in a chamber setting. BoK: FA. Credit Level: U, G. Credit Hrs: 0.00-1.00

16ENSM666**Ensemble**

Autumn Quarter registration for primary ensembles and assignments to major ensembles; registration is subsequently changed to reflect actual participation. BoK: NA. Credit Level: U, G. Credit Hrs: 0.00-1.00

16ENSM667**Ensemble**

Autumn Quarter registration for secondary ensembles prior to auditions and assignments; registration is subsequently changed to reflect actual participation. BoK: NA. Credit Level: U, G. Credit Hrs: 0.00-1.00

16ENSM671**Chamber Choir**

A select vocal ensemble specializing in vocal literature from the Baroque era to the present. BoK: FA. Credit Level: U, G. Credit Hrs: 0.00-1.00

16ENSM672**Chamber Singers**

A group of 55 vocalists concentrating in the definitive performance of vocal chamber music of all periods. The lab chorus for graduate choral conducting majors. BoK: FA. Credit Level: U, G. Credit Hrs: 0.00-1.00

16ENSM673**Chorale**

A 80-voice ensemble of performers which performs vocal compositions from the Middle Ages to the twentieth century. BoK: FA. Credit Level: U, G. Credit Hrs: 0.00-1.00

16ENSM674**Renaissance Consort**

A chamber ensemble specializing in the performance of music of the late Middle Ages, the Renaissance, and early Baroque. BoK: FA. Credit Level: U, G. Credit Hrs: 0.00-1.00

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Euphonium**16EUPH100****Euphonium Major Study**

Technical requirements: study of major and minor scales; selected studies for the refinement of basic techniques. Band repertoire. BoK: FA. Credit Level: U. Credit Hrs: 3.00

16EUPH110**Euphonium Concentration**

First-year study for euphonium students in the B.A. program in music. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16EUPH120**Euphonium Secondary**

First-year secondary study in euphonium as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16EUPH200**Euphonium Major Study**

Further advanced technical studies and compositions for the instrument covering different styles. Continuation of band repertoire. BoK: FA. Credit Level: U. Credit Hrs: 4.00

16EUPH210**Euphonium Concentration**

Second-year study for euphonium students in the B.A. program in music or in the music education program. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16EUPH220**Euphonium Secondary**

Second-year secondary study in euphonium as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16EUPH300**Euphonium Major Study**

Continuation of 16EUPH200. BoK: FA. Credit Level: U. Credit Hrs: 4.00

16EUPH310**Euphonium Concentration**

third-year study for euphonium students in the B.A. program in music or in the music education program. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16EUPH320**Euphonium Secondary**

Third-year secondary study in euphonium as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16EUPH400**Euphonium Major Study**

Advanced technical studies. Continuation of band repertoire. Preparation of Senior Recital including compositions of different styles. BoK: FA. Credit Level: U. Credit Hrs: 4.00

16EUPH410**Euphonium Concentration**

Fourth-year study for euphonium students in the B.A. program in music or in the music education program. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16EUPH420**Euphonium Secondary**

Fourth-year secondary study in euphonium as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16EUPH500**Euphonium Major**

Additional study for undergraduate euphonium majors who have completed the basic degree requirements; offered for undergraduate and graduate euphonium majors during the Summer Session. BoK: FA. Credit Level: U, G. Credit Hrs: 4.00

16EUPH510**Euphonium Concentration**

Additional study in euphonium for undergraduate students at the

Euphonium**16EUPH510****Euphonium Concentration**

concentration level who have completed the basic degree requirements; offered to all concentration-level euphonium students during the Summer Session. BoK: FA. Credit Level: U, G. Credit Hrs: 2.00

16EUPH530**Euphonium Elective**

Nonrequired private study in euphonium; requires permission of the department and the college. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00-2.00

16EUPH560**Independent Study**

In-depth study of a topic related to the euphonium, selected by the student in consultation with a member of the faculty. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00-12.00

16EUPH800**Euphonium Graduate Major Study**

Selected studies for continued refinement of previous skills. Preparation of two recital programs including repertoire of a high level of difficulty suited to the needs of the individual student. Band and orchestral repertoire. Credit Level: G. Credit Hrs: 4.00

16EUPH810**Euphonium Concentration**

Master's-level study for students accepted for a cognate in euphonium performance. Credit Level: G. Credit Hrs: 2.00

16EUPH820**Euphonium Secondary**

Secondary study in euphonium for master's degree students. Credit Level: G. Credit Hrs: 1.00

16EUPH850**Artist Certificate Euphonium**

First-year major study in euphonium for students accepted into the artist diploma program. NOTE: The Artist Diploma degree program in euphonium is not currently available. Credit Level: G. Credit Hrs: 6.00

16EUPH895**Practicum**

Practical experience in the professional world. Credit Level: G. Credit Hrs: 1.00

16EUPH899**Master's Candidacy**

Retainment of eligibility for graduation. Credit Level: G. Credit Hrs: 1.00

16EUPH900**Euphonium Major**

Doctoral-level study for euphonium performance majors. Credit Level: G. Credit Hrs: 4.00

16EUPH910**Euphonium Concentration**

Doctoral-level study for students accepted for a cognate in euphonium performance. Credit Level: G. Credit Hrs: 2.00

16EUPH920**Euphonium Secondary**

Secondary study in euphonium for doctoral-level students. Credit Level: G. Credit Hrs: 1.00

16EUPH930**Euphonium Elective**

Nonrequired private study in euphonium for doctoral students; requires permission of the department and the college. Credit Level: G. Credit Hrs: 1.00-2.00

16EUPH950**Artist Certification Euphonium**

Second-year major study in euphonium for students accepted into the artist diploma program. NOTE: The Artist Diploma program in

H=University Honors course.

BoK (Breadth of Knowledge) Coding. DC: Diversity & Culture. EC: English composition. FA: Fine Arts. HP: Historical Perspectives. HU: Humanities. LT: Literature. NS: Natural Sciences. QR: Quantitative Reasoning. SE: Social & Ethical Issues. SS: Social Sciences.

Euphonium**16EUPH950****Artist Certification Euphonium**

euphonium is not currently available. Credit Level: G. Credit Hrs: 6.00

16EUPH960**Euphonium Concerto**

Public performance of a concerto with one of the major performing ensembles. Credit Level: G. Credit Hrs: 2.00

16EUPH970**Euphonium Recital**

Public performance by a doctoral student in euphonium of selected compositions; approved and graded by the faculty. Credit Level: G. Credit Hrs: 3.00

16EUPH980**Lecture Recital**

Combined public lecture and performance of a selected topic in the euphonium repertoire; approved and graded by the faculty. Credit Level: G. Credit Hrs: 3.00

16EUPH990**DMA Document**

Research and preparation of the final written project for the DMA degree in euphonium; topic to be approved and supervised by the faculty. Credit Level: G. Credit Hrs: 1.00-15.00

Fine Arts - Music**16FAM101****Rudiments of Music**

Fundamentals of music; notation; basic vocabulary. Emphasis on rhythmic aspects of music, and musical perception. Analysis of representative compositions. BFA Dance majors only. BoK: FA., QR. Credit Level: U. Credit Hrs: 2.00

16FAM102**Rudiments of Music**

Fundamentals of music; notation; basic vocabulary. Emphasis on rhythmic aspects of music, and musical perception. Analysis of representative compositions. BFA Dance majors only. Prereq: 16FAM101. BoK: FA, QR. Credit Level: U. Credit Hrs: 2.00

16FAM150**Art of Recording: Music for the Masses**

An introduction to the aesthetics of recorded music and media. The unique sonic qualities of recordings that shape our listening experiences are studied. Many listening examples of all types of productions are used to develop a common language base. Trips to local recording studios are planned. BoK: FA. Credit Level: U. Credit Hrs: 3.00

16FAM177**Cincinnati Musical Scene Part I**

Special lectures, guest lecturers, film strips, and in-depth discussion of major musical events in the Cincinnati area. Outside concerts are required. Tickets for the concerts are separate from fees, and must be purchased by each student in addition to the basic tuition for the course. Offered alt. yrs. BoK: FA. Credit Level: U. Credit Hrs: 3.00

16FAM178**Cincinnati Musical Scene Part II**

Continuation of FINE ART 177. Special lectures, guest lecturers, film strips, and in-depth discussion of major musical events in the Cincinnati area. Outside concerts are required. Tickets for the concerts are separate from fees, and must be purchased by each student in addition to the basic tuition for the course. Offered alt. yrs. BoK: FA. Credit Level: U. Credit Hrs: 3.00-6.00

16FAM179**The Cincinnati Musical Scene Part III**

Continuation of 30FAM178 including an analysis of one of the operas to be presented by the Cincinnati Opera Association during the Summer Festival. Offered alt. yrs. BoK: FA. Credit Level: U. Credit Hrs: 3.00

Fine Arts - Music**16FAM192****The Folk-Rock-Jazz Culture - Part I**

Special lectures, outside readings, and in-depth discussions of major trends in American popular music culture in the Cincinnati area. Outside concerts are required. Tickets for the concerts are separate from fees, and must be purchased by each student in addition to tuition for the course. Offered alt. yrs. BoK: FA., DC. Credit Level: U. Credit Hrs: 3.00

16FAM193**The Folk-Rock-Jazz Culture - Part II**

Continuation of 30FMA192. Special lectures, outside readings, and in-depth discussions of major trends in American popular music culture in the Cincinnati area. Outside concerts are required. Tickets for the concerts are separate from fees, and must be purchased by each student in addition to tuition for the course. Offered alt. yrs. BoK: FA., DC. Credit Level: U. Credit Hrs: 3.00

16FAM194**The Folk-Rock-Jazz Culture - Part III**

Continuation of 30FAM193. Offered alt. yrs. BoK: FA., DC. Credit Level: U. Credit Hrs: 3.00

16FAM201**Music Appreciation I**

The common components and procedures in the music of Western culture. Lectures, visiting concert groups, and prepared listening tapes. For nonmusic majors. BoK: FA. Credit Level: U. Credit Hrs: 3.00

16FAM202**Music Appreciation II**

Instruments, instrumental combinations, and instrumental forms in the music of Western culture. Lectures, visiting concert groups, and prepared listening tapes. For nonmusic majors. BoK: FA. Credit Level: U. Credit Hrs: 3.00

16FAM203**Music Appreciation III**

Voices, choral combinations, choral forms, and the musical stage in Western culture. Lectures, visiting concert groups, and prepared listening tapes. For nonmusic majors. BoK: FA. Credit Level: U. Credit Hrs: 3.00

16FAM221**Introduction to Arts Appreciation I**

Provides the general university student with a grounding in names, dates, examples, and stylistic characteristics from the normally accepted periods in the history of the arts. An entry-level offering for the general student and for those seeking a survey course to fulfill a Fine Arts requirement. This course covers Hellenic Greece through the Renaissance. BoK: FA. Credit Level: U. Credit Hrs: 3.00

16FAM222**Introduction to Arts Appreciation II**

See 16FAM221. This course covers Baroque through Contemporary Arts. BoK: FA. Credit Level: U. Credit Hrs: 3.00

16FAM251**Jazz Appreciation: Origins**

Origins of jazz: ragtime, blues, minstrals, spirituals, and brass bands. BoK: FA., DC. Credit Level: U. Credit Hrs: 3.00

16FAM252**Jazz Appreciation: The Swing Era**

Covers the period in which jazz was America's popular music, and the continuation into Bebop, Cool, Hard Bop and Free Jazz. BoK: FA., DC. Credit Level: U. Credit Hrs: 3.00

16FAM253**Jazz Appreciation: Fusion to the Present**

Final segment of the sequence focuses on fusion of styles (e.g. jazz and rock, jazz and hiphop) as well as revivals of earlier styles and contemporary developments. BoK: FA., DC. Credit Level: U. Credit Hrs: 3.00

H=University Honors course.

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Fine Arts - Music**16FAM315****Music in the French Baroque and Pre-Classical Periods**

A survey of music in France from the reign of Louis XIV to Louis XVI. The course will include the study of French National Operas of Lully and Rameau, opera-ballet, the opera seria reforms of Gluck, liturgical works, lute and keyboard music, chamber works and symphonic works against the background of the luxuriant royal society that fostered the arts. BoK: FA. Credit Level: U. Credit Hrs: 3.00

16FAM316**French Music in the Classic and Romantic Periods**

During the nineteenth century, Paris was regarded by all countries as the musical capital of the world. This course is intended to cover the music of France from the time of the French Revolution up to the end of the nineteenth century. It will focus on important trends in opera, symphonic works, piano literature, choral works, and chamber literature during the Classic and Romantic periods. BoK: FA. Credit Level: U. Credit Hrs: 3.00

16FAM317**Modern Music in France**

This course will focus on the most important musical trends in France from Debussy and Stravinsky up to the present. During the twentieth century, France was the center of musical culture and art. It was the hotbed of Neo-Classicism and experimentation in electronic music. This course will introduce new musical genres, illustrate the influences of art on music and introduce new sound materials outside functional tonality. BoK: FA. Credit Level: U. Credit Hrs: 3.00

16FAM321**Introduction to Bach, Beethoven, and Brahms: Major Compositions**

The course is a presentation of the best musical works of Johann Sebastian Bach, Ludwig van Beethoven and Johannes Brahms, the three Bs of music. BoK: FA. Credit Level: U. Credit Hrs: 3.00

16FAM331**History of Rock and Roll/Pop Music: 1954-1969**

History of Rock and Roll/Pop Music from 1954 to 1969 is to be the first in a series of three classes. This first course will be a sociological and musical survey of the origins of the genre and will cover the different cultural elements that brought it about and will include a wide variety of recording artists and their greatest hits. BoK: FA. Credit Level: U. Credit Hrs: 3.00

16FAM332**History of Rock and Roll/Pop Music: 1969-1983.**

History of Rock and Roll/Pop Music from 1969 to 1983 is the second course in a three-part series. It will cover sociological events as they relate to music and cover a wide variety of musical styles that evolved after the Beatles broke up and will lead the class up to the multimedia explosion of music on MTV. BoK: FA. Credit Level: U. Credit Hrs: 3.00

16FAM333**History of Rock and Roll/Pop Music: 1983-2001**

History of Rock and Roll/Pop from 1983 to 2001, the third in the series of proposed rock/pop classes, is intended to explore the new generation of music and the music industry from sociological, technological and musical points of view. It will cover the multimedia effects of MTV and the new stars of rock and popular music; it will show how artists explored different styles outside of their own areas of specialization, drawing on many other influences which destroyed the distinction of styles within particular groups and led to a questionable outcome for the future of Rock and Roll/Pop Music. BoK: FA. Credit Level: U. Credit Hrs: 3.00

16FAM342H**Rock Music Workshop: Creative Impulse in the American Working Class**

A study, in a weekly workshop format, of the creative process using rock music as the medium. Teams of students shall create new songs in selected rock music styles by duplicating the language, rhythm and form of each style under consideration. No musical training or

Fine Arts - Music**16FAM342H****Rock Music Workshop: Creative Impulse in the American Working Class**

knowledge of songwriting is required. BoK: FA. Credit Level: U. Credit Hrs: 3.00

16FAM395H**Music, Art, and Thought in Medici Florence, ca. 1430-1600**

An Honors Special Topics Course: From c1430- 1600, Florence witnessed a remarkable synergy of music, art, and thought financed by the Medici dynasty. Inhabited by such renowned artists as Leonardo da Vinci and Michaelangelo, musicians Guillaume DuFay and Heinrich Isaac, and writers Angelo Poliziano and Niccolo Machiavelli, Florence was a vortex of Renaissance humanism. The city also witnessed religious fanaticism and French invasions ravage it for two decades beginning in 1492. In this interdisciplinary course we will culminate with a one-week study tour of the city, where modern viewers can witness and experience first-hand an abundance of Medici era art and architecture in situ. BoK: FA., HP. Credit Level: U. Credit Hrs: 3.00-4.00

16FAM396**Opera: Its Divas, Queens, and Enchantresses**

Honors Course - This class will aim to grasp how gender and sexuality have affected the way musicians, authors, filmmakers, and others - from the 17th Century to the present-have understood and created their images of opera. BoK: NA. Credit Level: U. Credit Hrs: 3.00

16FAM396H**Opera: Its Divas, Queens, and Enchantresses**

Honors Course - This class will aim to grasp how gender and sexuality have affected the way musicians, authors, filmmakers, and others - from the 17th Century to the present-have understood and created their images of opera. BoK: NA. Credit Level: U. Credit Hrs: 3.00

16FAM397**Broadway Opera**

An introduction to the American musical theater and the burgeoning group of American music scholars who study Broadway musicals for Honors Scholars. BoK: FA. Credit Level: U. Credit Hrs: 4.00

16FAM397H**Music and Architecture: Correlation and Comparison**

An introduction to the spatiotemporal correlation that is common to both music and architecture. BoK: FA. Credit Level: U. Credit Hrs: 3.00

16FAM398H**Translations and Transformations: The Art and Aesthetics of Musical Transcriptions**

In western music, performers and composers sometimes transcribe works originally composed for one type of ensemble into works for others. Compositions can simply be "translated" to the new medium or they can be radically transformed in the process. In this course, we will explore this continuum of transcriptions and related aesthetic issues (e.g., authenticity versus "added value," the role of virtuosity, etc.), while developing active listening skills and creating a framework for life-long appreciation of music. BoK: FA. Credit Level: U. Credit Hrs: 3.00

16FAM399H**The Meaning of Music**

Examination of the ways that music, especially absolute music, denotes meanings and expresses emotions. BoK: NA. Credit Level: U. Credit Hrs: 3.00

16FAM511**Theory-Composition**

Basic knowledge and skills in music theory and music composition for nonmusic majors. BoK: FA., QR. Credit Level: U, G. Credit Hrs: 2.00

16FAM512**Theory-Composition**

Continuation of 16FAM511. BoK: FA., QR. Credit Level: U, G. Credit Hrs: 2.00

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Fine Arts - Music**16FAM513****Theory-Composition**

Continuation of 16FAM512. BoK: FA., QR. Credit Level: U, G. Credit Hrs: 2.00

16FAM520**Multicultural Expressions Through the Arts**

Designed to introduce the general university student to the musical and artistic contributions of African-Americans, Asians, Hispanics, and Native Americans. BoK: FA., DC. Credit Level: U, G. Credit Hrs: 3.00

16FAM521**The Fine Arts Experience**

Using literature, poetry, drama, music and movement to explore the arts as communication in a variety of cultures, students will become knowledgeable about, perform, and create artistic works in multiple media formats and bring aesthetic criticism to bear on their work. BoK: FA., DC. Credit Level: U, G. Credit Hrs: 3.00

16FAM530**Lucca: Italian Culture**

Immersion in the daily life and language of Italy through a five-week residency in Lucca. Field trips to major cultural centers with exposure to Italian history, art, architecture, and music. BoK: NA. Credit Level: U, G. Credit Hrs: 2.00-3.00

16FAM630**Special Topics**

Topics established every quarter by Department/Division. BoK: NA. Credit Level: U, G. Credit Hrs: 0.00-6.00

Flute**16FLUT100****Flute Major Study**

Technical requirements: studies for the development of tone quality; major and minor scales. Cavally -- Melodious and Progressive Studies, Books I and II (Anderson, Gariboldi, Kochler-Terschak, Kummer, etc.). Solo pieces selected from 24 Concert Pieces (Cavally), Handel -- Sonatas, Bournonville -- Danse pour Katia, Mouquet -- Five Short Pieces, and works of comparable difficulty. BoK: FA. Credit Level: U. Credit Hrs: 3.00

16FLUT110**Flute Concentration**

First-year study for flute students in the B.A. program in music. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16FLUT120**Flute Secondary**

First-year secondary study in flute as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16FLUT200**Flute Major Study**

Technical requirements: continuation of tone studies, application and study of vibrato, major and minor scales, triad and dominant seventh chord arpeggios. Cavally -- Melodious and Progressive Studies, Books II and III, Handel -- Sonatas, Mouquet -- The Flute of Pan, Mozart -- Concerti, J.S. Bach -- Suite in B Minor, Camus -- Chanson et Badinerie, and works of comparable difficulty. BoK: FA. Credit Level: U. Credit Hrs: 4.00

16FLUT210**Flute Concentration**

Second-year study for flute students in the B.A. program in music or in the music education program. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16FLUT220**Flute Secondary**

Second-year secondary study in flute as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

Flute**16FLUT300****Flute Major Study**

Technical requirements: further tone and vibrato studies, more difficult scales and arpeggios with increased facility, velocity studies -- all from memory. Famous Flute Studies (Anderson), Op. 15, Op. 30 and Op. 63. Passages from the orchestral repertoire and sight-reading. J. S. Bach -- Sonatas, Hindemith -- Sonata, HuÛ -- Fantasia, Casella -- Sicilienne and Burlesque, Karg-Elert -- Sonata Appassionata, Griffes -- Poeme, and works of comparable difficulty. BoK: FA. Credit Level: U. Credit Hrs: 4.00

16FLUT310**Flute Concentration**

Third-year study for flute students in the B.A. program in music or in the music education program. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16FLUT320**Flute Secondary**

Third-year secondary study in flute as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16FLUT400**Flute Major Study**

Advanced technical studies: preparation of Senior Recital. Orchestral studies and sight-reading. Karg-Elert -- Twenty-four Caprices, Anderson -- Virtuoso Etudes, Jean-Jean -- Etudes Moderne. Solos of the difficulty of Dutilleux -- Sonantine, Ibert -- Concerto for Flute, Piston -- Sonata, Pendleton -- Concerto al pestre. BoK: FA. Credit Level: U. Credit Hrs: 4.00

16FLUT410**Flute Concentration**

Fourth-year study for flute students in the B.A. program in music or in the music education program. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16FLUT420**Flute Secondary**

Fourth-year secondary study in flute as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16FLUT500**Flute Major**

Additional study for undergraduate flute majors who have completed the basic degree requirements; offered for undergraduate and graduate flute majors during the Summer Session. BoK: FA. Credit Level: U, G. Credit Hrs: 4.00

16FLUT510**Flute Concentration**

Additional study in flute for undergraduate students at the concentration level who have completed the basic degree requirements; offered to all concentration-level flute students during the Summer Session. BoK: FA. Credit Level: U, G. Credit Hrs: 2.00

16FLUT530**Flute Elective**

Nonrequired private study in flute; requires permission of the department and the college. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00-2.00

16FLUT560**Independent Study**

In-depth study of a topic related to the flute, selected by the student in consultation with a member of the faculty. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00-12.00

16FLUT630**Special Topics**

Topics established by the area faculty on an as needed basis. BoK: FA. Credit Level: U, G. Credit Hrs: 0.00-3.00

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LT: Literature. NS: Natural Sciences. QR: Quantitative Reasoning. SE: Social & Ethical Issues. SS: Social Sciences.

Flute**16FLUT680****Piccolo Master Class**

Forum for performance and discussion of topics related to the piccolo.
BoK: FA. Credit Level: U, G. Credit Hrs: 0.00-2.00

16FLUT800**Flute Graduate Major Study**

Preparation of two recital programs, one to be performed in public.
Advanced technical studies, solo pieces, and orchestral studies
emphasizing skill in phrasing and solo technique will be adapted to the
needs of the individual student. Credit Level: G. Credit Hrs: 4.00

16FLUT810**Flute Concentration**

Master's-level study for students accepted for a cognate in flute
performance. Credit Level: G. Credit Hrs: 2.00

16FLUT820**Flute Secondary**

Secondary study in flute for master's degree students. Credit Level: G.
Credit Hrs: 1.00

16FLUT850**Artist Diploma in Flute**

First-year major study in flute for students accepted into the artist
diploma program. Credit Level: G. Credit Hrs: 6.00

16FLUT855**Artist Diploma Recital**

Public performance by an artist diploma student in flute of selection
compositions; approved and graded by the faculty. Credit Level: G.
Credit Hrs: 2.00

16FLUT880**Master Recital**

Public performance by a master's degree student in flute of selected
compositions; approved and graded by the faculty. Credit Level: G.
Credit Hrs: 1.00-2.00

16FLUT895**Practicum**

Practical experience in the professional world. Credit Level: G. Credit
Hrs: 1.00

16FLUT899**Master's Candidacy**

Retainment of eligibility for graduation. Credit Level: G. Credit Hrs: 1.00

16FLUT900**Flute Doctoral Major Study**

Selected studies for continued refinement of previous skills. Repertoire
to be selected from works of advanced technical difficulty. Preparation
of required doctoral recitals. Credit Level: G. Credit Hrs: 4.00

16FLUT910**Flute Concentration**

Doctoral-level study for students accepted for a cognate in flute
performance. Credit Level: G. Credit Hrs: 2.00

16FLUT920**Flute Secondary**

Secondary study in flute for doctoral-level students. Credit Level: G.
Credit Hrs: 1.00-2.00

16FLUT930**Flute Elective**

Nonrequired private study in flute for doctoral students; requires
permission of the department and the college. Credit Level: G. Credit
Hrs: 1.00-2.00

16FLUT950**Artist Diploma in Flute**

Second-year major study in flute for students accepted into the artist
diploma program. Credit Level: G. Credit Hrs: 6.00

Flute**16FLUT960****Flute Concerto**

Public performance of a concerto with one of the major performing
ensembles. Credit Level: G. Credit Hrs: 2.00

16FLUT970**Doctoral Recital**

Public performance by a doctoral student in flute of selected
compositions; approved and graded by the faculty. Credit Level: G.
Credit Hrs: 3.00

16FLUT980**Lecture Recital**

Combined public lecture and performance of a selected topic in the flute
repertoire; approved and graded by the faculty. Credit Level: G. Credit
Hrs: 3.00

16FLUT990**DMA Document**

Research and preparation of the final written project for the DMA
degree in flute; topic to be approved and supervised by the faculty.
Credit Level: G. Credit Hrs: 1.00-15.00

Classical Guitar**16GTAR100****Classical Guitar Major Study**

Technical facility in scales, arpeggios, and guitar studies. Solo
repertoire including selections from Sor-Segovia, Twenty Studies, etude
collections of Giuliani, Carcassi, Aguado and Coste, Villa-Lobos
Preludes. Ensemble literature for two and three guitars. Chamber music
literature. BoK: FA. Credit Level: U. Credit Hrs: 4.00

16GTAR110**Classical Guitar-Concentration**

First-year study for classical guitar students in the B.A. program in
music. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16GTAR120**Classical Guitar Secondary**

First-year secondary study in classical guitar as required for specific
majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16GTAR200**Classical Guitar Major Study**

Continuation of the above. Additional works including selections from
DeVisee suites, Dowland lute pieces, Bach preludes, Milan pavares,
Sor Twenty Studies. Ensemble literature. Chamber music literature.
BoK: FA. Credit Level: U. Credit Hrs: 4.00

16GTAR210**Classical Guitar-Concentration**

Second-year study for classical guitar students in the B.A. program in
music or in the music education program. BoK: FA. Credit Level: U.
Credit Hrs: 2.00

16GTAR220**Classical Guitar Secondary**

Second-year secondary study in classical guitar as required for specific
majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16GTAR300**Classical Guitar Major Study**

Continuation of the above. Additional works include selections from
Bach lute suites, solo works of Corbetta, Scarlatti, Sor, Tarrega,
Albeniz, Ponce. Study of the Spanish vihuelists Fuenllana, Milan,
Mudarra, Narvaez, transcription and edition procedures. Ensemble
literature. Chamber music literature. Preparation of joint recital. BoK:
FA. Credit Level: U. Credit Hrs: 4.00

16GTAR310**Classical Guitar-Concentration**

Third-year study for classical guitar students in the B.A. program in
music or in the music education program. BoK: FA. Credit Level: U.
Credit Hrs: 2.00

H=University Honors course.

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LT: Literature. NS: Natural Sciences. QR: Quantitative Reasoning. SE: Social & Ethical Issues. SS: Social Sciences.

Classical Guitar**16GTAR320****Classical Guitar Secondary**

Third-year secondary study in classical guitar as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16GTAR400**Classical Guitar Major Study**

Continuation of the above. Additional works including selections from Bach lute suites and fugues, solo works of Sor, Giuliani, Tarrega, Albeniz, de Falla, Turina, Britten, Berkeley, Brindle, Rodrigo, Villa-Lobos, Lauro, H.W. Henze. Study of Castelnuovo-Tedesco, Palau, and Rodrigo concertos among others. Ensemble literature. Chamber music literature. Preparation of Senior Recital. BoK: FA. Credit Level: U. Credit Hrs: 4.00

16GTAR410**Classical Guitar-Concentration**

Fourth-year study for classical guitar students in the B.A. program in music or in the music education program. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16GTAR420**Classical Guitar Secondary**

Fourth-year secondary study in classical guitar as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16GTAR500**Guitar Major**

Additional study for undergraduate classical guitar majors who have completed the basic degree requirements; offered for undergraduate and graduate classical guitar majors during the Summer Session, depending on faculty availability. BoK: FA. Credit Level: U, G. Credit Hrs: 4.00

16GTAR510**Guitar Concentration**

Additional study in classical guitar for undergraduate students at the concentration level who have completed the basic degree requirements. BoK: FA. Credit Level: U, G. Credit Hrs: 2.00

16GTAR530**Classical Guitar Elective**

Nonrequired private study in classical guitar; requires permission of the department and the college. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00-2.00

16GTAR531**Classical Guitar Repertoire**

A survey of literature for the classical guitar beginning with music for the 16th-century vihuela, continuing through the 20th-century repertoire. Lute music, tablatures, transcription procedures integrally covered. Given in alternate years. BoK: FA. Credit Level: U, G. Credit Hrs: 2.00

16GTAR532**Classical Guitar Repertoire**

A survey of literature for the classical guitar beginning with music for the 16th-century vihuela, continuing through the 20th-century repertoire. Lute music, tablatures, transcription procedures integrally covered. Given in alternative years. BoK: FA. Credit Level: U, G. Credit Hrs: 2.00

16GTAR533**Classical Guitar Repertoire**

A survey of literature for the classical guitar beginning with music for the 16th-century vihuela, continuing through the 20th-century repertoire. Lute music, tablatures, transcription procedures integrally covered. Given in alternative years. BoK: FA. Credit Level: U, G. Credit Hrs: 2.00

16GTAR550**Classical Guitar Chamber Music**

Preparation and performance of representative chamber music literature. BoK: FA. Credit Level: U, G. Credit Hrs: 0.00-3.00

Classical Guitar**16GTAR551****Classical Guitar Pedagogy**

A survey of methods and materials for private and classroom teaching. Historical and contemporary tutors examined. Consideration of organizational and communicative teaching techniques. Evaluation of aims and results. Given in alternate years. BoK: FA. Credit Level: U, G. Credit Hrs: 2.00

16GTAR552**Classical Guitar Pedagogy**

A survey of methods and materials for private and classroom teaching. Historical and contemporary tutors examined. Consideration of organizational and communicative teaching techniques. Evaluation of aims and results. Given in alternate years. BoK: FA. Credit Level: U, G. Credit Hrs: 2.00

16GTAR553**Classical Guitar Pedagogy**

A survey of methods and materials for private and classroom teaching. Historical and contemporary tutors examined. Consideration of organizational and communicative teaching techniques. Evaluation of aims and results. Given in alternative years. BoK: FA. Credit Level: U, G. Credit Hrs: 2.00

16GTAR560**Independent Study**

In-depth study of a topic related to classical guitar selected by the student in consultation with a member of the faculty. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00-12.00

16GTAR575**Classical Guitar Class**

Applied course in basic guitar skills. Emphasis on playing classical and folk styles. Review of current published methods and materials. Open to non-CCM students. Course repeats each qtr. BoK: FA. Credit Level: U, G. Credit Hrs: 2.00

16GTAR630**Special Topics in Classical Guitar**

Topics established as needed to cover new issues in the discipline. BoK: FA. Credit Level: U, G. Credit Hrs: 0.00-3.00

16GTAR660**Special Topics**

Topics established every quarter by Department/Division. BoK: FA. Credit Level: U, G. Credit Hrs: 0.00-6.00

16GTAR670**Classical Guitar Ensemble**

Four years participation required of all classical guitar majors. Preparation and performance of representative literature for two, three, four guitars; chamber music for guitar and voice, guitar and other instruments. For guitar majors and assisting vocalists and instrumentalists only. BoK: FA. Credit Level: U, G. Credit Hrs: 0.00-1.00

16GTAR800**Classical Guitar Major Study**

Preparation of two recital programs to be performed in public. Repertoire of advanced difficulty suited to the needs of the individual student. Credit Level: G. Credit Hrs: 4.00

16GTAR821**Performance Practicum**

Discussion and performance of major classical guitar repertoire. Emphasis on refinement of performance skills. Each student will perform at least one substantial example of each of the following: baroque suite, contemporary work. Area majors. Credit Level: G. Credit Hrs: 2.00

16GTAR822**Performance Practicum**

Discussion and performance of major classical guitar repertoire. Emphasis on refinement of performance skills. Each student will perform at least one substantial example of each of the following:

H=University Honors course.

BoK (Breadth of Knowledge) Coding. DC: Diversity & Culture. EC: English composition. FA: Fine Arts. HP: Historical Perspectives. HU: Humanities. LT: Literature. NS: Natural Sciences. QR: Quantitative Reasoning. SE: Social & Ethical Issues. SS: Social Sciences.

Classical Guitar**16GTAR822****Performance Practicum**

baroque suite, contemporary work. Area majors. Credit Level: G. Credit Hrs: 2.00

16GTAR823**Performance Practicum**

Discussion and performance of major classical guitar repertoire. Emphasis on refinement of performance skills. Each student will perform at least one substantial example of each of the following: baroque suite, contemporary work. Area majors. Credit Level: G. Credit Hrs: 2.00

16GTAR824**Seminar in Classical Guitar Repertoire**

Study and analysis of significant works and composers in each stylistic period. Music of 16th-17th centuries, 18th-19th centuries, and 20th Century. Area majors. Credit Level: G. Credit Hrs: 2.00

16GTAR825**Seminar in Classical Guitar Repertoire**

Study and analysis of significant works and composers in each stylistic period. Music of 16th-17th centuries, 18th-19th centuries, and 20th century. Area majors. Credit Level: G. Credit Hrs: 2.00

16GTAR826**Seminar in Classical Guitar Repertoire**

Study and analysis of significant works and composers in each stylistic period. Music of 16th-17th centuries, 18th-19th centuries, and 20th century. Area majors. Credit Level: G. Credit Hrs: 2.00

16GTAR880**Masters Recital**

Public performance by a master's degree student in classical guitar of selected compositions; approved and graded by the faculty. Credit Level: G. Credit Hrs: 1.00-2.00

16GTAR895**Practicum**

Practical experience in the professional world. Credit Level: G. Credit Hrs: 1.00

16GTAR899**Master's Candidacy**

In-depth study of a topic related to the classical guitar, selected by the student in consultation with a member of the faculty. Credit Level: G. Credit Hrs: 1.00

Harp**16HARP100****Harp Major Study**

Technical studies such as Holy -- Studies, Vol. I, Bochs-Martenot -- Etudes, Op. 318, Nos. 1-20, Pozzoli -- Studies. Marcel Grandjany -- Two French Folk Songs; Louise David Album, Vols. I and II (selected solo pieces). BoK: FA. Credit Level: U. Credit Hrs: 3.00

16HARP110**Harp Concentration**

First-year study for harp students in the B.A. program in music. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16HARP120**Harp Secondary**

First-year secondary study in harp as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16HARP200**Harp Major Study**

Studies include Holy -- Studies, Vol. I, Bochs-Martenot -- Etudes, Op. 318, Nos. 21-40, Dizi -- Studies, Vol. I, Naderman-Hasselmans -- Seven Progressive Sonatinas, Dussek -- Sonatinas, Louise David Album, Vols. I and II. Haydn -- Theme and Variations. BoK: FA. Credit Level: U. Credit Hrs: 4.00

Harp**16HARP210****Harp Concentration**

Second-year study for harp students in the B.A. program in music or in the music education program. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16HARP220**Harp Secondary**

Second-year secondary study in harp as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16HARP300**Harp Major Study**

Continuation of Dizi and Bochs-Martenot studies. J. S. Bach-Grandjany -- Largo from the Fifth Violin Sonata, Prokofiev -- Prelude in C, Handel-Salzedo -- The Harmonious Blacksmith, Maderman -- Sonatinas. BoK: FA. Credit Level: U. Credit Hrs: 4.00

16HARP310**Harp Concentration**

Third-year study for harp students in the B.A. program in music or in the music education program. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16HARP320**Harp Secondary**

Third-year secondary study in harp as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16HARP400**Harp Major Study**

Dizi -- Studies, Vol. II, continuation of Bochs-Martenot Etudes. Solo pieces of the difficulty of Pescetti -- Salzedo -- Sonata in C Minor, Dussek-Zabaleta -- Sonata, Tournier-Feerie (Prelude and Dance). Passages from the orchestral repertoire. Preparation of Senior Recital. BoK: FA. Credit Level: U. Credit Hrs: 4.00

16HARP410**Harp Concentration**

Fourth-year study for harp students in the B.A. program in music or in the music education program. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16HARP420**Harp Secondary**

Fourth-year secondary study in harp as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16HARP500**Harp Major**

Additional study for undergraduate harp majors who have completed the basic degree requirements; offered for undergraduate and graduate harp majors during the Summer Session. BoK: FA. Credit Level: U, G. Credit Hrs: 4.00

16HARP510**Harp Concentration**

Additional study in harp for undergraduate students at the concentration level who have completed the basic degree requirements; offered to all concentration-level harp students during the Summer Session. BoK: FA. Credit Level: U, G. Credit Hrs: 2.00

16HARP530**Harp Elective**

Nonrequired private study in harp; requires permission of the department and the college. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00-2.00

16HARP531**Harp Seminar**

Two quarters of harp pedagogy theory, one quarter of applied supervised teaching in preparation for future teaching opportunities. BoK: FA. Credit Level: U, G. Credit Hrs: 2.00

H=University Honors course.

BoK (Breadth of Knowledge) Coding. DC: Diversity & Culture. EC: English composition. FA: Fine Arts. HP: Historical Perspectives. HU: Humanities. LT: Literature. NS: Natural Sciences. QR: Quantitative Reasoning. SE: Social & Ethical Issues. SS: Social Sciences.

Harp**16HARP532****Harp Seminar**

Two quarters of harp pedagogy theory, one quarter of applied supervised teaching in preparation for future teaching opportunities. BoK: FA. Credit Level: U, G. Credit Hrs: 2.00

16HARP533**Harp Seminar**

Two quarters of harp pedagogy theory, one quarter of applied supervised teaching in preparation for future teaching opportunities. BoK: FA. Credit Level: U, G. Credit Hrs: 2.00

16HARP560**Independent Study**

In-depth study of a topic related to the harp, selected by the student in consultation with a member of the faculty. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00-12.00

16HARP611**Seminar in Harp Literature**

Overview of harp solo, chamber, concerto, and orchestral literature. Prereq.: Music major. BoK: FA. Credit Level: U, G. Credit Hrs: 2.00

16HARP612**Seminar in Harp Literature**

Overview of harp solo, chamber, concerto, and orchestral literature. Prereq: 16HARP611. BoK: FA. Credit Level: U, G. Credit Hrs: 2.00

16HARP613**Seminar in Harp Literature**

Overview of harp solo, chamber, concerto and orchestral literature. Prereq: 16HARP612. BoK: FA. Credit Level: U, G. Credit Hrs: 2.00

16HARP670**Harp Ensemble**

Training in ensemble playing for harp majors, including classical, popular, and orchestral music. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00

16HARP680**Harp Master Class**

Performance preparation for student recitals, boards, competitions, and auditions. Discussion of performance elements essential for all students. BoK: FA. Credit Level: U, G. Credit Hrs: 2.00

16HARP800**Harp Graduate Major Study**

Preparation of two recital programs, one to be performed in public. Graduate repertoire includes compositions of the difficulty of Hindemith -- Sonata for Harp, Handel -- Concerto in B-Flat Major, No. 1, Debussy -- Dances, Ravel -- Introduction and Allegro, and Mozart -- Concerto for Flute and Harp. Credit Level: G. Credit Hrs: 4.00

16HARP810**Harp Concentration**

Master's-level study for students accepted for a cognate in harp performance. Credit Level: G. Credit Hrs: 2.00

16HARP820**Harp Secondary**

Secondary study in harp for master's degree students. Credit Level: G. Credit Hrs: 1.00

16HARP850**Artist Diploma in Harp**

First-year major study in harp for students accepted into the artist diploma program. Credit Level: G. Credit Hrs: 6.00

16HARP855**Artist Diploma Recital**

Public performance by an artist diploma student in harp for selected compositions; approved and graded by the faculty. Credit Level: G. Credit Hrs: 2.00

Harp**16HARP880****Master Recital**

Public performance by a master's degree student in harp of selected compositions; approved and graded by the faculty. Credit Level: G. Credit Hrs: 1.00-2.00

16HARP895**Practicum**

Practical experience in the professional world. Credit Level: G. Credit Hrs: 1.00

16HARP899**Master's Candidacy**

Retention of eligibility for graduation. Credit Level: G. Credit Hrs: 1.00

16HARP900**Harp Major**

Selected studies for continued refinement of previous skills. Repertoire to be selected from works of advanced technical difficulty. Preparation of required doctoral recitals. Credit Level: G. Credit Hrs: 4.00

16HARP910**Harp Concentration**

Doctoral-level study for students accepted for a cognate in harp performance. Credit Level: G. Credit Hrs: 2.00

16HARP920**Harp Secondary**

Secondary study in harp for doctoral-level students. Credit Level: G. Credit Hrs: 1.00

16HARP930**Harp Elective**

Nonrequired private study in harp for doctoral students; requires permission of the department and the college. Credit Level: G. Credit Hrs: 1.00-2.00

16HARP950**Artist Diploma in Harp**

Second-year major study in harp for students accepted into the artist diploma program. Credit Level: G. Credit Hrs: 6.00

16HARP960**Harp Concerto**

Public performance of a concerto with one of the major performing ensembles. Credit Level: G. Credit Hrs: 2.00

16HARP970**Doctoral Recital**

Public performance by a doctoral student in harp of selected compositions; approved and graded by the faculty. Credit Level: G. Credit Hrs: 3.00

16HARP980**Lecture Recital**

Combined public lecture and performance of a selected topic in the harp repertoire; approved and graded by the faculty. Credit Level: G. Credit Hrs: 3.00

16HARP990**DMA Document**

Research and preparation of the final written project for the DMA degree in harp; topic to be approved and supervised by the faculty. Credit Level: G. Credit Hrs: 1.00-15.00

Music History and Literature**16HILT111****Music History and Literature I**

The history of Western music in the Medieval, Renaissance and Baroque eras. Non-CCM students must obtain instructor's permission; fluency in reading music is assumed. Transfer Module. BoK: FA, HP. Credit Level: U. Credit Hrs: 2.00

Music History and Literature**16HILT112****Music History and Literature I**

The history of Western music in the Medieval, Renaissance, and Baroque eras. Non-CCM students must obtain instructor's permission; fluency in reading music is assumed. Transfer Module. BoK: FA, HP. Credit Level: U. Credit Hrs: 2.00

16HILT113**Music History and Literature I**

The history of Western music in the Medieval, Renaissance, and Baroque eras. Non-CCM students must obtain instructor's permission; fluency in reading music assumed. Transfer Module. BoK: FA, HP. Credit Level: U. Credit Hrs: 2.00

16HILT211**Music History and Literature II**

Music in Western Civilization traced from 1750 to the present, a continuation of Music History and Literature 16HILT113. Transfer Module. BoK: FA, HP. Credit Level: U. Credit Hrs: 2.00

16HILT212**Music History and Literature II**

Music in Western Civilization traced from 1750 to the present, a continuation of Music History and Literature 16HILT113. Transfer Module. BoK: FA, HP. Credit Level: U. Credit Hrs: 2.00

16HILT213**Music History and Literature II**

Music in Western Civilization traced from 1750 to the present, a continuation of Music History and Literature 16HILT113. Transfer Module. BoK: FA, HP. Credit Level: U. Credit Hrs: 2.00

16HILT390H**Impressions As Muse: The First Impressionistic Composer?**

A study of Mussorgsky's "Pictures At An Exhibition" and The Changing Influences in Musical Composition in Fin-De-Siecle Russia. BoK: HP., FA. Credit Level: U. Credit Hrs: 3.00

16HILT480**Senior Research**

Bibliography, writing and research techniques first quarter. Research projects second and third quarters. BoK: NA. Credit Level: U. Credit Hrs: 2.00

16HILT501**Jazz Appreciation: Origins**

Origins of jazz: ragtime, blues, minstrals, spirituals and brass bands. BoK: FA., DC. Credit Level: U, G. Credit Hrs: 3.00

16HILT502**Jazz Appreciation: The Swing Era**

Covers the period in which jazz was America's popular music and the continuation into Bebop, Cool, Hard Bop and Free Jazz. BoK: FA., DC. Credit Level: U, G. Credit Hrs: 3.00

16HILT503**Jazz Appreciation: Fusion to the Present**

Final segment of the sequence focuses on fusion of styles (e.g. jazz and rock, jazz and hip-hop) as well as revivals of earlier styles and contemporary developments. BoK: FA., DC. Credit Level: U, G. Credit Hrs: 3.00

16HILT511**History of Opera**

Historical development of the opera from ca. 1600 through the twentieth century. BoK: FA., HP. Credit Level: U, G. Credit Hrs: 3.00

16HILT512**History of Opera**

Historical development of the opera from ca. 1600 through the twentieth century. Prereq: 16HILT511. BoK: FA, HP. Credit Level: U, G. Credit Hrs: 3.00

Music History and Literature**16HILT513****History of Opera**

Historical development of the opera from ca. 1600 through the twentieth century. Prereq: 16HILT512. BoK: FA, HP. Credit Level: U, G. Credit Hrs: 3.00

16HILT515**Symphonic Literature**

The symphony and concert from Corelli to the present; emphasis on formal structure and history of style; analysis of selected compositions. Prereq: 16MTHC342. BoK: FA, HP. Credit Level: U, G. Credit Hrs: 3.00

16HILT516**Symphonic Literature**

The symphony and concert from Corelli to the present; emphasis on formal structure and history of style; analysis of selected compositions. BoK: FA., HP. Credit Level: U, G. Credit Hrs: 3.00

16HILT517**Symphonic Literature**

The symphony and concert from Corelli to the present; emphasis on formal structure and history of style; analysis of selected compositions. BoK: FA., HP. Credit Level: U, G. Credit Hrs: 2.00

16HILT521**Queen of the West: Cincinnati's Music History**

Traverses Cincinnati's musical past, from its eighteenth century frontier beginnings through its rise in the middle of the nineteenth century, to the defining decade of the 1870s and beyond. BoK: FA., HP. Credit Level: U, G. Credit Hrs: 3.00

16HILT525**Survey of Chamber Music Literature**

A historical survey of chamber music from c. 1600-1800 with emphasis on string literature. BoK: FA., HP. Credit Level: U, G. Credit Hrs: 3.00

16HILT526**Survey of Chamber Music Literature**

Continuation of 16HILT525; 1800-1890. BoK: FA., HP. Credit Level: U, G. Credit Hrs: 3.00

16HILT531**Interpretation and Performance of Baroque Music**

Performance practice and stylistic understanding of Baroque music for various instruments. BoK: FA. Credit Level: U, G. Credit Hrs: 3.00

16HILT532**Interpretation and Performance of Baroque Music**

Performance practice and stylistic understanding of Baroque music for various instruments. BoK: FA. Credit Level: U, G. Credit Hrs: 3.00

16HILT533**Interpretation and Performance of Baroque Music**

Performance practice and stylistic understanding of Baroque music for various instruments. BoK: FA. Credit Level: U, G. Credit Hrs: 3.00

16HILT540**Survey of Twentieth-Century Percussion Literature I**

The social, aesthetic, and technical development of solo, ensemble, chamber music, and orchestral literature for percussion from 1900 to the present. BoK: FA., HP. Credit Level: U, G. Credit Hrs: 2.00

16HILT541**Survey of Twentieth-Century Percussion Literature II**

The social, aesthetic, and technical development solo, ensemble, chamber music, and orchestral literature for percussion from 1900 to the present. BoK: FA., HP. Credit Level: U, G. Credit Hrs: 2.00

16HILT542**Survey of Twentieth-Century Percussion Literature III**

The social, aesthetic, and technical development of solo, ensemble, chamber music, and orchestral literature for percussion from 1900 to the present. BoK: FA., HP. Credit Level: U, G. Credit Hrs: 2.00

H=University Honors course.

BoK (Breadth of Knowledge) Coding. DC: Diversity & Culture. EC: English composition. FA: Fine Arts. HP: Historical Perspectives. HU: Humanities. LT: Literature. NS: Natural Sciences. QR: Quantitative Reasoning. SE: Social & Ethical Issues. SS: Social Sciences.

Music History and Literature**16HILT544****Jazz History**

A discussion/analysis course covering the evolution of jazz in America through the various periods and styles, including New Orleans, Swing, Bebop, Cool, Hard-bop, Post-bop, and Avant-garde. Pivotal figures such as Louis Armstrong, Charlie Parker, Miles Davis, and John Coltrane are examined through a study of their music, emphasizing detailed harmonic analysis of transcribed solos, and the historical position of their music in an evolutionary context. Selected reading and listening assignments are given. BoK: FA., DC. Credit Level: U, G. Credit Hrs: 2.00

16HILT545**Jazz History**

A discussion/analysis course covering the evolution of jazz in America through the various periods and styles, including New Orleans, Swing, Bebop, Cool, Hard-bop, Post-bop, and Avant-garde. Pivotal figures such as Louis Armstrong, Charles Parker, Miles Davis, and John Coltrane are examined through a study of their music, emphasizing detailed harmonic analysis of transcribed solos, and the historical position of their music in an evolutionary context. Selected reading and listening assignments are given. Prereq: 16HILT544. BoK: FA, DC. Credit Level: U, G. Credit Hrs: 2.00

16HILT546**Jazz History**

A discussion/analysis course covering the evolution of jazz in America through the various periods and styles, including New Orleans, Swing, Bebop, Cool, Hard-bop, Post-bop, and Avant-garde. Pivotal figures such as Louis Armstrong, Charlie Parker, Miles Davis, and John Coltrane are examined through a study of their music, emphasizing detailed harmonic analysis of transcribed solos, and the historical position of their music in an evolutionary context. Selected reading and listening assignments are given. Prereq: 16HILT545. BoK: FA, DC. Credit Level: U, G. Credit Hrs: 2.00

16HILT560**Independent Study in Music**

In-depth study of a topic in music history and literature, selected by the student in consultation with a member of the faculty. By permission of the Division Head. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00-12.00

16HILT571**Early Music Lab**

Hands-on exploration of Medieval, Renaissance, and early Baroque repertoires for instruments and voices. Historical instruments are provided. Sec. 001: Reeds and Brass (experience on reeds or brass required) Sec. 002: Recorders and Crumhorns (beginners welcome) Sec. 003: Advanced Viola da Gamba (perm of instr) Sec. 004: Voices (majors and non majors welcome) Sec. 005: Beginning Viola da Gamba (string experience highly recommended) BoK: FA. Credit Level: U, G. Credit Hrs: 0.00-1.00

16HILT581**World Music Performance Labs**

Students learn to play Andean panpipes and tarkas (vertical duet flutes), Afro-Bolivian saya, and African karimbas and mbira of the Shona people of Zimbabwe. BoK: FA., DC. Credit Level: U, G. Credit Hrs: 0.00-1.00

16HILT582**World Music Performance Labs**

Students learn to play Andean panpipes and tarkas (vertical duet flutes), Afro-Bolivian saya, and African karimbas and mbira of the Shona people of Zimbabwe. BoK: FA., DC. Credit Level: U, G. Credit Hrs: 0.00-1.00

16HILT583**World Music Performance Labs**

Students learn to play Andean panpipes and tarkas (vertical duet flutes), Afro-Bolivian saya, and African karimbas and mbira of the Shona people of Zimbabwe. BoK: FA., DC. Credit Level: U, G. Credit Hrs: 0.00-1.00

Music History and Literature**16HILT583****World Music Performance Labs**

Students learn to play Andean panpipes and tarkas (vertical duet flutes), Afro-Bolivian saya, and African karimbas and mbira of the Shona people of Zimbabwe. BoK: FA., DC. Credit Level: U, G. Credit Hrs: 0.00-1.00

16HILT610**Women in Music**

History of women's activities in Western music from the time of the ancient Greeks to the present. BoK: FA., DC. Credit Level: U, G. Credit Hrs: 3.00

16HILT611**Music of the Twentieth Century**

Historical perspective; survey of composers and styles; study of selected works by American and European composers. BoK: FA., HP. Credit Level: U, G. Credit Hrs: 3.00

16HILT612**Music of the Twentieth Century**

Historical perspective; survey of composers and styles; study of selected works by American and European composers. BoK: FA., HP. Credit Level: U, G. Credit Hrs: 3.00

16HILT613**Music of the Twentieth Century**

Historical perspective; survey of composers and styles; study of selected works by American and European composers. BoK: FA., HP. Credit Level: U, G. Credit Hrs: 3.00

16HILT620**Chamber Music Literature with Piano**

A survey of major works of chamber music literature which include the piano: Baroque through 20th century. BoK: FA., HP. Credit Level: U, G. Credit Hrs: 3.00

16HILT621**Survey of Song Literature: German Lied until 1850**

Evolution of the German Lied in the eighteenth century until the death of Schumann. Emphasis on solo vocal literature, interpretation of texts, poets significant to particular composers. BoK: FA., HP. Credit Level: U, G. Credit Hrs: 2.00

16HILT622**Survey of Song Literature: German Lied from 1850 to late 20th Century**

Solo vocal repertoire from Liszt to Henze. BoK: FA., HP. Credit Level: U, G. Credit Hrs: 2.00

16HILT623**Survey of Song Literature: Scandinavian and Slavic Song**

Includes Mussorgsky, Chaikovsky, Rachmaninoff, Prokofiev, Dvorak, Szymanowski, Grieg, Rangstrom, Stenhammer et al. BoK: FA., HP. Credit Level: U, G. Credit Hrs: 2.00

16HILT625**Survey of Song Literature: French m^olodie until Debussy**

Includes Berlioz, Duparc, Faure, Debussy. BoK: FA., HP. Credit Level: U, G. Credit Hrs: 2.00

16HILT626**Survey of Song Literature: 20th Century French me lodie, Spanish, Italian Song.**

Includes Ravel, Poulenc, Falla, Turina, Granados, Respighi et al. BoK: FA., HP. Credit Level: U, G. Credit Hrs: 2.00

16HILT627**Survey of Song Literature: British and American Art-Song**

Survey of the art songs by various British and American composers. BoK: FA., HP. Credit Level: U, G. Credit Hrs: 2.00

16HILT630**Special Topics**

Topics established every quarter by Department/Division. BoK: FA.

H=University Honors course.

BoK (Breadth of Knowledge) Coding. DC: Diversity & Culture. EC: English composition. FA: Fine Arts. HP: Historical Perspectives. HU: Humanities. LT: Literature. NS: Natural Sciences. QR: Quantitative Reasoning. SE: Social & Ethical Issues. SS: Social Sciences.

Music History and Literature**16HILT630****Special Topics**

Credit Level: U, G. Credit Hrs: 0.00-3.00

16HILT631**Survey of Choral Literature**

Pre-Renaissance; Renaissance Sacred Polyphony. Stylistic traits, types of compositions, and aesthetic considerations. Juniors, seniors, graduate students only. BoK: FA., HP. Credit Level: U, G. Credit Hrs: 2.00

16HILT632**Survey of Choral Literature**

Renaissance secular forms to Monteverdi; early and middle Baroque and sacred developments. BoK: FA., HP. Credit Level: U, G. Credit Hrs: 2.00

16HILT633**Survey of Choral Literature**

The period of Bach and Handel. BoK: FA., HP. Credit Level: U, G. Credit Hrs: 2.00

16HILT634**Survey of Choral Literature**

Pre-Classical; Classical through Beethoven. BoK: FA., HP. Credit Level: U, G. Credit Hrs: 2.00

16HILT635**Survey of Choral Literature**

The 19th century after Beethoven. BoK: FA., HP. Credit Level: U, G. Credit Hrs: 2.00

16HILT636**Survey of Choral Literature**

The 20th century. BoK: FA., HP. Credit Level: U, G. Credit Hrs: 2.00

16HILT641**Romanticism in Music**

Music in the 19th century from Beethoven through the mid-century; major composers, schools, styles, trends. BoK: FA., HP. Credit Level: U, G. Credit Hrs: 3.00

16HILT642**Romanticism in Music**

Music at the second half of the 19th century. Mainstream Europeans as well as national schools; composers, styles, trends. BoK: FA., HP. Credit Level: U, G. Credit Hrs: 3.00

16HILT643**Survey of Wind Literature**

Music for six or more instruments; Middle Ages to early 20th century. A survey of the literature for ensemble performance utilizing combinations of wind and percussion instruments. Emphasis is on style, instrumentation, form and relation to cultural backgrounds of the several eras. BoK: FA., HP. Credit Level: U, G. Credit Hrs: 2.00

16HILT644**Survey of Wind Literature**

Music for six or more instruments: Middle and late 20th century. BoK: FA., HP. Credit Level: U, G. Credit Hrs: 2.00

16HILT645**Survey of Wind Literature**

Music for two to five instruments: Middle Ages to 20th century. BoK: FA., HP. Credit Level: U, G. Credit Hrs: 2.00

16HILT647**Survey of Wind Chamber Music**

Survey of wind chamber music repertoire from the Baroque period to the present. BoK: FA., HP. Credit Level: U, G. Credit Hrs: 2.00

16HILT648**Survey of Wind Chamber Music**

Continuation of 16-HILT-647. BoK: FA., HP. Credit Level: U, G. Credit Hrs: 2.00

Music History and Literature**16HILT649****Survey of Wind Chamber Music**

Continuation of 16-HILT-648. BoK: FA., HP. Credit Level: U, G. Credit Hrs: 2.00

16HILT651**World Music I: Native American, African, African-American, Eastern European**

Survey of music from Native American, African, African-American, and Eastern European cultures and study of ethnomusicological issues. BoK: FA., DC. Credit Level: U, G. Credit Hrs: 3.00

16HILT652**World Music II: South Indian, Indonesian, Japanese, South American**

Survey of music from South Indian, Indonesian, Japanese, and South American cultures and study of ethnomusicological issues. Afield-work project. BoK: FA., DC. Credit Level: U, G. Credit Hrs: 3.00

16HILT653**Music of Latin America**

An ethnomusicological survey of the music of South America and the Caribbean, covering mestizo and indigenous traditions of Brazil, Colombia, Cuba, Bolivia, and others. Prereq: 16HILT651, 16HILT652. BoK: FA, DC. Credit Level: U, G. Credit Hrs: 3.00

16HILT660**Special Topics**

Various topics offered as needed on specialized issues in the field of music history and literature. BoK: FA. Credit Level: U, G. Credit Hrs: 0.00-6.00

16HILT661**Composer Topics**

Variable topics focusing on the music of a specific composer. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

16HILT662**Genre Topics**

Variable topics focusing on the music within a specific genre. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

16HILT663**Music in Culture Topics**

Variable topics on musical culture issues. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

16HILT664**Composer Topics**

Variable topics focusing on the music of a specific composer. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

16HILT665**Genre Topics**

Variable topics focusing on the music within a specific genre. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

16HILT666**Music in Culture Topics**

Variable topics in musical culture issues. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

16HILT671**Liturgies of the Western Church**

Traces liturgical practices of the Western Church (Roman Catholic, Lutheran, Anglican, etc.) from their beginnings to the present. BoK: HU. Credit Level: U, G. Credit Hrs: 3.00

16HILT672**Hymnody in the Western World**

Traces the evolution and practices of hymnody in the Western Church to the present. BoK: FA., HU. Credit Level: U, G. Credit Hrs: 3.00

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Music History and Literature**16HILT601****Graduate Music History Review**

Medieval and Renaissance eras; emphasis on composers styles in relation to cultural backgrounds. Credit Level: G. Credit Hrs: 3.00

16HILT602**Graduate Music History Review**

Continuation of 16HILT601; Baroque and Classic eras. Credit Level: G. Credit Hrs: 3.00

16HILT603**Graduate Music History Review**

Continuation of 16HILT602; 19th and 20th centuries. Credit Level: G. Credit Hrs: 3.00

16HILT721**Survey of Piano Literature**

From J.S. Bach through Beethoven. Music for the piano, emphasizing style, form, and performance styles. Credit Level: G. Credit Hrs: 2.00

16HILT722**Survey of Piano Literature**

Mendelssohn through Brahms. Credit Level: G. Credit Hrs: 2.00

16HILT723**Survey of Piano Literature**

1900 to the present. Credit Level: G. Credit Hrs: 2.00

16HILT801**Graduate History and Style I**

A sampling of historical concepts, significant stylistic developments, social, cultural, and historiographical contexts, and issues in performance practice from antiquity through the sixteenth century. Credit Level: G. Credit Hrs: 3.00

16HILT802**Graduate History and Style II**

A sampling of historical concepts, significant stylistic developments, social, cultural, and historiographical contexts, and issues in performance practice within the seventeenth and eighteenth centuries. Credit Level: G. Credit Hrs: 3.00

16HILT803**Graduate History and Style III**

A sampling of historical concepts, significant stylistic developments, social, cultural, and historiographical contexts, and issues in performance practice from the nineteenth century to the present. Credit Level: G. Credit Hrs: 3.00

16HILT811**Notation of Polyphonic Music**

Historical study of white mensural ensemble notation of the Renaissance. Credit Level: G. Credit Hrs: 3.00

16HILT812**Notation of Polyphonic Music**

Historical study of Renaissance soloist notation: scores, partituras, and tablatures for keyboard and lute. Credit Level: G. Credit Hrs: 3.00

16HILT821**Graduate Research and Writing**

Music bibliography, writing, and research techniques in music. Credit Level: G. Credit Hrs: 3.00

16HILT832**Renaissance in England, Sacred Music**

Traces developments from 1485 to 1625. Credit Level: G. Credit Hrs: 3.00

16HILT840**Advanced Topics**

Specialized topics for advanced students in MM, DMA, and PHD programs. Credit Level: G. Credit Hrs: 3.00-4.00

Music History and Literature**16HILT841****Medieval Advanced Topics**

Specialized topics on music of the medieval period. Emphasis on scholarship as well as repertoire; research paper required. Credit Level: G. Credit Hrs: 3.00

16HILT842**Renaissance Advanced Topics**

Specialized topics on music of the renaissance. Emphasis on scholarship as well as repertoire; research paper required. Credit Level: G. Credit Hrs: 3.00

16HILT843**Seventeenth-Century Advanced Topics**

Specialized topics on music of the seventeenth century. Emphasis on scholarship as well as repertoire; research paper required. Credit Level: G. Credit Hrs: 3.00

16HILT844**Eighteenth-Century Advanced Topics**

Specialized topics on music of the eighteenth century. Emphasis on scholarship as well as repertoire; research paper required. Credit Level: G. Credit Hrs: 3.00

16HILT845**Nineteenth-Century Advanced Topics**

Specialized topics on music of the nineteenth century. Emphasis on scholarship as well as repertoire; research paper is required. Credit Level: G. Credit Hrs: 3.00

16HILT846**Twentieth-Century Advanced Topics**

Specialized topics on music of the twentieth century. Emphasis on scholarship as well as repertoire; research paper required. Credit Level: G. Credit Hrs: 3.00

16HILT847**American Music Advanced Topics**

Specialized topics on American music. Emphasis on scholarship as well as repertoire; research paper required. Credit Level: G. Credit Hrs: 3.00

16HILT848**Music in Culture Advanced Topics**

Specialized topics on musical culture issues. Emphasis on scholarship as well as repertoire; research paper required. Credit Level: G. Credit Hrs: 3.00

16HILT850**Proseminar in Musicology**

Selected readings in musicology; subject or era different each quarter. Credit Level: G. Credit Hrs: 3.00

16HILT854**Eighteenth Century Advanced Topics**

Specialized topics on music of the eighteenth century. Emphasis on scholarship as well as repertoire; research paper required. Credit Level: G. Credit Hrs: 3.00

16HILT855**Nineteenth Century Advanced Topics**

Specialized topics on music of the nineteenth century. Emphasis on scholarship as well as repertoire; research paper is required. Credit Level: G. Credit Hrs: 3.00

16HILT856**Twentieth Century Advanced Topics**

Specialized topics on music of the twentieth century. Emphasis on scholarship as well as repertoire; research paper required. Credit Level: G. Credit Hrs: 3.00

16HILT860**Musicology Colloquium**

A forum for students and faculty to interact regarding the study of music. While the format of individual meetings will change, the focus

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Music History and Literature**16HILT860****Musicology Colloquium**

will be on reading and discussing relevant literature and discussing current issues and methodologies. Career issues will also be considered. Credit Level: G. Credit Hrs: 1.00

16HILT870**Directed Readings**

Prereq.: Perm. of instr. Credit Level: G. Credit Hrs: 1.00-3.00

16HILT871**Music of the Middle Ages**

Musical forms, practices, and thought of the era and their social and cultural context. Credit Level: G. Credit Hrs: 3.00

16HILT872**Music of the Ars Nova and Early Renaissance**

Musical forms, practices, and thought of the era and their social and cultural context. Credit Level: G. Credit Hrs: 3.00

16HILT873**Music of the High Renaissance**

Musical forms, practices, and thought of the era and their social and cultural context. Credit Level: G. Credit Hrs: 3.00

16HILT874**Music of the Early and Middle Baroque**

Survey of music in both theory and practice from c. 1580-1680. The national styles of Italy, Germany, and France are studied through a canon of works. Credit Level: G. Credit Hrs: 3.00

16HILT875**Music of the Late Baroque**

Survey of music in both theory and practice from c. 1680-1750. The "international style" is studied through a canon of works, culminating with the music of Bach and Handel. Credit Level: G. Credit Hrs: 3.00

16HILT876**Music of the Classical Period**

Stylistic changes in European music from mid-century through Haydn and Mozart; schools, styles, genres, trends. Credit Level: G. Credit Hrs: 3.00

16HILT884**American Music I: From Colonization to Civil War**

Survey of both cultivated and vernacular music in the New World c. 1600-1865. Topics include Native American music, psalmody, ballads, African slave music, the First New England School, Stephen Foster, shape-note hymnody, and marches. Credit Level: G. Credit Hrs: 3.00

16HILT885**American Music II: From Reconstruction to Cold War**

Survey of both cultivated and vernacular music in the United States 1865-c.1950. Study of musical forms, practices, and repertoire in their cultural context. Topics include the Second New England School, Charles Ives, Tin Pan Alley, blues, early jazz, country-western, composers of the inter-war period, and American musical theater. Credit Level: G. Credit Hrs: 3.00

16HILT890**Thesis -- M.M. Music History**

Research and preparation of the final written project for the MM degree in music history; topic to be approved and supervised by the faculty. Credit Level: G. Credit Hrs: 1.00-9.00

16HILT899**Master's Candidacy**

Retention of eligibility for graduation. Credit Level: G. Credit Hrs: 1.00

16HILT980**Research in Musicology**

Individual investigation into a specific topic in the field of musicology; approved and supervised by a member of the faculty. Credit Level: G. Credit Hrs: 1.00-3.00

Music History and Literature**16HILT981****Seminar in Choral Literature**

Focuses on the performance problems of various works within the general body of choral literature; offered during the Summer Session. Credit Level: G. Credit Hrs: 3.00

16HILT982**Seminar Musicology**

Readings and discussion of selected topics in musicology; topic varies each quarter. Credit Level: G. Credit Hrs: 4.00

16HILT983**Seminar in Organ Literature**

Focuses on the performance problems of selected repertoire in the general body of organ literature. Credit Level: G. Credit Hrs: 3.00

16HILT984**Seminar in Performance Practices**

Focuses on performance problems in music from the Medieval to Early Baroque periods. Credit Level: G. Credit Hrs: 3.00

16HILT988**Seminar in Musicology**

Readings and discussion of selected topics in musicology; topic varies each quarter. Credit Level: G. Credit Hrs: 4.00

16HILT989**Seminar in Musicology**

Readings and discussion of selected topics in musicology; topic varies each quarter. Credit Level: G. Credit Hrs: 4.00

16HILT990**Dissertation -- PhD**

Research and preparation of the final written document for the Ph.D. degree in musicology; topic to be approved and supervised by the faculty. Credit Level: G. Credit Hrs: 1.00-15.00

French Horn**16HORN100****French Horn Major Study**

Technical requirements: all major and minor scales, study of the transpositions commonly used for horn. Etudes of Kopprasch and Gallay. Solo material of the difficulty of Mozart Concerto No. 3. BoK: FA. Credit Level: U. Credit Hrs: 3.00

16HORN110**French Horn Concentration**

First-year study for horn students in the B.A. program in music. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16HORN120**French Horn Secondary**

First-year secondary study in horn as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16HORN200**French Horn Major Study**

Continuation of transpositions: orchestral excerpts. Etudes of Kopprasch, Gallay, and Maxime-Alphonse. Solo material of the difficulty of Mozart Concerto No. 2 and Strauss Concerto No. 1. BoK: FA. Credit Level: U. Credit Hrs: 4.00

16HORN210**French Horn Concentration**

Second-year study for horn students in the B.A. program in music or in the music education program. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16HORN220**French Horn Secondary**

Second-year secondary study in horn as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

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French Horn**16HORN300****French Horn Major Study**

Continuation of orchestral studies: advanced etude work; solo works of the difficulty of Hindemith Sonate, Beethoven Sonata, and Haydn Concerti. BoK: FA. Credit Level: U. Credit Hrs: 4.00

16HORN310**French Horn Concentration**

Third-year study for horn students in the B.A. program in music or in the music education program. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16HORN320**French Horn Secondary**

Third-year secondary study in horn as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16HORN400**French Horn Major Study**

Continuation of orchestral studies; advanced etude work. Solos of the difficulty of Mozart Concerto No. 4; R. Strauss Concerto No. 2; Gliere Concerto. Preparation of Senior Recital. BoK: FA. Credit Level: U. Credit Hrs: 4.00

16HORN410**French Horn Concentration**

Fourth-year study for horn students in the B.A. program in music or in the music education program. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16HORN420**French Horn Secondary**

Fourth-year secondary study in horn as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16HORN500**French Horn Major**

Additional study for undergraduate horn majors who have completed the basic degree requirements; offered for undergraduate and graduate horn majors during the Summer Session. BoK: FA. Credit Level: U, G. Credit Hrs: 4.00

16HORN510**French Horn Concentration**

Additional study in horn for undergraduate students at the concentration level who have completed the basic degree requirements; offered to all concentration-level horn students during the Summer Session. BoK: FA. Credit Level: U, G. Credit Hrs: 2.00

16HORN530**French Horn Elective**

Nonrequired private study in horn; requires permission of the department and the college. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00-2.00

16HORN560**Independent Study**

In-depth study of a topic related to the horn, selected by the student in consultation with a member of the faculty. Permission of instructor and division head. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00-12.00

16HORN670**Horn Studio Class**

Weekly master class covering aspects of performance and audition preparation, literature, history of the horn, and ensemble skills. BoK: FA. Credit Level: U, G. Credit Hrs: 0.00-1.00

16HORN675**Seminar in Horn**

In-depth study of varied topics related to the horn. Readings, listening and performing assignments, term papers and class presentations may be required relating to the designated subject matter. Topics may be in the areas of history, literature, or performance. BoK: FA. Credit Level: U, G. Credit Hrs: 0.00-1.00

French Horn**16HORN679****Horn Excerpt Class**

Detailed study and performance of professional audition repertoire. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-2.00

16HORN680**Horn Choir**

Study and preparation of a wide repertoire of music for horn choir, emphasizing balance, intonation, phrasing, uniformity of note length, flexibility to colleagues, and stylistic differences. BoK: FA. Credit Level: U, G. Credit Hrs: 0.00-1.00

16HORN800**French Horn Graduate Major Study**

Preparation of two recital programs, one to be performed in public. Repertoire of advanced technical difficulty adapted to the needs of the individual student. Emphasis on orchestral studies. Credit Level: G. Credit Hrs: 4.00

16HORN810**French Horn Concentration**

Master's level study for students accepted for a cognate in horn performance. Credit Level: G. Credit Hrs: 2.00

16HORN820**French Horn Secondary**

Secondary study in horn for master's degree students. Credit Level: G. Credit Hrs: 1.00

16HORN850**Artist Diploma in French Horn**

First-year major study in horn for students accepted into the artist diplomas program. Credit Level: G. Credit Hrs: 6.00

16HORN855**Artist Diploma Recital**

Public performance by an artist diploma student in horn of selected compositions; approved and graded by the faculty. Credit Level: G. Credit Hrs: 2.00

16HORN880**Master Recital**

Public performance by a master's degree student in horn of selected compositions; approved and graded by the faculty. Credit Level: G. Credit Hrs: 1.00-2.00

16HORN895**Practicum**

Practical experience in the professional world. Credit Level: G. Credit Hrs: 1.00

16HORN899**Master's Candidacy**

Retainment of eligibility for graduation. Credit Level: G. Credit Hrs: 1.00

16HORN900**French Horn Doctoral Major Study**

Selected studies for continued refinement of previous skills. Repertoire to be selected from works of advanced technical difficulty. Preparation of required doctoral recitals. Credit Level: G. Credit Hrs: 4.00

16HORN910**French Horn Concentration**

Doctoral level study for students accepted for a cognate in horn performance. Credit Level: G. Credit Hrs: 2.00

16HORN920**French Horn Secondary**

Secondary study in horn for doctoral level students. Credit Level: G. Credit Hrs: 1.00

16HORN930**French Horn Elective**

Nonrequired private study in horn for doctoral students; requires permission of the department and the college. Credit Level: G. Credit Hrs: 1.00

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French Horn

16HORN930
French Horn Elective
 Hrs: 1.00-2.00

16HORN950
Artist Diploma in French Horn
 Second-year major study in horn for students accepted into the artist diploma program. Credit Level: G. Credit Hrs: 6.00

16HORN960
French Horn Concerto
 Public performance of a concerto with one of the major performing ensembles. Credit Level: G. Credit Hrs: 2.00

16HORN970
Doctoral Recital
 Public performance by a doctoral student in horn of selected compositions; approved and graded by the faculty. Credit Level: G. Credit Hrs: 3.00

16HORN980
Lecture Recital
 Combined public lecture and performance of a selected topic in the horn repertoire; approved and graded by the faculty. Credit Level: G. Credit Hrs: 3.00

16HORN990
DMA Document
 Research and preparation of the final written project for the DMA degree in horn; topic to be approved and supervised by the faculty. Credit Level: G. Credit Hrs: 1.00-15.00

Harpsichord

16HSC100
Harpsichord Major Study
 Technical requirements: facility in major and minor scales, arpeggios, etc. and special exercises designed and guided by the teacher. Works by J.S. Bach (Two- and Three-Part Inventions, W.T.C. Book I, French Suites, etc.), F. Couperin, D. Scarlatti, etc. BoK: FA. Credit Level: U. Credit Hrs: 3.00

16HSC110
Harpsichord Concentration
 First-year study for harpsichord students in the B.A. program in music. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16HSC120
Harpsichord Secondary
 First-year study for harpsichord students in harpsichord as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16HSC200
Harpsichord Major Study
 Continuation of the above and strengthening of the technical skill. Also familiarization with various stylistic aspects of current performance. BoK: FA. Credit Level: U. Credit Hrs: 4.00

16HSC210
Harpsichord Concentration
 Second-year study for harpsichord students in the B.A. program in music or in the music education program. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16HSC220
Harpsichord Secondary
 Second-year secondary study in harpsichord as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16HSC300
Harpsichord Major Study
 Broad expansion of 17th, 18th and 20th century keyboard repertoire. Active participation in chamber music playing (both continuo and obligato parts). BoK: FA. Credit Level: U. Credit Hrs: 4.00

Harpsichord

16HSC310
Harpsichord Concentration
 Third-year study for harpsichord students in the B.A. program in music or in the music education program. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16HSC320
Harpsichord Secondary
 Third-year secondary study in harpsichord as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16HSC400
Harpsichord Major Study
 Preparation for a solo recital. Acquiring the skill of figured bass playing from unrealized parts. BoK: FA. Credit Level: U. Credit Hrs: 4.00

16HSC410
Harpsichord Concentration
 Fourth-year study for harpsichord students in the B.A. program in music or in the music education program. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16HSC420
Harpsichord Secondary
 Fourth-year secondary study in harpsichord as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16HSC500
Harpsichord Major
 Additional study for undergraduate harpsichord majors who have completed the basic degree requirements; offered for undergraduate and graduate harpsichord majors during the Summer Session, depending on faculty availability. BoK: FA. Credit Level: U, G. Credit Hrs: 4.00

16HSC510
Harpsichord Concentration
 Additional study in harpsichord for undergraduate students at the concentration level who have completed the basic degree requirements; offered to all concentration level harpsichord students during the Summer Session, depending on faculty availability. BoK: FA. Credit Level: U, G. Credit Hrs: 2.00

16HSC530
Harpsichord Elective
 Nonrequired private study in harpsichord; requires permission of the department and the college. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00-2.00

16HSC560
Independent Study
 In-depth study of a topic related to the harpsichord, selected by the student in consultation with a member of the faculty. Permission of instructor and Division. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00-12.00

16HSC570
Introduction to Harpsichord
 An introductory course in basic facets of harpsichord playing encompassing technique, interpretation of ornaments, phrasing and articulation, etc. This course is designed primarily for piano or organ majors. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00

16HSC800
Harpsichord Graduate Major Study
 Preparation of two recital programs, one to be performed in public. In performance, the student should demonstrate not only highly polished technical skill, but also musical maturity and stylistic comprehension of the works. In the course of study the student is also expected to become familiar with most of the keyboard works written before 1770. Credit Level: G. Credit Hrs: 4.00

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Harpsichord**16HSC810****Harpsichord Concentration**

Master's level study for students accepted for a cognate in harpsichord performance. Credit Level: G. Credit Hrs: 2.00

16HSC820**Harpsichord Secondary**

Secondary study in harpsichord for master's degree students. Credit Level: G. Credit Hrs: 1.00

16HSC850**Artist Diploma in Harpsichord**

Similar to 16HSC800 with more emphasis on performance (total of four recitals). First-year major study in harpsichord for students accepted into the artist diploma program. Credit Level: G. Credit Hrs: 6.00

16HSC855**Artist Diploma Recital**

Public performance by an artist diploma student in harpsichord of selected compositions; approved and graded by the faculty. Credit Level: G. Credit Hrs: 2.00

16HSC880**Master Recital**

Public performance by a master's degree student in harpsichord of selected compositions; approved and graded by the faculty. Credit Level: G. Credit Hrs: 1.00-2.00

16HSC899**Master's Candidacy**

Retention of eligibility for graduation. Credit Level: G. Credit Hrs: 1.00

16HSC900**Harpsichord Doctoral Major Study**

Selected studies for continued refinement of previous skills. Repertoire to be selected from works of advanced technical difficulty. Preparation of required doctoral recitals. Credit Level: G. Credit Hrs: 4.00

16HSC910**Harpsichord Concentration**

Doctoral level study for students accepted for a cognate in harpsichord performance. Credit Level: G. Credit Hrs: 2.00

16HSC920**Harpsichord Secondary**

Secondary study in harpsichord for doctoral-level students. Credit Level: G. Credit Hrs: 1.00

16HSC930**Harpsichord Elective**

Nonrequired private study in harpsichord for doctoral students; requires permission of the department and the college. Credit Level: G. Credit Hrs: 1.00-2.00

16HSC950**Artist Diploma in Harpsichord**

Similar to 16HSC800 with more emphasis on performance (total of four recitals). Second-year major study in harpsichord for students accepted into the artist diploma program. Credit Level: G. Credit Hrs: 6.00

16HSC960**Harpsichord Concerto**

Public performance of a concerto with one of the major performing ensembles. Credit Level: G. Credit Hrs: 2.00

16HSC970**Doctoral Recital**

Public performance by a doctoral student in harpsichord of selected compositions; approved and graded by the faculty. Credit Level: G. Credit Hrs: 3.00

16HSC980**Lecture Recital**

Combined public lecture and performance of a selected topic in the harpsichord repertoire; approved and graded by the faculty. Credit

Harpsichord**16HSC980****Lecture Recital**

Level: G. Credit Hrs: 3.00

16HSC990**DMA Document**

Research and preparation of the final written project for the degree in harpsichord; topic to be approved and supervised by the faculty. Credit Level: G. Credit Hrs: 1.00-15.00

Interdisciplinary**16INTR500****Lucca: Italian Language Study**

Italian language study designed to improve the students' oral and written proficiencies in vocabulary and grammar. Three levels are available based upon the student's previous studies. BoK: HU. Credit Level: U, G. Credit Hrs: 5.00

16INTR550**Study Abroad for Undergraduate Students**

Study abroad for undergraduate students. BoK: NA. Credit Level: U. Credit Hrs: 0.00-18.00

16INTR610**Managing a Professional Career**

Examination of practical career management issues in the professional performance arena, including resumes, marketing and promotion, taxes and unions. Aimed primarily at instrumental and voice students contemplating professional performance careers. BoK: NA. Credit Level: U, G. Credit Hrs: 2.00

16INTR630**Special Topics**

Topics established every quarter by Department/Division. BoK: NA. Credit Level: U, G. Credit Hrs: 0.00-6.00

16INTR600**Study Abroad for Graduate Students**

Study abroad for graduate students. Credit Level: G. Credit Hrs: 0.00-18.00

Jazz Double Bass**16JZDB100****Jazz Double Bass Major Study**

First-year applied music lessons in jazz double bass for B.M. students. BoK: FA. Credit Level: U. Credit Hrs: 3.00

16JZDB110**Jazz Double Bass Concentration**

First-year study for jazz double bass students in the B.A. program in music. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16JZDB120**Jazz Double Bass Secondary**

First-year secondary study in jazz double bass as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16JZDB200**Jazz Double Bass Major Study**

Second-year applied music lessons for jazz double bass majors. BoK: FA. Credit Level: U. Credit Hrs: 4.00

16JZDB210**Jazz Double Bass Concentration**

Second-year study for jazz double bass students in the B.A. program in music or in the music education program. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16JZDB220**Jazz Double Bass Secondary**

Second-year secondary study in jazz double bass as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

H=University Honors course.

BoK (Breadth of Knowledge) Coding. DC: Diversity & Culture. EC: English composition. FA: Fine Arts. HP: Historical Perspectives. HU: Humanities.

LT: Literature. NS: Natural Sciences. QR: Quantitative Reasoning. SE: Social & Ethical Issues. SS: Social Sciences.

Jazz Double Bass**16JZDB300****Jazz Double Bass Major Study**

Third-year applied music lessons for jazz double bass majors. BoK: FA. Credit Level: U. Credit Hrs: 4.00

16JZDB310**Jazz Double Bass Concentration**

Third-year study for jazz double bass students in the B.A. program in music or in the music education program. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16JZDB320**Jazz Double Bass Secondary**

Third-year secondary study in jazz double bass as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16JZDB400**Jazz Double Bass Major Study**

Fourth-year applied music lessons for jazz double bass majors. BoK: FA. Credit Level: U. Credit Hrs: 4.00

16JZDB410**Jazz Double Bass Concentration**

Fourth-year study for jazz double bass students in the B.A. program in music or in the music education program. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16JZDB420**Jazz Double Bass Secondary**

Fourth-year secondary study in jazz double bass as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16JZDB500**Jazz Double Bass Major Study**

Additional study for undergraduate jazz double bass majors who have completed the basic degree requirements. BoK: FA. Credit Level: U, G. Credit Hrs: 4.00

16JZDB510**Jazz Double Bass Concentration**

Additional study in jazz double bass for undergraduate students at the concentration level who have completed the basic degree requirements. BoK: FA. Credit Level: U, G. Credit Hrs: 2.00

16JZDB530**Jazz Double Bass Elective**

Nonrequired private study in jazz double bass; requires permission of the department and the college. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00-2.00

16JZDB560**Independent Study, Jazz Double Bass**

In-depth study of a topic related to jazz double bass, selected by the student in consultation with a member of the faculty. Permission of instructor and Division. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00-12.00

16JZDB800**Jazz Double Bass Major Study**

Graduate-level applied music lessons for jazz double bass majors. Study and preparation of material suitable for the public recital programs. Credit Level: G. Credit Hrs: 4.00

16JZDB895**Practicum**

Practical experience in the professional world. Credit Level: G. Credit Hrs: 1.00

Jazz Guitar**16JZGT100****Jazz Guitar Major Study**

First-year applied music lessons in jazz guitar for B.M. students. BoK: FA. Credit Level: U. Credit Hrs: 3.00

Jazz Guitar**16JZGT110****Jazz Guitar Concentration**

First-year study for jazz guitar students in the B.A. program in music. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16JZGT120**Jazz Guitar Secondary**

First-year secondary study in jazz guitar as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16JZGT200**Jazz Guitar Major Study**

Second-year applied music lessons for jazz guitar majors. BoK: FA. Credit Level: U. Credit Hrs: 4.00

16JZGT210**Jazz Guitar Concentration**

Second-year study for jazz guitar students in the B.A. program in music or in the music education program. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16JZGT220**Jazz Guitar Secondary**

Second-year secondary study in jazz guitar as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16JZGT300**Jazz Guitar Major Study**

Third-year applied music lessons for jazz guitar majors. BoK: FA. Credit Level: U. Credit Hrs: 4.00

16JZGT310**Jazz Guitar Concentration**

Third-year study for jazz guitar students in the B.A. program in music or in the music education program. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16JZGT320**Jazz Guitar Secondary**

Third-year secondary study in jazz guitar as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16JZGT400**Jazz Guitar Major Study**

Fourth-year applied music lessons for jazz guitar majors. BoK: FA. Credit Level: U. Credit Hrs: 4.00

16JZGT410**Jazz Guitar Concentration**

Fourth-year study for jazz guitar students in the B.A. program in music or in the music education program. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16JZGT420**Jazz Guitar Secondary**

Fourth-year secondary study in jazz guitar as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16JZGT500**Jazz Guitar Major Study**

Additional study for undergraduate jazz guitar majors who have completed the basic degree requirements. BoK: FA. Credit Level: U, G. Credit Hrs: 4.00

16JZGT510**Jazz Guitar Concentration**

Additional study in jazz guitar for undergraduate students at the concentration level who have completed the basic degree requirements. BoK: FA. Credit Level: U, G. Credit Hrs: 2.00

16JZGT530**Jazz Guitar Elective**

Nonrequired private study in jazz guitar; requires permission of the department and the college. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00-2.00

H=University Honors course.

BoK (Breadth of Knowledge) Coding. DC: Diversity & Culture. EC: English composition. FA: Fine Arts. HP: Historical Perspectives. HU: Humanities. LT: Literature. NS: Natural Sciences. QR: Quantitative Reasoning. SE: Social & Ethical Issues. SS: Social Sciences.

Jazz Guitar**16JZGT560****Independent Study, Jazz Guitar**

In-depth study of a topic related to jazz guitar, selected by the student in consultation with a member of the faculty. Permission of instructor and Division. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00-12.00

16JZGT800**Jazz Guitar Major Study**

Graduate-level applied music lessons for jazz guitar majors. Study and preparation of material suitable for the public recital program. Credit Level: G. Credit Hrs: 4.00

16JZGT895**Practicum**

Practical experience in the professional world. Credit Level: G. Credit Hrs: 1.00

Jazz Piano**16JZPA100****Jazz Piano Major**

First-year applied music lessons in jazz piano for B.M. students. BoK: FA. Credit Level: U. Credit Hrs: 3.00

16JZPA110**Jazz Piano Concentration**

First-year study for jazz piano students in the B.A. program in music. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16JZPA120**Jazz Piano Secondary**

First-year secondary study in jazz piano as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16JZPA200**Jazz Piano Major**

Second-year applied music lessons for jazz piano majors. BoK: FA. Credit Level: U. Credit Hrs: 4.00

16JZPA210**Jazz Piano Concentration**

Second-year study for jazz piano students in the B.A. program in music or in the music education program. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16JZPA220**Jazz Piano Secondary**

Second-year secondary study in jazz piano as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16JZPA300**Jazz Piano Major**

Third-year applied music lessons for jazz piano majors. BoK: FA. Credit Level: U. Credit Hrs: 4.00

16JZPA310**Jazz Piano Concentration**

Third-year study for jazz piano students in the B.A. program in music or in the music education program. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16JZPA320**Jazz Piano Secondary**

Third-year secondary study in jazz piano as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16JZPA400**Jazz Piano Major**

Fourth-year applied music lessons for jazz piano majors. BoK: FA. Credit Level: U. Credit Hrs: 4.00

16JZPA410**Jazz Piano Concentration**

Fourth-year study for jazz piano students in the B.A. program in music or in the music education program. BoK: FA. Credit Level: U. Credit Hrs: 2.00

Jazz Piano**16JZPA420****Jazz Piano Secondary**

Fourth-year secondary study in jazz piano as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16JZPA500**Jazz Piano Major**

Additional study for undergraduate jazz piano majors who have completed the basic degree requirements. BoK: FA. Credit Level: U, G. Credit Hrs: 4.00

16JZPA510**Jazz Piano Concentration**

Additional study in jazz piano for undergraduate students at the concentration level who have completed the basic degree requirements. BoK: FA. Credit Level: U, G. Credit Hrs: 2.00

16JZPA530**Jazz Piano Elective**

Nonrequired private study in jazz piano; requires permission of the department and the college. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00-2.00

16JZPA560**Independent Study**

In-depth study of a topic related to jazz piano; selected by the student in consultation with a member of the faculty. Permission of instructor and Division. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00-12.00

16JZPA800**Jazz Piano Major Study**

Graduate-level applied music lessons for jazz piano majors. Study and preparation of material suitable for the public recital program. Credit Level: G. Credit Hrs: 4.00

16JZPA895**Practicum**

Practical experience in the professional world. Credit Level: G. Credit Hrs: 1.00

Jazz Percussion**16JZPR100****Jazz Percussion Major**

First-year applied music lessons in jazz percussion for B.M. students. BoK: FA. Credit Level: U. Credit Hrs: 3.00

16JZPR110**Jazz Percussion Concentration**

First-year study for jazz percussion students in the B.A. program in music. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16JZPR120**Jazz Percussion Secondary**

First-year secondary study in jazz percussion as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16JZPR200**Jazz Percussion Major**

Second-year applied music lessons for jazz percussion majors. BoK: FA. Credit Level: U. Credit Hrs: 4.00

16JZPR210**Jazz Percussion Concentration**

Second-year study for jazz percussion students in the B.A. program in music or in the music education program. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16JZPR220**Jazz Percussion Secondary**

Second-year secondary study in jazz percussion as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

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Jazz Percussion**16JZPR300****Jazz Percussion Major**

Third-year applied music lessons for jazz percussion majors. BoK: FA. Credit Level: U. Credit Hrs: 4.00

16JZPR310**Jazz Percussion Concentration**

Third-year study for jazz percussion students in the B.A. program in music or in the music education program. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16JZPR320**Jazz Percussion Secondary**

Third-year secondary study in jazz percussion as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16JZPR400**Jazz Percussion Major**

Fourth-year applied music lessons for jazz percussion majors. BoK: FA. Credit Level: U. Credit Hrs: 4.00

16JZPR410**Jazz Percussion Concentration**

Fourth-year study for jazz percussion students in the B.A. program in music or in the music education program. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16JZPR420**Jazz Percussion Secondary**

Fourth-year secondary study in jazz percussion as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16JZPR500**Jazz Percussion Major**

Additional study for undergraduate jazz percussion majors who have completed the basic degree requirements. BoK: FA. Credit Level: U, G. Credit Hrs: 4.00

16JZPR510**Jazz Percussion Concentration**

Additional study in jazz percussion for undergraduate students at the concentration level who have completed the basic degree requirements. BoK: FA. Credit Level: U, G. Credit Hrs: 2.00

16JZPR530**Jazz Percussion Elective**

Nonrequired private study in jazz percussion; requires permission of the department and the college. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00-2.00

16JZPR560**Independent Study**

In-depth study of a topic related to jazz percussion, selected by the student in consultation with a member of the faculty. Permission of instructor and Division. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00-12.00

16JZPR800**Jazz Percussion Major Study**

Graduate-level applied music lessons for jazz percussion majors. Study and preparation of material suitable for the public recital program. Credit Level: G. Credit Hrs: 4.00

16JZPR895**Practicum**

Practical experience in the professional world. Credit Level: G. Credit Hrs: 1.00

Jazz Studies**16JZST501****Jazz Improvisation**

Instruction in small group jazz performance with emphasis on the practical application of chord/scale theory, the development of the ear through transcription of recorded solos, and the principles of successful

Jazz Studies**16JZST501****Jazz Improvisation**

small group interaction. Repertoire includes modal tunes, basic blues forms, and standard tunes of the 1930s-1960s. Students receive individual attention within a small combo format. BoK: FA. Credit Level: U, G. Credit Hrs: 2.00

16JZST502**Jazz Improvisation**

Instruction in small group jazz performance with emphasis on the practical application of chord/scale theory, the development of the ear through transcription of recorded solos, and the principles of successful small group interaction. Repertoire includes modal tunes, basic blues forms, and standard tunes of the 1930s-1960s. Students receive individual attention within a small combo format. BoK: FA. Credit Level: U, G. Credit Hrs: 2.00

16JZST503**Jazz Improvisation**

Instruction in small group jazz performance with emphasis on the practical application of chord/scale theory, the development of the ear through transcription of recorded solos, and the principles of successful small group interaction. Repertoire includes modal tunes, basic forms, and standard tunes of the 1930s-1960s. Students receive individual attention within a small combo format. BoK: FA. Credit Level: U, G. Credit Hrs: 2.00

16JZST504**Advanced Jazz Improvisation**

An advanced course focusing on tunes from the classic and contemporary jazz repertoire. Emphasis on more complex harmonies, altered chords, chord/scale relationships, bitonality, and stylistic considerations. BoK: FA. Credit Level: U, G. Credit Hrs: 3.00

16JZST505**Advanced Jazz Improvisation**

An advanced course focusing on tunes from the classic and contemporary jazz repertoire. Emphasis on more complex harmonies, altered chords, chord/scale relationships, bitonality, and stylistic considerations. BoK: FA. Credit Level: U, G. Credit Hrs: 3.00

16JZST506**Advanced Jazz Improvisation**

An advanced course focusing on tunes from the classic and contemporary jazz repertoire. Emphasis on more complex harmonies, altered chords, chord/scale relationships, bitonality, and stylistic considerations. BoK: FA. Credit Level: U, G. Credit Hrs: 3.00

16JZST511**Jazz Keyboard Skills**

Development of jazz chord voicings, harmonization techniques, and basic idiomatic jazz piano styles. The course provides the ability to "comp" for soloists, and develops ear training skills essential for improvisation, composition, and arranging. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00

16JZST512**Jazz Keyboard Skills**

Development of jazz chord voicings, harmonization techniques, and basic idiomatic jazz piano styles. The course provides the ability to "comp" for soloists, and develops ear training skills essential for improvisation, composition, and arranging. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00

16JZST513**Jazz Keyboard Skills**

Development of jazz chord voicings, harmonization techniques, and basic idiomatic jazz piano styles. The course provides the ability to "comp" for soloists, and develops ear training skills essential for improvisation, composition, and arranging. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00

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Jazz Studies**16JZST514****Jazz Theory I**

Basic chord construction, extended chords, nomenclature, appropriate spacing, and voice leading. Ear-training exercises. Recording of student arrangements. BoK: FA., QR. Credit Level: U, G. Credit Hrs: 2.00

16JZST515**Jazz Theory II**

Chord/scale relationships, melodic analysis, approach notes, harmonic analysis, chord substitutions, and extensive tune study. Ear-training exercises. Recording and discussion of student compositions for 5-piece combo. BoK: FA., QR. Credit Level: U, G. Credit Hrs: 2.00

16JZST516**Jazz Arranging for Small Ensemble**

Arranging techniques for up to five horns. Mechanical and nonmechanical voicings, approach harmonies, linear techniques, ranges and transpositions, rhythm section writing, and score study. Recording and discussion of student arrangements. BoK: FA., QR. Credit Level: U, G. Credit Hrs: 2.00

16JZST521**Jazz Composing/Arranging for Large Ensemble I**

In-depth score study of Nestico, Ellington, and others. Mechanical and nonmechanical voicings, with emphasis on section writing. Recording and discussion of student big band charts. Perm of Instructor. BoK: FA, QR. Credit Level: U, G. Credit Hrs: 3.00

16JZST522**Jazz Composing/Arranging for Large Ensemble II**

In-depth score study of Thad Jones, Bob Brookmeyer, Bob Mintzer, and others. More advanced voicings, approach techniques, and substitute chords. Writing for woodwinds and percussion. Recording and discussion of student big band charts. BoK: FA., QR. Credit Level: U, G. Credit Hrs: 3.00

16JZST523**Advanced Jazz Composition and Arranging**

A flexible seminar based on student interests. Possible topics include advanced compositional techniques, contemporary harmonic trends, writing for strings, studio orchestra, unusual instrumentation, and instrumental backgrounds for vocalists. Recording and discussion of diverse student projects. BoK: FA., QR. Credit Level: U, G. Credit Hrs: 3.00

16JZST525**Jazz Combo**

Small combos focusing on the preparation and memorization of a large selection of standard tunes, jazz classics, and contemporary music. Aesthetic considerations as well as practical "on-the-job" guidelines. May be repeated for credit. Perm of Instructor. BoK: FA. Credit Level: U, G. Credit Hrs: 0.00-2.00

16JZST526**Second Jazz Combo**

Small combos focusing on the preparation and memorization of a large selection of standard tunes, jazz classics, and contemporary music. Aesthetic considerations as well as practical "on-the-job" guidelines. May be repeated for credit. Perm of Instructor. BoK: FA. Credit Level: U, G. Credit Hrs: 0.00-1.00

16JZST534**Jazz Guitar Ensemble**

Performance, arrangement, and composition of literature for 2-6 guitars. Development of single line techniques and "comping" skills. BoK: FA. Credit Level: U, G. Credit Hrs: 0.00-1.00

16JZST535**Jazz Guitar Ensemble**

Performance, arrangement, and composition of literature for 2-6 guitars. Development of single line techniques and "comping" skills. BoK: FA. Credit Level: U, G. Credit Hrs: 0.00-1.00

Jazz Studies**16JZST536****Jazz Guitar Ensemble**

Performance, arrangement, and composition of literature for 2-6 guitars. Development of single line techniques and "comping" skills. BoK: FA. Credit Level: U, G. Credit Hrs: 0.00-1.00

16JZST541**Sound Reinforcement and Recording Techniques**

An introduction to audio equipment and its application in sound reinforcement and recording. Topics include basic acoustics, audio electronics, and the set-up and operation of live sound and analog and digital studio recording equipment. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

16JZST542**Digital Recording and Editing**

The application of multi-track recording techniques using digital formats; includes hands-on experience recording jazz and other performing groups. An introduction to editing using Protools software. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

16JZST551**The Business of Music**

Provides information about the entrepreneurial skills required of today's musician as well as an overview of music and music related career possibilities. Topics include promoting your career auditions/interviews, CD production, copyright and performance rights societies, contracts, the musicians union, grants and performers etiquette. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

16JZST560**Independent Study**

In-depth study of a topic related to jazz selected by the student in consultation with a member of the faculty. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00-12.00

16JZST630**Special Topics: Jazz Studies**

Topics established every quarter by department or division. BoK: FA. Credit Level: U, G. Credit Hrs: 0.00-3.00

16JZST801**Jazz Styles and Analysis**

History, theory, and performance practice of jazz from its beginning through the swing period. Scholarly study is combined with practical experience through a simultaneous exploration of history and literature, theory and ear training, and the recreation of authentic performance styles. Assignments include extensive listening, historical readings, analysis, transcriptions, and class performances on the student's instrument. Perm of Instructor. Credit Level: G. Credit Hrs: 3.00

16JZST802**Jazz Styles and Analysis**

Continuation of 16JZST801. Period of study includes bebop era through the 1950's. Prereq: 16JZST801. Credit Level: G. Credit Hrs: 3.00

16JZST803**Jazz Styles and Analysis**

Continuation of 16JZST801 and 802. Period of study includes the 1960's through the present. Prereq: 16JZST802. Credit Level: G. Credit Hrs: 3.00

16JZST804**Seminar in Jazz Pedagogy**

An overview of jazz ensemble directing and program administration at the University and high school levels. Topics include conducting techniques, rehearsal strategies, programming, and auditions. Perm of Instructor. Credit Level: G. Credit Hrs: 2.00

16JZST805**Seminar in Jazz Pedagogy**

Continuation of 16JZST804. Topics include concert logistics, jazz festivals, guest artists, and course content for jazz improvisation and

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Jazz Studies**16JZST805****Seminar in Jazz Pedagogy**

theory classes. Credit Level: G. Credit Hrs: 2.00

16JZST806**Seminar in Jazz Pedagogy**

Continuation of 16JZST804 and 805. Topics include rhythm section techniques, private lesson curriculum, prenotation of workshops, course content for jazz arranging and composition classes, and developing college jazz curriculum. Credit Level: G. Credit Hrs: 2.00

Jazz Saxophone**16JZSX100****Jazz Saxophone Major**

First-year applied music lessons in jazz saxophone for B.M. students. BoK: FA. Credit Level: U. Credit Hrs: 3.00

16JZSX110**Jazz Saxophone Concentration**

First-year study for jazz saxophone students in the B.A. program in music. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16JZSX120**Jazz Saxophone Secondary**

First-year secondary study in jazz saxophone as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16JZSX200**Jazz Saxophone Major**

Second-year applied music lessons for jazz saxophone majors. BoK: FA. Credit Level: U. Credit Hrs: 4.00

16JZSX210**Jazz Saxophone Concentration**

Second-year study for jazz saxophone students in the B.A. program in music or in the music education program. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16JZSX220**Jazz Saxophone Secondary**

Second-year secondary study in jazz saxophone as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16JZSX300**Jazz Saxophone Major**

Third-year applied music lessons for jazz saxophone majors. BoK: FA. Credit Level: U. Credit Hrs: 4.00

16JZSX310**Jazz Saxophone Concentration**

Third-year study for jazz saxophone students in the B.A. program in music or in the music education program. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16JZSX320**Jazz Saxophone Secondary**

Third-year secondary study in jazz saxophone as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16JZSX400**Jazz Saxophone Major**

Fourth-year applied music lessons for jazz saxophone majors. BoK: FA. Credit Level: U. Credit Hrs: 4.00

16JZSX410**Jazz Saxophone Concentration**

Fourth-year study for jazz saxophone students in the B.A. program in music or in the music education program. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16JZSX420**Jazz Saxophone Secondary**

Fourth-year secondary study in jazz saxophone as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

Jazz Saxophone**16JZSX500****Jazz Saxophone Major**

Additional study for undergraduate jazz saxophone majors who have completed the basic degree requirements. BoK: FA. Credit Level: U, G. Credit Hrs: 4.00

16JZSX510**Jazz Saxophone Concentration**

Additional study in jazz saxophone for undergraduate students at the concentration level who have completed the basic degree requirements. BoK: FA. Credit Level: U, G. Credit Hrs: 2.00

16JZSX530**Jazz Saxophone Elective**

Nonrequired private study in jazz saxophone; requires permission of the department and the college. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00-2.00

16JZSX560**Independent Study**

In-depth study of a topic related to jazz saxophone selected by the student in consultation with a member of the faculty. Permission of instructor and Division. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00-12.00

16JZSX800**Jazz Saxophone Major Study**

Graduate-level applied music lessons for jazz saxophone majors. Study and preparation of material suitable for the public recital program. Credit Level: G. Credit Hrs: 4.00

16JZSX895**Practicum**

Practical experience in the professional world. Credit Level: G. Credit Hrs: 1.00

Jazz Trombone**16JZTB100****Jazz Trombone Major**

First-year applied music lessons in jazz trombone for B.M. students. BoK: FA. Credit Level: U. Credit Hrs: 3.00

16JZTB110**Jazz Trombone Concentration**

First-year study for jazz trombone students in the B.A. program in music. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16JZTB120**Jazz Trombone Secondary**

First-year secondary study in jazz trombone as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16JZTB200**Jazz Trombone Major**

Second-year applied music lessons for jazz trombone majors. BoK: FA. Credit Level: U. Credit Hrs: 4.00

16JZTB210**Jazz Trombone Concentration**

Second-year study for jazz trombone students in the B.A. program in music or in the music education program. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16JZTB220**Jazz Trombone Secondary**

Second-year secondary study in jazz trombone as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16JZTB300**Jazz Trombone Major**

Third-year applied music lessons for jazz trombone majors. BoK: FA. Credit Level: U. Credit Hrs: 4.00

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Jazz Trombone**16JZTB310****Jazz Trombone Concentration**

Third-year study for jazz trombone students in the B.A. program in music or in the music education program. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16JZTB320**Jazz Trombone Secondary**

Third-year secondary study in jazz trombone as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16JZTB400**Jazz Trombone Major**

Fourth-year applied music lessons for jazz trombone majors. BoK: FA. Credit Level: U. Credit Hrs: 4.00

16JZTB410**Jazz Trombone Concentration**

Fourth-year study for jazz trombone students in the B.A. program in music or in the music education program. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16JZTB420**Jazz Trombone Secondary**

Fourth-year secondary study in jazz trombone as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16JZTB500**Jazz Trombone Major**

Additional study for undergraduate jazz trombone majors who have completed the basic degree requirements. BoK: FA. Credit Level: U, G. Credit Hrs: 4.00

16JZTB510**Jazz Trombone Concentration**

Additional study in jazz trombone for undergraduate students at the concentration level who have completed the basic degree requirements. BoK: FA. Credit Level: U, G. Credit Hrs: 2.00

16JZTB530**Jazz Trombone Elective**

Nonrequired private study in jazz trombone; requires permission of the department and the college. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00-2.00

16JZTB560**Independent Study**

In-depth study of a topic related to jazz trombone, selected by the student in consultation with a member of the faculty. Permission of instructor and Division. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00-12.00

16JZTB800**Jazz Trombone Major Study**

Graduate-level applied music lessons for jazz trombone majors. Study and preparation of material suitable for the public recital program. Credit Level: G. Credit Hrs: 4.00

16JZTB895**Practicum**

Practical experience in the professional world. Credit Level: G. Credit Hrs: 1.00

Jazz Trumpet**16JZTP100****Jazz Trumpet Major**

First-year applied music lessons in jazz trumpet for B.M. students. BoK: FA. Credit Level: U. Credit Hrs: 3.00

16JZTP110**Jazz Trumpet Concentration**

First-year study for jazz trumpet students in the B.A. program in music. BoK: FA. Credit Level: U. Credit Hrs: 2.00

Jazz Trumpet**16JZTP120****Jazz Trumpet Secondary**

First-year secondary study in jazz trumpet as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16JZTP200**Jazz Trumpet Major**

Second-year applied music lessons for jazz trumpet majors. BoK: FA. Credit Level: U. Credit Hrs: 4.00

16JZTP210**Jazz Trumpet Concentration**

Second-year study for jazz trumpet students in the B.A. program in music or in the music education program. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16JZTP220**Jazz Trumpet Secondary**

Second-year secondary study in jazz trumpet as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16JZTP300**Jazz Trumpet Major**

Third-year applied music lessons for jazz trumpet majors. BoK: FA. Credit Level: U. Credit Hrs: 4.00

16JZTP310**Jazz Trumpet Concentration**

Third-year study for jazz trumpet students in the B.A. program in music or in the music education program. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16JZTP320**Jazz Trumpet Secondary**

Third-year secondary study in jazz trumpet as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16JZTP400**Jazz Trumpet Major**

Fourth-year applied music lessons for jazz trumpet majors. BoK: FA. Credit Level: U. Credit Hrs: 4.00

16JZTP410**Jazz Trumpet Concentration**

Fourth-year study for jazz trumpet students in the B.A. program in music or in the music education program. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16JZTP420**Jazz Trumpet Secondary**

Fourth-year secondary study in jazz trumpet as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16JZTP500**Jazz Trumpet Major**

Additional study for undergraduate jazz trumpet majors who have completed the basic degree requirements. BoK: FA. Credit Level: U, G. Credit Hrs: 4.00

16JZTP510**Jazz Trumpet Concentration**

Additional study in jazz trumpet for undergraduate students at the concentration level who have completed the basic degree requirements. BoK: FA. Credit Level: U, G. Credit Hrs: 2.00

16JZTP530**Jazz Trumpet Elective**

Nonrequired private study in jazz trumpet; requires permission of the department and the college. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00-2.00

16JZTP560**Independent Study**

In-depth study of a topic related to jazz trumpet, selected by the student in consultation with a member of the faculty. Permission of instructor and Division. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00-12.00

H=University Honors course.

BoK (Breadth of Knowledge) Coding. DC: Diversity & Culture. EC: English composition. FA: Fine Arts. HP: Historical Perspectives. HU: Humanities. LT: Literature. NS: Natural Sciences. QR: Quantitative Reasoning. SE: Social & Ethical Issues. SS: Social Sciences.

Jazz Trumpet**16JZTP560****Independent Study**

In-depth study of a topic related to jazz trumpet, selected by the student in consultation with a member of the faculty. Permission of instructor and Division. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00-12.00

16JZTP800**Jazz Trumpet Major Study**

Graduate-level applied music lessons for jazz trumpet majors. Study and preparation of material suitable for the public recital program. Credit Level: G. Credit Hrs: 4.00

16JZTP895**Practicum**

Practical experience in the professional world. Credit Level: G. Credit Hrs: 1.00

Jazz Voice**16JZVO100****Jazz Voice Major Study**

First-year applied music lessons in jazz voice for B.M. students. BoK: FA. Credit Level: U. Credit Hrs: 3.00

16JZVO110**Jazz Voice Concentration**

First-year study for jazz voice students in the B.A. program in music. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16JZVO120**Jazz Voice Secondary**

First-year secondary study in jazz voice as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16JZVO200**Jazz Voice Major Study**

Second-year applied music lessons for jazz voice majors. BoK: FA. Credit Level: U. Credit Hrs: 4.00

16JZVO210**Jazz Voice Concentration**

Second-year study for jazz voice students in the B.A. program in music or in the music education program. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16JZVO220**Jazz Voice Secondary**

Second-year secondary study in jazz voice as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16JZVO300**Jazz Voice Major Study**

Third-year applied music lessons for jazz voice majors. BoK: FA. Credit Level: U. Credit Hrs: 4.00

16JZVO310**Jazz Voice Concentration**

Third-year study for jazz voice students in the B.A. program in music or in the music education program. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16JZVO320**Jazz Voice Secondary**

Third-year secondary study in jazz voice as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16JZVO400**Jazz Voice Major Study**

Fourth-year applied music lessons for jazz voice majors. BoK: FA. Credit Level: U. Credit Hrs: 4.00

16JZVO410**Jazz Voice Concentration**

Fourth-year study for jazz voice students in the B.A. program in music or in the music education program. BoK: FA. Credit Level: U. Credit Hrs: 2.00

Jazz Voice**16JZVO420****Jazz Voice Secondary**

Fourth-year secondary study in jazz voice as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16JZVO500**Jazz Voice Major Study**

Additional study for undergraduate jazz voice majors who have completed the basic degree requirements. BoK: FA. Credit Level: U, G. Credit Hrs: 4.00

16JZVO510**Jazz Voice Concentration**

Additional study in jazz voice for undergraduate students at the concentration level who have completed the basic degree requirements. BoK: FA. Credit Level: U, G. Credit Hrs: 2.00

16JZVO530**Jazz Voice Elective**

Nonrequired private study in jazz voice; requires permission of the department and the college. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00-2.00

16JZVO560**Independent Study**

In-depth study of a topic related to jazz voice, selected by the student in consultation with a member of the faculty. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00-12.00

16JZVO800**Jazz Voice Major study**

Graduate-level applied music lessons for jazz voice majors. Study and preparation of material suitable for the public recital program. Credit Level: G. Credit Hrs: 4.00

16JZVO895**Practicum**

Practical experience in the professional world. Credit Level: G. Credit Hrs: 1.00

Music Theory and Composition**16MTHC100****Composition Major Study**

Private lessons designed to impart specific objective compositional techniques dealing with mechanics of notation, rhythm, line, texture, and form. Includes aural and intellectual exposure to a broad range of contemporary compositional types. Specific composition assignments in small forms. Composition majors only. BoK: FA. Credit Level: U. Credit Hrs: 3.00

16MTHC101**Basic Theory**

Elements of music; notation; aural and sight reading skills. Harmony and melody; lead sheets. Primarily musical theater repertoire. Musical Theater majors only. BoK: FA., QR. Credit Level: U. Credit Hrs: 3.00

16MTHC102**Basic Theory**

Elements of music; notation; aural and sight reading skills. Harmony and melody; lead sheets. Primary musical theater repertoire. Musical Theater majors only. BoK: FA., QR. Credit Level: U. Credit Hrs: 3.00

16MTHC103**Basic Theory**

Elements of music; notation; aural and sight reading skills. Harmony and melody; lead sheets. Primarily musical theater repertoire. Musical Theater majors only. BoK: FA., QR. Credit Level: U. Credit Hrs: 3.00

16MTHC105**Sight Singing**

Development of sight singing skills for musical theater majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

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Music Theory and Composition**16MTHC106****Sight Singing**

Development of sight singing skills for musical theater majors. BoK: FA.
Credit Level: U. Credit Hrs: 1.00

16MTHC107**Sight Singing**

Development of sight singing skills for musical theater majors. BoK: FA.
Credit Level: U. Credit Hrs: 1.00

16MTHC109**Undergraduate Theory Review**

Review of material covered in first and second quarters of Theory I
Musicianship I: notation, scales and intervals, triads and seventh
chords, cadences, and diatonic harmony and counterpoint. BoK: NA.
Credit Level: U. Credit Hrs: 3.00

16MTHC110**Composition Concentration**

See 16MTHC100. For music students who are not composition majors.
BoK: FA. Credit Level: U. Credit Hrs: 2.00

16MTHC111**Theory I**

Scales, intervals, key relations, consonance and dissonance, root-
position triads, melodic diminutions, the harmonic series, aspects of
rhythm and meter. Music majors only. BoK: FA., QR. Credit Level: U.
Credit Hrs: 2.00

16MTHC112**Theory I**

Species counterpoint (cantus firmus, first and second species), sixth
chords, harmonic progression, seventh chords, part writing, composing
a soprano, harmonizing a soprano, music analysis. BoK: FA., QR.
Credit Level: U. Credit Hrs: 2.00

16MTHC113**Theory I**

Third, fourth, and fifth species, modulation, suspensions, diatonic linear
chords, musical form, more part writing and musical analysis. BoK: FA.,
QR. Credit Level: U. Credit Hrs: 2.00

16MTHC115**Musicianship I**

Ear training, sight singing, and keyboard harmony. BoK: FA., QR. Credit
Level: U. Credit Hrs: 2.00

16MTHC116**Musicianship I**

Ear training, sight singing, and keyboard harmony. BoK: FA., QR. Credit
Level: U. Credit Hrs: 2.00

16MTHC117**Musicianship I**

Ear training, sight singing, and keyboard harmony. BoK: FA., QR. Credit
Level: U. Credit Hrs: 2.00

16MTHC171**Introduction to Music Technology**

Develops necessary computer skills for using various music software
package. BoK: NA. Credit Level: U. Credit Hrs: 1.00

16MTHC200**Composition Major Study**

Continuation of first year composition with emphasis on larger forms
and more freedom of content. BoK: FA. Credit Level: U. Credit Hrs: 4.00

16MTHC210**Composition Concentration**

Second-year study for music students who are not composition majors.
BoK: FA. Credit Level: U. Credit Hrs: 2.00

16MTHC211**Theory II**

Chromatic harmony (part writing and analysis); common practice period
form. Emphasis on Schenkerian procedures. Integrated sight reading,

Music Theory and Composition**16MTHC211****Theory II**

ear training, and keyboard applications. Music majors only. Prereq:
16MTHC113. BoK: FA, QR. Credit Level: U. Credit Hrs: 2.00

16MTHC212**Theory II**

Extended tertian harmony. History of theory. Nonfunctional harmony
and late 19th century procedures. Prereq: 16MTHC211. BoK: FA, QR.
Credit Level: U. Credit Hrs: 2.00

16MTHC213**Theory II**

Twentieth-century techniques. Prereq: 16MTHC212. BoK: FA, QR.
Credit Level: U. Credit Hrs: 2.00

16MTHC215**Musicianship II**

Continuation of the development of musicianship skills, sign reading,
dictation and other aural training, keyboard application of writing
problems. Prereq: 16MTHC113, 16MTHC117. BoK: FA, QR. Credit
Level: U. Credit Hrs: 2.00

16MTHC216**Musicianship II**

Continuation of 16MTHC215. Prereq: 16MTHC211, 16MTHC215. BoK:
FA, QR. Credit Level: U. Credit Hrs: 2.00

16MTHC217**Musicianship II**

Continuation of 16MTHC216. Prereq: 16MTHC212, 16MTHC216. BoK:
FA, QR. Credit Level: U. Credit Hrs: 2.00

16MTHC251**Honors Theory**

Accelerated sequence of Theory I, Musicianship I, and Theory II. BoK:
FA., QR. Credit Level: U. Credit Hrs: 2.00

16MTHC252**Honors Theory**

Accelerated sequence of Theory I, Musicianship I, and Theory II.
Prereq: 16MTHC251. BoK: FA, QR. Credit Level: U. Credit Hrs: 2.00

16MTHC253**Honors Theory**

Accelerated sequence of Theory I, Musicianship I, and Theory II.
Prereq: 16MTHC252. BoK: FA, QR. Credit Level: U. Credit Hrs: 2.00

16MTHC254**Honors Theory**

Accelerated sequence of Theory I, Musicianship I, and Theory I. Prereq:
16MTHC253. BoK: FA, QR. Credit Level: U. Credit Hrs: 2.00

16MTHC255**Honors Musicianship**

Aural skills including sightreading, dictations, identification of sonorities,
and keyboard activity. Corequisite: 16MTHC251. Coreq: 16MTHC255.
BoK: NA. Credit Level: U. Credit Hrs: 2.00

16MTHC256**Honors Musicianship**

Continuation of 16MTHC255. Corequisite: 16MTHC252 Coreq:
16MTHC252. BoK: NA. Credit Level: U. Credit Hrs: 2.00

16MTHC257**Honors Musicianship**

Continuation of 16MTHC256. Corequisite: 16MTHC253 Coreq:
16MTHC253. BoK: NA. Credit Level: U. Credit Hrs: 2.00

16MTHC258**Honors Musicianship**

Continuation of 16MTHC257. Corequisite: 16MTHC254 Coreq:
16MTHC254. BoK: NA. Credit Level: U. Credit Hrs: 2.00

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Music Theory and Composition**16MTHC300****Composition Major Study**

Continuation of second-year composition lessons. Permission of instructor. BoK: FA. Credit Level: U. Credit Hrs: 4.00

16MTHC310**Composition Concentration**

Third-year study for music students who are not composition majors. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16MTHC311**Theory III**

Style, vocabulary, and musical procedures of 20th- and 21st-century music: writing, analysis, aural skills, and model composition. Prereq: 16MTHC213, 16MTHC217. BoK: FA, QR. Credit Level: U. Credit Hrs: 3.00

16MTHC312**Theory III**

Style, vocabulary, and musical procedures of 20th- and 21st-century music: writing, analysis, aural skills and model composition. Prereq: 16MTHC311. BoK: FA, QR. Credit Level: U. Credit Hrs: 3.00

16MTHC351**Orchestration**

Study of orchestral and band instruments, range, timbre, scoring for small and large ensembles. BoK: FA., QR. Credit Level: U. Credit Hrs: 2.00

16MTHC352**Orchestration**

Study of orchestral and band instruments, range, timbre, scoring for small and large ensembles. Prereq: 16MTHC351. BoK: FA, QR. Credit Level: U. Credit Hrs: 2.00

16MTHC353**Orchestration**

Orchestration for standard chamber ensembles and for unique or uncommonly instrumented ensembles. Prereq: 16MTHC351. BoK: NA. Credit Level: U. Credit Hrs: 2.00

16MTHC400**Composition Major Study**

Continuation of third-year composition lessons. Permission of instructor. BoK: FA. Credit Level: U. Credit Hrs: 4.00

16MTHC410**Composition Concentration**

Fourth-year study for music students who are not composition majors. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16MTHC480**Senior Research**

Individual analysis and theoretical research. BoK: FA., QR. Credit Level: U. Credit Hrs: 1.00-3.00

16MTHC485**Symposium in Composition**

Weekly seminar for all undergraduate composition majors to discuss and review important trends and events in contemporary music. Occasional guest lecturers. BoK: FA. Credit Level: U. Credit Hrs: 0.00-1.00

16MTHC500**Composition Major Study**

Additional study for undergraduate composition majors who have completed the basic degree requirements; offered for undergraduate and graduate composition majors during the Summer Session. BoK: FA. Credit Level: U, G. Credit Hrs: 4.00

16MTHC501**Sixteenth Century Counterpoint**

Review of species counterpoint, historical perspective, modal usage, analysis of plainsong melodies and two-part modal counterpoint employing historically appropriate technical features. BoK: FA., HP.

Music Theory and Composition**16MTHC501****Sixteenth Century Counterpoint**

Credit Level: U, G. Credit Hrs: 3.00

16MTHC502**Sixteenth Century Counterpoint**

Continuation of imitative writing in three voices, study of text setting, analysis of representative works. BoK: FA., HP. Credit Level: U, G. Credit Hrs: 3.00

16MTHC505**Eighteenth Century Counterpoint**

Analysis of melodic lines, study of stylistic considerations, composition and analysis of two-voice inventions. BoK: FA., HP. Credit Level: U, G. Credit Hrs: 3.00

16MTHC506**Eighteenth Century Counterpoint**

This is the second quarter of a two-quarter sequence. The term will be devoted to the study and composition of small- to medium-size compositions in two and three voices, including solo (i.e., single-line)_instrument movements, minuets (binary dance forms), sonatas for solo instrument and continuo, canons, inventions, rounds and catches, passacaglias, trio sonatas and fugues. BoK: FA., HP. Credit Level: U, G. Credit Hrs: 3.00

16MTHC510**Composition Concentration**

Additional study in composition for undergraduate students at the concentration level who have completed the basic degree requirements; offered to all concentration-level composition students during the Summer Session. BoK: FA. Credit Level: U, G. Credit Hrs: 2.00

16MTHC511**Advanced Orchestration**

Analysis of the orchestral techniques of Ravel, Bartok, Schoenberg, Stravinsky, and other significant composers; practical work in contemporary orchestration. BoK: FA., QR. Credit Level: U, G. Credit Hrs: 3.00

16MTHC512**Advanced Orchestration**

Continuation of 16-MTHC-511. Analysis and style composition and orchestration. Large-scale and complex works, particularly post-1950. Prereq: 16MTHC511. BoK: FA, QR. Credit Level: U, G. Credit Hrs: 3.00

16MTHC515**Figured Bass Playing and Improvisation**

Study and practice of figured bass. Historical study of figured bass from various treatises of the period. Improvisation based on figured bass. BoK: FA., QR. Credit Level: U, G. Credit Hrs: 2.00

16MTHC516**Figured Bass Playing and Improvisation**

Study and practice of figured bass. Historical study of figured bass from various treatises of the period. Improvisation based on figured bass. BoK: FA., QR. Credit Level: U, G. Credit Hrs: 2.00

16MTHC517**Figured Bass Playing and Improvisation**

Study and practice of figured bass. Historical study of figured bass from various treatises of the period. Improvisation based on figured bass. BoK: FA., QR. Credit Level: U, G. Credit Hrs: 2.00

16MTHC521**Score Reading**

Principles of keyboard sightreading, study at all seven clefs, score reading of two-voice literature. Some piano proficiency necessary. BoK: FA., QR. Credit Level: U, G. Credit Hrs: 1.00

16MTHC522**Score Reading**

Principles of transposition, score reading of three-voice literature. BoK: FA., QR. Credit Level: U, G. Credit Hrs: 1.00

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Music Theory and Composition**16MTHC523****Score Reading**

Score reading of chamber, choral, and orchestral scores. BoK: FA., QR. Credit Level: U, G. Credit Hrs: 1.00

16MTHC530**Composition Elective**

Nonrequired private study in composition; requires permission of the department. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00-2.00

16MTHC560**Independent Study**

Permission of Instructor and Division. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00-12.00

16MTHC570**MIDI for Musicians**

Musical Instrument Digital Interface and music technology applications. Emphasis on synthesizers, drum machines, computers, and digital technology as they relate to live performance and the recording studio. BoK: FA., QR. Credit Level: U, G. Credit Hrs: 3.00

16MTHC571**Introduction to Electronic Music**

An introduction to the techniques, concepts, and historical perspective of composing, performing, and listening to electro-acoustic music. Topics covered include: acoustics, psychoacoustics, MIDI, computer music, and live electronic music. BoK: FA., QR. Credit Level: U, G. Credit Hrs: 3.00

16MTHC572**Introduction to Electronic Music**

An introduction to the techniques, concepts, and historical perspective of composing, performing, and listening to electro-acoustic music. Topics covered include: acoustics, psychoacoustics, MIDI, computer music, and live electronic music. BoK: FA., QR. Credit Level: U, G. Credit Hrs: 3.00

16MTHC573**Introduction to Electronic Music**

An introduction to the techniques, concepts, and historical perspective of composing, performing and listening to electro-acoustic music. Topics covered include: acoustics, psychoacoustics, MIDI, computer music, and live electronic music. BoK: FA., QR. Credit Level: U, G. Credit Hrs: 3.00

16MTHC575**Computer Music Composition**

Computer music composition on NeXTstep and Silicon Graphics platforms with recorded acoustic sound and synthesis. Digital signal processing and micro- to macro-level algorithms. Introduction to music programming and interfaces. Aesthetics and performance contexts of tape and live electronic music. BoK: FA., QR. Credit Level: U, G. Credit Hrs: 3.00

16MTHC576**Computer Music Composition**

Computer music composition on NeXTstep and Silicon Graphics platforms with recorded acoustic sound and synthesis. Digital signal processing and micro- to macro-level algorithms. Introduction to music programming and interfaces. Aesthetics and performance contexts of tape and live electronic music. BoK: FA., QR. Credit Level: U, G. Credit Hrs: 3.00

16MTHC577**Computer Music Composition**

Computer music composition on NeXTstep and Silicon Graphics platforms with recorded acoustic sound and synthesis. Digital signal processing and micro-to macro-level algorithms. Introduction to music programming and interfaces. Aesthetics and performance contexts of tape and live electronic music. BoK: FA., QR. Credit Level: U, G. Credit Hrs: 3.00

Music Theory and Composition**16MTHC581****Live Electronic Music**

Composition and performance of live electronic music emphasizing real-time processing of acoustic instrumental performance. BoK: NA. Credit Level: U, G. Credit Hrs: 2.00

16MTHC582**Computer Music Programming**

Explores programming for composition including designing sound by instrument building in C and algorithmic processes such as fractals. BoK: FA., QR. Credit Level: U, G. Credit Hrs: 3.00

16MTHC583**Advanced Computer Music Programming**

Object-oriented programming for music composition including algorithms and sound design. BoK: FA., QR. Credit Level: U, G. Credit Hrs: 3.00

16MTHC584**Timbre Studies**

Investigates recent music and research concerning timbre in acoustic and electronic music. Perm of Instructor. BoK: FA, QR. Credit Level: U, G. Credit Hrs: 3.00

16MTHC585**Sound and Animation Composition**

Composition of multimedia art, exploring relationships between visual and aural components with computer music and animation. Perm of Instructor. BoK: FA, QR. Credit Level: U, G. Credit Hrs: 3.00

16MTHC590**Music and Technology Seminar**

Topics in computer and electroacoustic music including composition issues, performance strategies, programming, technique, analysis, and informal sessions for playing works in progress. Prereq: 16MTHC573. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00

16MTHC591**Intermedia**

Creation of multimedia works involving music and visual arts, digital and acoustic, fixed and web based. Team taught by CCM composition faculty and DAAP faculty. Prereq: 16MTHC573. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

16MTHC592**Intermedia**

Continuation of 16MTHC591. Prereq: 16MTHC591. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

16MTHC593**Intermedia**

Continuation of 16MTHC591, 592. Prereq: 16MTHC592. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

16MTHC600**Composition Practicum**

The objective of this course is to develop skills in composition, emphasizing (but not limited to) instrumentation and orchestration, notation, and preparation of performance materials. To this end, students complete several composition projects throughout the quarter, according to a prearranged schedule. These projects are read and/or performed at class meetings by a participating ensemble, providing an opportunity to engage in an active dialogue with performers, peers, and faculty, that will lead the composition student in the process of refining his/her work. Pertinent analysis projects or in-class presentations may be part of the course, according to the goals of the instructor. No fixed bibliography is relevant. Scores and recordings may be assigned at the instructor's discretion. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00-3.00

16MTHC605**Intermediate Aural Training**

A comprehensive approach designed to review, reinforce, and expand aural capabilities and skills, and to develop a fine sense of aural

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Music Theory and Composition**16MTHC605****Intermediate Aural Training**

discrimination. Class size limited to 5. BoK: FA., QR. Credit Level: U, G. Credit Hrs: 2.00

16MTHC606**Intermediate Aural Training**

A comprehensive approach designed to review, reinforce, and expand aural capabilities and skills, and to develop a fine sense of aural discrimination. Class size limited to 5. Prereq: 16MTHC605. BoK: FA, QR. Credit Level: U, G. Credit Hrs: 2.00

16MTHC607**Intermediate Aural Training**

A comprehensive approach designed to review, reinforce, and expand aural capabilities and skills, and to develop a fine sense of aural discrimination. Class size limited to 5. Prereq: 16MTHC606. BoK: FA, QR. Credit Level: U, G. Credit Hrs: 2.00

16MTHC611**Advanced Topics in Post-1890 Analysis**

Analysis of seminar works or sets of works composed after 1890. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

16MTHC620**Species Counterpoint**

Systematic study of the principles governing an effective cantus firmus and the five species of counterpoint in two voices. BoK: NA. Credit Level: U, G. Credit Hrs: 2.00

16MTHC631**Continuo Playing**

Realization of figured bass, attention to national styles and idioms, ensemble voicing. Prereq: 16MTHC213, 16MTHC803. BoK: NA. Credit Level: U, G. Credit Hrs: 2.00

16MTHC632**Continuo Playing**

Continuation of 16MTHC631. Prereq: 16MTHC631. BoK: NA. Credit Level: U, G. Credit Hrs: 2.00

16MTHC633**Continuo Playing**

Continuation of 16MTHC631, 632. Prereq: 16MTHC632. BoK: NA. Credit Level: U, G. Credit Hrs: 2.00

16MTHC650**Rhythm and Eurhythmics**

A one-quarter course providing practical work in detailed rhythmic exercises and drills combined with Tai Chi and Dalcroze Eurhythmic techniques (use of physical gesture and body movement). For CCM music and dance majors only. BoK: FA. Credit Level: U, G. Credit Hrs: 2.00

16MTHC651**Intermediate Rhythm and Eurythmics**

A one-quarter course providing practical work in detailed rhythmic exercises and drills combined with Tai Chi and Dalcroze Eurhythmic techniques (use of physical gesture and body movement). For CCM music and dance majors only. BoK: FA. Credit Level: U, G. Credit Hrs: 2.00

16MTHC660**Special Topics**

Topics established every quarter by Department/Division. BoK: FA. Credit Level: U, G. Credit Hrs: 0.00-6.00

16MTHC670**Proseminar in Music Theory**

Introduction to professional writing in the field of music theory through critical reading of current and classic literature. Analysis of theoretical issues and their methods of presentation. Exercise in writing abstracts, proposals, responses, and complete papers. Area majors. BoK: FA. Credit Level: U, G. Credit Hrs: 3.00

Music Theory and Composition**16MTHC680****Introduction to the Neuroscience of Music**

The purpose is to enable students to read critically the scientific literature of music and neuroscience. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

16MTHC601**Graduate Music Theory Review**

Review of rudiments of music and essential vocabulary and skills in tonal harmony and analysis. Specific subjects include voice-leading principles and procedures, imitative counterpoint, and figured bass realization. Credit Level: G. Credit Hrs: 3.00

16MTHC602**Graduate Music Theory Review**

Review of modes and other scales, and review of basic set theoretical skills and vocabulary. Specific subjects, include modal counterpoint and styles, atonality and serialism, nontraditional notation, and new tonalities. Credit Level: G. Credit Hrs: 3.00

16MTHC701**Pedagogy of Theory I**

Comprehensive survey of texts and materials for undergraduate theory and analysis courses, course planning, content and objectives. Practice teaching and observation. Pedagogical methodologies and techniques. Perm of Instructor. Credit Level: G. Credit Hrs: 3.00

16MTHC702**Pedagogy of Theory II**

Continuation of 16-MTHC-702. Comprehensive survey of texts and materials for undergraduate theory and analysis courses, course planning, content and objectives. Practice teaching and observation. Pedagogical methodologies and techniques. Credit Level: G. Credit Hrs: 3.00

16MTHC800**Composition for Majors**

Master's level private lessons for composition majors. Credit Level: G. Credit Hrs: 4.00

16MTHC801**Graduate Theory and Analysis**

Analysis of Music Credit Level: G. Credit Hrs: 3.00

16MTHC802**Graduate Theory and Analysis**

Analysis of Music Credit Level: G. Credit Hrs: 3.00

16MTHC803**Graduate Theory and Analysis**

Analysis of Music. Credit Level: G. Credit Hrs: 3.00

16MTHC810**Composition Concentration**

Master's-level study for music students who are not composition majors. Credit Level: G. Credit Hrs: 2.00

16MTHC811**Advanced Topics in Analysis: Rhythm and Meter**

This course is conceived as an advanced section of Graduate Theory and Analysis, for students ready for more than a basic treatment. Each class will aim for advanced analytical work in the given topic. Prereq: 16MTHC801, 16MTHC802, 16MTHC803. Credit Level: G. Credit Hrs: 3.00

16MTHC815**Introduction to Aesthetics**

Examination of well-developed critical aesthetic thinking via speculation and analysis. Development of appreciation for the various parameters of the discipline. Credit Level: G. Credit Hrs: 3.00

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Music Theory and Composition**16MTHC816****Set Theory I**

A systematic approach to the concepts of set theory and their application to atonal and twelve-tone music. Prepares students to use the concepts and skills for analysis and/or composition. Credit Level: G. Credit Hrs: 3.00

16MTHC817**Set Theory II**

Advanced theoretical notions (e.g., pitch-class set symmetry and segmental invariance in the twelve-tone system); emphasis on analysis of atonal and twelve-tone music; relevance of set-theoretical concepts to speculative music-theoretical research; readings of classical works in the set-theoretical literature. Prereq: 16MTHC816. Credit Level: G. Credit Hrs: 3.00

16MTHC818**Schenkerian Analysis I**

Introduction to Schenkerian-analytical concepts and graphic notation. An understanding of the organic nature of the underlying theory and its relation to both analysis and aural experiences developed gradually through extensive analytical examples and exercises. Credit Level: G. Credit Hrs: 3.00

16MTHC819**Schenkerian Analysis II**

See 16-700-818. Analytical examples and exercises consist primarily of complete tonal works of small to moderate dimension. Prereq: 16MTHC818. Credit Level: G. Credit Hrs: 3.00

16MTHC821**History of Theory: Antiquity and Early Ages**

Facts, concepts, procedures of music theory from Pythagoras to mid-15th century. Interpretation of seminal texts. Credit Level: G. Credit Hrs: 3.00

16MTHC822**History of Theory: Renaissance and Baroque**

Facts, concepts, procedures of music theory from mid-15th century to 1750. Interpretation of seminal texts. Credit Level: G. Credit Hrs: 3.00

16MTHC823**History of Theory: Common Practice and Modern Eras**

Facts, concepts, and procedures of music theory from 1750 to the present. Interpretation of seminal texts. Credit Level: G. Credit Hrs: 3.00

16MTHC870**Music Theory Colloquium**

Discussion of current theoretical literature; visiting lecture series of professional theorists. Area majors Credit Level: G. Credit Hrs: 1.00

16MTHC880**Readings in Music Theory and Analysis**

Close readings of seminal texts and cursory eradin erading of others under the supervision of the music theory faculty. Credit Level: G. Credit Hrs: 3.00

16MTHC881**Seminar in Theory**

A special topics course dealing with theoretical issues of current interest. Credit Level: G. Credit Hrs: 4.00

16MTHC882**Seminar in Analysis**

In-depth analysis of selected works. Credit Level: G. Credit Hrs: 3.00

16MTHC885**Symposium in Composition**

Weekly seminar for all graduate composition majors to discuss and review important trends and events in contemporary music. Occasional guest lecturers. Credit Level: G. Credit Hrs: 0.00-1.00

Music Theory and Composition**16MTHC890****Thesis -- M.M. Theory**

Research and preparation of the final written project for the MM degree in music theory; topic to be approved and supervised by the faculty. Credit Level: G. Credit Hrs: 1.00-9.00

16MTHC899**Master's Candidacy**

Retention of eligibility for graduation. Credit Level: G. Credit Hrs: 1.00

16MTHC900**Composition Major Study**

Private lessons at the doctoral level for composition majors. Credit Level: G. Credit Hrs: 4.00

16MTHC910**Composition Concentration**

Doctoral level study for students accepted for a cognate in composition. Credit Level: G. Credit Hrs: 2.00

16MTHC980**Research in Theory**

Individual analysis and theatrical research. Permission of instructor. Credit Level: G. Credit Hrs: 1.00-3.00

16MTHC990**Dissertation**

Research and preparation of the final written project for the DMA degree in composition or the Ph.D. degree in music theory; topic to be approved and supervised by the faculty. Credit Level: G. Credit Hrs: 1.00-15.00

Music Education**16MUED101****Undergraduate Music Education Colloquium**

Weekly forum intended to orient new music education students to the many dimensions of the music education program ranging from the various requirements of the program to professional opportunities outside of prescribed coursework as well as subsequent to program completion. Area majors only. BoK: NA. Credit Level: U. Credit Hrs: 0.00-1.00

16MUED102**Undergraduate Music Education Colloquium**

Weekly forum intended to orient new music education students to the many dimensions of the music education program ranging from the various requirements of the program to professional opportunities outside of prescribed coursework as well as subsequent to program completion. Area majors only. BoK: NA. Credit Level: U. Credit Hrs: 0.00-1.00

16MUED103**Undergraduate Music Education Colloquium**

Weekly forum intended to orient new music education students to the many dimensions of the music education program ranging from the various requirements of the program to professional opportunities outside of prescribed coursework as well as subsequent to program completion. BoK: NA. Credit Level: U. Credit Hrs: 0.00-1.00

16MUED241**Introduction to Music Education**

Objectives and structure of a balanced program of music education; principles of music learning; directed observations of music classes in local schools; readings and discussions of current issues in music education. BoK: FA., DC. Credit Level: U. Credit Hrs: 2.00

16MUED242**Introduction to Music Teaching**

General introduction to techniques, materials, and musical skills needed in music teaching pre-K through high school. Attention is given to integration across the curriculum including the teaching and learning of reading and phonics. Field study and practice conducted in local preschool, elementary school, and high school. BoK: FA., DC. Credit

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Music Education**16MUED242****Introduction to Music Teaching**

Level: U. Credit Hrs: 2.00

16MUED243**Voice Class I**

Introductory course in vocal technique, designed particularly for music education students; problems of the unchanged, changing, and mature voice. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16MUED244**Voice Class II**

Continuation of Voice Class I. Development and application of methods, materials, and vocal techniques for use in K-12 music programs. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16MUED245**String Class I**

Beginning string class techniques on all orchestral string instruments. Maintenance of instruments, evaluation of methods and materials, elementary orchestral organization, micro-teaching. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16MUED246**String Class II**

Intermediate string class techniques on all orchestral string instruments. Maintenance of instruments, evaluation of methods and materials, elementary orchestral organization, micro teaching, and score marking. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16MUED251**Music in Childhood Education**

Rudiments of music, ear-training, sight-reading, and singing. Methods and principles of elementary school music, selection and study of materials for listening, rhythmic activities, and singing. For College of Education students only. BoK: FA. Credit Level: U. Credit Hrs: 3.00

16MUED271**Instrumental Teaching Lab**

In addition to performance experience in band and orchestral playing utilizing functional performance skills developed in instrumental technique classes, the course includes the use of a broad repertoire applicable in elementary, middle, and high school instruction for building of curricular lessons and to develop skills in management and presentation. BoK: FA., SE. Credit Level: U. Credit Hrs: 3.00

16MUED272**Brass Class**

Tone production, playing, and teaching techniques of all brass instruments, as well as care of instruments and study of materials. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16MUED273**Woodwind Class**

Instruction on all woodwind instruments; techniques, materials, care of the instruments, basic instrument repair, and curriculum planning. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16MUED274**Percussion Class**

Fundamental techniques on the most frequently used percussion instruments, both of definite and of indefinite pitch; conventions of notation, care of instruments, the teaching of percussion. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16MUED341**Elementary General Music Methods I**

Objectives, methods, and materials for elementary school with particular emphasis on guided observation and teaching experiences at a local elementary (pre-K-6) school. Attention is given to integration across the curriculum including the teaching and learning of reading and phonics. Elaboration upon learning theory (e.g. Piaget Bruner) introduced in 16MUED242. Investigation of Orff-Sckulwerk, Kodaly, and Dalcroze eurhythmics in view of the total span of child development.

Music Education**16MUED341****Elementary General Music Methods I**

BoK: FA., DC. Credit Level: U. Credit Hrs: 4.00

16MUED342**Elementary General Music Methods II**

In-depth study of methods and materials for kindergarten through grade six with application of these methods (Kodaly, Orff, Gordon, and Dalcroze) in local elementary schools. Prereq: 16MUED341. BoK: FA, DC. Credit Level: U. Credit Hrs: 4.00

16MUED351**Choral Literature and Arranging**

Literature drawn from the global music repertoire for upper elementary and secondary choral organizations. Styles and techniques of arranging including revoicing and arranging for various combinations. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16MUED371**Instrumental Methods**

Methods and materials for the teaching of instrumental music in the elementary and secondary schools; organization and administration of program; development of specialized groups; strategies for developing a philosophy; research bases for support and advocacy; recruitment and retention of students; relations with the instrument manufacturing industry; auditioning/seating/evaluating students; selection of printed materials; copyright law; participation in contests, festivals, and enrichment activities; travel; public relations; budget; facilities; curriculum; professionalism. BoK: FA., SE. Credit Level: U. Credit Hrs: 2.00-4.00

16MUED372**Choral Methods**

Methods and materials for training of public school choral organizations. Planning and development, rehearsal techniques, tone and diction, concert material; observation of choral organizations. BoK: FA., DC. Credit Level: U. Credit Hrs: 4.00

16MUED373**Secondary General Music Methods**

Objectives, philosophies, methods and materials for the Junior-Senior High School general music classes. Students prepare (technology) and present lessons in global music and learn approaches to nonmusical arts; they manipulate classroom instruments in creative ways. BoK: FA., DC. Credit Level: U. Credit Hrs: 4.00

16MUED440**Senior Music Education Seminar**

This weekly meeting is a forum for discussing issues central to the teaching and learning of music prompted by readings and other shared activities but nested within the context of your own experiences prior to CCM and as related to the host schools in which you are a student teaching. BoK: NA. Credit Level: U. Credit Hrs: 0.00-1.00

16MUED450**Music Student Teaching Seminar**

A bi-weekly meeting of all music student teachers during the student teaching quarter. Objectives of the seminar are to coordinate in-school assignments, monitor student teaching activities, and complete certification, graduation, and placement tasks. BoK: NA. Credit Level: U. Credit Hrs: 1.00

16MUED451**Student Teaching**

A bi-weekly meeting of all music student teachers during the student teaching quarter. Objectives of the seminar are to coordinate in-school assignments, monitor student teaching activities, and complete certification, graduation, and placement tasks. BoK: FA., SE. Credit Level: U. Credit Hrs: 6.00

16MUED452**Student Teaching**

A bi-weekly meeting of all music student teachers during the student

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Music Education**16MUED452****Student Teaching**

teaching quarter. Objectives of the seminar are to coordinate in-school assignments, monitor student teaching activities, and complete certification, graduation, and placement tasks. BoK: FA., SE. Credit Level: U. Credit Hrs: 6.00

16MUED461**Technology for Music Teaching**

Introduction to software packages used by music teachers; notation programs for arranging, databasing for organizing inventory and personnel, computer-assisted instruction for music fundamentals and drill-and-practice software, webpage design for marketing and communication, sequencing instruction, grant-writing exercises to help meet funding needs. Perm of Instructor. BoK: NA. Credit Level: U. Credit Hrs: 3.00

16MUED470**Urban Music Education**

Focus on issues affecting music education programs in urban areas. Approaches to managing a music program more effectively through the use of creatively designed methods and pedagogical techniques will be shared as well as discussions about cultural differences that make inner city teaching uniquely challenging. Perm of Instructor. BoK: FA, SE. Credit Level: U. Credit Hrs: 3.00

16MUED481**Contemporary Topics I**

Two five-week modules with the first exploring the current K-12 educational landscape and the second focused on learning theories and their application to music education. Perm of Instructor. BoK: FA, SE. Credit Level: U. Credit Hrs: 2.00

16MUED482**Contemporary Topics II**

Two five-week modules with the first on curriculum design and the second on assessment and accountability. Perm of Instructor. BoK: FA, SE. Credit Level: U. Credit Hrs: 2.00

16MUED500**Music Teaching Internship**

Individually arranged and faculty supervised teaching practice in area schools and community music organizations. Perm of Department. BoK: FA. Credit Level: U, G. Credit Hrs: 0.00-6.00

16MUED521**Literature for School Bands**

Review band literature for all grade levels, discuss performance concerns, address specific rehearsal techniques, establish musical concepts for each selection, develop criteria for quality literature, develop comprehensive curriculum units for classroom use. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

16MUED560**Independent Study in Music Education**

Special project in music teaching to be approved in advance by the Music Education faculty. Variable credit. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00-12.00

16MUED571**Advanced Instrumental Music Education Methods**

Develop skills for teaching/coaching instrumentalists at all levels. Become familiar with specific playing and teaching techniques on an instrument of choice. Practice error detection and score study techniques. Become familiar with best practices in instrumental music education, and learn about alternative instrumental music education ensembles. Design a 6-week curriculum in instrumental music for the implementation of conceptual teaching. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

16MUED575**Music and the Humanities**

A general survey of the fine arts from Hellenic Greece to present day. Emphasis on music and the visual arts. Stress is on relationships

Music Education**16MUED575****Music and the Humanities**

among the arts and the convergence/divergence evident period to period. Teaching strategies are discussed. BoK: HU. Credit Level: U, G. Credit Hrs: 3.00

16MUED581**Marching Band Techniques**

Learn basic skills in marching band drill design and teaching techniques for working with marching bands. Design a suitable marching program for a school-based ensemble using computer-based charting application. Plan for budgetary, operational, parental and administrative concerns associated with a marching band program. BoK: NA. Credit Level: U, G. Credit Hrs: 2.00

16MUED601**Orff Teacher Certification: Level I**

Basic philosophy and pedagogy of the Orff Schulwerk process. Movement, body percussion, speech, rhythmic and melodic ensembles, voice, and soprano recorder are combined to develop the capabilities of class members and to present materials appropriate for the child. Arranging and composition for the Orff instrumentarium are emphasized, along with lesson planning and curriculum development at the elementary level. BoK: FA., DC. Credit Level: U, G. Credit Hrs: 3.00

16MUED602**Orff Teacher Certification: Level II**

Continuation of 16MTHC601. Materials and activities appropriate to upper elementary, middle, and junior high school levels, designed to further the personal growth of participants. Alto recorder and expansion of soprano recorder skills. Prereq: 16MUED601. BoK: FA, DC. Credit Level: U, G. Credit Hrs: 3.00

16MUED603**Orff Teacher Certification: Level III**

Continuation of 16MTHC602. Materials, techniques, and activities for the advanced Orff-Schulwerk student. Emphasis on student's ability to create, orchestrate, and perform compositions using the entire Orff instrumentarium. Continuation of advanced soprano and alto recorder techniques; study on tenor-bass and soprano recorders. Prereq: 16MUED602. BoK: FA, DC. Credit Level: U, G. Credit Hrs: 3.00

16MUED630**Special Topics in Music Education**

Additional courses related to special areas of study offered on an irregular schedule, including the following: Developments and Trends in Elementary Music Education, Developments and Trends in Instrumental Music Education, Developments and Trends in Junior-Senior High School General Music, Developments and Trends in Secondary Vocal Music Education, Marching Band Techniques, Music for the Pre-School Child, Related Arts in the Classroom, Seminar in Music Curriculum. BoK: FA. Credit Level: U, G. Credit Hrs: 0.00-3.00

16MUED660**Special Topics**

Topics established every quarter by Department/Division. BoK: FA. Credit Level: U, G. Credit Hrs: 0.00-6.00

16MUED751**Music in Childhood Education**

Rudiments of music, ear-training, sight-reading, and singing. Methods and principles of elementary school music, selection and study of materials for listening, rhythmic activities, and singing. For College of Education students only. Credit Level: G. Credit Hrs: 3.00

16MUED851**Supervision of Music Teaching**

Develop systematic observation skills for the music classroom or ensemble rehearsal, become familiar with observational software and traditional forms, learn a variety of strategies for communicating observation results to preservice and inservice teachers, practice self-observation of teaching behaviors along with strategies for improvement. Credit Level: G. Credit Hrs: 3.00

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Music Education**16MUED861****Technology for Music Teaching**

Introduction to software packages used by music teachers; notation programs for arranging, databasing for organizing inventory and personnel, computer-assisted instruction for music fundamentals and drill-and-practice software, webpage design for marketing and communication, sequencing instruction, grant-writing exercises to help meet funding needs. Perm of Instructor. Credit Level: G. Credit Hrs: 3.00

16MUED870**Urban Music Education**

Focus on issues affecting music education programs in urban areas. Approaches to managing a music program more effectively through the use of creatively designed methods and pedagogical techniques will be shared as well as discussions about cultural differences that make inner city teaching uniquely challenging. Credit Level: G. Credit Hrs: 3.00

16MUED871**History and Philosophy of Music Education**

Historical roots and philosophical foundations of music education in the United States; European background and cultural influences; current philosophical issues in music education. Credit Level: G. Credit Hrs: 3.00

16MUED872**Psychological Foundations of Music Education**

Psychological principles of psycho-motor learning and of aural and nonverbal perception; learning theories and their applications to the teaching-learning process in music. Credit Level: G. Credit Hrs: 3.00

16MUED879**Introduction to Research in Music Education**

Research techniques appropriate to research in music education; principles of research design; organization of the research report; critical examination of representative research studies in music education. Emphasis on developing knowledgeable and discriminating readers and interpreters of completed research. Credit Level: G. Credit Hrs: 3.00

16MUED881**Contemporary Topics I**

Two five-week modules with the first exploring the current K-12 educational landscape and the second focused on learning theories and their application to music education. Credit Level: G. Credit Hrs: 2.00

16MUED882**Contemporary Topics II**

Two five-week modules with the first on curriculum design and the second on assessment and accountability. Credit Level: G. Credit Hrs: 2.00

16MUED890**Master's Project in Music Education**

Intensive study and preparation of the final major project for the Master of Music degree in music education. Credit Level: G. Credit Hrs: 3.00

16MUED899**Master's Candidacy**

Retainment of eligibility for graduation. Credit Level: G. Credit Hrs: 1.00

16MUED911**Graduate Colloquium in Music Education**

A forum for the investigation of issues and ideas as they relate to graduate study in music education: readings, discussion, guest presentations. Credit Level: G. Credit Hrs: 1.00

16MUED960**Independent Research in Music Education**

In-depth study of a specialized research topic in music education, selected by the student in consultation with a member of the faculty. Credit Level: G. Credit Hrs: 1.00-3.00

Music Education**16MUED976****Seminar in Measurement and Evaluation**

Roles and processes of evaluation in the music setting. Test and nontest means of assessment. Creating tests and instructional evaluation plans. Credit Level: G. Credit Hrs: 3.00

16MUED980**DME Advanced Research Seminar**

Required seminar for all students enrolled in the DME program. Each student's research work will depend upon his/her stage in the completion of the degree. Credit Level: G. Credit Hrs: 3.00

16MUED990**Dissertation Music Education**

Research and preparation of the final written project for the DME degree; topic to be approved and supervised by the faculty. Credit Level: G. Credit Hrs: 1.00-15.00

Musical Theater**16MUST140****Musical Theater Vocal Coaching**

Study and performance of selections from the musical theater repertoire. Examination of musical theater styles. For Musical Theater majors only. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16MUST175**Freshman Showcase**

Performance experience for freshman in musical theater. BoK: FA. Credit Level: U. Credit Hrs: 3.00

16MUST201**Musical Theater Performance Group**

Building performance skills and repertoire, through rehearsal and performance of selections from the standard musical theater repertoire, under the guidance of a director, conductor, and choreographer. Musical Theater Majors only. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16MUST202**Musical Theater Performance Group**

Building performance skills and repertoire, through rehearsal and performance of selections from the standard musical theater repertoire, under the guidance of a director, conductor, and choreographer. Musical Theater Majors only. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16MUST203**Musical Theater Performance Group**

Building performance skills and repertoire, through rehearsal and performance of selections from the standard musical theater repertoire, under the guidance of a director, conductor, and choreographer. Musical Theater Majors only. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16MUST221**Pilates Mat Class - Beginning**

A beginning level exercise class in the Pilates Method of Body Conditioning in mat work. BoK: NA. Credit Level: U. Credit Hrs: 1.00

16MUST240**Musical Theater Vocal Coaching**

Study and performance of selections from the musical theater repertoire. Examination of musical theater styles. For Musical Theater majors only. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16MUST300**Audition Techniques**

Selection and preparation of audition materials in various styles, resume preparation, the job market, etc. Materials range from Shakespeare to contemporary drama and musical theater. Musical Theater Majors only. BoK: FA. Credit Level: U. Credit Hrs: 3.00

16MUST301**Advanced Audition Techniques**

Continuation of Audition Techniques with emphasis on style, musical theater auditions, and cold readings. BoK: FA. Credit Level: U. Credit Hrs: 3.00

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Musical Theater**16MUST310****Musical Theater History and Literature**

Survey of the historical evolution of the musical theater from its beginnings in Colonial America to the present. Part One: "The Black Crook" to Rodgers and Hart. BoK: FA., HP. Credit Level: U. Credit Hrs: 3.00

16MUST311**Musical Theater History and Literature**

See 16MUST310. Part Two: Rodgers and Hammerstein to Stephen Sondheim. Prereq: 16MUST310. BoK: FA, HP. Credit Level: U. Credit Hrs: 3.00

16MUST340**Musical Theater Vocal Coaching**

For Musical Theater majors only. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16MUST440**Musical Theater Vocal Coaching**

For Musical Theater majors only. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16MUST521**Musical Theater Dance: Beginning Tap I**

Rudiments of tap dancing. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00

16MUST522**Musical Theater Dance: Beginning Tap II**

Continuation of instruction in beginning tap. Prereq: 16MUST521. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00

16MUST523**Musical Theater Dance: Intermediate Tap**

Instruction in tap dancing at the intermediate level. Prereq: 16MUST522. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00

16MUST524**Musical Theater Dance: Advanced Tap**

Instruction in tap dancing at the advanced level. Prereq: 16MUST523. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00

16MUST525**Choreography for Musical Theater**

Develop understanding of choreography for musical theater through the study of prominent Broadway choreographers and their styles. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00

16MUST560**Independent Study**

Prereq.: Perm. of inst. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00-6.00

16MUST575**New York Showcase**

Creation of a showcase performed for casting agents in New York. BoK: FA., DC. Credit Level: U, G. Credit Hrs: 3.00

16MUST600**Musical Theater Orchestra**

By audition or assignment. BoK: FA. Credit Level: U, G. Credit Hrs: 0.00-1.00

16MUST630**Special Topics in Musical Theater**

By perm. of division. By audition or assignment. BoK: FA. Credit Level: U, G. Credit Hrs: 0.00-3.00

16MUST660**Rehearsal and Performance**

Rehearsal and public performance of a mainstage or workshop production drawn from the standard musical theater repertoire. Assigned by divisional faculty following auditions. BoK: FA. Credit Level: U, G. Credit Hrs: 0.00-3.00

Musical Theater**16MUST800****Audition Techniques**

Selection and preparation of audition materials in various styles; resume preparation and the job market. Credit Level: G. Credit Hrs: 3.00

16MUST801**Advanced Audition Techniques**

Continuation of Audition Techniques with emphasis on style, musical theater auditions and cold readings. Prereq: 16MUST800. Credit Level: G. Credit Hrs: 3.00

16MUST805**Characterization and Repertoire**

Study of major roles from the standard musical theater repertoire from the viewpoints of vocal demands, physical characterization and creative acting. Credit Level: G. Credit Hrs: 2.00

16MUST807**Cabaret Techniques**

Study of techniques used in one-person performances in intimate spaces. Creation of an "act" suited to cabaret performances. Credit Level: G. Credit Hrs: 3.00

16MUST810**Musical Theater History and Literature**

Survey of the historical evolution of the musical theater from its beginnings in Colonial America to the present. Part One: "The Black Crook" to Rodgers and Hart. Credit Level: G. Credit Hrs: 3.00

16MUST811**Musical Theater History and Literature**

Survey of the historical evolution of the musical theater from its beginnings in Colonial America to the present. Part Two: Rodgers and Hammerstein to Stephen Sondheim. Prereq: 16MUST810. Credit Level: G. Credit Hrs: 3.00

16MUST875**Graduate Workshop**

Intensive acting instruction for graduate students in musical theater. Credit Level: G. Credit Hrs: 3.00

Oboe**16OBOE100****Oboe Major Study**

Principles of basic musicianship. Technical requirements: proper command of posture, breath support, embouchure, tongue position and movement, resonance, natural vibrato, jaw techniques for dynamics, detache, register change, and phrasing. Basic cane preparation and reed design and construction. Scales, several compositions including a Baroque work and one of contrasting style. Attendance at weekly oboe seminar required. English Horn Sem. by perm. only. BoK: FA. Credit Level: U. Credit Hrs: 3.00

16OBOE110**Oboe Concentration**

First-year study for oboe students in the B.A. program in music. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16OBOE120**Oboe Secondary**

First-year secondary study in oboe as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16OBOE200**Oboe Major Study**

Continuation of development of musicianship and techniques, reed-making, Selner studies, scales and thirds, sonatas such as Saint-Saens, Hindemith, a Baroque concerto, major orchestral solos. Attendance at weekly oboe seminar and chamber music ensemble required; English Horn recital suggested; English Horn Sem. by perm. only. BoK: FA. Credit Level: U. Credit Hrs: 4.00

H=University Honors course.

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Oboe**16OBOE210****Oboe Concentration**

Second-year study for oboe students in the B.A. program in music or in the music education program. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16OBOE220**Oboe Secondary**

Second-year secondary study in oboe as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16OBOE300**Oboe Major Study**

Continuation of musical and technical development, reed-making, Selner studies, scales and thirds, compositions of the Classical and Romantic periods, major orchestral solos. Attendance at weekly oboe seminar and chamber music ensemble required; half to full informal oboe recital suggested; English Horn Sem. by perm. only. BoK: FA. Credit Level: U. Credit Hrs: 4.00

16OBOE310**Oboe Concentration**

Third-year study for oboe students in the B.A. program in music or in the music education program. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16OBOE320**Oboe Secondary**

Third-year secondary study in oboe as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16OBOE400**Oboe Major Study**

Continuation of musical and technical development, reed-making, etudes, scales and thirds, addition of works by contemporary composers, larger concerti, major orchestral solos. Preparation of a recital. BoK: FA. Credit Level: U. Credit Hrs: 4.00

16OBOE410**Oboe Concentration**

Fourth-year study for oboe students in the B.A. program in music or in the music education program. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16OBOE420**Oboe Secondary**

Fourth-year secondary study in oboe as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16OBOE500**Oboe Major**

Additional study for undergraduate oboe majors who have completed the basic degree requirements; offered for undergraduate and graduate oboe majors during the Summer Session. BoK: FA. Credit Level: U, G. Credit Hrs: 4.00

16OBOE510**Oboe Concentration**

Additional study in oboe for undergraduate students at the concentration level who have completed the basic degree requirements; offered to all concentration-level oboe students during the Summer Session. BoK: FA. Credit Level: U, G. Credit Hrs: 2.00

16OBOE530**Oboe Elective**

Nonrequired private study in oboe; requires permission of the department and the college. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00-2.00

16OBOE560**Independent Study**

Projects such as the study of the letters of the Mozart family, cadenza writing, original ornamentation of Baroque works, etc. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00-12.00

Oboe**16OBOE630****Special Topics**

Topics established by the area faculty on an as needed basis. BoK: FA. Credit Level: U, G. Credit Hrs: 0.00-3.00

16OBOE680**Oboe Master Class**

A weekly seminar in oboe performance covering oboe and reed making techniques, orchestral excerpts, specific editions of major works, audition techniques, literature and pedagogy. Frequent guest lecturers. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00

16OBOE800**Oboe Graduate Major Study**

Continuation of musical and technical development, reed-making, etudes, scales and thirds, compositions ranging from Baroque to contemporary. Preparation of required recital programs and orchestral audition material. Credit Level: G. Credit Hrs: 4.00

16OBOE810**Oboe Concentration**

Master's level study for students accepted for a cognate in oboe performance. Credit Level: G. Credit Hrs: 2.00

16OBOE820**Oboe Secondary**

Secondary study in oboe for master's degree students. Credit Level: G. Credit Hrs: 1.00

16OBOE850**Artist Diploma in Oboe**

All preparations necessary leading to a career in performance. Credit Level: G. Credit Hrs: 6.00

16OBOE855**Artist Diploma Recital**

Public performance by an artist diploma student in oboe of selected compositions; approved and graded by the faculty. Credit Level: G. Credit Hrs: 2.00

16OBOE880**Master Recital**

Public performance by a master's degree student in oboe of selected compositions; approved and graded by the faculty. Credit Level: G. Credit Hrs: 1.00-2.00

16OBOE895**Practicum**

Practical experience in the professional world. Credit Level: G. Credit Hrs: 1.00

16OBOE899**Master's Candidacy**

Retainment of eligibility for graduation. Credit Level: G. Credit Hrs: 1.00

16OBOE900**Oboe Doctoral Major Study**

All preparations necessary leading to a career combining performance and college/university teaching. Credit Level: G. Credit Hrs: 4.00

16OBOE910**Oboe Concentration**

Doctoral level study for students accepted for a cognate in oboe performance. Credit Level: G. Credit Hrs: 2.00

16OBOE920**Oboe Secondary**

Secondary study in oboe for doctoral level students. Credit Level: G. Credit Hrs: 1.00

16OBOE930**Oboe Elective**

Nonrequired private study in oboe for doctoral students; requires permission of the department and the college. Credit Level: G. Credit Hrs: 1.00-2.00

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Oboe**16OBOE950****Artist Diploma in Oboe**

All preparations necessary leading to a career in performance. Credit Level: G. Credit Hrs: 6.00

16OBOE960**Oboe Concerto**

Public performance of a concerto with one of the major performing ensembles. Credit Level: G. Credit Hrs: 2.00

16OBOE970**Doctoral Recital**

Public performance by a doctoral student in oboe of selected compositions; approved and graded by the faculty. Credit Level: G. Credit Hrs: 3.00

16OBOE980**Lecture Recital**

Combined public lecture and performance of a selected topic in the oboe repertoire; approved and graded by the faculty. Credit Level: G. Credit Hrs: 3.00

16OBOE990**DMA Document**

Research and preparation of the final written project for the DMA degree in oboe; topic to be approved and supervised by the faculty. Credit Level: G. Credit Hrs: 1.00-15.00

Opera**16OPRA560****Independent Study**

In-depth study of a topic related to opera, selected by the student in consultation with a member of the faculty. Permission of instructor and Division. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00-6.00

16OPRA585**Lucca: Techniques in Opera Direction**

Development and education of the opera stage director. BoK: FA. Credit Level: U, G. Credit Hrs: 7.00

16OPRA600**Opera Orchestra**

Participation in the opera orchestra; by audition or assignment. BoK: FA. Credit Level: U, G. Credit Hrs: 0.00-1.00

16OPRA620**Lucca: Techniques in Opera Coaching**

Teaching pianists and accompanists skills specific to opera coaching and opera rehearsal playing. Study of recitative, bel canto style, score reduction, and general repertoire, focusing on Italian opera. BoK: FA. Credit Level: U, G. Credit Hrs: 7.00

16OPRA630**Special Topics in Opera**

Offering of selected topics on an as needed basis. BoK: FA. Credit Level: U, G. Credit Hrs: 0.00-3.00

16OPRA660**Special Topics**

Topics established every quarter by Department/Division. BoK: FA. Credit Level: U, G. Credit Hrs: 0.00-6.00

16OPRA673**Opera Workshop**

Basic techniques of stage movement, operatic style and related aspects of opera production. Comprehensive musical and dramatic study of operatic scenes in classroom and public performance. BoK: FA. Credit Level: U, G. Credit Hrs: 3.00

16OPRA675**Opera Studio**

Advanced techniques of characterization, ensemble, and all other aspects of opera production. Emphasis on practical experience in public performances. BoK: FA. Credit Level: U, G. Credit Hrs: 0.00-3.00

Opera**16OPRA677****Opera Theater Coaching**

Musical preparation of the CCM mainstage productions. Enrollment by casting. Variable 0-3 ug. or gr., depending on the size of the role to be performed. BoK: FA. Credit Level: U, G. Credit Hrs: 0.00-3.00

16OPRA678**Opera Theater Production**

Rehearsal and performance of operas in full productions with orchestra. Enrollment by casting audition. Variable credit depending upon length of role. Prereq: 16OPRA677. BoK: FA. Credit Level: U, G. Credit Hrs: 0.00-3.00

16OPRA750**Professional Development**

Student presentation of audition repertoire/ playing in mock auditions for constructive criticism in the areas of presentation, style, dramatic effectiveness, language skills, and other audition techniques. Autumn Quarter only. Credit Level: G. Credit Hrs: 3.00

16OPRA751**Professional Development**

Focus on professional tools, legalities, and employment opportunities in the USA and abroad, along with other relevant information for the individual performer. Credit Level: G. Credit Hrs: 3.00

16OPRA780**Opera Characterization: Principles and Techniques**

Supervised demonstrations and critical analyses of the fundamental principles and techniques of operatic characterization. Credit Level: G. Credit Hrs: 3.00

16OPRA781**Seminar in Opera Stage Directing**

Analytical and communicative techniques of the opera stage director, as illustrated by labwork in class, and opportunity to assist in Opera Workshop, Studio and Theater project. Credit Level: G. Credit Hrs: 3.00

16OPRA782**Seminar in Opera Directing Lab**

Work as instructor or director with undergraduate performance projects or special topics project using materials and information gained in Seminar in Opera Stage Directing. Prereq: 16OPRA781. Credit Level: G. Credit Hrs: 2.00

16OPRA790**Opera Laboratory Ensemble**

Course will focus on advanced synthesis of singing, acting and movement skills (for singers) and directing and coaching (for directors and coaches) through preparation and performance of scenes from the standard operatic repertoire, contemporary repertoire and straight theater. Prereq: 16OPRA673, 16OPRA780. Credit Level: G. Credit Hrs: 2.00

16OPRA791**Opera Laboratory Ensemble**

Course will focus on advanced synthesis of singing, acting and movement skills (for singers) and directing and coaching (for directors and coaches) through preparation and performance of scenes from the standard operatic repertoire, contemporary repertoire and straight theater. Prereq: 16OPRA673, 16OPRA780. Credit Level: G. Credit Hrs: 2.00

16OPRA792**Opera Laboratory Ensemble**

Course will focus on advanced synthesis of singing, acting and movement skills (for singers) and directing and coaching (for directors and coaches) through preparation and performance of scenes from the standard operatic repertoire, contemporary repertoire and straight theater. Prereq: 16OPRA673, 16OPRA780. Credit Level: G. Credit Hrs: 2.00

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Opera**16OPRA815****Opera Recitative**

Performance practice in the various methods and styles of opera recitative. Credit Level: G. Credit Hrs: 2.00

16OPRA820**Seminar in Opera Coaching**

Analysis of operatic literature, principles of vocal coaching and fundamentals of opera conducting techniques. Credit Level: G. Credit Hrs: 2.00

16OPRA850**Opera Coaching**

(Open only to Opera Diploma majors.) One one-hour lesson per week each quarter, the content of which enables the student to prepare for performances and auditions and to expand and build a repertoire of operatic literature. Emphasis on musicianship, style and presentation. Required of Artist Diploma in Opera Majors each quarter. Credit Level: G. Credit Hrs: 2.00

16OPRA860**Opera Performance Preparation**

Elective for Artist Diploma in Opera majors and D.M.A. students in voice. Permission of instructor only. One one-hour coaching session per week provided to help the student in learning operatic roles for repertoire or for professional engagements outside the College-Conservatory. To be used for specific special projects apart from activities in Opera Theatre. Variable credit. Credit Level: G. Credit Hrs: 0.00-9.00

16OPRA885**Applied Study in Opera Stage Direction**

First-year study for students accepted into the artist diploma degree program in directing. Permission of instructor. Credit Level: G. Credit Hrs: 4.00

16OPRA900**Applied Opera Coaching**

A private one-hour lesson per week for A.D. Opera students in the opera coaching track. Credit Level: G. Credit Hrs: 4.00

16OPRA950**Applied Opera Coaching**

A private one-hour lesson per week for A.D. Opera students in the opera coaching track. Credit Level: G. Credit Hrs: 4.00

16OPRA985**Applied Study in Opera Stage Direction**

Second-year study for students accepted into the artist diploma degree program in directing. Credit Level: G. Credit Hrs: 4.00

Organ**16ORGN100****Organ Major Study**

Technical requirements: manual and pedal studies by Gleason, Ritchie, and Stauffer. Baroque compositions equivalent in difficulty to J.S. Bach -- "Little" G Minor Fugue, easy pieces by Mendelssohn, Dupr , Vierne, Walcha, and others. BoK: FA. Credit Level: U. Credit Hrs: 3.00

16ORGN110**Organ Concentration**

First-year study for organ students in the B.A. program in music. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16ORGN120**Organ Secondary**

First-year secondary study in organ as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16ORGN200**Organ Major Study**

Technical requirements: continuation of above, sight-reading and transposition. Baroque compositions equivalent in difficulty to the A Major Prelude and Fugue of J.S. Bach, chorale preludes by Buxtehude,

Organ**16ORGN200****Organ Major Study**

Pachelbel, Bach, and Brahms; easier pieces of Franck, Hindemith, Messiaen, etc. BoK: FA. Credit Level: U. Credit Hrs: 4.00

16ORGN210**Organ Concentration**

Second-year study for organ students in the B.A. program in music or in the music education program. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16ORGN220**Organ Secondary**

Second-year secondary study in organ as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16ORGN300**Organ Major Study**

Technical requirements: continuation of above, sight-reading and transposition. Baroque compositions equivalent in difficulty to Buxtehude -- Prelude and Fugue in G Minor, a sonata by Mendelssohn, a suite by Langlais or comparable contemporary compositions. Preparation of junior recital. BoK: FA. Credit Level: U. Credit Hrs: 4.00

16ORGN310**Organ Concentration**

Third-year study for organ students in the B.A. program in music or in the music education program. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16ORGN320**Organ Secondary**

Third-year secondary study in organ as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16ORGN400**Organ Major Study**

Technical requirements: continuation of above. Preparation of senior recital. Major works by J.S. Bach and his predecessors, 19th century works; Franck -- Chorales; contemporary composition of advanced difficulty. For the final examination the student will prepare a given piece in fifteen days without the aid of the teacher. BoK: FA. Credit Level: U. Credit Hrs: 4.00

16ORGN410**Organ Concentration**

Fourth-year study for organ students in the B.A. program in music or in the music education program. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16ORGN420**Organ Secondary**

Fourth-year secondary study in organ as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16ORGN500**Organ Major**

Additional study for undergraduate organ majors who have completed the basic degree requirements; offered for undergraduate and graduate organ majors during the Summer Session, depending on faculty availability. BoK: FA. Credit Level: U, G. Credit Hrs: 4.00

16ORGN510**Organ Concentration**

Additional study in organ for undergraduate students at the concentration level who have completed the basic degree requirements; offered to all concentration level organ students during the Summer Session, depending on faculty availability. BoK: FA. Credit Level: U, G. Credit Hrs: 2.00

16ORGN511**Keyboard Harmony for Organists**

Emphasis on modulation, transposition, and beginning improvisation. BoK: FA. Credit Level: U, G. Credit Hrs: 2.00

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Organ**16ORGN512****Keyboard Harmony for Organists**

Emphasis on modulation, transposition, and beginning improvisation.

BoK: FA. Credit Level: U, G. Credit Hrs: 2.00

16ORGN513**Keyboard Harmony for Organists**

Emphasis on modulation, transposition, and beginning improvisation.

BoK: FA. Credit Level: U, G. Credit Hrs: 2.00

16ORGN521**Liturgical Organ Playing**

Advanced hymn-playing skills, solo and anthem accompaniment, adapting piano and orchestral accompaniments to the organ, improvisation, and conducting from the console. BoK: FA. Credit Level: U, G. Credit Hrs: 2.00

16ORGN522**Liturgical Organ Playing**

Advanced hymn-playing skills, solo and anthem accompaniment, adapting piano and orchestral accompaniments to the organ, improvisation, and conducting from the console. BoK: FA. Credit Level: U, G. Credit Hrs: 2.00

16ORGN523**Liturgical Organ Playing**

Advanced hymn-playing skills, solo and anthem accompaniment, adapting piano and orchestral accompaniments to the organ, improvisation, and conducting from the console. BoK: FA. Credit Level: U, G. Credit Hrs: 2.00

16ORGN530**Organ Elective**

Nonrequired private study in organ; requires permission of the department and the college. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00-2.00

16ORGN531**Organ Repertoire**

A survey of organ literature from the medieval period to the avant-garde of the present, with emphasis on significant works of each period as well as on instruments for which they were intended. BoK: FA., HP. Credit Level: U, G. Credit Hrs: 2.00

16ORGN532**Organ Repertoire**

A survey of organ literature from the medieval period to the avant-garde of the present, with emphasis on significant works of each period as well as on instruments for which they were intended. BoK: FA., HP. Credit Level: U, G. Credit Hrs: 2.00

16ORGN533**Organ Repertoire**

A survey of organ literature from the medieval period to the avant-garde of the present, with emphasis on significant works of each period as well as on instruments for which they were intended. BoK: FA., HP. Credit Level: U, G. Credit Hrs: 2.00

16ORGN535**Organ Pedagogy**

Teaching materials and studio practice; supervised teaching. BoK: FA. Credit Level: U, G. Credit Hrs: 2.00

16ORGN536**Organ Pedagogy**

Teaching materials and studio practice; supervised teaching. BoK: FA. Credit Level: U, G. Credit Hrs: 2.00

16ORGN537**Organ Pedagogy**

Teaching materials and studio practice; supervised teaching. BoK: FA. Credit Level: U, G. Credit Hrs: 2.00

Organ**16ORGN541****Organ Repertoire**

A survey of organ literature from the medieval period to the avant-garde of the present, with emphasis on significant works of each period as well as on instruments for which they were intended. BoK: FA., HP. Credit Level: U, G. Credit Hrs: 2.00

16ORGN542**Organ Repertoire**

A survey of organ literature from the medieval period to the avant-garde of the present, with emphasis on significant works of each period as well as on instruments for which they were intended. Prereq: 16ORGN541. BoK: FA, HP. Credit Level: U, G. Credit Hrs: 2.00

16ORGN543**Organ Repertoire**

A survey of organ literature from the medieval period to the avant-garde of the present, with emphasis on significant works of each period as well as on instruments for which they were intended. Prereq: 16ORGN542. BoK: FA, HP. Credit Level: U, G. Credit Hrs: 2.00

16ORGN560**Independent Study**

In-depth study of a topic related to the organ, selected by the student in consultation with a member of the faculty. Permission of instructor and Division. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00-12.00

16ORGN570**Introduction to the Organ**

An introductory course in basic facets of organ playing designed primarily as a basis for further elective study. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00

16ORGN800**Organ Graduate Major Study**

Preparation of two recital programs, one to be performed in public. J.S. Bach -- works such as Prelude and Fugue in E-Flat; extended 19th century works such as Fantasy and Fugue on Ad nos by Liszt or Sonata by Reubke; 20th Century compositions by Dupr , Hindemith, Sowerby, Distler, Messiaen, Albright, and others. Credit Level: G. Credit Hrs: 4.00

16ORGN810**Organ Concentration**

Master's level study for students accepted for a cognate in organ performance. Credit Level: G. Credit Hrs: 2.00

16ORGN820**Organ Secondary**

Secondary study in organ for master's degree students. Credit Level: G. Credit Hrs: 1.00

16ORGN880**Master Recital**

Public performance by a master's degree student in organ of selected compositions; approved and graded by the faculty. Credit Level: G. Credit Hrs: 1.00-2.00

16ORGN895**Practicum**

Practical experience in the professional world. Credit Level: G. Credit Hrs: 1.00

16ORGN899**Master's Candidacy**

Retention of eligibility for graduation. Credit Level: G. Credit Hrs: 1.00

16ORGN900**Organ Doctoral Major Study**

Selected studies for continued refinement of previous skills. Repertoire to be selected from works of advanced technical difficulty. Preparation of required doctoral recitals. Credit Level: G. Credit Hrs: 4.00

Organ**16ORGN910****Organ Concentration**

Doctoral level study for students accepted for a cognate in organ performance. Credit Level: G. Credit Hrs: 2.00

16ORGN920**Organ Secondary**

Secondary study in organ for doctoral level students. Credit Level: G. Credit Hrs: 1.00

16ORGN930**Organ Elective**

Nonrequired private study in organ for doctoral students; requires permission of the department and the college. Credit Level: G. Credit Hrs: 1.00-2.00

16ORGN960**Organ Concerto**

Public performance of a concerto with one of the major performing ensembles. Credit Level: G. Credit Hrs: 2.00

16ORGN970**Doctoral Recital**

Public performance by a doctoral student in organ of selected compositions; approved and graded by the faculty. Credit Level: G. Credit Hrs: 3.00

16ORGN980**Lecture Recital**

Combined public lecture and performance of a selected topic in the organ repertoire; approved and graded by the faculty. Credit Level: G. Credit Hrs: 3.00

16ORGN990**DMA Document**

Research and preparation of the final written project for the DMA degree in organ; topic to be approved and supervised by the faculty. Credit Level: G. Credit Hrs: 1.00-15.00

Percussion**16PERC100****Percussion Major Study**

Development of technical facility on snare drum, mallet percussion instruments and timpani. Texts by Goldenberg, Albright, Cirone, Payson, Kraus, Bergamo, Friedman, Burton, Green, Stout, Goodman, Firth, Hinger, and Hochrainer. Review of small percussion instrument techniques. BoK: FA. Credit Level: U. Credit Hrs: 3.00

16PERC110**Percussion Concentration**

First-year study for percussion students in the B.A. program in music. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16PERC120**Percussion Secondary**

First-year secondary study in percussion as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16PERC200**Percussion Major Study**

Continued technical studies. Orchestral repertoire on all percussion instruments. Solo and small chamber works drawn from the traditional and contemporary repertoire. BoK: FA. Credit Level: U. Credit Hrs: 4.00

16PERC210**Percussion Concentration**

Second-year study for percussion students in the B.A. program in music or in the music education program. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16PERC220**Percussion Secondary**

Second-year secondary study in percussion as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

Percussion**16PERC300****Percussion Major Study**

Continued work on the fundamentals of orchestral, solo, and chamber performance techniques. Development of contemporary techniques. BoK: FA. Credit Level: U. Credit Hrs: 4.00

16PERC310**Percussion Concentration**

Third-year study for percussion students in the B.A. program in music or in the music education program. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16PERC320**Percussion Secondary**

Third-year secondary study in percussion as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16PERC400**Percussion Major Study**

Mastery of concert performance techniques on all percussion instruments. Preparation of Senior Recital including representative works on all major instruments. BoK: FA. Credit Level: U. Credit Hrs: 4.00

16PERC410**Percussion Concentration**

Fourth-year study for percussion students in the B.A. program in music or in the music education program. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16PERC420**Percussion Secondary**

Fourth-year secondary study in percussion as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16PERC500**Percussion Major**

Additional study for undergraduate percussion majors who have completed the basic degree requirements; offered for undergraduate and graduate percussion majors during the Summer Session. BoK: FA. Credit Level: U, G. Credit Hrs: 4.00

16PERC510**Percussion Concentration**

Additional study in percussion for undergraduate students at the concentration level who have completed the basic degree requirements; offered to all concentration level percussion students during the Summer Session. BoK: FA. Credit Level: U, G. Credit Hrs: 2.00

16PERC530**Percussion Elective**

Nonrequired private study in percussion; requires permission of the department and the college. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00-2.00

16PERC560**Independent Study**

In-depth study of a topic related to percussion, selected by the student in consultation with a member of the faculty. Permission of instructor and Division. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00-12.00

16PERC581**Improvisation and MIDI for Percussion**

Covers improvisation and MIDI technology for percussionists. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00

16PERC582**Improvisation and MIDI for Percussion**

Continuation of 16PERC581. Prereq: 16PERC581. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00

16PERC670**Percussion Ensemble**

An organization reading and performing works for large percussion ensemble and smaller percussion chamber ensembles drawing upon

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Percussion**16PERC670****Percussion Ensemble**

works of the classical and contemporary repertoire. BoK: FA. Credit Level: U, G. Credit Hrs: 0.00-1.00

16PERC800**Percussion Major Study**

Preparation of one recital program to be performed in public. Including major advanced works from the percussion repertoire, or possibly works employing instrument design and construction, percussion with electronics or other experimental percussion projects. Advanced study of the passages from the orchestral repertoire available. Credit Level: G. Credit Hrs: 4.00

16PERC810**Percussion Concentration**

Master's level study for students accepted for a cognate in percussion performance. Credit Level: G. Credit Hrs: 2.00

16PERC820**Percussion Secondary**

Secondary study in percussion for master's degree students. Credit Level: G. Credit Hrs: 1.00

16PERC850**Artist Diploma in Percussion**

First-year major study in percussion for students accepted into the artist diploma program. Credit Level: G. Credit Hrs: 6.00

16PERC855**Artist Diploma Recital**

Public performance by an artist diploma student in percussion of selected compositions; approved and graded by the faculty. Credit Level: G. Credit Hrs: 2.00

16PERC880**Master Recital**

Public performance by a master's degree student in percussion of selected compositions; approved and graded by the faculty. Credit Level: G. Credit Hrs: 1.00-2.00

16PERC895**Practicum**

Practical experience in the professional world. Credit Level: G. Credit Hrs: 1.00

16PERC899**Master's Candidacy**

Retention of eligibility for graduation. Credit Level: G. Credit Hrs: 1.00

16PERC900**Percussion Doctoral Major Study**

Selected studies for continued refinement of previous skills. Repertoire to be selected from works of advanced technical difficulty. Preparation of required doctoral recitals. Credit Level: G. Credit Hrs: 4.00

16PERC910**Percussion Concentration**

Doctoral level study for students accepted for a cognate in percussion performance. Credit Level: G. Credit Hrs: 2.00

16PERC920**Percussion Secondary**

Secondary study in percussion for doctoral level students. Credit Level: G. Credit Hrs: 1.00

16PERC930**Percussion Elective**

Nonrequired private study in percussion for doctoral students; requires permission of the department and the college. Credit Level: G. Credit Hrs: 1.00-2.00

16PERC950**Artist Diploma in Percussion**

Second-year major study in percussion for students accepted into the

Percussion**16PERC950****Artist Diploma in Percussion**

artist diploma program. Credit Level: G. Credit Hrs: 6.00

16PERC960**Percussion Concerto**

Public performance of a concerto with one of the major performing ensembles. Credit Level: G. Credit Hrs: 2.00

16PERC970**Doctoral Recital**

Public performance by a doctoral student in percussion of selected compositions; approved and graded by the faculty. Credit Level: G. Credit Hrs: 3.00

16PERC980**Lecture Recital**

Combined public lecture and performance of a selected topic in the percussion repertoire; approved and graded by the faculty. Credit Level: G. Credit Hrs: 3.00

16PERC990**DMA Document**

Research and preparation of the final written project for the DMA degree in percussion; topic to be approved and supervised by the faculty. Credit Level: G. Credit Hrs: 1.00-15.00

Piano**16PIAN100****Piano Major Study**

Technical requirements: all major and minor scales, four octaves, in parallel motion; arpeggios, triads, dominant and diminished seventh chords, four octaves. Works from Baroque, Classic, and Romantic periods and twentieth century. BoK: FA. Credit Level: U. Credit Hrs: 4.00

16PIAN110**Piano Concentration**

First-year study for piano students in the B.A. program in music. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16PIAN120**Piano Secondary**

First-year secondary study in piano as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16PIAN130**Keyboard Skills for Freshman Honors**

Group piano for those with extensive piano background, yet lack the skills for passing the entrance examination. Perm of Instructor. BoK: NA. Credit Level: U. Credit Hrs: 2.00

16PIAN131**Piano Forum I**

An introductory discussion of issues and development of skills related to a career as a pianist. BoK: FA., HP. Credit Level: U. Credit Hrs: 1.00

16PIAN132**Piano Forum I**

An introductory discussion of issues and development of skills related to a career as a pianist. BoK: FA., HP. Credit Level: U. Credit Hrs: 1.00

16PIAN133**Piano Forum I**

An introductory discussion of issues and development of skills related to a career as a pianist. BoK: FA., HP. Credit Level: U. Credit Hrs: 1.00

16PIAN140**Studio Piano for Freshman Honors**

Private lessons for those with superb piano background, yet lack the skills for passing the entrance examination. Perm of Instructor. BoK: NA. Credit Level: U. Credit Hrs: 2.00

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Piano**16PIAN200****Piano Major Study**

Scales in thirds, sixths, and tenths in parallel and contrary motion, triad and seventh-chord arpeggios in all inversions. J.S. Bach, "Three-Part Inventions and Preludes" and "Fugues" from the W.T.C. Classical sonatas of the difficulty of Beethoven, "Sonata in C Major, Op. 2, No. 3." Nineteenth-century compositions comparable in difficulty to Schumann's "Papillons." BoK: FA. Credit Level: U. Credit Hrs: 4.00

16PIAN210**Piano Concentration**

Second-year study for piano students in the B.A. program in music or in the music education program. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16PIAN211**Keyboard Skills**

Specialized training in keyboard skills that lead to well rounded musicianship. The class includes: Sight-reading, harmonization of melodies, score reading, transposition, modal and whole tone scales and harmony, score and accompaniment reductions, and pop/jazz realizations. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16PIAN212**Keyboard Skills**

Specialized training in keyboard skills that lead to well rounded musicianship. The class includes: Sight-reading, harmonization of melodies, score reading, transposition, modal and whole tone scales and harmony, score and accompaniment reductions, and pop/jazz realizations. Prereq: 16PIAN211. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16PIAN213**Keyboard Skills**

Specialized training in keyboard skills that lead to well rounded musicianship. The class includes: Sight-reading, harmonization of melodies, score reading, transposition, modal and whole tone scales and harmony, score and accompaniment reductions, and pop/jazz realizations. Prereq: 16PIAN212. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16PIAN220**Piano Secondary**

Second-year secondary study in piano as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16PIAN221**Collaborative Piano I**

Classes devoted to the pianist's role in both vocal and chamber music repertoire. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16PIAN222**Collaborative Piano I**

Continuation of 16 PIAN 221. Prereq: 16PIAN221. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16PIAN223**Collaborative Piano I**

Continuation of 16 PIAN 222. Prereq: 16PIAN222. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16PIAN231**Piano Forum II**

Continuation of Piano Forum I for second year piano majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16PIAN232**Piano Forum II**

Continuation of Piano Forum I for second year piano majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16PIAN233**Piano Forum II**

Continuation of Piano Forum I for second-year piano majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

Piano**16PIAN233****Piano Forum II**

Continuation of Piano Forum I for second-year piano majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16PIAN300**Piano Major Study**

Technical requirements: continuation of above with improved technical facility. J.S. Bach Preludes and Fugues from the W.T.C. and the Partitas, Chopin Etudes, Beethoven Sonata, Op. 26, Brahms Intermezzi, Op. 118, Prokofiev Sonata No. 3, or works of comparable difficulty. Preparation and performance of junior recital. BoK: FA. Credit Level: U. Credit Hrs: 4.00

16PIAN310**Piano Concentration**

Third-year study for piano students in the B.A. program in music or in the music education program. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16PIAN320**Piano Secondary**

Third-year secondary study in piano as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16PIAN321**Collaborative Piano II**

Classes devoted to the pianists role in both vocal and chamber music repertoires. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16PIAN322**Collaborative Piano II**

Continuation of 16 PIAN 321. Prereq: 16PIAN321. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16PIAN323**Collaborative Piano II**

Continuation of 16 PIAN 322. Prereq: 16PIAN322. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16PIAN331**Piano Repertoire**

Specified repertoire from the performing, interpretive, historical and analytic points of view. BoK: FA., HP. Credit Level: U. Credit Hrs: 2.00

16PIAN332**Piano Repertoire**

Specified repertoire from the performing, interpretive, historical and analytic points of view. Prereq: 16PIAN331. BoK: FA, HP. Credit Level: U. Credit Hrs: 2.00

16PIAN333**Piano Repertoire**

Specified repertoire from the performing, interpretive, historical and analytic points of view. Prereq: 16PIAN332. BoK: FA, HP. Credit Level: U. Credit Hrs: 2.00

16PIAN400**Piano Major Study**

Advanced technical studies; preparation and performance of Senior Recital. Works comparable in difficulty to J. S. Bach -- Italian Concerto, Mozart -- Sonata in A Minor, K. 310, Debussy -- Preludes, Copland -- Passacaglia. BoK: FA. Credit Level: U. Credit Hrs: 4.00

16PIAN410**Piano Concentration**

Fourth-year study for piano students in the B.A. program in music or in the music education program. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16PIAN420**Piano Secondary**

Fourth-year secondary study in piano as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

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Piano**16PIAN421****Collaborative Piano III**

Classes devoted to the pianists role in both vocal and chamber music repertoire. Prereq: 16PIAN323. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16PIAN422**Collaborative Piano III**

Continuation of 16 PIAN 421. Prereq: 16PIAN421. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16PIAN423**Collaborative Piano III**

Continuation of 16 PIAN 422. Prereq: 16PIAN422. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16PIAN431**Introduction to Piano Pedagogy**

Beginning to intermediate teaching, both in private and group situations; children through adult. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16PIAN432**Introduction to Piano Pedagogy**

Continuation of 16 PIAN 431. Prereq: 16PIAN431. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16PIAN433**Introduction to Piano Pedagogy**

Continuation of 16 PIAN 432. Prereq: 16PIAN432. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16PIAN500**Piano Major**

Additional study for undergraduate piano majors who have completed the basic degree requirements; offered for undergraduate and graduate piano majors during the Summer Session. BoK: FA. Credit Level: U, G. Credit Hrs: 4.00

16PIAN501**Group Piano for Nonmusic Majors**

Designed for those with little or no piano experience; teaches the fundamentals of reading music, playing by ear, using chord charts, and improving finger flexibility. BoK: FA. Credit Level: U, G. Credit Hrs: 2.00

16PIAN502**Group Piano for Nonmusic Majors, Level 2**

Designed for those with little or no piano experience; teaches the fundamentals of reading music, playing by ear, using chord charts, and improving finger flexibility. BoK: FA. Credit Level: U, G. Credit Hrs: 2.00

16PIAN510**Piano Concentration**

Additional study in piano for undergraduate students at the concentration level who have completed the basic degree requirements; offered to all concentration level piano students during the Summer Session. BoK: FA. Credit Level: U, G. Credit Hrs: 2.00

16PIAN520**Secondary Piano**

Additional study in secondary piano for undergraduate students who have completed the basic degree requirements. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00

16PIAN521**Piano Pedagogy**

Emphasis on materials and techniques used in early piano study. Assignments and lectures include: piano method book evaluations, observations of children, instruction on beginning piano teaching, the business aspect of teaching, review of magazines available to pianists and piano teachers, and review of supplemental music that can correlate with piano method books. BoK: FA. Credit Level: U, G. Credit Hrs: 2.00

Piano**16PIAN522****Piano Pedagogy**

Emphasis on materials and techniques employed when teaching intermediate and advanced students. Assignments and lectures include: evaluation and leveling of intermediate and advanced repertoire, observations of intermediate and advanced students, technique repertoire and famous technicians with their philosophies, master class teaching techniques. BoK: FA. Credit Level: U, G. Credit Hrs: 2.00

16PIAN523**Piano Pedagogy**

Emphasis on group teaching repertoire and techniques. Assignments and lectures include: Evaluation of group piano texts, sequencing group piano concepts, observation and teaching of a group piano class, discussions and readings of select topics associated with the field of Piano Pedagogy. BoK: FA. Credit Level: U, G. Credit Hrs: 2.00

16PIAN530**Piano Elective**

Nonrequired private study in piano; requires permission of the department and the college. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00-2.00

16PIAN531**Master Class in Piano Performance**

A weekly master class taught on a rotating basis by the various members of the major piano faculty, with occasional guest presentations. Each student is expected to play in class at least once each quarter. BoK: FA. Credit Level: U, G. Credit Hrs: 2.00

16PIAN532**Master Class in Piano Performance**

A weekly master class taught on a rotating basis by the various members of the major piano faculty, with occasional guest presentations. Each student is expected to play in class at least once each quarter. BoK: FA. Credit Level: U, G. Credit Hrs: 2.00

16PIAN533**Master Class in Piano Performance**

A weekly master class taught on a rotating basis by the various members of the major piano faculty, with occasional guest presentations. Each student is expected to play in class at least once each quarter. BoK: FA. Credit Level: U, G. Credit Hrs: 2.00

16PIAN560**Independent Study**

In-depth study of a topic related to the piano, selected by the student in consultation with a member of the faculty. Permission of instructor and Division. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00-12.00

16PIAN570**Introduction to Electronic Keyboards**

Basic course designed to familiarize pianists with various types and uses of electronic keyboards. Select topics will be presented using technology available to the instructor. Assignments and lectures will include basic information on MIDI, synthesizers, and sequencing. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00

16PIAN581**Collaborative Piano Seminar**

Performance seminars devoted to specific areas of voice and keyboard repertoire. BoK: FA. Credit Level: U, G. Credit Hrs: 2.00

16PIAN590**PianoFest Cincinnati**

An highly specialized summer workshop/festival for pianists. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

16PIAN611**Two-Piano Four-Hand Repertoire**

A study of the repertoire for two pianos and one piano four hands. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00

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Piano**16PIAN612****Two-Piano Four-Hand Repertoire**

A study of the repertoire for two pianos and one piano four hands. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00

16PIAN613**Two-Piano Four-Hand Repertoire**

A study of the repertoire for two pianos and one piano four hands. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00

16PIAN621**Piano Technology for Pianists**

Development of the knowledge and skills necessary for the tuning of pianos, including understanding and usage of appropriate technology. BoK: FA. Credit Level: U, G. Credit Hrs: 2.00

16PIAN630**Special Topics**

Topics established every quarter by Department/Division. BoK: FA. Credit Level: U, G. Credit Hrs: 0.00-3.00

16PIAN671**Two-Piano Four-Hand Coaching**

Coaching in the repertoire for two pianos and one piano four hands. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00

16PIAN672**Two-Piano Four-Hand Coaching**

Coaching in the repertoire for two pianos and one piano four hands. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00

16PIAN673**Two-Piano Four-Hand Coaching**

Coaching in the repertoire for two pianos and one piano four hands. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00

16PIAN800**Piano Graduate Major Study**

Preparation of two recital programs, both to be performed in public. The selection of compositions should reflect mature musicianship, knowledge of different styles, and advanced keyboard facility. A composition written since 1920 is required. Credit Level: G. Credit Hrs: 4.00

16PIAN810**Piano Concentration**

Master's level study for accompanying majors and for other students accepted for a cognate in piano performance. Credit Level: G. Credit Hrs: 2.00

16PIAN820**Secondary (Class) Piano**

Basic keyboard skills, elementary and intermediate repertoire and technique for graduate students with limited keyboard facility. Successful completion of course (one year) with an average of B or better satisfies graduate piano proficiency requirement. Credit Level: G. Credit Hrs: 1.00

16PIAN831**Piano Literature for the Intermediate Student**

Focus on method books available to traditional intermediate students. Review collected literature for intermediate students, working on leveling of material. Review 20th-century pedagogical composers, and investigate technical materials and methods. Credit Level: G. Credit Hrs: 2.00

16PIAN832**Career Skills for Piano Teachers**

Focus on judging, masterclassing, and group teaching. Learn to teach "Clavinoca Connections," adult recreational piano courses, and children's classes. Group teaching techniques. Prereq: 16PIAN831. Credit Level: G. Credit Hrs: 2.00

Piano**16PIAN833****Group Piano Internship**

Group teaching of a nonmusic major piano class. Team taught with supervising professor. Prereq: 16PIAN832. Credit Level: G. Credit Hrs: 2.00

16PIAN840**Seminar in Piano Literature**

A series of special-topic seminars in piano literature. Perm of Instructor. Credit Level: G. Credit Hrs: 3.00

16PIAN841**Major Concerti**

Class focuses on performance issues related to the playing of orchestral reductions in the standard concerto repertoire. Credit Level: G. Credit Hrs: 2.00

16PIAN842**Survey of Sonatas for Piano and Strings**

Specified repertoire; learning how to collaborate from an interpretive and performing view. Credit Level: G. Credit Hrs: 2.00

16PIAN843**Survey of Sonatas for Piano and Winds**

Specified repertoire; learning how to collaborate from an interpretive and performing view. Credit Level: G. Credit Hrs: 2.00

16PIAN850**Artist Diploma in Piano**

First-year major study in piano for students accepted into the artist diploma program. Credit Level: G. Credit Hrs: 6.00

16PIAN855**Artist Diploma Recital**

Public performance by an artist diploma student in piano of selected compositions; approved and graded by the faculty. Credit Level: G. Credit Hrs: 2.00

16PIAN860**Master Chamber Recital**

Public performance by a master's degree student in piano with a small ensemble. Credit Level: G. Credit Hrs: 1.00-2.00

16PIAN870**Collaborative Piano Recital**

Public performance by a master's degree student in accompanying of selected compositions; approved and graded by the faculty. Credit Level: G. Credit Hrs: 1.00

16PIAN880**Master Piano Recital**

Public performance by a master's degree student in piano of selected compositions; approved and graded by the faculty. Credit Level: G. Credit Hrs: 1.00-2.00

16PIAN890**Recital Coaching**

Available to MM accompanying majors and DMA accompanying cognates only. Credit Level: G. Credit Hrs: 1.00

16PIAN895**Practicum**

Practical experience in the professional world. Credit Level: G. Credit Hrs: 1.00

16PIAN899**Master's Candidacy**

Retainment of eligibility for graduation. Credit Level: G. Credit Hrs: 1.00

16PIAN900**Piano Doctoral Major Study**

Selected studies for continued refinement of previous skills. Repertoire to be selected from works of advanced technical difficulty. Preparation of required doctoral recitals. Credit Level: G. Credit Hrs: 4.00

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Piano**16PIAN910****Piano Concentration**

Doctoral-level study for students accepted for a cognate in piano performance. Credit Level: G. Credit Hrs: 2.00

16PIAN920**Piano Secondary**

Secondary study of piano at the doctoral level. Credit Level: G. Credit Hrs: 1.00

16PIAN921**Early Keyboard**

Seminar in the keyboard literature prior to the classical era. Credit Level: G. Credit Hrs: 3.00

16PIAN922**Early Keyboard**

Seminar in the keyboard literature prior to the classical era. Credit Level: G. Credit Hrs: 3.00

16PIAN923**Early Keyboard**

Seminar in the keyboard literature prior to the classical era. Credit Level: G. Credit Hrs: 3.00

16PIAN924**Classicism**

Seminar in piano literature of the era. Credit Level: G. Credit Hrs: 3.00

16PIAN925**Classicism**

Seminar in the piano literature of the era. Credit Level: G. Credit Hrs: 3.00

16PIAN926**Classicism**

Seminar in the piano literature of the era. Credit Level: G. Credit Hrs: 3.00

16PIAN927**Romanticism**

Seminar in the piano literature of the era. Credit Level: G. Credit Hrs: 3.00

16PIAN928**Romanticism**

Seminar in the piano literature of the era. Credit Level: G. Credit Hrs: 3.00

16PIAN929**Romanticism**

Seminar in the piano literature of the era. Credit Level: G. Credit Hrs: 3.00

16PIAN930**Piano Elective**

Nonrequired private study in piano for doctoral students; requires permission of the department and the college. Credit Level: G. Credit Hrs: 1.00-2.00

16PIAN931**20th Century**

Seminar in the piano literature of the era. Credit Level: G. Credit Hrs: 3.00

16PIAN932**20th Century**

Seminar in the piano literature of the era. Credit Level: G. Credit Hrs: 3.00

16PIAN933**20th Century**

Seminar in the piano literature of the era. Credit Level: G. Credit Hrs: 3.00

Piano**16PIAN941****Seminar in Piano Pedagogy**

Proseminar concentrating on learning theory, piano technique, issues concerning piano pedagogy and famous pedagogues. Includes preparation for job interviews and curriculum development. Prereq.: Piano Pedagogy cognates Credit Level: G. Credit Hrs: 3.00

16PIAN942**Seminar in Piano Pedagogy**

Technology centered, with an in-depth look into MIDI applications, current computer programs available for teaching piano, and sequencing/notation software. Credit Level: G. Credit Hrs: 3.00

16PIAN943**Seminar in Piano Pedagogy**

Focus on individual research projects designed and executed by participants. Resulting projects will be suitable for publication in journals or for presentation at professional conventions and workshops. Credit Level: G. Credit Hrs: 3.00

16PIAN950**Artist Diploma Piano Study**

Second-year major study in piano for students accepted into the artist diploma program. Credit Level: G. Credit Hrs: 6.00

16PIAN951**Supervised Piano Teaching**

Teach piano lessons under the supervision of one or more teachers, as selected by the cognate advisor in consultation with the Head of the Keyboard Division and Chair of the Piano Department. May be repeated for additional credit with perm. of cognate adviser. Credit Level: G. Credit Hrs: 1.00

16PIAN952**Supervised Piano Teaching**

Teach piano lessons under the supervision of one or more teachers, as selected by the cognate advisor in consultation with the Head of the Keyboard Division and Chair of the Piano Department. May be repeated for additional credit with permission of cognate advisor. Credit Level: G. Credit Hrs: 1.00

16PIAN953**Supervised Piano Teaching**

Teach piano lessons under the supervision of one or more teachers, as selected by the cognate advisor in consultation with the Head of the Keyboard Division and Chair of the Piano Department. May be repeated for additional credit with permission of cognate advisor. Credit Level: G. Credit Hrs: 1.00

16PIAN960**Doctoral Piano Concerto**

Public performance of a concerto with one of the major performing ensembles. Credit Level: G. Credit Hrs: 2.00

16PIAN970**Doctoral Solo Recital**

Public performance by a doctoral student in piano of selected compositions; approved and graded by the faculty. Credit Level: G. Credit Hrs: 1.00-3.00

16PIAN971**Doctoral Chamber Recital**

Public performance by a doctoral student in piano of selected works from the chamber music repertoire; approved and graded by the faculty. Credit Level: G. Credit Hrs: 2.00

16PIAN980**Doctoral Lecture Recital**

Combined public lecture and performance of a selected topic in the piano repertoire; approved and graded by the faculty. Credit Level: G. Credit Hrs: 3.00

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Piano**16PIAN990****DMA Document**

Research and preparation of the final written project for the DMA degree in piano; topic to be approved and supervised by the faculty. Credit Level: G. Credit Hrs: 1.00-15.00

Saxophone**16SAX100****Saxophone Major Study**

Technical requirements: development of embouchure and fingering; all major and minor scales; proper breath support, articulations and vibrato. Teal --Saxophonist's Workbook, Salvani-Iasilli -- Exercises, Mule -- Scales and Arpeggios Book 1, Mule -- Etudes after Berbiguier, Ibert -- Histoires, Bozza -- Aria, Lecail -- Fantasie Concertante, Bach-Mule -- Fourth Sonata (Flute), Gee -- Ballade or works of comparable difficulty. BoK: FA. Credit Level: U. Credit Hrs: 3.00

16SAX110**Saxophone Concentration**

First-year study for saxophone students in the B.A. program in music. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16SAX120**Saxophone Secondary**

First-year secondary study in saxophone as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16SAX200**Saxophone Major Study**

Mule -- Etudes after Terschak, Scales and Arpeggios Book 2, Blömant -- Twenty Melodic Studies, Rascher -- Scale Studies, Gatti-Lasilli -- Twenty-seven Virtuoso Studies, Ferling -- Forty-eight Studies, Handel-Mule -- Fourth or Sixth Sonata (Violin), Whitney -- Introduction and Samba, Tuthill -- Sonata, Op. 20, Hindemith -- Sonata. BoK: FA. Credit Level: U. Credit Hrs: 4.00

16SAX210**Saxophone Concentration**

Second-year study for saxophone students in the B.A. program in music or in the music education program. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16SAX220**Saxophone Secondary**

Second-year secondary study in saxophone as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16SAX300**Saxophone Major Study**

Gabucci-Allard -- Sixty Varied Etudes, Mule -- Scales and Arpeggios Book 3, Labanchi -- Concert Etudes, Rascher -- Top Tones for Saxophone, Glazounov-Petiot -- Concerto in E-Flat, Moritz -- Sonata, Op. 96, Handel-Mule -- Fourth Sonata (Flute), Ibert -- Concertino da Camera, Maurice -- Tableaux de Provence and others. Orchestral excerpts. BoK: FA. Credit Level: U. Credit Hrs: 4.00

16SAX310**Saxophone Concentration**

Third-year study for saxophone students in the B.A. program in music or in the music education program. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16SAX320**Saxophone Secondary**

Third-year secondary study in saxophone as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16SAX400**Saxophone Major Study**

Mule -- Etudes VarieWes, Massis -- Etudes, Bozza -- Twelve Etudes Caprices, Mule-Soussmann -- Thirty Grand Exercises, Nash -- Studies in High Harmonics, Creston -- Sonata, Bonneau -- Caprice en Forme du Valse, Couf -- Introduction Dance and Furioso, Reuff -- Concertino.

Saxophone**16SAX400****Saxophone Major Study**

Preparation of Senior Recital. BoK: FA. Credit Level: U. Credit Hrs: 4.00

16SAX410**Saxophone Concentration**

Fourth-year study for saxophone students in the B.A. program in music or in the music education program. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16SAX420**Saxophone Secondary**

Fourth-year secondary study in saxophone as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16SAX500**Saxophone Major**

Additional study for undergraduate saxophone majors who have completed the basic degree requirements; offered for undergraduate and graduate saxophone majors during the Summer Session, depending on faculty availability. BoK: FA. Credit Level: U, G. Credit Hrs: 4.00

16SAX510**Saxophone Concentration**

Additional study in saxophone for undergraduate students at the concentration level who have completed the basic degree requirements; offered to all concentration level saxophone students during the Summer Session, depending on faculty availability. BoK: FA. Credit Level: U, G. Credit Hrs: 2.00

16SAX530**Saxophone Elective**

Nonrequired private study in saxophone; requires permission of the department and the college. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00-2.00

16SAX560**Independent Study**

In-depth study of a topic related to the saxophone, selected by the student in consultation with a member of the faculty. Permission of instructor and Division. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00-12.00

16SAX670**Saxophone Ensemble**

Rehearsal/coaching of saxophone ensembles. BoK: NA. Credit Level: U, G. Credit Hrs: 0.00-1.00

16SAX680**Saxophone Studio Class**

Weekly master class for saxophone students. BoK: NA. Credit Level: U, G. Credit Hrs: 0.00-1.00

16SAX800**Saxophone Graduate Major Study**

Preparation of two recital programs, one to be performed in public. Repertoire of a high level of difficulty suited to the needs of the individual student. Credit Level: G. Credit Hrs: 4.00

16SAX810**Saxophone Concentration**

Master's level study for students accepted for a cognate in saxophone performance. Credit Level: G. Credit Hrs: 2.00

16SAX820**Saxophone Secondary**

Secondary study in saxophone for master's degree students. Credit Level: G. Credit Hrs: 1.00

16SAX850**Artist Diploma in Saxophone**

First-year major study in saxophone for students accepted into the artist diploma program. NOTE: The Artist Diploma degree program in saxophone is not currently available. Credit Level: G. Credit Hrs: 6.00

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LT: Literature. NS: Natural Sciences. QR: Quantitative Reasoning. SE: Social & Ethical Issues. SS: Social Sciences.

Saxophone**16SAX850****Artist Diploma in Saxophone**

First-year major study in saxophone for students accepted into the artist diploma program. NOTE: The Artist Diploma degree program in saxophone is not currently available. Credit Level: G. Credit Hrs: 6.00

16SAX855**Artist Diploma Recital**

Public performance by an artist diploma student in saxophone of selected compositions; approved and graded by the faculty. NOTE: The Artist Diploma degree program in saxophone is not currently available. Credit Level: G. Credit Hrs: 2.00

16SAX880**Master Recital**

Public performance by a master's degree student in saxophone of selected compositions; approved and graded by the faculty. Credit Level: G. Credit Hrs: 1.00-2.00

16SAX895**Practicum**

Practical experience in the professional world. Credit Level: G. Credit Hrs: 1.00

16SAX899**Master's Candidacy**

Retention of eligibility for graduation. Credit Level: G. Credit Hrs: 1.00

16SAX900**Saxophone Major**

Doctoral-level study for saxophone performance majors. Credit Level: G. Credit Hrs: 4.00

16SAX910**Saxophone Concentration**

Doctoral-level study for students accepted for a cognate in saxophone performance. Credit Level: G. Credit Hrs: 2.00

16SAX920**Saxophone Secondary**

Secondary study in saxophone for doctoral-level students. Credit Level: G. Credit Hrs: 1.00

16SAX930**Saxophone Elective**

Nonrequired private study in saxophone for doctoral students; requires permission of the department and the college. Credit Level: G. Credit Hrs: 1.00-2.00

16SAX950**Artist Diploma in Saxophone**

Second-year major study in saxophone for students accepted into the artist diploma program. NOTE: The Artist Diploma program in saxophone is not currently available. Credit Level: G. Credit Hrs: 6.00

16SAX960**Saxophone Concerto**

Public performance of a concerto with one of the major performing ensembles. Credit Level: G. Credit Hrs: 2.00

16SAX970**Doctoral Recital**

Public performance by a doctoral student in saxophone of selected compositions; approved and graded by the faculty. Credit Level: G. Credit Hrs: 3.00

16SAX980**Lecture Recital**

Combined public lecture and performance of a selected topic in the saxophone repertoire; approved and graded by the faculty. Credit Level: G. Credit Hrs: 3.00

16SAX990**DMA Document**

Research and preparation of the final written project for the DMA

Saxophone**16SAX990****DMA Document**

degree in saxophone; topic to be approved and supervised by the faculty. Credit Level: G. Credit Hrs: 1.00-15.00

Theater Production**16THPR100****Introduction to Costuming**

An introduction to the process of costume design from the playscript to the production. Critiques and discussions of live performances. Lab and crew requirements. BoK: FA. Credit Level: U. Credit Hrs: 3.00

16THPR101**Fundamentals of Costume Design**

A study of design elements, including line, shape, volume, scale, color, texture, etc., as used by costume designers. The study of textiles and costume materials, costume design process, procedures and paperwork. BoK: FA. Credit Level: U. Credit Hrs: 3.00

16THPR102**Character Figure Drawing**

A study of human body as it relates to theatrical characterization including age, size, proportion, movement, emotion, etc. Prerequisite: Fundamentals of Costume Design. BoK: FA. Credit Level: U. Credit Hrs: 3.00

16THPR103**Costume Rendering**

A study of media and its application as used in costume rendering. Beginning rendering projects in color, texture, fabric/color matching, layout and design of costume plates, etc. Prerequisite: Fundamentals of costume Design, Character Figure Drawing. Prereq: 16THPR101, 16THPR102. BoK: FA. Credit Level: U. Credit Hrs: 3.00

16THPR110**Introduction to Makeup**

A one-quarter course for the nonperformer (theatrical designers, directors, stage managers, etc.) oriented toward the study of basic makeup techniques. Classes will cover the following topics: facial anatomy, modeling with paint, corrective makeup, age makeup, three dimensional makeup, and facial expressions. Prereq.: Perm. of instr. Lab and Crew is a requirement for the class. BoK: FA. Credit Level: U. Credit Hrs: 3.00

16THPR120**Introduction to Stage Lighting**

A basic survey of the materials, techniques, and strategies employed in the lighting of a stage production. Practical experience on lighting crews for departmental productions is required. BoK: FA. Credit Level: U. Credit Hrs: 3.00

16THPR130**Introduction to Theater Sound Technology**

Introduction to the technical processes of theater sound production. Acoustics, basic physics of sound equipment use and terminology and TD&P majors must register for Theatre Sound Lab and Crew to complete their requirement (2 credits). Prereq: 16THPR150. BoK: FA. Credit Level: U. Credit Hrs: 3.00

16THPR131**Basic Score Interpretation**

Fundamental/rudimentary music skills to enable the theatrical designer and stage manager to follow opera and musical theater scores. BoK: FA. Credit Level: U. Credit Hrs: 3.00

16THPR150**Introduction to Stagecraft**

Introduction to the art and craft of technical theater, its tools, construction methods, and rigging techniques. BoK: FA. Credit Level: U. Credit Hrs: 3.00

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Theater Production**16THPR151****Introduction to Stagecraft Lab and Crew**

Practicum in construction of stage scenery and assignment to running crews for major productions. BoK: FA. Credit Level: U. Credit Hrs: 0.00-3.00

16THPR160**Survey of Theatrical Design**

Introduction to the principles and goals of set, costume and makeup, lighting, and sound design for the stage. Lecture format with use of slides and other visual aids. Guest lectures from CCM design and directing faculty. BoK: FA., HP. Credit Level: U. Credit Hrs: 3.00

16THPR201**Introduction to Costume Construction**

An introduction to the study and practice of core costume construction skills. Topics include proper machine use and maintenance, basic machine and hand-sewing techniques, seams and seam finishes, zippers, pockets and other foundation skills of costume construction. Pre/Co-requisite for all costume design and technology courses. BoK: FA. Credit Level: U. Credit Hrs: 3.00

16THPR202**Costume Construction**

A continuation of costume construction core skill- building. Topics include research and construction of period corsets, 18th century breeches, and 16th to 18th century bodices and skirts. BoK: FA. Credit Level: U. Credit Hrs: 3.00

16THPR203**Costume Shop Management**

A course designed to develop the costume student's ability to organize, plan and execute all information pertinent to producing costumes for a realized production. Communication and planning skills for both preliminary and production phases are emphasized. Material and labor cost estimates, production calendars, out-sourcing, spreadsheets and season planning will be discussed. BoK: FA. Credit Level: U. Credit Hrs: 3.00

16THPR204**Makeup I**

A full-year course for performers, undergraduate makeup majors, costume designers. Covers: bone structure, corrective makeup, age makeup, three dimensional makeup, facial hair, racial makeup, special effects, nonrealistic makeup. Makeup Lab and Crew required for makeup and costume majors. BoK: FA. Credit Level: U. Credit Hrs: 3.00

16THPR205**Makeup I**

A full-year course for performers, undergraduate makeup majors, costume designers. Covers: bone structure, corrective makeup, age makeup, three dimensional makeup, facial hair, racial makeup, special effects, nonrealistic makeup. Makeup Lab and Crew required for makeup and costume majors. Prereq: 16THPR204. BoK: FA. Credit Level: U. Credit Hrs: 3.00

16THPR206**Makeup I**

A full-year course for performers, undergraduate makeup majors, costume designers. Covers: bone structure, corrective makeup, age makeup, three dimensional makeup, facial hair, racial makeup, special effects, nonrealistic makeup. Makeup Lab and Crew required for makeup and costume majors. Prereq: 16THPR205. BoK: FA. Credit Level: U. Credit Hrs: 3.00

16THPR207**Stage Lighting I**

A study of basic electricity and theatrical lighting equipment. Emphasis on the technical aspects of stage lighting, with an introduction to the principles of lighting design. Classes are accompanied by crew assignments. BoK: FA. Credit Level: U. Credit Hrs: 3.00

Theater Production**16THPR208****Stage Lighting I**

A study of basic electricity and theatrical lighting equipment. Emphasis on the technical aspects of stage lighting, with an introduction to the principles of lighting design. Classes are accompanied by crew assignments. Prereq: 16THPR207. BoK: FA. Credit Level: U. Credit Hrs: 3.00

16THPR209**Stage Lighting I**

A study of basic electricity and theatrical lighting equipment. Emphasis on the technical aspects of stage lighting, with an introduction to the principles of lighting design. Classes are accompanied by crew assignments. Prereq: 16THPR208. BoK: FA. Credit Level: U. Credit Hrs: 3.00

16THPR210**Introduction to Rendering for Stage Design**

Introduction to basic color, rendering and design techniques culminating in simple explorative set designs for dance, drama, and lyric theater. Demonstrations, discussion, assigned projects, field trips, and attendance at live performances. Prereq: 16THPR150. BoK: FA. Credit Level: U. Credit Hrs: 3.00

16THPR211**Technical Production I**

Introduction to technical theater, its tools, construction methods, and rigging techniques. Primarily for undergraduate technical production majors. Theoretical classwork supplemented by actual construction of scenery and crew work for theater production. BoK: FA., QR. Credit Level: U. Credit Hrs: 3.00

16THPR212**Technical Production I**

Introduction to technical theater, its tools, construction methods, and rigging techniques. Primarily for undergraduate technical production majors. Theoretical classwork supplemented by actual construction of scenery and crew work for theater production. Prereq: 16THPR211. BoK: FA, QR. Credit Level: U. Credit Hrs: 3.00

16THPR213**Technical Production I**

Introduction to technical theater, its tools, construction methods, and rigging techniques. Primarily for undergraduate technical production majors. Theoretical classwork supplemented by actual construction of scenery and crew work for theater production. Prereq: 16THPR212. BoK: FA, QR. Credit Level: U. Credit Hrs: 3.00

16THPR214**Rendering for Stage Designers**

Introduction to basic color, rendering and design techniques culminating in simple explorative set designs for dance, drama, and lyric theater. Demonstrations, discussion, assigned projects, field trips, and attendance at live performances. BoK: FA. Credit Level: U. Credit Hrs: 3.00

16THPR215**Rendering for Stage Designers**

Introduction to basic color, rendering and design techniques culminating in simple explorative set designs for dance, drama, and lyric theater. Demonstrations, discussion, assigned projects, field trips, and attendance at live performances. Prereq: 16THPR214. BoK: FA. Credit Level: U. Credit Hrs: 3.00

16THPR216**Rendering for Stage Designers**

Introduction to basic color, rendering and design techniques culminating in simple explorative set designs for dance, drama, and lyric theater. Demonstrations, discussion, assigned projects, field trips, and attendance at live performances. Prereq: 16THPR215. BoK: FA. Credit Level: U. Credit Hrs: 3.00

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Theater Production**16THPR218****Drafting for the Theater I**

Introduction to basic board drafting techniques: line conventions, orthographic and isometric projections, sectioning, floorplan, elevations, and details. Class demonstrations followed by hands-on studio drafting. Drafting homework projects executed outside of class. BoK: FA., QR. Credit Level: U. Credit Hrs: 2.00

16THPR219**Drafting for the Theater I**

Introduction to basic board drafting techniques: line conventions, orthographic and isometric projections, sectioning, floorplan, elevations, and details. Class demonstrations followed by hands-on studio drafting. Drafting homework projects executed outside of class. Prereq: 16THPR218. BoK: FA, QR. Credit Level: U. Credit Hrs: 2.00

16THPR221**Theater Sound Technology**

Introduction to the technical processes of theater sound production. Acoustics, basic physics of sound equipment use and terminology and TD&P majors must register for Theatre Sound Lab and Crew to complete their requirement (2 credits). BoK: FA. Credit Level: U. Credit Hrs: 3.00

16THPR222**Theater Sound Technology Lab and Crew**

Supervised laboratory and production crew assignment. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16THPR240**Assistant Stage Management**

One quarter introductory course in stage management for drama, opera, and musical theater. Emphasis on basic assistant stage management skills, including assembling a prompt book, costume & prop tracking, scenic shift plots, deck crew paperwork, and professional etiquette. BoK: FA. Credit Level: U. Credit Hrs: 3.00

16THPR241**Stage Management I**

Emphasis on practical aspects of organizing auditions, scheduling, running rehearsals, tech, and performances, assembling a working prompt script, taking blocking notation, cueing, conducting production meetings and calling the show. Prerequisite: 16 THPR 240; must be taken in sequence. Majors only. BoK: FA. Credit Level: U. Credit Hrs: 3.00-6.00

16THPR242**Stage Management I**

Continuation of 16 THPR 241. BoK: FA. Credit Level: U. Credit Hrs: 3.00

16THPR243**Stage Management I**

Continuation of 16 THPR 242. BoK: FA. Credit Level: U. Credit Hrs: 3.00

16THPR254**History of Costume and Pattern Development**

A study of the evolution and development of dress (costume) and personal adornment from pre-history to contemporary time including an examination of the development of patterning, cutting and construction techniques throughout. BoK: FA. Credit Level: U. Credit Hrs: 3.00

16THPR255**History of Costume and Pattern Development**

Continuation of 16 THPR 254. BoK: FA. Credit Level: U. Credit Hrs: 3.00

16THPR256**History of Costume and Pattern Development**

Continuation of 16 THPR 255. BoK: FA. Credit Level: U. Credit Hrs: 3.00

Theater Production**16THPR270****Scene Painting I**

A one quarter course in the basic materials, methods, and techniques of the scenic artist. Scenic layout and the rendering of various textures and surfaces is explored through demonstrations and studio practice. Paint clothes required. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16THPR271**Digital Audio Systems**

Overview of digital audio systems as applied to the performing arts. Topics will include script analysis for the designer, developing a concept, music research, translating emotions and visual materials into sound and basic paperwork. (Prereq: Theatre Sound Technology & Digital Audio or permission). BoK: FA. Credit Level: U. Credit Hrs: 3.00

16THPR272**Introduction to Sound Design**

An introduction to the principles of sound design in live drama production. Topics will include script analysis for the designer, developing a concept, music research, translating emotions and visual materials into sound and basic paperwork. (Prereq: Theatre Sound Technology & Digital Audio or permission) BoK: FA. Credit Level: U. Credit Hrs: 3.00

16THPR273**Sound Production Practicum**

Continuing production credit for students electively serving as a sound running crew or as sound operator for OMDA production. BoK: FA. Credit Level: U. Credit Hrs: 1.00-4.00

16THPR280**Scene Painting II**

A one quarter course in the painting of intermediate level projects from scaled elevations. Rendering of mouldings, paneling, drapery, three dimensional objects, foliage, and landscapes in studio. Paint clothes required. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16THPR301**Pattern Drafting I**

An introductory level course intended to develop the students understanding of basic pattern drafting. The core work will include drafting garments for each quadrant of the body, creating mock-ups and testing for fit. BoK: FA. Credit Level: U. Credit Hrs: 3.00

16THPR302**Draping I**

Draping I is designed to further the student's understanding of pattern making through the exploration the three dimensional techniques of draping. The core work will include the elements of sculpture through draping, understanding fabrics, creating mock-ups and testing for fit. BoK: FA. Credit Level: U. Credit Hrs: 3.00

16THPR303**Tailoring I**

Tailoring I is an introductory course designed to develop the students skills in the sewing techniques of tailoring. The core work will include a variety of projects that will explore several tailoring techniques both historical and contemporary. BoK: FA. Credit Level: U. Credit Hrs: 3.00

16THPR307**Makeup II**

A full year course in practical application of makeup for makeup majors, costume designers, performers. Includes making wigs and facial hair, styling wigs. Makeup assistance for current productions. Lab and Crew also required. BoK: FA. Credit Level: U. Credit Hrs: 3.00

16THPR308**Makeup II**

A full year course in practical application of makeup for makeup majors, costume designers, performers. Includes making wigs and facial hair, styling wigs. Makeup assistance for current productions. Lab and Crew also required. Prereq: 16THPR307. BoK: FA. Credit Level: U. Credit Hrs: 3.00

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Theater Production**16THPR309****Makeup II**

A full year course in practical application of makeup for makeup majors, costume designers, performers. Includes making wigs and facial hair, styling wigs. Makeup assistance for current productions. Lab and Crew also required. Prereq: 16THPR308. BoK: FA. Credit Level: U. Credit Hrs: 3.00

16THPR314**Stage Lighting II**

An introduction to the principles and techniques of stage lighting design for drama, opera, and musical theater productions. Emphasis on developing a design concept for a show, and on mastering basic design skills, including the choice of lighting angles and equipment, layout of area lighting, and selection of color for a show. Simple theoretical light plots augmented by lab work and design assignments for workshop and blackbox productions. BoK: FA. Credit Level: U. Credit Hrs: 3.00

16THPR315**Stage Lighting II**

An introduction to the principles and techniques of stage lighting design for drama, opera, and musical theater productions. Emphasis on developing a design concept for a show, and on mastering basic design skills, including the choice of lighting angles and equipment, layout of area lighting, and selection of color for a show. Simple theoretical light plots augmented by lab work and design assignments for workshop and black box productions. Prereq: 16THPR314. BoK: FA. Credit Level: U. Credit Hrs: 3.00

16THPR316**Stage Lighting II**

An introduction to the principles and techniques of stage lighting design for drama, opera, and musical theater productions. Emphasis on developing design concept for a show, and on mastering basic design skills, including the choice of lighting angles and equipment, layout of area lighting, and selection of color for a show. Simple theoretical light plots augmented by lab work and design assignments for workshop and black box productions. Prereq: 16THPR315. BoK: FA. Credit Level: U. Credit Hrs: 3.00

16THPR317**Stage Lighting III**

Advanced design course for MFA students majoring in theatrical lighting design. Concentration on theoretical and practical design projects design projects for complex drama, opera, and musical theater productions. Weekly tutorial sessions and large scale departmental productions. Prereq: 16THPR316. BoK: FA. Credit Level: U. Credit Hrs: 3.00

16THPR318**Stage Lighting III**

Advanced design course for MFA students majoring in theatrical lighting design. Concentration on theoretical and practical design projects for complex drama, opera, and musical theater productions. Weekly tutorial sessions and large scale departmental productions. Prereq: 16THPR317. BoK: FA. Credit Level: U. Credit Hrs: 3.00

16THPR319**Stage Lighting III**

Advanced design course for BFA students majoring in theatrical lighting design. Concentration on theoretical and practical design projects for complex drama, opera, and musical theater productions. Weekly tutorial sessions and large scale departmental productions. Prereq: 16THPR318. BoK: FA. Credit Level: U. Credit Hrs: 3.00

16THPR324**Stage Management II**

Roundtable discussion of problems facing the lead stage manager on a production. Alternate perspectives to be offered by guest stage managers, directors, designers, and other theatre professionals. Additional study of Actors Equity Association (musicals and dramas) and American Guild of Musical Artists (operas and dance) rulebooks as pertains to running rehearsals and performances. BoK: FA. Credit Level:

Theater Production**16THPR324****Stage Management II**

U. Credit Hrs: 3.00-6.00

16THPR325**Stage Management II**

Continuation of 16 THPR 324. Prereq: 16THPR324. BoK: FA. Credit Level: U. Credit Hrs: 3.00-6.00

16THPR326**Stage Management II**

Continuation of 16 THPR 325. Prereq: 16THPR325. BoK: FA. Credit Level: U. Credit Hrs: 3.00-6.00

16THPR327**Structural Design for the Stage**

This course will provide the theater technician with the foundation in structural design allowing an intuitive understanding of "why sets stand up." It introduces the basics of statics and the strength of materials as they apply to typical scenery. Prereq: 16THPR213. BoK: NA. Credit Level: U. Credit Hrs: 3.00

16THPR328**Structural Design for the Stage**

Continuation of 16THPR327. Prereq: 16THPR213. BoK: NA. Credit Level: U. Credit Hrs: 3.00

16THPR329**Structural Design for the Stage**

Continuation of 16THPR 327, 328. Prereq: 16THPR328. BoK: NA. Credit Level: U. Credit Hrs: 3.00

16THPR331**Technical Production II**

Problem-solving for the theater technician. Specialized construction and rigging techniques, technical production management, cost and time estimates, inventory control, theater safety. BoK: FA., QR. Credit Level: U. Credit Hrs: 3.00

16THPR332**Technical Production II**

Problem-solving for the theater technician. Specialized construction and rigging techniques, technical production management, cost and time estimates, inventory control, theater safety. Prereq: 16THPR331. BoK: FA, QR. Credit Level: U. Credit Hrs: 3.00

16THPR333**Technical Production II**

Problem-solving for the theater technician. Specialized construction and rigging techniques, technical production management, cost and time estimates, inventory control, theater safety. Prereq: 16THPR332. BoK: FA, QR. Credit Level: U. Credit Hrs: 3.00

16THPR339**Sound Design Practicum**

Supervised sound design and assistant assignments for OMDA productions. BoK: FA. Credit Level: U. Credit Hrs: 1.00-4.00

16THPR341**Stage Design I**

Beginning projects explore dramatic space, form, image and theme. Intermediate projects script analysis, period research, and dramatic themes working with sketches, renderings, ground plans, and models. Styles range from simple realism to expressive symbolism. Play, opera, and film scripts are assigned. Guest directors participate. BoK: FA. Credit Level: U. Credit Hrs: 3.00

16THPR342**Stage Design I**

Beginning projects explore dramatic space, form, image and theme. Intermediate projects script analysis, period research, and dramatic themes working with sketches, renderings, ground plans, and models. Styles range from simple realism to expressive symbolism. Play, opera, and film scripts are assigned. Guest directors participate. Prereq:

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Theater Production**16THPR342
Stage Design I**

16THPR341. BoK: FA. Credit Level: U. Credit Hrs: 3.00

**16THPR343
Stage Design I**

Beginning projects explore dramatic space, form, image and theme. Intermediate projects script analysis, period research, and dramatic themes working with sketches, renderings, ground plans, and models. Styles range from simple realism to expressive symbolism. Play, opera, and film scripts are assigned. Guest directors participate. Prereq: 16THPR342. BoK: FA. Credit Level: U. Credit Hrs: 3.00

**16THPR347
Drafting for the Theater II**

Advanced board drafting projects assigned in accordance with student's prior drafting experience and skill level. Group and individual lessons. Actual production drafting projects assigned where feasible. BoK: FA., QR. Credit Level: U. Credit Hrs: 2.00

**16THPR348
Drafting for the Theater II**

Advanced board drafting projects assigned in accordance with student's prior drafting experience and skill level. Group and individual lessons. Actual production drafting projects assigned where feasible. BoK: FA., QR. Credit Level: U. Credit Hrs: 2.00

**16THPR364
Sound Design I**

Sound design course focused on dramatic production including advanced work in script analysis, sound score development, sound effects editing, listening skills, designer documentation and communication skills. Perm of Instructor. BoK: FA. Credit Level: U. Credit Hrs: 3.00

**16THPR365
Sound Design I**

A continuation of training for the sound designer with a focus on reinforcement, musical theatre and recording. Projects will include paper designs with emphasis on clear communication through paperwork, conceptual development of reinforcement systems and practical recording projects. Operation of wireless mic systems and orchestra micing will also be covered along with continued training in critical listening. Prereq: 16THPR364. BoK: FA. Credit Level: U. Credit Hrs: 3.00

**16THPR366
Sound Design I**

A continuation of Sound Design 1a with the emphasis on full length works including American classics and Shakespeare. Designs will be more fully developed with complete paperwork required and practical projects. Advanced work in multi-track playback and digital editing will be included along with continued training in critical listening. Prereq: 16THPR365. BoK: FA. Credit Level: U. Credit Hrs: 3.00

**16THPR374
Pneumatics and Hydraulics**

The study and practical application of mechanical systems for use on stage. This will include the physics behind the designing of stage machinery and the ultimate automation and show control. Prereq: 16THPR213. BoK: FA, QR. Credit Level: U. Credit Hrs: 3.00

**16THPR375
Electrics and Electronics**

Continuation of 16THPR374. Prereq: 16THPR374. BoK: FA, QR. Credit Level: U. Credit Hrs: 3.00

**16THPR376
Motors and Automation**

Continuation of 16THPR374, 375. Prereq: 16THPR375. BoK: FA, QR. Credit Level: U. Credit Hrs: 3.00

Theater Production**16THPR404
PATTERN DRAFTING II**

Pattern Drafting II is a course that is intended to further the student's basic patterning skill set by drafting patterns for bias garments, stretch knit garments and historical garments. Both modern drafting and historical drafting techniques will be introduced. The students will create mock-ups and test fit on both the form and a model. BoK: FA. Credit Level: U. Credit Hrs: 3.00

**16THPR405
Draping II**

Draping II continues exploration of pattern making as sculpture. At this level the student will also be introduced to reading and interpreting renderings, researching historical garments, creating mock-ups and test fit on both the form and a model. BoK: FA. Credit Level: U. Credit Hrs: 3.00

**16THPR406
Tailoring II**

Tailoring II expands both the students construction and patterning skills. The core work will include and in depth study of men's historical patterns and tailoring historical patterns. Pattern development will include mock-ups, test fitting, cutting and tailoring a minimum of one complete men's historical garment. Prerequisites: Tailoring I, Pattern Drafting I, Draping I, Advanced Costume Construction or Permission of Instructor. BoK: FA. Credit Level: U. Credit Hrs: 3.00

**16THPR411
Makeup III**

Advanced study in all aspects of makeup. Approach to rendering. Producing foam latex appliances. Assisting for major productions and possible design of major productions. Lab and Crew. BoK: FA. Credit Level: U. Credit Hrs: 3.00

**16THPR412
Makeup III**

Advanced study in all aspects of makeup. Approach to rendering. Producing foam latex appliances. Assisting for major productions and possible design of major productions. Lab and Crew. BoK: FA. Credit Level: U. Credit Hrs: 3.00

**16THPR413
Makeup III**

Advanced study in all aspects of makeup. Approach to rendering. Producing foam latex appliances. Assisting for major productions and possible design of major productions. Lab and Crew. Prereq: 16THPR412. BoK: FA. Credit Level: U. Credit Hrs: 3.00

**16THPR427
Stage Management III**

Emphasis on communication and management functions of the stage manager during production process, and investigation of Production Stage Manager's responsibilities, including scheduling and budget layout. Pre-requisite: 16 THPR 326; must be taken in sequence. Majors only. BFA by permission only. BoK: FA. Credit Level: U. Credit Hrs: 3.00-6.00

**16THPR428
Stage Management III**

Continuation of 16 THPR 427. BoK: FA. Credit Level: U. Credit Hrs: 3.00-6.00

**16THPR429
Stage Management III**

Continuation of 16 THPR 429. BoK: FA. Credit Level: U. Credit Hrs: 3.00-6.00

**16THPR434
Technical Production III**

Project oriented class for advanced BFA students in Technical Production. Projects may be theoretical research in the areas of new materials and technologies or may be assignments or major responsibility on actual productions. All projects to be accompanied with appropriate documentation. BoK: FA., QR. Credit Level: U. Credit Hrs:

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Theater Production**16THPR434****Technical Production III**

3.00

16THPR435**Technical Production III**

Project oriented class for advanced BFA students in Technical Production. Projects may be theoretical research in the areas of new materials and technologies or may be assignments or major responsibility on actual productions. All projects to be accompanied with appropriate documentation. BoK: FA., QR. Credit Level: U. Credit Hrs: 3.00

16THPR436**Technical Production III**

Project oriented class for advanced BFA students in Technical production. Projects may be theoretical research in the areas of new materials and technologies or may be assignments or major responsibility on actual productions. All projects to be accompanied with appropriate documentation. BoK: FA., QR. Credit Level: U. Credit Hrs: 3.00

16THPR444**Stage Design II**

Advanced stage design projects for opera, musicals, drama, dance, and special presentations. Design of multiple sets explored. Special design assignments of studio or major productions. BoK: FA. Credit Level: U. Credit Hrs: 3.00

16THPR445**Stage Design II**

Advanced stage design projects for opera, musicals, drama, dance, and special presentations. Design of multiple sets explored. Special design assignments of studio or major productions. BoK: FA. Credit Level: U. Credit Hrs: 3.00

16THPR446**Stage Design II**

Advanced stage design projects for opera, musicals, drama, dance, and special presentations. Design of multiple sets explored. Special design assignments of studio or major productions. BoK: FA. Credit Level: U. Credit Hrs: 3.00

16THPR451**Makeup IV**

Continuing advancement in all aspects of makeup. Project on producing foam latex appliances. Design and execution of major productions. Assisting for major productions. BoK: FA. Credit Level: U. Credit Hrs: 4.00

16THPR452**Makeup IV**

Continuing advancement in all aspects of makeup. Project on producing foam latex appliances. Design and execution of major productions. Assisting for major productions. BoK: FA. Credit Level: U. Credit Hrs: 4.00

16THPR453**Makeup IV**

Continuing advancement in all aspects of makeup. Project on producing foam latex appliances. Design and execution of major productions. Assisting for major productions. BoK: FA. Credit Level: U. Credit Hrs: 4.00

16THPR461**Costume Design I**

Emphasis on script and character analysis, research, and production processes as they relate to costume design for contemporary and period plays. Project designing of plays with continued emphasis on figure drawing and rendering techniques. Possible costume design assisting as part of the class. BoK: FA. Credit Level: U. Credit Hrs: 3.00

Theater Production**16THPR462****Costume Design I**

Continuation of 16 THPR 461. BoK: FA. Credit Level: U. Credit Hrs: 3.00

16THPR463**Costume Design I**

Continuation of 16 THPR 463. BoK: FA. Credit Level: U. Credit Hrs: 3.00

16THPR464**Costume Design II**

Project designing for drama, musical theatre, opera and dance with emphasis on character development through costume. Production processes, intermediate rendering techniques, design assisting. Possible design assignments of studio productions may be apart of course work. Production book development, Portfolio Preparation. Prereq: 16THPR463. BoK: FA. Credit Level: U. Credit Hrs: 3.00

16THPR465**Costume Design II**

Continuation of 16 THPR 464. Prereq: 16THPR464. BoK: FA. Credit Level: U. Credit Hrs: 3.00

16THPR466**Costume Design II**

Continuation of 16 THPR 465. Prereq: 16THPR465. BoK: FA. Credit Level: U. Credit Hrs: 3.00

16THPR467**Theater Music Production/Composing for the Theater**

Intended for Sound Design students with a background in music who wish to compose original scores and produce music. Focus on composing and realizing music for the theater, with an emphasis on MIDI systems. BoK: FA. Credit Level: U. Credit Hrs: 3.00

16THPR468**Sound Design II**

This course provides supervision and weekly roundtable discussions of current OMDA production designers and assistant designers. Required for sound majors, this course will focus on the actual realization of designs. Successful completion of this course requires attendance at all production meetings, effective communication with the design/production team and leadership, production of an effective show design and proper documentation. Enrollment is coordinated with production assignments. BoK: FA. Credit Level: U. Credit Hrs: 3.00

16THPR474**Costume Design III**

Advanced projects in designing costumes for drama, opera, musical theatre and dance with emphasis on developing and working within production concepts. Advanced rendering techniques. Possible design assisting. Possible design assignments of studio and/or mainstage productions. Production book development. Portfolio Preparation. Prerequisite: Permission of Instructor. BoK: FA. Credit Level: U. Credit Hrs: 3.00

16THPR475**Costume Design III**

Continuation of 16 THPR 475. BoK: FA. Credit Level: U. Credit Hrs: 3.00

16THPR476**Costume Design III**

Continuation of 16 THPR 475. BoK: FA. Credit Level: U. Credit Hrs: 3.00

16THPR487**Millinery**

Traditional and non-traditional methods of hat making are explored. Lecture/Demonstration format with individual projects. Production assignments as part of class are possible. BoK: NA. Credit Level: U. Credit Hrs: 3.00

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Theater Production**16THPR488****Fabric Modification**

The study of fabric modification for the Theatre including painting, dyeing, printing, distressing, color matching, etc. Lecture/Demonstration format with individual projects. Production assignments as part of class are possible. BoK: NA. Credit Level: U. Credit Hrs: 3.00

16THPR489**Masks and Jewelry**

Mask and jewelry making for the Theatre including traditional and non-traditional methods. Lecture/ Demonstration format with individual projects. Production assignments as part of class are possible. BoK: NA. Credit Level: U. Credit Hrs: 3.00

16THPR500**Workshop Practicum**

Practical application of design and technology for workshop productions. May be repeated for credit. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00-4.00

16THPR501**Introduction to Sound Design Lab and Crew**

Co-requisite lab and crew for Introduction to Sound Design. BoK: NA. Credit Level: U, G. Credit Hrs: 2.00

16THPR508**Stage Design Lab and Crew**

Practical production crew work in the layout, painting, set decoration, and dressing of major opera, musical, and dramatic productions. May be repeated for credit. BoK: FA. Credit Level: U, G. Credit Hrs: 2.00

16THPR509**Stage Design Lab and Crew**

Practical production crew work in the layout, painting, set decoration, and dressing of major opera, musical, and dramatic productions. May be repeated for credit. BoK: FA. Credit Level: U, G. Credit Hrs: 2.00

16THPR510**Stage Design Lab and Crew**

Practical production crew work in the layout, painting, set decoration, and dressing of major opera, musical, and dramatic productions. May be repeated for credit. BoK: FA. Credit Level: U, G. Credit Hrs: 2.00

16THPR511**Digital Audio Lab and Crew**

Co-requisite lab for Digital Audio. BoK: NA. Credit Level: U, G. Credit Hrs: 2.00

16THPR518**Stage Lighting Lab and Crew**

Practical production crew work in the execution of the lighting design for major opera, musical theatre, and dramatic productions. May be repeated for credit. BoK: FA. Credit Level: U, G. Credit Hrs: 2.00

16THPR519**Stage Lighting Lab and Crew**

Practical production crew work in the execution of the lighting design for major opera, musical theatre, and dramatic productions. May be repeated for credit. BoK: FA. Credit Level: U, G. Credit Hrs: 2.00

16THPR520**Stage Lighting Lab and Crew**

Practical production crew work in the execution of the lighting design for major opera, musical theatre, and dramatic productions. May be repeated for credit. Prereq: 16THPR519. BoK: FA. Credit Level: U, G. Credit Hrs: 2.00

16THPR521**Theater Lighting Technology I**

In-depth exploration of lighting technology, with emphasis on current static equipment, dimming, power distribution and trouble-shooting in a theatrical environment. Theatrical rigging, special effects, data distribution and low voltage wiring are also presented. Basic theatrical lighting console operation is also offered. Class requires permission of

Theater Production**16THPR521****Theater Lighting Technology I**

instructor. Perm of Instructor. BoK: FA. Credit Level: U, G. Credit Hrs: 3.00

16THPR522**Moving Light Programming I**

Training in analogue and digital data, advanced data distribution, an introduction to typical features found in modern intelligent lighting and extensive guided programming time on high-end theatrical lighting consoles. Class requires 16THPR521 and permission of instructor. Perm of Instructor. BoK: FA. Credit Level: U, G. Credit Hrs: 3.00

16THPR523**Moving Light Programming II**

Advanced self-guided programming exercises on multiple high-end theatrical lighting consoles. Students will demonstrate a working knowledge and creative approach to using lighting technology in various applications. Class requires 16THPR522 and permission of instructor. BoK: FA. Credit Level: U, G. Credit Hrs: 3.00

16THPR531**Vector Works for the Theater**

Basic exploration of CAD (Computer-aided drafting) software with emphasis on current use of basic functions, doing weekly projects requiring exploration and usage of all functions of the program. Topics include basic commands and concepts such as drawing and editing commands, geometric construction, and 2-D drawings. Perm of Instructor. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

16THPR532**Vector Works Advanced**

Advanced exploration of CAD (Computer-aided drafting) with emphasis on traditional theater graphics for lighting and sound. Expanded use of functions; weekly projects requiring exploration and usage of all program functions. Advanced 2D and 3B explorations will be studied, with application for stage light plots. CCM theater facilities will be the basis for projects. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

16THPR533**Digital Portfolios**

A visually-oriented course with emphasis on digital theater portfolios for designers and technicians. Usage of PhotoShop, PowerPoint, Adobe Suite 2, Dream Weaver and web presentational techniques and functions. Basic weekly projects requiring exploration and usage of all functions of the programs. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

16THPR544**Costuming Lab and Crew**

Practical production crew work in the execution of costumes and accessories for major opera, musical theatre and drama productions. May be repeated for credit. BoK: FA. Credit Level: U, G. Credit Hrs: 2.00

16THPR545**Costuming Lab and Crew**

Continuation of 16 THPR 545. BoK: FA. Credit Level: U, G. Credit Hrs: 2.00

16THPR546**Costuming Lab and Crew**

Continuation of 16 THPR 545. BoK: FA. Credit Level: U, G. Credit Hrs: 2.00

16THPR550**Stage Properties**

Assignment as propmaster on major opera, musical, or dramatic production. Construction and painting/decorating of properties from scaled drawings and/or research. Extensive hands-on lab production requirement. Frequent weekly organizational meetings dealing with procedures and organization for borrowing, buying, building, painting, and running of properties. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00-3.00

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Theater Production**16THPR551****Technical Production Lab and Crew**

Practicum in construction of stage scenery and assignment to running crews for OMDA productions. BoK: FA. Credit Level: U, G. Credit Hrs: 2.00

16THPR552**Technical Production Lab and Crew**

Practicum in construction of stage scenery and assignment to running crews for OMDA productions. BoK: FA. Credit Level: U, G. Credit Hrs: 2.00

16THPR553**Technical Production Lab and Crew**

Practicum in construction of stage scenery and assignment to running crews for OMDA productions. BoK: FA. Credit Level: U, G. Credit Hrs: 2.00

16THPR560**Independent Study**

In-depth study of a topic related to one of the areas of theatre production, selected by the student in consultation with a member of the faculty. Permission of instructor and Division. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00-12.00

16THPR561**Makeup Lab and Crew**

Training in building and running productions. BoK: FA. Credit Level: U, G. Credit Hrs: 2.00

16THPR562**Makeup Lab and Crew**

Training in building and running productions. Prereq: 16THPR561. BoK: FA. Credit Level: U, G. Credit Hrs: 2.00

16THPR563**Makeup Lab and Crew**

Training in building and running productions. Prereq: 16THPR562. BoK: FA. Credit Level: U, G. Credit Hrs: 2.00

16THPR580**Introduction to Stage Design**

An elementary introduction to the process of set design. Hands-on, project-oriented class. BoK: FA. Credit Level: U, G. Credit Hrs: 3.00

16THPR600**Lucca: Workshop Practicum in Theatrical Production**

Technical and artistic creation, preparation, and performance of full-scale productions of two operas from the Italian repertoire. Students will train and execute under an international staff of design, technical, and craft artisans in the areas of scenic, costume, wig/makeup, lighting and production. BoK: FA. Credit Level: U, G. Credit Hrs: 7.00

16THPR660**Special Topics**

Topics established by the area faculty on an as-needed basis. BoK: FA. Credit Level: U, G. Credit Hrs: 0.00-6.00

16THPR610**Introduction to Rendering for Stage Design**

Introduction to basic color, rendering and design techniques culminating in simple explorative set designs for dance, drama, and lyric theater. Demonstrations, discussion, assigned projects, field trips, and attendance at live performances. Prereq: 16THPR750. Credit Level: G. Credit Hrs: 3.00

16THPR700**Introduction to Costuming**

An introduction to the process of costume design from the playscript to the production. Critiques and discussions of live performances. Lab and crew requirements. Credit Level: G. Credit Hrs: 3.00

16THPR701**Costume Technology I**

An introduction to millinery, fabric painting/ dyeing, mask and jewelry

Theater Production**16THPR701****Costume Technology I**

making for the stage. Lecture/demonstration format with use of slides and other visual aids. Individual projects with production assignments possible. Credit Level: G. Credit Hrs: 4.00

16THPR702**Costume Construction**

A continuation of costume construction core skill-building. Topics include research and construction of period corsets, 18th century breeches, and 16th to 18th century bodices and skirts. Credit Level: G. Credit Hrs: 4.00

16THPR703**Graduate Costume Shop Management**

This course is designed to develop the Graduate costume student's ability to organize, plan for, and execute all of the information it takes to produce a realized production. Communication and planning skills will be emphasized in both the preliminary and production phase of two contrasting productions through a series of projects designed to develop a skill set that will serve the student as a future professional costume shop manager. Credit Level: G. Credit Hrs: 4.00

16THPR704**Makeup I**

A full-year course for performers, undergraduate makeup majors, costume designers. Covers: bone structure, corrective makeup, age makeup, three dimensional makeup, facial hair, racial makeup, special effects, nonrealistic makeup. Makeup Lab and Crew required for makeup and costume majors. Credit Level: G. Credit Hrs: 3.00

16THPR705**Makeup I**

A full-year course for performers, undergraduate makeup majors, costume designers. Covers: bone structure, corrective makeup, age makeup, three dimensional makeup, facial hair, racial makeup, special effects, nonrealistic makeup. Makeup Lab and Crew required for makeup and costume majors. Credit Level: G. Credit Hrs: 3.00

16THPR706**Makeup I**

A full-year course for performers, undergraduate makeup majors, costume designers. Covers: bone structure, corrective makeup, age makeup, three dimensional makeup, facial hair, racial makeup, special effects, nonrealistic makeup. Makeup Lab and Crew required for makeup and costume majors. Credit Level: G. Credit Hrs: 3.00

16THPR707**Stage Lighting I**

A study of basic electricity and theatrical lighting equipment. Emphasis on the technical aspects of stage lighting, with an introduction to the principles of lighting design. Classes are accompanied by crew assignments. Credit Level: G. Credit Hrs: 3.00

16THPR708**Stage Lighting I**

A study of basic electricity and theatrical lighting equipment. Emphasis on the technical aspects of stage lighting, with an introduction to the principles of lighting design. Classes are accompanied by crew assignments. Credit Level: G. Credit Hrs: 3.00

16THPR709**Stage Lighting I**

A study of basic electricity and theatrical lighting equipment. Emphasis on the technical aspects of stage lighting, with an introduction to the principles of lighting design. Classes are accompanied by crew assignments. Credit Level: G. Credit Hrs: 3.00

16THPR710**Introduction to Makeup**

A one-quarter course for the nonperformer (theatrical designers, directors, stage managers, etc.) oriented toward the study of basic makeup techniques. Classes will cover the following topics: facial anatomy, modeling with paint, corrective makeup, age makeup, three

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Theater Production**16THPR710****Introduction to Makeup**

dimensional makeup, and facial expressions. Credit Level: G. Credit Hrs: 3.00

16THPR711**Technical Production I**

Introduction to technical theater, its tools, construction methods, and rigging techniques. Theoretical classwork supplemented by actual construction of scenery and crew work for theater production. Credit Level: G. Credit Hrs: 3.00

16THPR712**Technical Production I**

Introduction to technical theater, its tools, construction methods, and rigging techniques. Theoretical classwork supplemented by actual construction of scenery and crew work for theater production. Credit Level: G. Credit Hrs: 3.00

16THPR713**Technical Production I**

Introduction to technical theater, its tools, construction methods, and rigging techniques. Theoretical classwork supplemented by actual construction of scenery and crew work for theater production. Credit Level: G. Credit Hrs: 3.00

16THPR714**Rendering for Stage Designers**

Introduction to basic color, rendering and design techniques culminating in simple explorative set designs for dance, drama, and lyric theater. Demonstrations, discussion, assigned projects, field trips, and attendance at live performances. Credit Level: G. Credit Hrs: 3.00

16THPR715**Rendering for Stage Designers**

Introduction to basic color, rendering and design techniques culminating in simple explorative set designs for dance, drama, and lyric theater. Demonstrations, discussion, assigned projects, field trips, and attendance at live performances. Credit Level: G. Credit Hrs: 3.00

16THPR716**Rendering for Stage Designers**

Introduction to basic color, rendering and design techniques culminating in simple explorative set designs for dance, drama, and lyric theater. Demonstrations, discussion, assigned projects, field trips, and attendance at live performances. Credit Level: G. Credit Hrs: 3.00

16THPR718**Drafting Theater I**

Introduction to basic board drafting techniques: line conventions, orthographic and isometric projections, sectioning, floorplan, elevations, and details. Class demonstrations followed by hands-on studio drafting. Drafting homework projects executed outside of class. Credit Level: G. Credit Hrs: 2.00

16THPR719**Drafting Theater I**

Introduction to basic board drafting techniques: line conventions, orthographic and isometric projections, sectioning, floorplan, elevations, and details. Class demonstrations followed by hands-on studio drafting. Drafting homework projects executed outside of class. Credit Level: G. Credit Hrs: 2.00

16THPR720**Introduction to Stage Lighting**

A basic survey of the materials, techniques, and strategies employed in the lighting of a stage production. Practical experience on lighting crews for departmental productions is required. Credit Level: G. Credit Hrs: 3.00

16THPR721**Theater Sound Technology**

Introduction to the technical processes of theater sound production. Acoustics, basic physics of sound, equipment use and terminology will

Theater Production**16THPR721****Theater Sound Technology**

be discussed. Credit Level: G. Credit Hrs: 3.00

16THPR722**Theater Sound Technology Lab and Crew**

Supervised laboratory and production crews assignment. Concurrent registration in 16THPR721. Credit Level: G. Credit Hrs: 2.00

16THPR727**Structural Design for the Stage**

This course will provide the theater technician with the foundation in structural design allowing an intuitive understanding of "why sets stand up." It introduces the basics of statics and the strength of materials as they apply to typical scenery. Prereq: 16THPR713. Credit Level: G. Credit Hrs: 3.00

16THPR728**Structural Design for the Stage**

Continuation of 16THPR 727. Prereq: 16THPR727. Credit Level: G. Credit Hrs: 3.00

16THPR729**Structural Design for the Stage**

Continuation of 16THPR727, 728. Prereq: 16THPR728. Credit Level: G. Credit Hrs: 3.00

16THPR730**Introduction to Theater Sound Technology**

Introduction to the technical processes of theater sound production. Acoustics, basic physics of sound, equipment use and terminology will be discussed. Prereq: 16THPR750. Credit Level: G. Credit Hrs: 3.00

16THPR731**Basic Score Interpretation**

Intended for sound designers, stage managers and lighting designers, this class will teach fundamental/rudimentary musical skills which will enable the theatre practitioner to follow operatic and musical theatre scores. The course will provide basic skills to support cueing and timing of such shows and in communicating with directors and music directors using musical terms. Credit Level: G. Credit Hrs: 3.00

16THPR740**Assistant Stage Management**

One quarter introductory course in stage management for drama, opera, and musical theater. Emphasis on basic assistant stage management skills, including assembling a prompt book, costume & prop tracking, scenic shift plots, deck crew paperwork and professional etiquette. Credit Level: G. Credit Hrs: 3.00

16THPR741**Stage Management I**

Emphasis on practical aspects of organizing auditions, scheduling, running rehearsals, tech, and performances, assembling a working prompt script, taking blocking notation, cueing, conducting production meetings, and calling the show. Prerequisite: 16 THPR 740; must be taken in sequence. Majors only. Credit Level: G. Credit Hrs: 3.00

16THPR742**Stage Management I**

Continuation of 16 THPR 741. Credit Level: G. Credit Hrs: 3.00

16THPR743**Stage Management I**

Continuation of 16 THPR 742. Credit Level: G. Credit Hrs: 3.00

16THPR750**Introduction to Stagecraft**

Introduction to the art and craft of technical theater, its tools, construction methods, and rigging techniques. Credit Level: G. Credit Hrs: 3.00

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Theater Production**16THPR751****Introduction to Stagecraft Lab and Crew**

Practicum in construction of stage scenery and assignment to running crews for major productions. Credit Level: G. Credit Hrs: 0.00-3.00

16THPR754**History of Costume and Pattern Development**

A study of the evolution and development of dress (costume and personal adornment) from pre-history to contemporary time including an examination of the development of patterning, cutting and construction techniques throughout. Credit Level: G. Credit Hrs: 4.00

16THPR755**History of Costume and Pattern Development**

Continuation of 16 THPR 754. Credit Level: G. Credit Hrs: 4.00

16THPR756**History of Costume and Pattern Development**

Continuation of 16 THPR 755. Credit Level: G. Credit Hrs: 4.00

16THPR764**Sound Design I**

Sound design course focused on dramatic production including advanced work in script analysis, sound score development, sound effects editing, listening skills, designers documentation and communication skills. Perm of Instructor. Credit Level: G. Credit Hrs: 3.00

16THPR765**Sound Design I**

A continuation of training for the sound designer with a focus on reinforcement, musical theatre and recording. Projects will include paper designs with emphasis on clear communication through paperwork, conceptual development of reinforcement systems and practical recording projects. Operation of wireless mic systems and orchestra micing will also be covered along with continued work in critical listening skills. Prereq: 16THPR764. Credit Level: G. Credit Hrs: 3.00

16THPR766**Sound Design I**

A continuation of Sound Design Ia with emphasis on full length works including American classics and Shakespeare. Designs will be more fully developed with complete paperwork required and practical projects. Advanced work in multi-track playback and digital editing will be included along with continued training in critical listening. Prereq: 16THPR765. Credit Level: G. Credit Hrs: 3.00

16THPR767**Theater Music Production/Composing for the Theater**

Intended for sound design students with a background in music who wish to compose original scores and produce music. Focus on composing and realizing music for the theater, with an emphasis on MIDI systems. Credit Level: G. Credit Hrs: 3.00

16THPR768**Sound Design II**

This course provides supervision and weekly roundtable discussions of current OMDA production designers and assistant designers. Required for sound majors, the course will focus on the actual realization of designs. Successful completion of this course requires attendance at all production meetings, effective communication with the design/production team and leadership, production of an Credit Level: G. Credit Hrs: 3.00

16THPR770**Scene Painting I**

A one quarter course in the basic materials, methods, and techniques of the scenic artist. Scenic layout and the rendering of various textures and surfaces explored through demonstrations and studio practice. Paint clothes required. Credit Level: G. Credit Hrs: 2.00

Theater Production**16THPR771****Digital Audio Systems**

Overview of digital audio systems as applied to the performing arts. Topics covered will include: computer workstations, ProTools software, digital multi-tracks recorders, basic MIDI, minidisc, DAT and compact disc operations. Multimedia production and SFX software may be covered if time permits. Credit Level: G. Credit Hrs: 3.00

16THPR772**Introduction to Sound Design**

An introduction to the principles of sound design in live drama production. Topics will include script analysis for the designer, developing a concept, music research, translating emotions and visual materials into sound and basic paperwork. Credit Level: G. Credit Hrs: 3.00

16THPR773**Sound Production Practicum**

Continuing production credit for students electively serving as sound running crew or as sound operator for OMDA productions. Credit Level: G. Credit Hrs: 1.00-4.00

16THPR774**Pneumatics and Hydraulics**

This study and practical application of mechanical systems for use on stage. This will include the physics behind the designing of state machinery and the ultimate automation and show control. Prereq: 16THPR713. Credit Level: G. Credit Hrs: 3.00

16THPR775**Electrics and Electronics**

Continuation of 16THPR774. Credit Level: G. Credit Hrs: 3.00

16THPR776**Motors and Automation**

Continuation of 16THPR774, 775. Prereq: 16THPR775. Credit Level: G. Credit Hrs: 3.00

16THPR780**Survey of Theatrical Design**

Introduction to the principles and goals of set, costume and makeup, lighting, and sound design for the stage. Lecture format with use of slides and other visual aids. Guest lectures from CCM design and directing faculty. Credit Level: G. Credit Hrs: 3.00

16THPR781**Advanced Character Figure Drawing**

Advanced study of the human body as it relates to characterization, including but not limited to: age, size, proportion, emotion, etc. May be repeated. Permission of instructor. Credit Level: G. Credit Hrs: 4.00

16THPR782**Advanced Costume Rendering**

A further study of media and its application as used in costume rendering. Advanced rendering projects in color texture, fabric/color matching, layout and design of costume plates, etc. May be repeated. Permission of instructor. Credit Level: G. Credit Hrs: 4.00

16THPR801**Pattern Drafting I**

An introductory level course intended to develop the student's understanding of basic pattern drafting. The core work will include drafting garments for each quadrant of the body, creating mock-ups and testing for fit. Prerequisites: Intro to Costume Construction, Costume Construction, Tailoring I or by permission of instructor. Credit Level: G. Credit Hrs: 4.00

16THPR802**Draping I**

Draping I is designed to further the student's understanding of pattern making through the exploration of three-dimensional techniques of draping. The core work will include elements of sculpture through draping, understanding fabrics creating mock-ups and testing for fit. Prereqs: Intro to Costume Construction, Costume Construction, Pattern

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Theater Production**16THPR802****Draping I**

Drafting I or Permission of Instructor. Credit Level: G. Credit Hrs: 4.00

16THPR803**Tailoring I**

Tailoring I is an introductory course designed to develop the students skills in the sewing techniques of tailoring. The core work will include a variety of projects that will explore several tailoring techniques both historical and contemporary. Prerequisites: Intro to Costume Construction, Costume Construction or permission of instructor. Credit Level: G. Credit Hrs: 4.00

16THPR804**Pattern Drafting II**

Pattern drafting II is a course that is intended to further the students' basic pattern skill set by drafting patterns for bias garments, stretch knit garments and historical garments. Both modern drafting techniques will be introduced. The students will create mock-ups and test fit on both the form and a model. Prerequisites: Pattern Drafting I, Costume Construction, or permission of instructor. Credit Level: G. Credit Hrs: 4.00

16THPR805**Draping II**

Draping II continues exploration of pattern making as sculpture. At this level the student will also be introduced to reading and interpreting, rendering, researching historical garments, creating mock-ups and test fit on both the form and a model. Prerequisites: Draping I, Pattern Drafting I or Permission of Instructor. Credit Level: G. Credit Hrs: 4.00

16THPR806**Tailoring II**

Tailoring II expands both the students construction and pattern skills. The core work will include an in depth study of men's historical patterns. Pattern development will include mock-ups, test fitting, cutting and tailoring a minimum of one complete men's historical garment. Prerequisites: Tailoring I, Pattern Drafting I, Draping I, Advanced Costume Construction or permission of instructor. Credit Level: G. Credit Hrs: 4.00

16THPR807**Makeup II**

A full year course in practical application of makeup for makeup majors, costume designers, performers. Includes making wigs and facial hair, styling wigs. Makeup assistance for current productions. Lab and Crew also required. Credit Level: G. Credit Hrs: 4.00

16THPR808**Makeup II**

A full year course in practical application of makeup majors, costume designers, performers. Includes making wigs and facial hair, styling wigs. Makeup assistance for current productions. Lab and Crew also required. Credit Level: G. Credit Hrs: 4.00

16THPR809**Makeup II**

A full year course in practical application of makeup for makeup majors, costume designers, performers. Includes making wigs and facial hair, styling wigs. Makeup assistance for current productions. Lab and Crew also required. Credit Level: G. Credit Hrs: 4.00

16THPR810**Design/Research Project: Stage Costume**

(MFA Thesis) Culmination of graduate student study resulting in a final major design or technology effort with associated research paper and oral defense of project before a selected faculty committee. Credit Level: G. Credit Hrs: 3.00-6.00

16THPR811**Makeup III**

A full year course for Makeup majors, stressing advanced practice in all aspects of makeup. Practical experience in the design and execution of

Theater Production**16THPR811****Makeup III**

makeup and wigs under production circumstances. Credit Level: G. Credit Hrs: 4.00

16THPR812**Makeup III**

A full year course for Makeup majors, stressing advanced practice in all aspects of makeup. Practical experience in the design and execution of makeup and wigs under production circumstances. Credit Level: G. Credit Hrs: 4.00

16THPR813**Makeup III**

A full year course for Makeup majors, stressing advanced practice in all aspects of makeup. Practical experience in the design and execution of makeup and wigs under production circumstances. Credit Level: G. Credit Hrs: 4.00

16THPR814**Stage Lighting II**

An introduction to the principles and techniques of stage lighting design for drama, opera, and musical theater productions. Emphasis on developing design concept for a show, and on mastering basic design skills, including the choice of lighting angles and equipment, layout of area lighting, and selection of color for a show. Simple theoretical light plots augmented by lab work and design assignments for workshop and black box productions. Credit Level: G. Credit Hrs: 3.00

16THPR815**Stage Lighting II**

An introduction to the principles and techniques of stage lighting design for drama, opera, and musical theater productions. Emphasis on developing a design concept for a show, and on mastering basic design skills, including the choice of lighting angles and equipment, layout of area lighting, and selection of color for a show. Simple theoretical light plots augmented by lab work and design assignments for workshop and black box productions. Credit Level: G. Credit Hrs: 3.00

16THPR816**Stage Lighting II**

An introduction to the principles and techniques of stage lighting design for drama, opera, and musical theater productions. Emphasis on developing a design concept for a show, and on mastering basic design skills, including the choice of lighting angles and equipment, layout of area lighting, and selection of color for a show. Simple theoretical light plots augmented by lab work and design assignments for workshop and black box productions. Credit Level: G. Credit Hrs: 3.00

16THPR817**Technical Production Lab and Crew**

Practical production crew work in the execution of designs for opera, musical theater, drama, or dance. May be repeated for credit. Prereq.: Grad. standing. Credit Level: G. Credit Hrs: 3.00

16THPR818**Technical Production Lab and Crew**

Practical production crew work in the execution of designs for opera, musical theater, drama, or dance. May be repeated for credit. Credit Level: G. Credit Hrs: 3.00

16THPR819**Technical Production Lab and crew**

Practical production crew work in the execution of designs for opera, musical theater, drama, or dance. May be repeated for credit. Credit Level: G. Credit Hrs: 3.00

16THPR820**Design/Research Project: Makeup**

Culmination of student study resulting in makeup design for major production, with associated research paper and sketches, and oral presentation and defense of project before selected faculty committee. Credit Level: G. Credit Hrs: 3.00-6.00

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Theater Production**16THPR821****Stage Lighting III**

Advanced design course for MFA students majoring in theatrical lighting design. Concentration on theoretical and practical design projects for complex drama, opera, and musical theater productions. Weekly tutorial sessions and large scale departmental productions. Credit Level: G. Credit Hrs: 6.00

16THPR822**Stage Lighting III**

Advanced design course for MFA students majoring in theatrical lighting design. Concentration on theoretical and practical design projects for complex drama, opera, and musical theater productions. Weekly tutorial sessions and large scale departmental productions. Credit Level: G. Credit Hrs: 6.00

16THPR823**Stage Lighting III**

Advanced design course for MFA students majoring in theatrical lighting design. Concentration on theoretical and practical design projects for complex drama, opera, and musical theater productions. Weekly tutorial sessions and large scale departmental productions. Credit Level: G. Credit Hrs: 6.00

16THPR824**Stage Management II**

Roundtable discussion of problems facing the lead stage manager on a production. Alternate perspectives to be offered by guest stage managers, directors, designers and other theatre professionals. Additional study of Actors Equity Association (musicals and dramas) and American Guild of Musical Artists (operas and dance) rulebooks as pertains to running rehearsals and performances. Credit Level: G. Credit Hrs: 3.00-6.00

16THPR825**Stage Management II**

Continuation of 16 THPR 824. Credit Level: G. Credit Hrs: 3.00-6.00

16THPR826**Stage Management II**

Full year course for MFA students majoring in stage management. Emphasis on practical aspects of organizing auditions, running technical and dress rehearsals, and conducting production meetings, and maintaining a show during a long performance run. Investigation of stage manager's function in touring a show, working on an original script, or in dealing with other theatrical unions. Assignments throughout year as stage manager for small or medium scale departmental productions. Credit Level: G. Credit Hrs: 3.00-6.00

16THPR827**Stage Management III**

Emphasis on communication and management functions of the stage manager during production process, and investigation of Production Stage Manager's responsibilities, including scheduling and budget layout. Pre-requisite of 16 THPR 826; must be taken in sequence. Majors only. BFA by permission only. Credit Level: G. Credit Hrs: 3.00-6.00

16THPR828**Stage Management III**

Continuation of 16 THPR 827. Credit Level: G. Credit Hrs: 3.00-6.00

16THPR829**Stage Management III**

Continuation of 16 THPR 828. Credit Level: G. Credit Hrs: 3.00-6.00

16THPR830**Design/Research Project: Stage Lighting**

Culmination of MFA study resulting in actual lighting design for major theatrical production, as well as documentation of all research and a portfolio presentation of all associated paperwork, including written script analysis, design concept, cue synopsis, instrument schedules, hook-up and repatch sheets, stage lighting section, and front-of-house

Theater Production**16THPR830****Design/Research Project: Stage Lighting**

and backstage lighting plots. Final oral presentation and defense of the design concept and execution. Credit Level: G. Credit Hrs: 3.00-6.00

16THPR831**Technical Production II**

Problem-solving for the theater technician. Specialized construction and rigging techniques, technical production management, cost and time estimates, inventory control, theater safety. Credit Level: G. Credit Hrs: 3.00

16THPR832**Technical Production II**

Problem-solving for the theater technician. Specialized construction and rigging techniques, technical production management, cost and time estimates, inventory control, theater safety. Credit Level: G. Credit Hrs: 3.00

16THPR833**Technical Production II**

Problem-solving for the theater technician. Specialized construction and rigging techniques, technical production management, cost and time estimates, inventory control, theater safety. Credit Level: G. Credit Hrs: 3.00

16THPR834**Technical Production III**

Project oriented class for second year MFA candidates in Technical Production. Projects may be theoretical research in the areas of new materials and technologies or may be assignments of major responsibility on actual productions. All projects to be accompanied with appropriate documentation. Credit Level: G. Credit Hrs: 3.00

16THPR835**Technical Production III**

Project oriented class for second year MFA candidates in Technical Production. Projects may be theoretical research in the areas of new materials and technologies or may be assignments of major responsibility on actual productions. All projects to be accompanied with appropriate documentation. Prereq: 16THPR834. Credit Level: G. Credit Hrs: 3.00

16THPR836**Technical Production III**

Project oriented class for second year MFA candidates in Technical Production. Projects may be theoretical research in the areas of new materials and technologies or may be assignments of major responsibility on actual productions. All projects to be accompanied with appropriate documentation. Credit Level: G. Credit Hrs: 3.00

16THPR838**Stage Lighting IV**

Course designed for the second year MFA lighting design student with an emphasis on large scaled theatrical productions as well as on union exam preparation. Credit Level: G. Credit Hrs: 6.00

16THPR839**Sound Design Practicum**

Supervised sound design and assistant assignments for OMDA productions. Credit Level: G. Credit Hrs: 1.00-4.00

16THPR840**Production Research Project: Stage Management**

Culmination of study for MFA candidate in Stage Management. Project includes production assignments Stage Manager to large scale opera or musical theater production, along with all associated paperwork, a production journal, a working prompt book during the show, and a finished production book after the fact. Work will culminate with an oral presentation and defense of the organizational and administrative techniques used in the production. Credit Level: G. Credit Hrs: 3.00-6.00

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Theater Production**16THPR841****Stage Design I**

Beginning projects explore dramatic space, form, image and theme. Intermediate projects script analysis, period research, and dramatic themes working with sketches, renderings, ground plans, and models. Styles range from simple realism to expressive symbolism. Play, opera, and film scripts are assigned. Guest directors participate. Credit Level: G. Credit Hrs: 3.00

16THPR842**Stage Design I**

Beginning projects explore dramatic space, form, image and theme. Intermediate projects script analysis, period research, and dramatic themes working with sketches, renderings, ground plans, and models. Styles range from simple realism to expressive symbolism. Play, opera, and film scripts are assigned. Guest directors participate. Credit Level: G. Credit Hrs: 3.00

16THPR843**Stage Design I**

Beginning projects explore dramatic space, form, image and theme. Intermediate projects script analysis, period research, and dramatic themes working with sketches, renderings, ground plans, and models. Styles range from simple realism to expressive symbolism. Play, opera, and film scripts are assigned. Guest directors participate. Credit Level: G. Credit Hrs: 3.00

16THPR844**Stage Design II**

Advanced stage design projects for opera, musicals, drama, dance, and special presentations. Design of multiple sets explored. Special design assignments of studio or major productions. Credit Level: G. Credit Hrs: 3.00

16THPR845**Stage Design II**

Advanced stage design projects for opera, musicals, drama, dance, and special presentations. Design of multiple sets explored. Special design assignments of studio or major productions. Credit Level: G. Credit Hrs: 3.00

16THPR846**Stage Design II**

Advanced stage design projects for opera, musicals, drama, dance, and special presentations. Design of multiple sets explored. Special design assignments of studio or major productions. Credit Level: G. Credit Hrs: 3.00

16THPR847**Drafting for the Theater II**

Advanced board drafting projects assigned in accordance with student's prior drafting experience and skill level. Group and individual lessons. Actual production drafting projects assigned where feasible. Credit Level: G. Credit Hrs: 2.00

16THPR848**Drafting for the Theater II**

Advanced board drafting projects assigned in accordance with student's prior drafting experience and skill level. Group and individual lessons. Actual production drafting projects assigned where feasible. Credit Level: G. Credit Hrs: 2.00

16THPR849**Drafting for the Theater III**

Advanced drafting projects assigned per individual student needs and current production assignments. Prereq: 16THPR848. Credit Level: G. Credit Hrs: 2.00

16THPR850**Drafting Theater III**

Advanced drafting projects assigned per individual student needs and current production assignments. Prereq: 16THPR849. Credit Level: G. Credit Hrs: 2.00

Theater Production**16THPR851****Makeup IV**

Continuing advancement in all aspects of makeup. Project on producing foam latex appliances. Design and execution of major productions. Assisting for major productions. Credit Level: G. Credit Hrs: 4.00

16THPR852**Makeup IV**

Continuing advancement in all aspects of makeup. Project on producing foam latex appliances. Design and execution of major productions. Assisting for major productions. Credit Level: G. Credit Hrs: 4.00

16THPR853**Makeup IV**

Continuing advancement in all aspects of makeup. Project on producing foam latex appliances. Design and execution of major productions. Assisting for major productions. Credit Level: G. Credit Hrs: 4.00

16THPR854**Graduate Sound Seminar I**

Graduate level course involving weekly updates on design/production issues, operation of the sound department and presentation on equipment or special techniques. Designs will be presented and critiqued. Load ins, strikes and troubleshooting of systems for all main stage productions will provide practical experience with sound system operations. Guest artists will be invited to meet with students whenever possible and onsite visits will be arranged to provide professional contacts and experience. Credit Level: G. Credit Hrs: 3.00

16THPR855**Graduate Sound Seminar I**

A continuation of 16THPR854. Credit Level: G. Credit Hrs: 3.00

16THPR856**Graduate Sound Seminar I**

A continuation of 16THPR855. Credit Level: G. Credit Hrs: 3.00

16THPR857**Graduate Sound Seminar II**

A continuation of 16THPR856. Credit Level: G. Credit Hrs: 3.00

16THPR858**Graduate Sound Seminar II**

A continuation of 16THPR857. Credit Level: G. Credit Hrs: 3.00

16THPR859**Graduate Sound Seminar II**

A continuation of 16THPR858. Credit Level: G. Credit Hrs: 3.00

16THPR860**Production/Research Project: Technical Production**

Culmination of student study resulting in technical direction of a major production with associated portfolio of construction drawings and other appropriate documentation. An oral presentation and defense of the methods, techniques, and materials used will be presented to a committee of selected faculty. Credit Level: G. Credit Hrs: 3.00-6.00

16THPR861**Costume Design I**

History of costume from prehistoric times to contemporary society integrated with selected period costume design projects from dramatic literature. Emphasis on research, design basics, figure drawing, and beginning rendering. Credit Level: G. Credit Hrs: 4.00

16THPR862**Costume Design I**

Continuation of 16 THPR 861. Credit Level: G. Credit Hrs: 4.00

16THPR863**Costume Design I**

Continuation of 16 THPR 862. Credit Level: G. Credit Hrs: 4.00

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Theater Production**16THPR864****Costume Design II**

Project designing for drama, musical theatre, opera and dance with emphasis on character development through costume. Production processes, intermediate rendering techniques, design assisting. Possible design assignments of studio productions may be apart of course work. Production book development. Portfolio Preparation Credit Level: G. Credit Hrs: 4.00

16THPR865**Costume Design II**

Continuation of 16 THPR 864. Prereq: 16THPR864. Credit Level: G. Credit Hrs: 4.00

16THPR866**Costume Design II**

Continuation of 16 THPR 865. Credit Level: G. Credit Hrs: 4.00

16THPR867**Costume Design III**

Advanced projects in designing costumes for drama, opera, musical theater, and dance with emphasis on developing production concepts. Advanced rendering techniques, design assisting. Possible design assignments. Credit Level: G. Credit Hrs: 4.00

16THPR868**Costume Design III**

Advanced projects in designing costumes for drama, opera, musical theater, and dance with emphasis on developing production concepts. Advanced rendering techniques, design assisting. Possible design assignments. Credit Level: G. Credit Hrs: 4.00

16THPR869**Costume Design III**

Advanced projects in designing costumes for drama, opera, musical theater, and dance with emphasis on developing production concepts. Advanced rendering techniques, design assisting. Credit Level: G. Credit Hrs: 4.00

16THPR870**Stage Design for Directors**

Directors will interact from their perspective with advanced design projects created by design majors -- a necessary area of understanding for both. Credit Level: G. Credit Hrs: 3.00

16THPR871**Stage Design Lab and Crew**

Practical production crew work in the layout, painting, set decoration, and dressing of major opera, musical, and dramatic productions. May be repeated for credit. Credit Level: G. Credit Hrs: 2.00

16THPR872**Stage Design Lab and Crew**

Practical production crew work in the layout, painting, set decoration, and dressing of major opera, musical and dramatic productions. May be repeated for credit. Credit Level: G. Credit Hrs: 2.00

16THPR873**Stage Design Lab and Crew**

Practical production crew work in the layout, painting, set decoration, and dressing of major opera, musical, and dramatic productions. May be repeated for credit. Credit Level: G. Credit Hrs: 2.00

16THPR874**Design/Research Project in Sound Design**

Design and implementation of a fully realized main stage OMDA production including a monograph detailing the process. Credit Level: G. Credit Hrs: 6.00

16THPR877**Makeup V**

Emphasis on advanced design of major production. Advanced rendering techniques. Portfolio preparation. Design/Research Project. Credit Level: G. Credit Hrs: 4.00

Theater Production**16THPR878****Makeup V**

Emphasis on advanced design of major production. Advanced rendering techniques. Portfolio preparation. Design/Research Project. Credit Level: G. Credit Hrs: 4.00

16THPR879**Makeup V**

Emphasis on advanced design of major production. Advanced rendering techniques. Portfolio preparation. Design/Research Project. Credit Level: G. Credit Hrs: 4.00

16THPR880**Scene Painting II**

A one quarter course in the painting of intermediate level projects from scaled elevations. Rendering of mouldings, paneling, drapery, three dimensional objects, foliage, and landscapes in studio. Paint clothes required. Credit Level: G. Credit Hrs: 2.00

16THPR881**Design Research Project: Stage Design**

The culminating research, design, and execution in project form (for actual production assignment) of all necessary sketches, renderings, models, working drawings, and paint elevations, plus property sketches or drawings, fabric and upholstery samples, for an opera, musical, or drama of sufficient aesthetic value and weight as determined by instructor. Project shall be accompanied by a written argument of the conceptualization approach. Project will be Credit Level: G. Credit Hrs: 3.00-6.00

16THPR882**Advanced Costume Crafts**

Advanced studies and projects in costume crafts. Topics may include millinery, fabric modification, masks, jewelry, fabric manipulation, etc. Non- traditional materials and techniques may be investigated. Production assignments as part of class may be possible. Offered every quarter. May be repeated. Permission of instructor. Credit Level: G. Credit Hrs: 4.00

16THPR883**Draping III**

Draping III is an advanced patterning course designed to introduce the student to the leadership skills that are required of a professional draper. The student draper will be assigned an appropriate collection of garments to create patterns for one or more realized productions during that quarter. The student draper will be expected to create patterns, organize and lead an assigned team of assistants through the production of the assigned garments from start to finish. Prerequisites: Draping II, Pattern Draping II. Pre/Co-requisite: Advanced Costume Construction or permission of instructor. Credit Level: G. Credit Hrs: 4.00

16THPR884**Pattern Drafting III**

Pattern Drafting III is an advanced patterning course designed to further the student's skills by introducing the element of full realized production deadlines. The advanced student will be assigned an appropriate collection of garments to pattern and construct for one or more realized productions during that quarter. Prerequisites: Pattern Drafting II, Draping II, Tailoring II. Pre/Co-requisite: Advanced Costume Construction or permission of instructor. Credit Level: G. Credit Hrs: 4.00

16THPR885**Tailoring III**

The core work will include an in depth study of men's historical coats and vest, creating historical patterns and tailoring historical patterns. Pattern development will include mock- ups, test fitting, cutting and tailoring a minimum of one complete men's historical garment. Prerequisites: tailoring II, Pattern Drafting II, Draping II, Advanced Costume Construction or Permission of Instructor. Credit Level: G. Credit Hrs: 4.00

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Theater Production**16THPR886****Advanced Costume Construction**

Advanced Costume Construction is a continuation of core construction techniques including cutting and fabric preparation. Topics will include historical garments, specialty garments, and non-traditional garments as production requirements allow. This course will include realized production projects as well as class study. May be repeated. Permission of instructor. Prerequisites: Costume construction or by permission of instructor. Credit Level: G. Credit Hrs: 4.00

16THPR887**Millinery**

Traditional and non-traditional methods of hat making are explored. Lecture/Demonstration format with individual projects. Production assignments as part of class are possible. Credit Level: G. Credit Hrs: 4.00

16THPR888**Fabric Modification**

The study of fabric modification for the Theatre including painting, dyeing, printing, distressing, color matching, etc. Lecture/Demonstration format with individual projects. Production assignments as a part of the class are possible. Credit Level: G. Credit Hrs: 4.00

16THPR889**Masks and Jewelry**

Mask and jewelry making for the Theatre including traditional and non-traditional methods. Lecture/ Demonstration format with individual projects. Production assignments as part of class are possible. Credit Level: G. Credit Hrs: 4.00

16THPR890**Theater Design and Production Co-op**

A professional internship for graduate students working with professional regional theater, ballet, operas, entertainment production facilities and architectural companies for advanced experience. The experience will vary depending on abilities of the candidate and length of involvement and must be supervised by a member of the TD&P faculty. Credit Level: G. Credit Hrs: 1.00-12.00

16THPR891**Costume Design IV**

Realized production design for Operas, Musicals or Plays. Permission of Instructor. Credit Level: G. Credit Hrs: 4.00

16THPR892**Costume Design IV**

Continuation of 16 THPR 891. Credit Level: G. Credit Hrs: 4.00

16THPR893**Costume Design IV**

Continuation of 16 THPR 892. Credit Level: G. Credit Hrs: 4.00

16THPR899**Master's Candidacy**

Retention of eligibility for graduation. Credit Level: G. Credit Hrs: 1.00

Trombone**16TRB100****Trombone Major Study**

Technical requirements: development of embouchure, breathing, staccato and legato tonguing; tenor clef reading. Arban and Cornette methods; Bordogni-Rochut Melodious Etudes, Vol. I., Mantia The Trombone Virtuoso. Paris Conservatoire solo material by Barat, de la Nux, Busser, Croce-Spinelli, and others of comparable difficulty. BoK: FA. Credit Level: U. Credit Hrs: 3.00

16TRB110**Trombone Concentration**

First-year study for trombone students in the B.A. program in music. BoK: FA. Credit Level: U. Credit Hrs: 2.00

Trombone**16TRB120****Trombone Secondary**

First-year secondary study in trombone as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16TRB200**Trombone Major Study**

Technical requirements: continuation of tenor clef and introduction of alto clef reading. Continuation of Bordogni-Rochut and Mantia studies; clef studies by Blazevitch, Stefaniszin; LaFosse -- School for Sight-Reading, Vol. A-B, Kopprasch -- Selected Studies, Vol. I. Solo material from Solo Book No. 1 (E. Glover), Paris Conservatoire solos by Busser, Pfeiffer, and Saint-Saens; Galliard -- Six Sonatas, Blazevitch -- Concert Piece No. 5 and works of comparable difficulty. Passages from the orchestral repertoire. BoK: FA. Credit Level: U. Credit Hrs: 4.00

16TRB210**Trombone Concentration**

Second-year study for trombone students in the B.A. program in music or in the music education program. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16TRB220**Trombone Secondary**

Second-year secondary study in trombone as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16TRB300**Trombone Major Study**

Continuation of clef studies; LaFosse, Vol. C-E, Bordogni-Rochut -- Melodious Etudes, Vol. II, Kopprasch -- Selected Studies, Vol. II, Vobaron -- 34 Etudes, Aaron Harris -- Method, Vol. II, Kreutzer-Schaefer -- 10 Etudes. Solo material from Solo Book No. 2 (E. Glover), solos by Guilment, Gaubert, Bozza, Boutry, and other French composers; Marcello -- Cello Sonatas, Handel-LaFosse -- Concerto in F Minor, Hindemith -- Sonata, and works of comparable difficulty. Passages from the orchestral repertoire. BoK: FA. Credit Level: U. Credit Hrs: 4.00

16TRB310**Trombone Concentration**

Third-year study for trombone students in the B.A. program in music or in the music education program. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16TRB320**Trombone Secondary**

Third-year secondary study in trombone as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16TRB400**Trombone Major Study**

LaFosse -- Advanced Method, Vol. II, Bordogni-Rochut -- Melodious Etudes, Vol. III, Blazevitch -- Sequences. Etudes by Bitsch, Bozza, Boutry, and Pichaureau. Bach-LaFosse -- Suites for Unaccompanied Violoncello; solos by Defay, Berghmams, Salzedo, and Tomasi. Creston -- Fantasy, Bloch -- Symphony, Takacs Sonata, Martin -- Ballade, Corelli-Gibson -- Sonata in D Minor, and works of comparable difficulty. Passages from the orchestral repertoire. Preparation of Senior Recital. BoK: FA. Credit Level: U. Credit Hrs: 4.00

16TRB410**Trombone Concentration**

Fourth-year study for trombone students in the B.A. program in music or in the music education program. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16TRB420**Trombone Secondary**

Fourth-year secondary study in trombone as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

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Trombone**16TRB500****Trombone Major**

Additional study for undergraduate trombone majors who have completed the basic degree requirements; offered for undergraduate and graduate trombone majors during the Summer Session. BoK: FA. Credit Level: U, G. Credit Hrs: 4.00

16TRB510**Trombone Concentration**

Additional study in trombone for undergraduate students at the concentration level who have completed the basic degree requirements; offered to all concentration level trombone students during the Summer Session, depending on faculty availability. BoK: FA. Credit Level: U, G. Credit Hrs: 2.00

16TRB530**Trombone Elective**

Nonrequired private study in trombone; requires permission of the department and the college. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00-2.00

16TRB531**Trombone Pedagogy**

A study of the techniques involved in teaching applied trombone lessons. BoK: FA. Credit Level: U, G. Credit Hrs: 2.00

16TRB560**Independent Study**

In-depth study of a topic related to the trombone, selected by the student in consultation with a member of the faculty. Permission of instructor and Division. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00-12.00

16TRB570**Trombone Orchestral Repertoire**

Survey of prominent excerpts for trombone. Students play excerpts in a section format and discuss issues such as style, articulation, and intonation. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00

16TRB680**Trombone Choir**

A homogeneous ensemble of trombones designed to prepare and perform literature for eight or more players. BoK: FA. Credit Level: U, G. Credit Hrs: 0.00-1.00

16TRB800**Trombone Graduate Major Study**

Preparation of two recital programs, one to be performed in public. Repertoire of a high level of difficulty suited to the needs of the individual student. Passages from the orchestral repertoire. Credit Level: G. Credit Hrs: 4.00

16TRB810**Trombone Concentration**

Master's level study for students accepted for a cognate in trombone performance. Credit Level: G. Credit Hrs: 2.00

16TRB820**Trombone Secondary**

Secondary study in trombone for master's degree students. Credit Level: G. Credit Hrs: 1.00

16TRB850**Artist Diploma in Trombone**

First-year major study in trombone for students accepted into the artist diploma program. Credit Level: G. Credit Hrs: 6.00

16TRB855**Artist Diploma Recital**

Public performance by an artist diploma student in trombone of selected compositions; approved and graded by the faculty. Credit Level: G. Credit Hrs: 2.00

Trombone**16TRB880****Master Recital**

Public performance by a master's degree student in trombone of selected compositions; approved and graded by the faculty. Credit Level: G. Credit Hrs: 1.00-2.00

16TRB895**Practicum**

Practical experience in the professional world. Credit Level: G. Credit Hrs: 1.00

16TRB899**Master's Candidacy**

Retainment of eligibility for graduation. Credit Level: G. Credit Hrs: 1.00

16TRB900**Trombone Doctoral Major Study**

Selected studies for continued refinement of previous skills. Repertoire to be selected from works of advanced technical difficulty. Preparation of required doctoral recitals. Credit Level: G. Credit Hrs: 4.00

16TRB910**Trombone Concentration**

Doctoral level study for students accepted for a cognate in trombone performance. Credit Level: G. Credit Hrs: 2.00

16TRB920**Trombone Secondary**

Secondary study in trombone for doctoral level students. Credit Level: G. Credit Hrs: 1.00

16TRB930**Trombone Elective**

Nonrequired private study in trombone for doctoral students; requires permission of the department and the college. Credit Level: G. Credit Hrs: 1.00-2.00

16TRB950**Artist Diploma in Trombone**

Second-year major study in trombone for students accepted into the artist diploma program. Credit Level: G. Credit Hrs: 6.00

16TRB960**Trombone Concerto**

Public performance of a concerto with one of the major performing ensembles. Credit Level: G. Credit Hrs: 2.00

16TRB970**Doctoral Recital**

Public performance by a doctoral student in trombone of selected compositions; approved and graded by the faculty. Credit Level: G. Credit Hrs: 3.00

16TRB980**Lecture Recital**

Combined public lecture and performance of a selected topic in the trombone repertoire; approved and graded by the faculty. Credit Level: G. Credit Hrs: 3.00

16TRB990**DMA Document**

Research and preparation of the final written project for the DMA degree in trombone; topic to be approved and supervised by the faculty. Credit Level: G. Credit Hrs: 1.00-15.00

Trumpet**16TRP100****Trumpet Major Study**

Technical material: selected studies from Arban -- Conservatory Method, studies by Clarke, Hering, Schlossberg; transposition studies by Williams and Sachse. Passages from the orchestral repertoire; solos by Balay, Barat, Goeyens, Ropartz, and others. BoK: FA. Credit Level: U. Credit Hrs: 3.00

H=University Honors course.

BoK (Breadth of Knowledge) Coding. DC: Diversity & Culture. EC: English composition. FA: Fine Arts. HP: Historical Perspectives. HU: Humanities. LT: Literature. NS: Natural Sciences. QR: Quantitative Reasoning. SE: Social & Ethical Issues. SS: Social Sciences.

Trumpet**16TRP110****Trumpet Concentration**

First-year study for trumpet students in the B.A. program in music. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16TRP120**Trumpet Secondary**

First-year secondary study in trumpet as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16TRP200**Trumpet Major Study**

Continuation of studies from Arban -- Conservatory Method, studies by Brandt, Balay, Laurent, and Maxime-Alphonse, transposition studies by Williams, Sachse, and Bordogni. Passages from the orchestral repertoire; solos by Bozza, Dallier, Goedicke, HuŌ, and others. BoK: FA. Credit Level: U. Credit Hrs: 4.00

16TRP210**Trumpet Concentration**

Second-year study for trumpet students in the B.A. program in music or in the music education program. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16TRP220**Trumpet Secondary**

Second-year secondary study in trumpet as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16TRP300**Trumpet Major Study**

Continuation of transposition studies and orchestral passages. Etudes by Chaliŕ; solo material by Latham, Kennan, Riisager, Hindemith, Stevens and others. BoK: FA. Credit Level: U. Credit Hrs: 4.00

16TRP310**Trumpet Concentration**

Third-year study for trumpet students in the B.A. program in music or in the music education program. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16TRP320**Trumpet Secondary**

Third-year secondary study in trumpet as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16TRP400**Trumpet Major Study**

Continuation of orchestral excerpts. Etudes by Bitsch, Bozza, and Tomasi; solo material by Casterade, Wal-Berg, Bohrnstedt, Telemann, Honegger, and others. Preparation of Senior Recital. BoK: FA. Credit Level: U. Credit Hrs: 4.00

16TRP410**Trumpet Concentration**

Fourth-year study for trumpet students in the B.A. program in music or in the music education program. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16TRP420**Trumpet Secondary**

Fourth-year secondary study in trumpet as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16TRP500**Trumpet Major**

Additional study for undergraduate trumpet majors who have completed the basic degree requirements; offered for undergraduate and graduate trumpet majors during the Summer Session. BoK: FA. Credit Level: U, G. Credit Hrs: 4.00

16TRP510**Trumpet Concentration**

Additional study in trumpet for undergraduate students at the concentration level who have completed the basic degree requirements;

Trumpet**16TRP510****Trumpet Concentration**

offered to all concentration level trumpet students during the Summer Session. BoK: FA. Credit Level: U, G. Credit Hrs: 2.00

16TRP530**Trumpet Elective**

Nonrequired private study in trumpet; requires permission of the department and the college. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00-2.00

16TRP560**Independent Study**

In-depth study of a topic related to the trumpet, selected by the student in consultation with a member of the faculty. Permission of instructor and Division. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00-12.00

16TRP570**Trumpet Orchestral Excerpt Class**

Prepares students for a career as an orchestral musician through the study of major orchestral repertoire for trumpet. Style, blend, and ensemble are stressed, along with listening and score study. Mock auditions are integral to the class. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00

16TRP670**Trumpet Ensembles**

Intense study of trumpet chamber music and orchestral repertoire in a small group setting. Periodically, groups combine to perform larger pieces. BoK: FA. Credit Level: U, G. Credit Hrs: 0.00-1.00

16TRP800**Trumpet Graduate Major Study**

Requirements are: One public recital of advanced difficulty, accompanied Solo Board Exam, and Board Exam of 30 Orchestral Excerpts. Credit Level: G. Credit Hrs: 4.00

16TRP810**Trumpet Concentration**

Master's level study for students accepted for a cognate in trumpet performance. Credit Level: G. Credit Hrs: 2.00

16TRP820**Trumpet Secondary**

Secondary study in trumpet for master's degree students. Credit Level: G. Credit Hrs: 1.00

16TRP831**Trumpet Repertoire and Pedagogy I**

A chronological survey of the trumpet, its history and methodology; class projects include research, notebook compilation and presentations for studio class. Credit Level: G. Credit Hrs: 2.00

16TRP832**Trumpet Repertoire and Pedagogy II**

Trumpet Repertoire and Pedagogy II. Continuation of 16-724-831. Prereq: 16TRP831. Credit Level: G. Credit Hrs: 2.00

16TRP850**Artist Diploma in Trumpet**

First-year major study in trumpet for students accepted into the artist diploma program. Credit Level: G. Credit Hrs: 6.00

16TRP855**Artist Diploma Recital**

Public performance by an artist diploma student in trumpet of selected compositions; approved and graded by the faculty. Credit Level: G. Credit Hrs: 2.00

16TRP880**Master Recital**

Public performance by a master's degree student in trumpet of selected compositions; approved and graded by the faculty. Credit Level: G. Credit Hrs: 1.00-2.00

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Trumpet**16TRP895****Practicum**

Practical experience in the professional world. Credit Level: G. Credit Hrs: 1.00

16TRP899**Master's Candidacy**

Retainment of eligibility for graduation. Credit Level: G. Credit Hrs: 1.00

16TRP900**Trumpet Doctoral Major Study**

Selected studies for continued refinement of previous skills. Repertoire to be selected from works of advanced technical difficulty. Preparation of required doctoral recitals. Credit Level: G. Credit Hrs: 4.00

16TRP910**Trumpet Concentration**

Doctoral level study for students accepted for a cognate in trumpet performance. Credit Level: G. Credit Hrs: 2.00

16TRP920**Trumpet Secondary**

Secondary study in trumpet for doctoral level students. Credit Level: G. Credit Hrs: 1.00

16TRP930**Trumpet Elective**

Nonrequired private study in trumpet for doctoral students; requires permission of the department and the college. Credit Level: G. Credit Hrs: 1.00-2.00

16TRP950**Artist Diploma in Trumpet**

Second-year major study in trumpet for students accepted into the artist diploma program. Credit Level: G. Credit Hrs: 6.00

16TRP960**Trumpet Concerto**

Public performance of a concerto with one of the major performing ensembles. Credit Level: G. Credit Hrs: 2.00

16TRP970**Doctoral Recital**

Public performance by a doctoral student in trumpet of selected compositions; approved and graded by the faculty. Credit Level: G. Credit Hrs: 3.00

16TRP980**Lecture Recital**

Combined public lecture and performance of a selected topic in the trumpet repertoire; approved and graded by the faculty. Credit Level: G. Credit Hrs: 3.00

16TRP990**DMA Document**

Research and preparation of the final written project for the DMA degree in trumpet; topic to be approved and supervised by the faculty. Credit Level: G. Credit Hrs: 1.00-15.00

Tuba**16TUBA100****Tuba Major Study**

Technical requirements: study of major and minor scales; selected studies for the refinement of basic techniques. Orchestral and band repertoire. BoK: FA. Credit Level: U. Credit Hrs: 3.00

16TUBA110**Tuba Concentration**

First-year study for tuba students in the B.A. program in music. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16TUBA120**Tuba Secondary**

First-year secondary study in tuba as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

Tuba**16TUBA120****Tuba Secondary**

First-year secondary study in tuba as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16TUBA200**Tuba Major Study**

Further advanced technical studies and compositions for the instrument covering different styles. Continuation of orchestral and band repertoire. BoK: FA. Credit Level: U. Credit Hrs: 4.00

16TUBA210**Tuba Concentration**

Second-year study for tuba students in the B.A. program in music or in the music education program. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16TUBA220**Tuba Secondary**

Second-year secondary study in tuba as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16TUBA300**Tuba Major Study**

Continuation of 16TUBA200. BoK: FA. Credit Level: U. Credit Hrs: 4.00

16TUBA310**Tuba Concentration**

Third-year study for tuba students in the B.A. program in music or in the music education program. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16TUBA320**Tuba Secondary**

Third-year secondary study in tuba as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16TUBA400**Tuba Major Study**

Advanced technical studies. Continuation of orchestral and band repertoire. Preparation of Senior Recital including compositions of different styles. BoK: FA. Credit Level: U. Credit Hrs: 4.00

16TUBA410**Tuba Concentration**

Fourth-year study for tuba students in the B.A. program in music or in the music education program. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16TUBA420**Tuba Secondary**

Fourth-year secondary study in tuba as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16TUBA500**Tuba Major**

Additional study for undergraduate tuba majors who have completed the basic degree requirements; offered for undergraduate and graduate tuba majors during the Summer Session. BoK: FA. Credit Level: U, G. Credit Hrs: 4.00

16TUBA510**Tuba Concentration**

Additional study in tuba for undergraduate students at the concentration level who have completed the basic degree requirements; offered to all concentration level tuba students during the Summer Session. BoK: FA. Credit Level: U, G. Credit Hrs: 2.00

16TUBA530**Tuba Elective**

Nonrequired private study in tuba; requires permission of the department and the college. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00-2.00

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Tuba**16TUBA560****Independent Study**

In-depth study of a topic related to the tuba, selected by the student in consultation with a member of the faculty. Permission of instructor and Division. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00-12.00

16TUBA800**Tuba Graduate Major Study**

Selected studies for continued refinement of previous skills. Preparation of two recital programs including repertoire of a high level of difficulty suited to the needs of the individual student. Orchestral and band repertoire. Credit Level: G. Credit Hrs: 4.00

16TUBA810**Tuba Concentration**

Master's level study for students accepted for a cognate in tuba performance. Credit Level: G. Credit Hrs: 2.00

16TUBA820**Tuba Secondary**

Secondary study in tuba for master's degree students. Credit Level: G. Credit Hrs: 1.00

16TUBA850**Artist Diploma in Tuba**

First-year major study in tuba for students accepted into the artist diploma program. Credit Level: G. Credit Hrs: 6.00

16TUBA855**Artist Diploma Recital**

Public performance by an artist diploma student in tuba of selected compositions; approved and graded by the faculty. Credit Level: G. Credit Hrs: 2.00

16TUBA880**Master Recital**

Public performance by a master's degree student in tuba of selected compositions; approved and graded by the faculty. Credit Level: G. Credit Hrs: 1.00-2.00

16TUBA895**Practicum**

Practical experience in the professional world. Credit Level: G. Credit Hrs: 1.00

16TUBA899**Master's Candidacy**

Retention of eligibility for graduation. Credit Level: G. Credit Hrs: 1.00

16TUBA900**Tuba Doctoral Major Study**

Selected studies for continued refinement of previous skills. Repertoire to be selected from works of advanced technical difficulty. Preparation of required doctoral recitals. Credit Level: G. Credit Hrs: 4.00

16TUBA910**Tuba Concentration**

Doctoral level study for students accepted for a cognate in tuba performance. Credit Level: G. Credit Hrs: 2.00

16TUBA920**Tuba Secondary**

Secondary study in tuba for doctoral level students. Credit Level: G. Credit Hrs: 1.00

16TUBA930**Tuba Elective**

Nonrequired private study in tuba for doctoral students; requires permission of the department and the college. Credit Level: G. Credit Hrs: 1.00-2.00

16TUBA950**Artist Diploma in Tuba**

Second-year major study in tuba for students accepted into the artist diploma program. Credit Level: G. Credit Hrs: 6.00

Tuba**16TUBA960****Tuba Concerto**

Public performance of a concerto with one of the major performing ensembles. Credit Level: G. Credit Hrs: 2.00

16TUBA970**Doctoral Recital**

Public performance by a doctoral student in tuba of selected compositions; approved and graded by the faculty. Credit Level: G. Credit Hrs: 3.00

16TUBA980**Lecture Recital**

Combined public lecture and performance of a selected topic in the tuba repertoire; approved and graded by the faculty. Credit Level: G. Credit Hrs: 3.00

16TUBA990**DMA Document**

Research and preparation of the final written project for the DMA degree in tuba; topic to be approved and supervised by the faculty. Credit Level: G. Credit Hrs: 1.00-15.00

Violoncello**16VC100****Violoncello Major Study**

Technical facility in scales, arpeggios, and violoncello studies. Sonatas and concerti of the Baroque, Classical or Romantic repertoire. BoK: FA. Credit Level: U. Credit Hrs: 3.00

16VC110**Violoncello Concentration**

First-year study for cello students in the B.A. program in music. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16VC120**Violoncello Secondary**

First-year secondary study in cello as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16VC200**Violoncello Major Study**

Violoncello studies. Baroque, Classical, and Romantic concerti and sonatas. Bach solo suites and other compositions for the instrument. BoK: FA. Credit Level: U. Credit Hrs: 4.00

16VC210**Violoncello Concentration**

Second-year study for cello students in the B.A. program in music or in the music education program. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16VC220**Violoncello Secondary**

Second-year secondary study in cello as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16VC300**Violoncello Major Study**

Violoncello studies. Baroque, Classical, and Romantic concerti and sonatas and other compositions for the instrument. Contemporary music and pieces from the Chamber Music Literature. BoK: FA. Credit Level: U. Credit Hrs: 4.00

16VC310**Violoncello Concentration**

Third-year study for cello students in the B.A. program in music or in the music education program. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16VC320**Violoncello Secondary**

Third-year secondary study in cello as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

H=University Honors course.

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Violoncello**16VC400****Violoncello Major Study**

Advanced technical studies. Preparation of Senior Recital including compositions of all major styles. BoK: FA. Credit Level: U. Credit Hrs: 4.00

16VC410**Violoncello Concentration**

Fourth-year study for cello students in the B.A. program in music or in the music education program. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16VC420**Violoncello Secondary**

Fourth-year secondary study in cello as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16VC500**Violoncello Major**

Additional study for undergraduate cello majors who have completed the basic degree requirements; offered for undergraduate and graduate cello majors during the Summer Session, depending on faculty availability. BoK: FA. Credit Level: U, G. Credit Hrs: 4.00

16VC510**Violoncello Concentration**

Additional study in cello for undergraduate students at the concentration level who have completed the basic degree requirements; offered to all concentration level cello students during the Summer Session, depending on faculty availability. BoK: FA. Credit Level: U, G. Credit Hrs: 2.00

16VC530**Violoncello Elective**

Nonrequired private study in cello, requires permission of the department and the college. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00-2.00

16VC560**Independent Study**

In-depth study of a topic related to the violoncello, selected by the student in consultation with a member of the faculty. Permission of instructor and Division. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00-12.00

16VC800**Violoncello Graduate Major Study**

Preparation of two recital programs, one to be performed in public. Graduate repertoire includes the major violoncello literature in all styles and some chamber music. Credit Level: G. Credit Hrs: 4.00

16VC810**Violoncello Concentration**

Master's level study for students accepted for a cognate in violoncello performance. Credit Level: G. Credit Hrs: 2.00

16VC820**Violoncello Secondary**

Secondary study in violoncello for master's degree students. Credit Level: G. Credit Hrs: 1.00

16VC850**Artist Diploma in Violoncello**

First-year major study in violoncello for students accepted into the artist diploma program. Credit Level: G. Credit Hrs: 6.00

16VC855**Artist Diploma Recital**

Public performance by an artist diploma student in violoncello of selected compositions; approved and graded by the faculty. Credit Level: G. Credit Hrs: 2.00

16VC880**Master Recital**

Public performance by a master's degree student in violoncello of

Violoncello**16VC880****Master Recital**

selected compositions; approved and graded by the faculty. Credit Level: G. Credit Hrs: 1.00-2.00

16VC895**Practicum**

Practical experience in the professional world. Credit Level: G. Credit Hrs: 1.00

16VC899**Master's Candidacy**

Retention of eligibility for graduation. Credit Level: G. Credit Hrs: 1.00

16VC900**Violoncello Doctoral Major Study**

Selected studies for continued refinement of previous skills. Repertoire to be selected from works of advanced technical difficulty. Preparation of required doctoral recitals. Credit Level: G. Credit Hrs: 4.00

16VC910**Violoncello Concentration**

Doctoral level study for students accepted for a cognate in violoncello performance. Credit Level: G. Credit Hrs: 2.00

16VC920**Violoncello Secondary**

Secondary study in violoncello for doctoral level students. Credit Level: G. Credit Hrs: 1.00

16VC930**Violoncello Elective**

Nonrequired private study in violoncello for doctoral students; requires permission of the department and the college. Credit Level: G. Credit Hrs: 1.00-2.00

16VC950**Artist Diploma in Violoncello**

Second-year major study in violoncello for students accepted into the artist diploma program. Credit Level: G. Credit Hrs: 6.00

16VC960**Cello Concerto**

Public performance of a concerto with one of the major performing ensembles. Credit Level: G. Credit Hrs: 2.00

16VC970**Doctoral Recital**

Public performance by a doctoral student in violoncello of selected compositions; approved and graded by the faculty. Credit Level: G. Credit Hrs: 3.00

16VC980**Lecture Recital**

Combined public lecture and performance of a selected topic in the violoncello repertoire; approved and graded by the faculty. Credit Level: G. Credit Hrs: 3.00

16VC990**DMA Document**

Research and preparation of the final written project for the DMA degree in violoncello; topic to be approved and supervised by the faculty. Credit Level: G. Credit Hrs: 1.00-15.00

Viola**16VLA100****Viola Major Study**

Technical facility in scales, arpeggios, and viola studies. Sonatas and concerti of the Baroque, Classical, or Romantic repertoire. BoK: FA. Credit Level: U. Credit Hrs: 3.00

16VLA110**Viola Concentration**

First-year study for viola students in the B.A. program in music. BoK: FA. Credit Level: U. Credit Hrs: 2.00

H=University Honors course.

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Viola**16VLA110****Viola Concentration**

First-year study for viola students in the B.A. program in music. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16VLA120**Viola Secondary**

First-year secondary study in viola as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16VLA200**Viola Major Study**

Viola studies. Baroque, Classical, and Romantic concerti, sonatas, and other compositions for the instrument. BoK: FA. Credit Level: U. Credit Hrs: 4.00

16VLA210**Viola Concentration**

Second-year study for viola students in the B.A. program in music or in the music education program. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16VLA220**Viola Secondary**

Second year secondary study in viola as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16VLA300**Viola Major Study**

Viola studies. Baroque, Classical, and Romantic concerti and sonatas. Unaccompanied works for the instrument. Contemporary music and pieces from the Chamber Music Literature. BoK: FA. Credit Level: U. Credit Hrs: 4.00

16VLA310**Viola Concentration**

Third-year study for viola students in the B.A. program in music or in the music education program. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16VLA320**Viola Secondary**

Third-year secondary study in viola as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16VLA400**Viola Major Study**

Advanced technical studies. Preparation of Senior Recital including compositions of all major styles. BoK: FA. Credit Level: U. Credit Hrs: 4.00

16VLA410**Viola Concentration**

Fourth-year study for viola student in the B.A. program in music or in the music education program. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16VLA420**Viola Secondary**

Fourth-year secondary study in viola as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16VLA500**Viola Major**

Additional study for undergraduate viola majors who have completed the basic degree requirements; offered for undergraduate and graduate viola majors during the Summer Session, depending on faculty availability. BoK: FA. Credit Level: U, G. Credit Hrs: 4.00

16VLA510**Viola Concentration**

Additional study in viola for undergraduate students at the concentration level who have completed the basic degree requirements; offered to all concentration level viola students during the Summer Session, depending on faculty availability. BoK: FA. Credit Level: U, G. Credit Hrs: 2.00

Viola**16VLA530****Viola Elective**

Nonrequired private study in viola; requires permission of the department and the college. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00-2.00

16VLA560**Independent Study**

In-depth study of a topic related to the viola, selected by the student in consultation with a number of the faculty. Permission of instructor and division. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00-12.00

16VLA580**Viola Master Class**

Master class for all viola students; preparations for recitals, competitions, auditions. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00

16VLA630**Special Topics in Viola**

Varying topics will be addressed. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00

16VLA680**Viola Master Class**

Weekly master class for Viola students. BoK: NA. Credit Level: U, G. Credit Hrs: 0.00-1.00

16VLA800**Viola Graduate Major Study**

Preparation of two recital programs, one to be performed in public. Graduate repertoire includes the major viola literature in all major styles and some chamber music. Credit Level: G. Credit Hrs: 4.00

16VLA810**Viola Concentration**

Master's level study for students accepted for a cognate in viola performance. Credit Level: G. Credit Hrs: 2.00

16VLA820**Viola Secondary**

Secondary study in viola for master's degree students. Credit Level: G. Credit Hrs: 1.00

16VLA850**Artist Diploma in Viola**

First-year major study in viola for students accepted into the artist diploma program. Credit Level: G. Credit Hrs: 6.00

16VLA855**Artist Diploma Recital**

Public performance by an artist diploma student in viola of selected compositions; approved and graded by the faculty. Credit Level: G. Credit Hrs: 2.00

16VLA880**Master Recital**

Public performance by a master's degree student in viola of selected compositions; approved and graded by the faculty. Credit Level: G. Credit Hrs: 1.00-2.00

16VLA895**Practicum**

Practical experience in the professional world. Credit Level: G. Credit Hrs: 1.00

16VLA899**Master's Candidacy**

Retainment of eligibility for graduation. Credit Level: G. Credit Hrs: 1.00

16VLA900**Viola Doctoral Major Study**

Selected studies for continued refinement of previous skills. Repertoire to be selected from works of advanced technical difficulty. Preparation of required doctoral recitals. Credit Level: G. Credit Hrs: 4.00

H=University Honors course.

BoK (Breadth of Knowledge) Coding. DC: Diversity & Culture. EC: English composition. FA: Fine Arts. HP: Historical Perspectives. HU: Humanities. LT: Literature. NS: Natural Sciences. QR: Quantitative Reasoning. SE: Social & Ethical Issues. SS: Social Sciences.

Viola**16VLA910****Viola Concentration**

Doctoral level study for students accepted for a cognate in viola performance. Credit Level: G. Credit Hrs: 2.00

16VLA920**Viola Secondary**

Secondary study in viola for doctoral level students. Credit Level: G. Credit Hrs: 1.00

16VLA930**Viola Elective**

Nonrequired private study in viola for doctoral students; requires permission of the department and the college. Credit Level: G. Credit Hrs: 1.00-2.00

16VLA950**Artist Diploma in Viola**

Second-year major study in viola for students accepted into the artist diploma program. Credit Level: G. Credit Hrs: 6.00

16VLA960**Viola Concerto**

Public performance of a concerto with one of the major performing ensembles. Credit Level: G. Credit Hrs: 2.00

16VLA970**Doctoral Recital**

Public performance by a doctoral student in viola of selected compositions; approved and graded by the faculty. Credit Level: G. Credit Hrs: 3.00

16VLA980**Lecture Recital**

Combined public lecture and performance of a selected topic in the viola repertoire; approved and graded by the faculty. Credit Level: G. Credit Hrs: 3.00

16VLA990**DMA Document**

Research and preparation of the final written project for the DMA degree in viola; topic to be approved and supervised by the faculty. Credit Level: G. Credit Hrs: 1.00-15.00

Violin**16VLN100****Violin Major Study**

Technical facility in scales, arpeggios, and violin studies. Sonatas and concerti of the Baroque, Classical, or Romantic repertoire. BoK: FA. Credit Level: U. Credit Hrs: 3.00

16VLN110**Violin Concentration**

First-year study for violin students in the B.A. program in music. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16VLN120**Violin Secondary**

First-year secondary study in violin as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16VLN200**Violin Major Study**

Violin studies. Baroque, Classical, and Romantic concerti and sonatas, and other compositions for the instrument. BoK: FA. Credit Level: U. Credit Hrs: 4.00

16VLN210**Violin Concentration**

Second-year study for violin students in the B.A. program in music or in the music education program. BoK: FA. Credit Level: U. Credit Hrs: 2.00

Violin**16VLN220****Violin Secondary**

Second-year secondary study in violin as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16VLN300**Violin Major Study**

Violin studies, Baroque, Classical, and Romantic concerti, sonatas, and other compositions for the instrument. Contemporary music and pieces from the Chamber Music Literature. BoK: FA. Credit Level: U. Credit Hrs: 4.00

16VLN310**Violin Concentration**

Third-year study for violin students in the B.A. program in music or in the music education program. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16VLN320**Violin Secondary**

Third-year secondary study in violin as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16VLN400**Violin Major Study**

Advanced technical studies. Preparation of Senior Recital including compositions of all major styles. BoK: FA. Credit Level: U. Credit Hrs: 4.00

16VLN410**Violin Concentration**

Fourth-year study for violin students in the B.A. program in music or in the music education program. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16VLN420**Violin Secondary**

Fourth-year secondary study in violin as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16VLN500**Violin Major**

Additional study for undergraduate violin majors who have completed the basic degree requirements; offered for undergraduate and graduate violin majors during the Summer Session, depending on faculty availability. BoK: FA. Credit Level: U, G. Credit Hrs: 4.00

16VLN510**Violin Concentration**

Additional study in violin for undergraduate students at the concentration level who have completed the basic degree requirements; offered to all concentration level violin students during the Summer Session, depending on faculty availability. BoK: FA. Credit Level: U, G. Credit Hrs: 2.00

16VLN530**Violin Elective**

Nonrequired private study in violin; requires permission of the department and the college. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00-2.00

16VLN531**String Pedagogy**

Basic principles of string pedagogy, including standard etude literature. BoK: FA. Credit Level: U, G. Credit Hrs: 2.00

16VLN532**String Pedagogy**

Basic principles of string pedagogy, including standard etude literature. BoK: FA. Credit Level: U, G. Credit Hrs: 2.00

16VLN533**String Pedagogy**

Basic principles of string pedagogy, including standard etude literature. BoK: FA. Credit Level: U, G. Credit Hrs: 2.00

H=University Honors course.

BoK (Breadth of Knowledge) Coding. DC: Diversity & Culture. EC: English composition. FA: Fine Arts. HP: Historical Perspectives. HU: Humanities. LT: Literature. NS: Natural Sciences. QR: Quantitative Reasoning. SE: Social & Ethical Issues. SS: Social Sciences.

Violin**16VLN541****String Repertoire**

Survey of basic solo string repertoire. Area majors only. BoK: FA. Credit Level: U, G. Credit Hrs: 2.00

16VLN542**String Repertoire**

Survey of the basic solo string repertoire. Area majors only. Prereq: 16VLN541. BoK: FA. Credit Level: U, G. Credit Hrs: 2.00

16VLN543**String Repertoire**

Survey of basic solo string repertoire. Area majors only. Prereq: 16VLN542. BoK: FA. Credit Level: U, G. Credit Hrs: 2.00

16VLN560**Independent Study**

In-depth study of a topic related to the violin, selected by the student in consultation with a member of the faculty. Permission of instructor and Division. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00-12.00

16VLN800**Violin Graduate Major Study**

Preparation of two recital programs, one to be performed in public. Graduate repertoire includes the major violin literature in all major styles and some chamber music. Credit Level: G. Credit Hrs: 4.00

16VLN810**Violin Concentration**

Master's level study for students accepted for a cognate in violin performance. Credit Level: G. Credit Hrs: 2.00

16VLN820**Violin Secondary**

Secondary study in violin for master's degree students. Credit Level: G. Credit Hrs: 1.00

16VLN850**Artist Diploma in Violin**

First-year major study in violin for students accepted into the artist diploma program. Credit Level: G. Credit Hrs: 6.00

16VLN855**Artist Diploma Recital**

Public performance by an artist diploma student in violin of selected compositions; approved and graded by the faculty. Credit Level: G. Credit Hrs: 2.00

16VLN880**Master Recital**

Public performance by a master's degree student in violin of selected compositions; approved and graded by the faculty. Credit Level: G. Credit Hrs: 1.00-2.00

16VLN895**Practicum**

Practical experience in the professional world. Credit Level: G. Credit Hrs: 1.00

16VLN899**Master's Candidacy**

Retainment of eligibility for graduation. Credit Level: G. Credit Hrs: 1.00

16VLN900**Violin Doctoral Major Study**

Selected studies for continued refinement of previous skills. Repertoire to be selected from works of advanced technical difficulty. Preparation of required doctoral recitals. Credit Level: G. Credit Hrs: 4.00

16VLN910**Violin Concentration**

Doctoral level study for students accepted for a cognate in violin performance. Credit Level: G. Credit Hrs: 2.00

Violin**16VLN920****Violin Secondary**

Secondary study in violin for doctoral level students. Credit Level: G. Credit Hrs: 1.00

16VLN930**Violin Elective**

Nonrequired private study in violin for doctoral students; requires permission of the department and the college. Credit Level: G. Credit Hrs: 1.00-2.00

16VLN950**Artist Diploma in Violin**

Second-year major study in violin for students accepted into the artist diploma program. Credit Level: G. Credit Hrs: 6.00

16VLN960**Violin Concerto**

Public performance of a concerto with one of the major performing ensembles. Credit Level: G. Credit Hrs: 2.00

16VLN970**Doctoral Recital**

Public performance by a doctoral student in violin of selected compositions; approved and graded by the faculty. Credit Level: G. Credit Hrs: 3.00

16VLN980**Lecture Recital**

Combined public lecture and performance of a selected topic in the violin repertoire; approved and graded by the faculty. Credit Level: G. Credit Hrs: 3.00

16VLN990**DMA Document**

Research and preparation of the final written project for the DMA degree in violin; topic to be approved and supervised by the faculty. Credit Level: G. Credit Hrs: 1.00-15.00

Voice**16VOIC100****Voice Major Study**

Technical requirements: proper command of posture, carriage, and breathing; improved ability in diction, resonance, and variety of dynamics. Vocalises by Marzocchi, Spickard, Vaccai, and others. At least ten new songs, five to be sung from memory; at least one song in English and one in Italian. Folk songs, old Italian arie, simple oratorio arias, German Lieder. BoK: FA. Credit Level: U. Credit Hrs: 3.00

16VOIC101**Language Orientation for Singers**

The notation of the sounds of Italian, German and French in singing, using the International Phonetic Alphabet. Written and oral presentation. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16VOIC102**Language Orientation for Singers**

The notation of the sounds of Italian, German, and French in singing, using the International Phonetic Alphabet. Written and oral presentation. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16VOIC103**Language Orientation for Singers**

The notation of the sounds of Italian, German, and French in singing, using the International Phonetic Alphabet. Written and oral presentation. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16VOIC110**Voice Concentration**

First-year study for voice students in the B.A. program in music. BoK: FA. Credit Level: U. Credit Hrs: 2.00

H=University Honors course.

BoK (Breadth of Knowledge) Coding. DC: Diversity & Culture. EC: English composition. FA: Fine Arts. HP: Historical Perspectives. HU: Humanities. LT: Literature. NS: Natural Sciences. QR: Quantitative Reasoning. SE: Social & Ethical Issues. SS: Social Sciences.

Voice**16VOIC120****Voice Secondary**

First-year secondary student in voice as required for specific majors.
BoK: FA. Credit Level: U. Credit Hrs: 1.00

16VOIC140**Musical Theater Vocal Study**

First-year applied music lessons in voice for musical theater majors.
BoK: FA. Credit Level: U. Credit Hrs: 2.00

16VOIC200**Voice Major Study**

Technical requirements: continuation of above, improvement in dynamics and range, studies in colorature. German Lieder and French art songs; simple operatic arias; continued study of English songs. BoK: FA. Credit Level: U. Credit Hrs: 4.00

16VOIC201**Sophomore Seminar**

A continuation of the skills and information of the International Phonetic Alphabet (IPA) from the freshman-level Language Orientation; application of these tools and concepts to the music along with harmonic and textual analysis. Prereq: 16VOIC103. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16VOIC202**Sophomore Seminar**

Continuation of 201. Prereq: 16VOIC201. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16VOIC203**Sophomore Seminar**

Continuation of 16 VOIC 201, 202. Prereq: 16VOIC202. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16VOIC210**Voice Concentration**

Second-year study for voice students in the B.A. program in music or in the music education program. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16VOIC220**Voice Secondary**

Second-year secondary study in voice as required for specific majors.
BoK: FA. Credit Level: U. Credit Hrs: 1.00

16VOIC240**Musical Theater Vocal Study**

Second-year applied music lessons in voice for musical theater majors.
BoK: FA. Credit Level: U. Credit Hrs: 2.00

16VOIC300**Voice Major Study**

Technical requirements: stability and consistent quality in the upper and lower vocal registers. Continuation of more advanced German Lieder and French art songs; appropriate operatic arias; contemporary songs; preparation of an Italian secco recitative. BoK: FA. Credit Level: U. Credit Hrs: 4.00

16VOIC310**Voice Concentration**

Third-year study for voice students in the B.A. program in music or in the music education program. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16VOIC320**Voice Secondary**

Third-year secondary study in voice as required for specific majors.
BoK: FA. Credit Level: U. Credit Hrs: 1.00

16VOIC331**Vocal Repertoire**

Solo song repertoire of European countries, Russia, and the United States from the sixteenth century to the present. Interpretation, style, and program building. Emphasis on performance. BoK: FA. Credit

Voice**16VOIC331****Vocal Repertoire**

Level: U. Credit Hrs: 2.00

16VOIC332**Vocal Repertoire**

Solo song repertoire of European countries, Russia, and the United States from the sixteenth century to the present. Interpretation, style, and program building. Emphasis on performance. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16VOIC333**Vocal Repertoire**

Solo song repertoire of European countries, Russian and the United States from the sixteenth century to the present. Interpretation, style, and program building. Emphasis on performance. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16VOIC340**Musical Theater Vocal Study**

Third-year applied music lessons in voice for musical theater majors.
BoK: FA. Credit Level: U. Credit Hrs: 2.00

16VOIC400**Voice Major Study**

Advanced technical studies; preparation of senior recital. Recital should include representative works from major eras of song literature arranged in approximate chronological order. The senior must also prepare thirty minutes from the following: cantatas, motets and oratorios. BoK: FA. Credit Level: U. Credit Hrs: 4.00

16VOIC410**Voice Concentration**

Fourth-year study for voice students in the B.A. program in music or in the music education program. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16VOIC420**Voice Secondary**

Fourth-year secondary study in voice as required for specific majors.
BoK: FA. Credit Level: U. Credit Hrs: 1.00

16VOIC430**Undergraduate Vocal Coaching**

Individual vocal coaching for undergraduate voice majors with members of the opera/accompanying faculty. BoK: NA. Credit Level: U. Credit Hrs: 1.00-2.00

16VOIC431**Introduction to Opera: Performance Basics**

This class is a prerequisite for 16 VOIC 432 and 433. It is recommended that it be taken in the freshman or sophomore year. The class consists of basic warm-up exercises, movement exercises, gesture, stage basics, master classes, and attention to performance department. The final exam will be an informal class performance. Course can be repeated. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16VOIC432**Introduction to Opera: Opera Production**

Admission to this class is by audition or invitation only. Students selected will perform, prepare, or coordinate the performance for the undergraduate opera project. This course can be repeated. Prereq: 16VOIC431. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16VOIC433**Introduction to Opera: Mainstage Opera Chorus**

Admission to this course is by audition or invitation only. Members will prepare and perform the designated chorus roles in either the Winter or Spring mainstage opera. Students must be available for all technical and performance dates during the quarter in which they are performing as a chorister. This course can be repeated. Prereq: 16VOIC432. BoK: FA. Credit Level: U. Credit Hrs: 2.00

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Voice**16VOIC440****Musical Theater Vocal Study**

Fourth-year applied music lessons in voice for musical theater majors.

BoK: FA. Credit Level: U. Credit Hrs: 1.00-2.00

16VOIC500**Voice Major**

Additional study for undergraduate voice majors who have completed the basic degree requirements; offered for undergraduate and graduate voice majors during the Summer Session. BoK: FA. Credit Level: U, G. Credit Hrs: 4.00

16VOIC510**Voice Concentration**

Additional study in voice for undergraduate students at the concentration level who have completed the basic degree requirements; offered to all concentration level voice students during the Summer Session. BoK: FA. Credit Level: U, G. Credit Hrs: 2.00

16VOIC530**Voice Elective**

Nonrequired private study in voice; requires permission of the department and the college. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00-2.00

16VOIC531**Vocal Pedagogy**

A study of the anatomy and physiology of the vocal organ and its function. Analysis of teaching methods and corrective techniques. Materials for teaching voice. Practice teaching experience. Professional aspects of voice teaching, includes preparation of a dossier. BoK: FA. Credit Level: U, G. Credit Hrs: 2.00

16VOIC532**Vocal Pedagogy**

A study of the anatomy and physiology of the vocal organ and its function. An analysis of teaching methods and corrective techniques. Materials for teaching voice. Practice teaching experience. Professional aspects of voice teaching, includes preparation of a dossier. BoK: FA. Credit Level: U, G. Credit Hrs: 2.00

16VOIC533**Vocal Pedagogy**

A study of the anatomy and physiology of the vocal organ and its function. An analysis of teaching methods and corrective techniques. Materials for teaching voice. Practice teaching experience. Professional aspects of voice teaching, includes preparation of a dossier. BoK: FA. Credit Level: U, G. Credit Hrs: 2.00

16VOIC540**Music Theater Voice Study**

Additional study in voice for undergraduate musical theater majors.

BoK: FA. Credit Level: U, G. Credit Hrs: 2.00

16VOIC541**Oratorio**

A study of style and performance practices of oratorio and cantata. Emphasis on Renaissance and Baroque. Examples from Machaut, Carissimi, Scarlatti, Schutz, Bach, and Handel. BoK: FA. Credit Level: U, G. Credit Hrs: 2.00

16VOIC542**Oratorio**

A study of style and performance practices of oratorio and cantata. Continuation of Baroque, Late Baroque and Romantic. Examples from Haydn, Brahms, Mendelssohn, and Berlioz. BoK: FA. Credit Level: U, G. Credit Hrs: 2.00

16VOIC543**Oratorio**

A study of style and performance practices of oratorio and cantata. Continuation of Romantic and Modern. Examples from Verdi, Honegger, Walton, Orff, and Britten. BoK: FA. Credit Level: U, G. Credit Hrs: 2.00

Voice**16VOIC551****Russian Diction Singers**

Instruction in pronunciation of the Russian language through the Cyrillic alphabet and the International Phonetic Alphabet. BoK: FA. Credit Level: U, G. Credit Hrs: 2.00

16VOIC560**Independent Study**

In-depth study of a topic related to the voice or vocal repertoire, selected by the student in consultation with a number of the faculty. Permission of instructor and Division. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00-12.00

16VOIC600**Lucca: Applied Voice**

Private vocal instruction for the five weeks of the festival in Lucca. A weekly master class is included along with the private voice lesson. BoK: NA. Credit Level: U, G. Credit Hrs: 2.00

16VOIC630**Special Topics Voice**

Topics established every quarter by Department/Division. BoK: FA. Credit Level: U, G. Credit Hrs: 0.00-3.00

16VOIC631**Graduate Italian Diction**

Explanation of the rules governing the proper diction of Italian, with use of the International Phonetic Alphabet. Practical application of diction will be stressed through frequent oral drill. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00

16VOIC632**Graduate German Diction**

Explanation of the rules governing proper diction of German, with use of the International Phonetic Alphabet. Practical application of diction will be stressed through frequent oral drill. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00

16VOIC633**Graduate French Diction**

Explanation of the rules governing the proper diction of French, with use of the International Phonetic Alphabet. Practical application of diction will be stressed through frequent oral drill. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00

16VOIC640**Lucca: Vocal and Dramatic Coaching for Singers**

Instruction and development in vocal/musical style and dramatic presentation through participation in daily coaching, staging, and vocal rehearsals for opera/opera scenes and art song literature/art song presentation for concert performances. BoK: FA. Credit Level: U, G. Credit Hrs: 5.00

16VOIC660**Special Topics in Voice**

Topics established every quarter by Department/Division. BoK: FA. Credit Level: U, G. Credit Hrs: 0.00-6.00

16VOIC800**Voice Graduate Major Study**

For admission, evidence of public performance of a recital equivalent to the senior recital as described above shall be presented. Five representative selections from this recital must be performed with musical accuracy, intelligible diction, and interpretive skill. The voice should be free from strain and technical weakness and demonstrate dynamic variety, flexibility, and purity of vowels. Some speaking ability in Italian, German, or French should be supplemented by dictional skill in the other two. One public recital of varied periods and language, 50-60 minutes in length. Credit Level: G. Credit Hrs: 4.00

16VOIC810**Voice Concentration**

Master's level study for students accepted for a cognate in voice performance. Credit Level: G. Credit Hrs: 2.00

H=University Honors course.

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LT: Literature. NS: Natural Sciences. QR: Quantitative Reasoning. SE: Social & Ethical Issues. SS: Social Sciences.

Voice**16VOIC820****Voice Secondary**

Secondary study in voice for master's degree students. Credit Level: G.
Credit Hrs: 1.00

16VOIC831**Voice Pedagogy**

Advanced study of pedagogical methods and practices. Credit Level: G.
Credit Hrs: 2.00

16VOIC832**Voice Pedagogy**

Advanced study of pedagogical methods and practices. Credit Level: G.
Credit Hrs: 2.00

16VOIC833**Voice Pedagogy**

Advanced study of pedagogical methods and practices. Credit Level: G.
Credit Hrs: 2.00

16VOIC840**Vocal Coaching**

Individualized coaching in repertoire and languages for master's degree students in voice and artist diploma students in opera. Credit Level: G.
Credit Hrs: 1.00-3.00

16VOIC850**Artist Diploma in Voice**

First-year major study in voice for students accepted into the artist diploma program in opera or voice. Credit Level: G. Credit Hrs: 4.00

16VOIC855**Artist Diploma Recital**

Public performance by an artist diploma student in voice of selected compositions; approved and graded by the faculty. Credit Level: G.
Credit Hrs: 2.00

16VOIC880**Master Recital**

Public performance by a master's degree student in voice of selected compositions; approved and graded by the faculty. Credit Level: G.
Credit Hrs: 1.00-2.00

16VOIC895**Practicum**

Practical experience in the professional world. Credit Level: G. Credit Hrs: 1.00

16VOIC899**Master's Candidacy**

Retention of eligibility for graduation. Credit Level: G. Credit Hrs: 1.00

16VOIC900**Voice Doctoral Major Study**

Private study for doctoral students in voice. Preparation of required recitals. Credit Level: G. Credit Hrs: 4.00

16VOIC910**Voice Concentration**

Doctoral-level study for students accepted for a cognate in voice performance. Credit Level: G. Credit Hrs: 2.00

16VOIC920**Voice Secondary**

Secondary study in voice for doctoral level students. Credit Level: G.
Credit Hrs: 1.00

16VOIC930**Voice Elective**

Nonrequired private study in voice for doctoral students; requires permission of the department and the college. Credit Level: G. Credit Hrs: 1.00-2.00

Voice**16VOIC931****Seminar in Vocal Pedagogy**

An extension of Graduate Vocal Pedagogy with in-depth readings from the literature of vocal pedagogy leading to term papers based on the readings. Prereq: 16VOIC831, 16VOIC832, 16VOIC833. Credit Level: G. Credit Hrs: 2.00

16VOIC932**Seminar in Vocal Pedagogy**

An extension of Graduate Vocal Pedagogy with in-depth readings from the literature of vocal pedagogy leading to term papers based on the readings. Prereq: 16VOIC831, 16VOIC832, 16VOIC833. Credit Level: G. Credit Hrs: 2.00

16VOIC933**Seminar in Vocal Pedagogy**

An extension of Graduate Vocal Pedagogy with in-depth readings from the literature of vocal pedagogy leading to term papers based on the readings. Prereq: 16VOIC831, 16VOIC832, 16VOIC833. Credit Level: G. Credit Hrs: 2.00

16VOIC940**Vocal Coaching**

Individualized coaching in repertoire and languages for doctoral students in voice. Credit Level: G. Credit Hrs: 1.00-3.00

16VOIC950**Artist Diploma in Voice**

Second-year major study in voice for students accepted into the artist diploma program in opera or voice. Credit Level: G. Credit Hrs: 4.00

16VOIC960**Opera Performance**

Public performance of a opera role in a main stage production. Credit Level: G. Credit Hrs: 1.00-3.00

16VOIC970**Doctoral Recital**

Public performance by a doctoral student in voice of selected compositions; approved and graded by the faculty. Credit Level: G. Credit Hrs: 3.00

16VOIC980**Lecture Recital**

Combined public lecture and performance of a selected topic in the voice repertoire; approved and graded by the faculty. Credit Level: G. Credit Hrs: 3.00

16VOIC990**DMA Document**

Research and preparation of the final written project for the DMA degree in voice; topic to be approved and supervised by the faculty. Credit Level: G. Credit Hrs: 1.00-15.00

COLLEGE OF DESIGN, ARCHITECTURE, ART, AND PLANNING
COURSE DESCRIPTIONS

(23) College of Design, Architecture, Art and Planning

2008 - 2009

College of Design, Architecture, Art and Planning 1

Architecture

23ARCH202

Architecture Studio 2

Continuing investigation of a variety of architectural design methodologies through a series of design exercises. Prereq: 23SAID201. BoK: FA, SS. Credit Level: U. Credit Hrs: 6.00

23ARCH217

Social Context of Architecture

Assumptions, principles, and applications of social theory in the analysis of architecture. BoK: DC. Credit Level: U. Credit Hrs: 3.00

23ARCH277

Structures Lecture I

Introduction to statically determinant structural systems, structural materials and loads. BoK: QR. Credit Level: U. Credit Hrs: 3.00

23ARCH278

Structures Lecture 2

Analysis and design of beams and frames, introduction to lateral loads and statically indeterminate structures. Prereq: 23ARCH277. BoK: QR. Credit Level: U. Credit Hrs: 3.00

23ARCH301

Architecture Studio 3

This studio exercises fundamental architectural skills and knowledge through the design of a medium-size building. The studio aims to engage students in all aspects of building design, from site reconnaissance and analysis to the formal integration of structural and mechanical considerations. Prereq: 23ARCH202. BoK: FA. Credit Level: U. Credit Hrs: 6.00

23ARCH307

Computer Theory

Exploration of the impact of computer technology on architecture, including exposure to various computer programs. Prereq: 23SAID294. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23ARCH311

Architecture Theory Studio -- Rhythm

This studio is focused on the exploration of a number of formal variables which are frequently manipulated in architectural expression, particularly rhythm, sequence, and scale. Prereq: 23ARCH301. BoK: FA. Credit Level: U. Credit Hrs: 4.00

23ARCH312

Architecture Theory Studio -- Symbols

An exploration into the potential for symbolic expression of architectural form. Prereq: 23ARCH301. BoK: FA. Credit Level: U. Credit Hrs: 4.00

23ARCH313

Architecture Theory Studio -- Geometry

The study of various geometric aspects as they influence architectural form. Prereq: 23ARCH301. BoK: FA. Credit Level: U. Credit Hrs: 4.00

23ARCH314

Architecture Theory Seminar -- Formalism

The history and theory of formal concepts; exploration of the history of theories, techniques and works of architecture which have as their primary concern the production of visually pleasing and/or significant form. BoK: HU. Credit Level: U. Credit Hrs: 3.00

23ARCH315

Theory Lab Seminar: Geometry

The study of various geometric aspects as they influence architectural form. BoK: HU. Credit Level: U. Credit Hrs: 3.00

23ARCH316

Architecture Theory Seminar -- Utopia

Exploration of the literature and philosophy of utopian concepts and the development of models for their analysis and comparison. BoK: HU.

Architecture

23ARCH316

Architecture Theory Seminar -- Utopia

Credit Level: U. Credit Hrs: 3.00

23ARCH317

History/Theory/Criticism: Beginnings of Modern Architectural Theory

A critical interpretation of the foundations of modern architectural theory from a European perspective through direct encounters with primary theoretical texts. Prereq: 23ARCH217. BoK: HU. Credit Level: U. Credit Hrs: 3.00

23ARCH317H

History/Theory/Criticism: Beginnings of Modern Architectural Theory

A critical interpretation of the foundations of modern architectural theory from a European perspective through direct encounters with primary theoretical texts. Prereq: 23ARCH217. BoK: HU. Credit Level: U. Credit Hrs: 3.00

23ARCH318

Architecture Theory Lecture: Architecture and Philosophy

Examination of architecture from the points of view of the traditional disciplines of philosophy: ethics, aesthetics, epistemology, ontology, etc. BoK: HU. Credit Level: U. Credit Hrs: 3.00

23ARCH321

Architectural History Studio: Preservation

Application of theory and methodology of historic preservation to adaptive use of historic buildings. BoK: FA. Credit Level: U. Credit Hrs: 4.00

23ARCH322

Architectural History Studio: Restoration

Application of theory and methodology of historic preservation to the restoration of historic buildings. Prereq: 23ARCH202. BoK: FA. Credit Level: U. Credit Hrs: 4.00

23ARCH323

Architectural History Studio: Detail

This studio takes up the detail as the locus of architectural production and tests the extent to which the seams of construction give rise to ornamental possibilities. Prereq: 23ARCH202. BoK: FA. Credit Level: U. Credit Hrs: 4.00

23ARCH324

Architectural History Seminar: Ornament

This seminar investigates the status of detail and ornament in contemporary practices through the study of selected topics in art, architecture, and literature. The course takes up the detail as the site of ornamental possibilities and explores it as the locus of architectural production. BoK: HU. Credit Level: U. Credit Hrs: 3.00

23ARCH325

Architectural History Seminar: Precedents

An investigation into the means by which previous works of architecture can be selected, interpreted, and transformed as part of the design process. BoK: HU. Credit Level: U. Credit Hrs: 3.00

23ARCH326

Architectural History Seminar: Palladio, Writing the Villa

Investigation of Palladio's theory of architecture, with particular emphasis on the domestic life of the villa. BoK: HU. Credit Level: U. Credit Hrs: 3.00

23ARCH327

History/Theory/Criticism: Critiques of Modern Architecture

Historical analysis of developments in American, European, and Japanese architecture since the cultural upheavals of the 1960s.

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Architecture**23ARCH327****History/Theory/Criticism: Critiques of Modern Architecture**

Emphasis is given to individuals, ideas, movements, and works within their cultural, political, and artistic contexts. BoK: HP. Credit Level: U. Credit Hrs: 3.00

23ARCH327H**History/Theory/Criticism: Critiques of Modern Architecture**

Historical analysis of developments in American, European, and Japanese architecture since the cultural upheavals of the 1960s. Emphasis is given to individuals, ideas, movements, and works within their cultural, political, and artistic contexts. BoK: HP. Credit Level: U. Credit Hrs: 3.00

23ARCH328**Architectural History Seminar: Mannerism**

An exploration of the primary themes of sixteenth century Italian architecture and their importance to the contemporary scene. BoK: HU. Credit Level: U. Credit Hrs: 3.00

23ARCH331**Professional Practice Design Lab**

The exploration of selected architectural issues through the design of a building. Prereq: 23ARCH202. BoK: FA. Credit Level: U. Credit Hrs: 4.00

23ARCH332**Professional Role Studio: Client**

Individual participation in architectural problem-solving situation dealing with constraints of building design, site, and client. Prereq: 23ARCH202. BoK: FA. Credit Level: U. Credit Hrs: 4.00

23ARCH333**Competition Studio: Lyceum**

This studio aims to use design to create and sustain a critical dialogue that vigorously questions the premises of one or two competition programs. Prereq: 23ARCH301. BoK: FA. Credit Level: U. Credit Hrs: 4.00

23ARCH338**Professional Role Seminar**

Specific topics on the management of an architectural practice. Emphasis on working with architectural firms and their clients. Prereq: 23ARCH202. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23ARCH347**Urban and Cultural Landscapes in America**

This course surveys and interprets the evolution of America's everyday rural and urban landscapes: settlements, highways, farms, factories, stores, cemeteries, city districts and entertainment areas. It encourages students to read the landscape as a record of planning proposals, a reflection of past and present social needs, and technological interventions, all of which have left their imprint on the site. Prereq: 23ARCH202. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23ARCH351**Landscape Studio: Site Design**

Problems emphasizing ways the natural landscape patterns influence proposed building programs: design, development, and detail in circulation, layout, grading-drainage, lighting, and site furnishing. BoK: FA. Credit Level: U. Credit Hrs: 4.00

23ARCH352**Landscape Studio: Ecology**

The exploration of issues of site and building ecology and land use through the design of an architectural project. Prereq: 23ARCH202. BoK: FA. Credit Level: U. Credit Hrs: 4.00

23ARCH354**Landscape Lecture: Site Systems**

Study of natural and artificial systems which influence site planning, design, and development: landforms, earthwork, circulation, universal design, and landscape materials including plants, pavement, water, and site furnishings. BoK: QR. Credit Level: U. Credit Hrs: 3.00

Architecture**23ARCH355****Landscape Seminar: Land Development**

An overview of the land development process, including feasibility and site analysis studies, phases of design and development, traditional and regenerative land uses, land use zoning, regulations, and ordinances, public participation, and design team collaboration. BoK: SE. Credit Level: U. Credit Hrs: 3.00

23ARCH356**Landscape Seminar: Sustainable Development**

This seminar explores the relationship between global environmental issues and the theory and practice of architecture to provide a better understanding of what is architectural about sustainable development. The emphasis is on establishing a basis for effective decision-making in both the design and construction phases of development that is responsive to an ecologically based value system, is consistent with sustainable development, and generates value. BoK: SE., SS. Credit Level: U. Credit Hrs: 3.00

23ARCH357**Site Systems**

An overview of land systems, including stormwater management, vehicular and pedestrian circulation, and sustainable strategies for land development. Prereq: 23ARCH202. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23ARCH371**Structures Studio: Wood Detailing**

Design implications of wood as a structural system. Prereq: 23ARCH301. BoK: FA. Credit Level: U. Credit Hrs: 4.00

23ARCH372**Structures Studio: Analysis**

Individual design problems involving unusual structural problems and/or systems. Prereq: 23ARCH202. BoK: FA. Credit Level: U. Credit Hrs: 4.00

23ARCH377**Structures Lecture 3**

Indeterminate structures, reinforced concrete structural systems, planar structures, wind and seismic loads. Prereq: 23ARCH278. BoK: QR. Credit Level: U. Credit Hrs: 3.00

23ARCH381**Construction Studio: Digital**

This studio uses sophisticated computer-aided design tools to investigate and propose design solutions. Prereq: 23ARCH202. BoK: FA. Credit Level: U. Credit Hrs: 4.00

23ARCH384**Construction Seminar -- Skyscraper**

Investigation of specific issues in high-rise construction practice. Prereq: 23SAID268. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23ARCH385**Construction Seminar -- Digital Investigations**

The development and use of sophisticated computer-aided design tools and the Component-Based Paradigm (a product-level approach) for building design and construction. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23ARCH387**Environmental Technology 3**

Introduction to communication systems, electrical systems, plumbing systems, movement systems, and fire and health safety used to service the built environment. Prereq: 23SAID288. BoK: NS. Credit Level: U. Credit Hrs: 3.00

23ARCH390**Independent Studies**

Individual study in collaboration with a faculty member on a subject or in a manner beyond that which is available within the curriculum. Prereq.: 2.5 cumulative GPA; instructor's approval, adviser's approval, and the Department Student Advisory Committee's approval of a written

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Architecture**23ARCH390****Independent Studies**

proposal submitted the quarter before beginning of the intended quarter of study. BoK: NA. Credit Level: U. Credit Hrs: 1.00-3.00

23ARCH406**Computer Seminar -- Computer-Aided Design**

Development of computer capabilities for use in architecture. BoK: NS. Credit Level: U. Credit Hrs: 3.00

23ARCH411**Architecture Theory Studio -- Value**

Concern for the possibility of value in architecture; investigation of cultural traditions, architectural values and modes of value evocation. Prereq: 23ARCH202. BoK: FA. Credit Level: U. Credit Hrs: 4.00

23ARCH412**Architecture Theory Studio -- Visiting Professor**

An investigation of architectural design focusing on the unique theoretical perspectives of a Visiting Professor. Prereq: 23ARCH202. BoK: FA. Credit Level: U. Credit Hrs: 4.00

23ARCH413**Architecture Design Studio**

Advanced studies in Basic Design. Prereq: 23ARCH202. BoK: FA. Credit Level: U. Credit Hrs: 4.00

23ARCH417**History/Theory/Criticism: Beginnings of Modern Architectural Theory**

A critical interpretation of the foundations of modern architectural theory from a European perspective through direct encounters with primary theoretical texts. Prereq: 23ARCH217. BoK: HU. Credit Level: U. Credit Hrs: 3.00

23ARCH417H**History/Theory/Criticism: Beginnings of Modern Architectural Theory**

A critical interpretation of the foundations of modern architectural theory from a European perspective through direct encounters with primary theoretical texts. Prereq: 23ARCH217. BoK: HU. Credit Level: U. Credit Hrs: 3.00

23ARCH422**Architectural History Studio: Typology**

The selection of precedents according to type, place, or principle; the role of influence and transformation in the design process, and the prospects for a connective or rooted architecture in our times. Prereq: 23ARCH202. BoK: FA, HP. Credit Level: U. Credit Hrs: 4.00

23ARCH427**History of the Skyscraper**

Historical survey of the evolution of the American skyscraper from the Civil War to the present. BoK: FA., HP. Credit Level: U. Credit Hrs: 3.00

23ARCH427H**History/Theory/Criticism: Critiques of Modern Architecture**

Historical analysis of developments in American, European, and Japanese architecture since the cultural upheavals of the 1960s. Emphasis is given to individuals, ideas, movements, and works within their cultural, political, and artistic contexts. Prereq: 23SAID229. BoK: HP. Credit Level: U. Credit Hrs: 3.00

23ARCH434**Professional Role Seminar: Real Estate**

The examination of the role of the architect and the creation of economic value in an uncertain environment in the context of real estate development projects. BoK: QR. Credit Level: U. Credit Hrs: 3.00

23ARCH453**Urban Design Studio**

Consideration of urban design issues on the development of architecture. Prereq: 23ARCH202. BoK: FA, SS. Credit Level: U. Credit Hrs: 4.00

Architecture**23ARCH456****Urban Design Seminar**

Analysis of elements that contribute to the urban form of a specific town or city. Introduction to various methods of urban analysis, 3-D modeling of elements relevant to morphological and social changes in a limited study area over time using a Macintosh/Modelshop creation of an urban simulation. BoK: SE., SS. Credit Level: U. Credit Hrs: 3.00

23ARCH463**Environmental Technology Studio -- Lighting**

Exploration of the influence of interior and exterior lighting on architectural design. Prereq: 23ARCH202. BoK: FA. Credit Level: U. Credit Hrs: 4.00

23ARCH465**Environmental Technology Seminar -- ECS**

Engineering design of the environmental systems of small buildings. Hands-on experience in heat loss, heat gain, plumbing, lighting/electric power distribution of single family dwelling. Includes duct and pipe sizing, diffuser selections, calculation of furnace/fan/pump sizes. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23ARCH466**Environmental Technology Seminar -- Lighting**

Study of natural and artificial, interior and exterior lighting in architecture. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23ARCH467**Construction 3**

Construction process: structure of the industry; construction economies; systems and industrialization; contractual and delivery strategies; construction sequence. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23ARCH471**Structures Studio -- Advanced Structures**

Individual design problems involving unusual structural problems and/or systems. Prereq: 23ARCH202. BoK: FA, QR. Credit Level: U. Credit Hrs: 4.00

23ARCH475**Structures Seminar -- Structural Basis of Architecture**

Investigation of structural principles through the detailed analysis of a historic structure. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23ARCH484**Structures Seminar -- Building Envelope Durability**

This course develops students' understanding of how building walls function and fail. BoK: NS. Credit Level: U. Credit Hrs: 3.00

23ARCH490**Independent Studies**

Individual study in collaboration with a faculty member on a subject or in a manner beyond that which is available within the curriculum. Written proposals should be submitted the quarter before the beginning of the intended quarter of study. BoK: NA. Credit Level: U. Credit Hrs: 1.00-3.00

23ARCH507**Post-Baccalaureate Accelerated Studio**

This rigorous, daylong immersion studio introduces students new to the study of architecture to its basic principles, techniques, and critical vocabulary. Students proceed from fundamental two- and three-dimensional composition to complex building design and representation. BoK: FA. Credit Level: U. Credit Hrs: 9.00

23ARCH508**Post-Baccalaureate Accelerated Skills**

This lab, which supplements the Post-Baccalaureate Accelerated Studio, introduces students new to the study of architecture to principles of graphic representation including, but not limited to, line weight and contour, figure/ground analysis, diagramming, sketch notation, ideation, rendering, orthographic drawings, basic principles of light and color, spatial rendering, and perspective delineation. BoK: FA. Credit Level: U. Credit Hrs: 6.00

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Architecture**23ARCH516****Architectural Theory Seminar -- Understanding Pueblo Architecture**

This interdisciplinary seminar focuses on the ways of studying the history, forms, and current situations of Pueblo settlements in the southwestern United States. BoK: DC. Credit Level: U. Credit Hrs: 3.00

23ARCH534**Professional Role Seminar -- Case Studies**

Investigation through case studies of architectural development, professional practice, and legal responsibility. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

23ARCH541**Portsmouth Exchange**

Course for students from Portsmouth Polytechnic in England and/or Potsdam University on campus as participants in exchange program. BoK: DC. Credit Level: U. Credit Hrs: 15.00

23ARCH542**Portsmouth Exchange**

Course for students from Portsmouth Polytechnic and/or Potsdam University on campus as participants in exchange programs. BoK: DC. Credit Level: U. Credit Hrs: 15.00

23ARCH543**Portsmouth Exchange**

Course for students from Portsmouth Polytechnic in England and/or Potsdam University in Germany on campus as participants of exchange program. BoK: DC. Credit Level: U. Credit Hrs: 15.00

23ARCH544**Cultural Approaches to Architecture**

This interdisciplinary seminar course will explore research findings in cultural history, ethnography, cultural geography, and cultural and applied anthropology which touch and illuminate architecture. BoK: SE. Credit Level: U, G. Credit Hrs: 3.00

23ARCH546**Architecture Theory Seminar: Place and Dwelling**

This interdisciplinary seminar focuses on the complex relationships between the activities and psychological dimensions of dwelling and the physical spaces and representational images which serve them. Prereq: 23SAID201. BoK: SE. Credit Level: U, G. Credit Hrs: 3.00

23ARCH547**Universal Design**

Universal design is inclusive, non-discriminatory design of products, rooms, buildings, public spaces and transportation systems which can be used by all people. Literature assessments, experiential learning, and field research-based research methods form the core of the course. Perm of Instructor. BoK: SS, SE. Credit Level: U, G. Credit Hrs: 3.00

23ARCH548**Building Evaluation**

To provide an overview of building evaluation approaches, especially post-occupancy evaluation and design review; to conduct a detailed building evaluation project on a major building with a real client. Open to nonmajors with perm. of instr. BoK: SE., SS. Credit Level: U, G. Credit Hrs: 3.00

23ARCH590**Independent Studies**

Individual study in collaboration with a faculty member on a subject or in a manner beyond that which is available within the curriculum. Written proposals should be submitted the quarter before the beginning of the intended quarter of study. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-3.00

23ARCH601**Structure/Environment/Construction Studio One**

The first half of a two-quarter design studio experience that integrates structures, environmental technology, and construction in a comprehensive architectural design project. BoK: NA. Credit Level: U,

Architecture**23ARCH601****Structure/Environment/Construction Studio One**

G. Credit Hrs: 6.00

23ARCH602**Structure/Environment/Construction Studio Two**

The second half of a two-quarter design studio experience that integrates structures, environmental technology, and construction in a comprehensive architectural design project. Prereq: 23ARCH601. BoK: NA. Credit Level: U, G. Credit Hrs: 6.00

23ARCH604**Environmental Studies Seminar -- Senior Mentor**

Further investigations of the relationship between the physical environment and humankind through discussions and leading of field trips and seminars for freshman students. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

23ARCH605**Environmental Studies Seminar -- Senior Mentor**

Further investigations of man-environment relation through discussions and leading of seminars for freshman students. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

23ARCH614**Senior Seminar I**

Analysis of personal prejudice, theory, precept, philosophy of significant architects, Richardson to contemporary architects. Study of personalities and their individual contributions, noting influences exerted by other architects and circumstances peculiar to their times. BoK: HP. Credit Level: U, G. Credit Hrs: 3.00

23ARCH615**Senior Seminar II**

Analysis of personal prejudice, theory, precept, philosophy of significant architects--Richardson to contemporary architects--through the use of field trips to nearby buildings in the tri-state. Prereq: 23ARCH614. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

23ARCH617**History/Theory/Criticism: Beginnings of Modern Architectural Theory**

A critical interpretation of the foundations of modern architectural theory from a European perspective through direct encounters with primary theoretical texts. Prereq: 23ARCH217. BoK: HU. Credit Level: U, G. Credit Hrs: 3.00

23ARCH625**Techniques of Historic Preservation**

Historic research methodology, historic resource survey techniques, and historic structures restoration practices. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

23ARCH627**History/Theory/Criticism: Critiques of Modern Architecture**

Historical analysis of developments in American, European, and Japanese architecture since the cultural upheavals of the 1960s. Emphasis is given to individuals, ideas, movements, and works within their cultural, political, and artistic contexts. Prereq: 23ARCH301. BoK: HP. Credit Level: U, G. Credit Hrs: 3.00

23ARCH628**Historic Preservation Lecture**

The philosophy and methodology of historic preservation: architectural, historic, economic, social and political dimensions. The impact of preservation on the community. BoK: HP. Credit Level: U, G. Credit Hrs: 3.00

23ARCH637**Professional Practice Lecture**

Professional and business factors relating to the practice of architecture. Prereq: 23ARCH301. BoK: SE. Credit Level: U, G. Credit Hrs: 3.00

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Architecture**23ARCH667****Structure/Environment/Construction Technology 1**

In-depth study of issues pertaining to structures, environmental systems, and construction as they relate to the sequence in SEC Studio 1. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

23ARCH668**Structure/Environment/Construction Technology 2**

In-depth study of issues pertaining to structures, environmental systems, and construction as they relate to the sequence of SEC Studio 2. Prereq: 23ARCH601, 23ARCH667. Coreq: 23ARCH602. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

23ARCH677**Structures 4**

Analysis and design of wood, steel, and masonry structural systems. Prereq: 23ARCH377. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

23ARCH690**Independent Study**

A graduate and/or undergraduate level pass/fail independent study course. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

23ARCH701**Studies in Architecture**

Independent studies in architectural or related research. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-9.00

23ARCH702**Studies in Architecture**

Independent studies in architectural or related research. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-9.00

23ARCH703**Studies in Architecture**

Independent studies in architectural or related research. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-9.00

23ARCH705**Seminar in Theory of Architecture**

Introduction to the theoretical discourse of architecture. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

23ARCH706**Seminar in Theory of Architecture**

Consideration of architectural understanding through the investigation of philosophical thinking and processes. Prereq: 23ARCH705. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

23ARCH710**Thesis Research**

Introduction to thesis research methods, including literature analysis and the writing of abstracts, research proposals, and reports. Introduction to applied research methods commonly used in studying the interaction between the designed/built environment and the users of that environment to prepare Master of Architecture students for E-coop research projects and case studies. Perm of Department. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

23ARCH715**Introduction to Research Methods**

Introduction to various models of research methods with application to architectural and related research. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

23ARCH501**Pre-Texts for Architecture**

This foundation design lab exposes students to architecture's pre-texts that include literary narratives, film, ritual and cultural contexts as a bridge between diverse intellectual territories and architecture. This course introduces a selection of seminal modern and contemporary architectural buildings and their intellectual and formal situation/context as pre-texts and design paradigms. This course will cultivate connections between diverse bodies of information, and the ability to posit consequential relationships for the production of architecture. This

Architecture**23ARCH501****Pre-Texts for Architecture**

course seeks to cultivate a vision for architecture that sponsors operative links between the discipline of architecture and disciplines outside of architecture. Lectures, research, are followed with graphic communication to posit and test the efficacy of ideas and information. Credit Level: G. Credit Hrs: 4.00

23ARCH502**Graduate Studio: Order and Tectonics in Architecture**

This foundation studio marries organizational logics to tectonic culture as the starting point for architectural form vocabulary. The tectonic is proposed as an organizational order that stems directly from construction to include material, structural, and technical principles. This will be addressed on several scales, and in a conceptual manner. Selected texts and discussion accompany and inform the design work. This studio is structured for collaboration with the skills and history courses Prereq: 23ARCH501. Coreq: 23ARCH512, 23ARCH527. Credit Level: G. Credit Hrs: 6.00

23ARCH503**Graduate Studio: The Civic Realm and the Context of Public Space**

In this discipline-focused studio, students gain experience with the architecture of buildings and the traditional core competencies including the instruments of proportion, organization, programming, structure and tectonics. The complexity of an institution's program (20-60,000 sf) is tempered and focused by spatial structures (architectural promenade), the development of a good interior public room, technological imperatives, culture and context. Structural and environmental technologies play a significant role. This studio is structured for collaboration with the history and technology classes, thus creating an integrative studio experience. Prereq: 23ARCH502. Coreq: 23ARCH528, 23ARCH268, 23ARCH277. Credit Level: G. Credit Hrs: 6.00

23ARCH504**Graduate Studio: Housing and Community**

In this discipline-focused studio students gain experience with the architecture of buildings and the traditional core competencies including the instruments of proportion, organization, programming, structure and tectonics. The socio-cultural context is an essential pre-text to housing and has defined the rich and varied history of housing developments in America and Europe. The studio will consider multiple-unit housing on an urban site that responds to a strong cultural context. Research and analysis will form a basis for the studio. This studio is structured for collaboration with the history and technology classes, thus creating an integrative studio experience. Prereq: 23ARCH503. Credit Level: G. Credit Hrs: 6.00

23ARCH511**Architecture Design Communication**

This foundation design lab introduces two-dimensional and three-dimensional representation skills that facilitate the exploration and generation of design intention. Digital and analog drawings and models are tools for the conception and development of design, and not just an illustration or confirmation of a design conclusion. Students are introduced to the dynamics of, and differences between diagramming, iteration, indexing, and collage as instrumental processes of design intelligence. This course introduces adobe illustrator, and photoshop and other digital applications that support the activities of the summer. This course collaborates with the Pre-tests course and the Tectonics course. Credit Level: G. Credit Hrs: 4.00

23ARCH512**Graduate Representation Skills and Composition**

This course will explore the methods, techniques, tools, and critical principles of graphic representation in architecture and interior design, with special emphasis on drawing, diagramming, modeling, and one- and two-point perspective, developed and applied in the context of varied graphic media and digital software. The course is structured to work in close collaboration with the studio. Prereq: 23ARCH501. Credit

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Architecture**23ARCH512****Graduate Representation Skills and Composition**

Level: G. Credit Hrs: 3.00

23ARCH527**History/Theory/Criticism: Architecture and Its History**

An introduction to works of architecture and their role in establishing formal-spatial order and social-cultural meaning, and to the enduring capacity of past works (precedents) to influence later generations, later designers, and the discipline as a whole. Works and places from antiquity and the middle ages, worldwide, are featured, along with a selection of exemplary contemporary designs illustrating current movements. Credit Level: G. Credit Hrs: 3.00

23ARCH528**History/Theory/Criticism: The Classical Tradition and Its Legacies**

A review of key, influential architectural movements, works, and texts, from the Renaissance through the nineteenth century. Emphasis is given to the formal, social, and urbanistic implications of design, the understanding of architecture and a disciplined "language" that structures ideas at all levels from the city to the detail. Credit Level: G. Credit Hrs: 3.00

23ARCH529**History/Theory/Criticism: Modern Architecture**

A review of key, influential architectural movements, works, and texts from the mid-19th century to the 1960s. Emphasis is given to the mainstream of the Modern movement and its relationship to the changing social, cultural, and political context of the industrializing West. Credit Level: G. Credit Hrs: 3.00

23ARCH567**Introduction to Issues in Technology**

A study of issues pertaining to the phenomena of, and potent dependent relationships among, climate, construction, structures and environmental systems in architecture. Case-study research and site visits, along with class lectures characterize this course. Perm of Department. Credit Level: G. Credit Hrs: 3.00

23ARCH591**Graduate Accelerated Computer Skills**

This lab focuses on digital applications and the skills needed to facilitate the exploration and generation of design intention. Digital applications are tools for the conception and development of design, and not just illustration and confirmation of a design conclusion. Students will use the Adobe suite as well as three-dimensional modeling when appropriate. This course is structured to work in close collaboration with the studio. Coreq: 23ARCH501, 23ARCH511. Credit Level: G. Credit Hrs: 3.00

23ARCH704**Seminar in Theory of Architecture**

Introduction to the theoretical discourse of architecture. Credit Level: G. Credit Hrs: 3.00

23ARCH707**Graduate Accelerated Studio**

This rigorous, daylong immersion studio introduces students new to the study of architecture to its basic principles, techniques, and critical vocabulary. Students proceed from fundamental two- and three-dimensional composition to complex building design and representation. Credit Level: G. Credit Hrs: 9.00

23ARCH708**Graduate Accelerated Skills**

This lab, which supplements to Graduate Accelerated Studio, introduces students new to the study of architecture to principles of graphic representation including, but not limited to, line weight and contour, figure/ground analysis, diagramming, sketch notation, ideation, rendering orthographic drawings, basic principles of light and color, spatial rendering, and perspective delineation. Coreq: 23ARCH707. Credit Level: G. Credit Hrs: 6.00

Architecture**23ARCH713****Graduate Elective Studio**

This elective studio will offer an intense exploration of issues related to particular areas of concentration within the graduate curriculum. Students will undertake projects related to buildings and technology, interior environments, building economics and professional practice, urban environments, preservation, and combinations of these. Credit Level: G. Credit Hrs: 6.00

23ARCH714**Postmodern Aesthetics**

This seminar introduces Heidegger's deconstruction of the aesthetic tradition as a point of departure in the formulation of a non-frivolous account of postmodern culture, with particular regard to art and architecture. Credit Level: G. Credit Hrs: 3.00

23ARCH716**Contemporary Architectural Theory**

Advanced, critical review of the basic issues in architectural discourse, with emphasis on the aims, methods, and contexts of theoretical understanding in general and in our disciplines. Such fundamental notions as historicity, analogy, ethics, aesthetics, artistic engagement, urbanism, utility, and the life-world are introduced through critical readings of leading theoretical scholars of the past quarter century. Perm of Department. Credit Level: G. Credit Hrs: 3.00

23ARCH717**Pre-thesis Research**

Analysis of literary sources as a means to architectural research and interpretation. Credit Level: G. Credit Hrs: 3.00

23ARCH718**Special Topics in Architectural Theory**

This elective seminar will offer selected readings related to special topics in architectural theory. Students will undertake the production of writing and research related to the course topic. Credit Level: G. Credit Hrs: 3.00

23ARCH719**Special Topics in Architectural Representation**

This elective seminar will offer selected readings related to architectural representation. Students will undertake the production of writing and research related to the course topic. Perm of Department. Credit Level: G. Credit Hrs: 3.00

23ARCH723**Graduate Elective Studio**

This elective studio will offer an intense exploration of issues related to particular areas of concentration within the graduate curriculum. Students will undertake projects related to buildings and technology, interior environments, building economics and professional practice, urban environments, preservation, and combinations of these. Credit Level: G. Credit Hrs: 6.00

23ARCH725**Graduate Topic Seminar**

This elective course will offer selected readings related to particular areas of concentration within the graduate curriculum. Students will undertake the production of writing and research related to buildings and technology, interior environments, building economics and professional practice, urban environments, preservation, and combinations of these. Credit Level: G. Credit Hrs: 3.00

23ARCH727**History/Theory/Criticism: Contemporary Theory and History**

A review of the continuation of the modern movement in the last forty years, and of the critiques of the same. The diverse strands of architectural production of the last two generations are examined in light of the prevailing post-modern cultural mindset and challenging social, economic, and environmental conditions. Perm of Department. Credit Level: G. Credit Hrs: 3.00

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Architecture**23ARCH728****Mannerism Seminar**

An exploration of the primary themes of sixteenth century Italian architecture and their importance to the contemporary scene. Credit Level: G. Credit Hrs: 3.00

23ARCH734**eCoop Seminar 1**

This course introduces the case study research method as a form of critical engagement with issues in professional practice. Students use historical examples to develop their own research itineraries in advance of their two-quarter graduate co-op placements. In consultation with academic and professional practice faculty, students formulate projects that situate their research within the general requirements and activities of particular firms and practices. Credit Level: G. Credit Hrs: 3.00

23ARCH735**eCoop Seminar 2**

Students returning from their two-quarter graduate co-op experiences present and discuss the results of research projects developed in cooperation with faculty advisors, professional practice faculty, and employers. Students then produce final research documents for inclusion in the case study library of the Center for the Study of Practice. Credit Level: G. Credit Hrs: 3.00

23ARCH736**Special Topics in Professional Practice**

This elective seminar will offer selected readings related to professional practice. Students will undertake the production of writing and research related to the course topic. Credit Level: G. Credit Hrs: 3.00

23ARCH738**Introduction to Programming**

Introduction to the methods used for programming as a part of the pre-design process phase of any design project. This course will support the development of thesis projects. Perm of Department. Credit Level: G. Credit Hrs: 3.00

23ARCH739**Special Topics in Interior Design**

This elective seminar will offer selected readings related to special topics in interior design. Students will undertake the production of writing and research related to the course topic. Perm of Department. Credit Level: G. Credit Hrs: 3.00

23ARCH743**Graduate Elective Studio**

This elective studio will offer an intense exploration of issues related to particular areas of concentration within the graduate curriculum. Students will undertake projects related to buildings and technology, interior environments, building economics and professional practice, urban environments, preservation, and combinations of these. Credit Level: G. Credit Hrs: 6.00

23ARCH744**Special Topics in Urban Design**

This elective seminar will offer selected readings related to urban design. Students will undertake the production of writing and research related to the course topic. Credit Level: G. Credit Hrs: 3.00

23ARCH745**Graduate Topic Seminar**

This elective course will offer selected readings related to particular areas of concentration within the graduate curriculum. Students will undertake the production of writing and research related to buildings and technology, interior environments, building economics and professional practice, urban environments, preservation, and combinations of these. Credit Level: G. Credit Hrs: 3.00

23ARCH749**House and Home**

This interdisciplinary course focuses on the complex relationships between the activities and psychological dimensions of dwelling and the physical spaces and representational images which serve them. Credit

Architecture**23ARCH749****House and Home**

Level: G. Credit Hrs: 3.00

23ARCH753**Graduate Elective Studio**

This elective studio will offer an intense exploration of issues related to particular areas of concentration within the graduate curriculum. Students will undertake projects related to buildings and technology, interior environments, building economics and professional practice, urban environments, preservation, and combinations of these. Credit Level: G. Credit Hrs: 6.00

23ARCH754**Special Topics in Landscape Architecture**

This elective seminar will offer selected readings related to landscape architecture. Students will undertake the production of writing and research related to the course topic. Credit Level: G. Credit Hrs: 3.00

23ARCH755**Graduate Topic Seminar**

This elective seminar will offer selected readings related to particular areas of concentration within the graduate curriculum. Students will undertake the production of writing and research related to buildings and technology, interior environments, building economics and professional practice, urban environments, preservation, and combinations of these. Credit Level: G. Credit Hrs: 3.00

23ARCH763**Graduate Elective Studio**

This elective studio will offer an intense exploration of issues related to particular areas of concentration within the graduate curriculum. Students will undertake projects related to buildings and technology, interior environments, building economics and professional practice, urban environments, preservation, and combinations of these. Credit Level: G. Credit Hrs: 6.00

23ARCH764**Special Topics in Building Construction**

This elective seminar will offer selected readings related to building construction and details. Students will undertake the production of writing and research related to the course topic. Credit Level: G. Credit Hrs: 3.00

23ARCH767**Contemporary Construction**

This lecture course undertakes the comprehensive study of issues related to the design and production of the building enclosure. Students will examine the interdependency among aesthetic, technical, material, and economic aspects of a given design condition. Special attention is given to case study presentations of failures in varieties of building envelope systems and their causes. Credit Level: G. Credit Hrs: 3.00

23ARCH773**Graduate Elective Studio**

This elective studio will offer an intense exploration of issues related to particular areas of concentration within the graduate curriculum. Students will undertake projects related to buildings and technology, interior environments, building economics and professional practice, urban environments, preservation, and combinations of these. Credit Level: G. Credit Hrs: 6.00

23ARCH774**Special Topics in Architectural Structures**

This elective seminar will offer selected readings related to structural systems and architectural engineering. Students will undertake the production of writing and research related to the course topic. Credit Level: G. Credit Hrs: 3.00

23ARCH784**Special Topics in Environmental Technology**

This elective seminar will offer selected readings related to environmental technology. Students will undertake the production of

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Architecture**23ARCH784****Special Topics in Environmental Technology**

writing and research related to the course topic. Credit Level: G. Credit Hrs: 3.00

23ARCH787**Contemporary Environmental Technologies**

This course undertakes the comprehensive study of issues related to the design of buildings in relation to environmental systems. Students will examine the interdependency among the economic, aesthetic, technical, material, and energy aspects of a given design situation. Perm of Department. Credit Level: G. Credit Hrs: 3.00

23ARCH790**Independent Study**

Individual study in collaboration with a faculty member on a subject or in a manner beyond that which is available within the curriculum. Perm of Department. Credit Level: G. Credit Hrs: 1.00-5.00

23ARCH791**Accelerated Computer Skills**

Introductory course in computer graphics for Master of Architecture students entering with a non-design undergraduate degree. Topics include graphic layout, two- and three-dimensional representation, and web design. Credit Level: G. Credit Hrs: 3.00

23ARCH794**Special Topics in Digital Media**

This elective seminar will offer selected readings related to computer applications and advanced digital media. Students will undertake the production of writing and research related to the course topic. Credit Level: G. Credit Hrs: 3.00

23ARCH800**Graduate Option Quarter**

A non-credit, pass/fail course used for tracking graduate students who are off campus on during the required Option Quarter. Credit Level: G. Credit Hrs: 0.00

23ARCH805**Design Theory Seminar**

Close readings of the major treatises of architectural theory of the modern period. Credit Level: G. Credit Hrs: 3.00

23ARCH806**Design Theory Seminar**

Consideration of issues of form, method, technology, and design since 1960. Credit Level: G. Credit Hrs: 3.00

23ARCH814**Thesis Colloquium**

The thesis colloquium provides a disciplined setting for the formal presentation and discussion of works in progress by members of the thesis studio, with special emphasis on the theoretical and critical context of the work. Weekly, public presentations, in conformance with criteria for presentation established by the graduate faculty, will be followed by questions and discussion aimed at supporting the development and progress of individual projects. Coreq: 23ARCH801. Credit Level: G. Credit Hrs: 3.00

23ARCH815**Thesis Colloquium**

The thesis colloquium provides a disciplined setting for the formal presentation and discussion of works in progress by members of the thesis studio, with special emphasis on the theoretical and critical context of the work. Weekly, public presentations, in conformance with criteria for presentation established by the graduate faculty, will be followed by questions and discussion aimed at supporting the development and progress of individual projects. Coreq: 23ARCH802. Credit Level: G. Credit Hrs: 3.00

23ARCH816**Thesis Colloquium**

The Thesis Colloquium provides a disciplined setting for informal

Architecture**23ARCH816****Thesis Colloquium**

presentations and peer discussions of students' thesis ideas and their development. The colloquium, integrated with thesis studio work, also features presentations by faculty members, group discussions of shared topic areas, field trips, and individual conferences with thesis faculty. Prereq: 23ARCH815. Credit Level: G. Credit Hrs: 3.00

23ARCH888**Master of Science in Architecture Thesis**

Thesis research and writing. Credit Level: G. Credit Hrs: 1.00-9.00

23ARCH889**Master of Science in Architecture Thesis**

Thesis research and writing. Credit Level: G. Credit Hrs: 1.00-9.00

23ARCH890**Independent Study**

Individual study in collaboration with a faculty member on a subject or in a manner beyond that which is available within the curriculum. Credit Level: G. Credit Hrs: 1.00-5.00

23ARCH891**Teaching and Research Colloquium**

Investigation of methods and topics of research and teaching in architecture. Credit Level: G. Credit Hrs: 3.00

23ARCH892**Teaching and Research Colloquium**

Further investigation of methods and topics of research and teaching in architecture. Credit Level: G. Credit Hrs: 3.00

23ARCH893**Teaching and Research Colloquium**

Investigation of methods and topics of research and teaching in architecture. Credit Level: G. Credit Hrs: 3.00

23ARCH894**Teaching and Research Colloquium**

Investigation of methods and topics of research and teaching in architecture. Credit Level: G. Credit Hrs: 3.00

23ARCH895**Teaching and Research Colloquium**

Investigation of methods and topics of research and teaching in architecture. Credit Level: G. Credit Hrs: 3.00

23ARCH896**Teaching and Research Colloquium**

Investigation of methods and topics of research and teaching in architecture. Credit Level: G. Credit Hrs: 3.00

23ARCH901**Thesis Studio**

The thesis is a major project of research and/or creative work that extends professional knowledge and awareness surrounding the design and production of cities, buildings, and interior environments. Designed as a three-quarter sequence, students explore historical, theoretical, and technical issues related to a specific area of inquiry, leading to the development and production of a program of research or design, including the presentation of preliminary documents, contextual analyses and findings on which students will base future work. Students document these findings in conformance with criteria established by the graduate faculty, then develop and produce projects in accordance with previously identified topics and themes. Finally, students refine and complete these projects, in conformance with criteria for presentation established by the graduate faculty. Thesis Studio 23ARCH901 is the multi-quarter course name and number; grading is assigned as SP or UP, satisfactory progress or unsatisfactory progress, until the final quarter of completion. Credit Level: G. Credit Hrs: 6.00

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Architecture**23ARCH912****Thesis Precedents and Process**

This course works in tandem with the 23ARCH901 Thesis Studio and focuses on the significant research efforts related to exploring and defining the student's inquiry and process of creative work. Research may include analysis of typology and precedent; programming; site analysis; social, cultural and economic contexts; literature searches; and digital experimentation. Significant to this effort is the documentation, manifestation and representation of the research and the conclusions drawn. Credit Level: G. Credit Hrs: 3.00

23ARCH913**Thesis Presentation**

This course works in tandem with 23ARCH901 Thesis Studio and focuses on the significant effort related to the configuring and assembling of the final presentation of the thesis project work. It is well understood that thesis arguments are made through the work itself, and the graphic and verbal manner in which the student presents this content is a significant enterprise. Credit Level: G. Credit Hrs: 3.00

Art Appreciation**23ARTA101****Ascendancy of 20th Century American Paintings**

Ascendancy of 20th Century American Paintings Survey of 20th century American paintings in conjunction with basic art vocabulary and a structured guide to art interpretation. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23ARTA105**Family as Represented in Art**

Family as Represented in Art Survey of images, 16th - 20th century from Europe, America, and Africa, depicting representation of family in conjunction with basic art vocabulary and a structured guide to art interpretation. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23ARTA109**Women Painters, 12th-20th Centuries**

Women Painters, 12th - 20th Centuries Survey of European and American women painters 12th - 20th centuries in conjunction with basic art vocabulary and a structured guide to art interpretation. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23ARTA201**Drawing I**

Observation and interpretation of varied subject matter: still life landscape and living forms. Charcoal, pencil, and chalk; other media. Perspective is introduced. BoK: FA. Credit Level: U. Credit Hrs: 1.00

23ARTA202**Drawing I**

Continuation of 30FAA201. This class is designed to teach students with no prior drawing experience as well as the advanced student. The basic drawing techniques using line, shape, value, perspective, and composition will be explored. Learning "to see" is the objective of this class. BoK: FA. Credit Level: U. Credit Hrs: 1.00

23ARTA203**Drawing I**

Continuation of 30FAA202. Observation and interpretation of varied subject matter: still life landscape and living forms. Charcoal, pencil, and chalk; other media. Perspective is introduced. BoK: FA. Credit Level: U. Credit Hrs: 1.00

23ARTA211**Painting I**

Study of various techniques. Structure and color application. Varied subject matter. Oil and/or water soluble media. BoK: FA. Credit Level: U. Credit Hrs: 1.00

23ARTA212**Painting I**

Continuation of 30FAA211. Study of various techniques. Structure and color application. Varied subject matter. Oil and/or water soluble media.

Art Appreciation**23ARTA212****Painting I**

BoK: FA. Credit Level: U. Credit Hrs: 1.00

23ARTA213**Painting I**

Continuation of 30FAA212. Designed to provide both aesthetic and practical use of water based techniques and skills to beginners and advanced students as well. The precept that art is an essential tool to the student's emotional growth and stresses the importance of studio courses of art imagery and techniques. BoK: FA. Credit Level: U. Credit Hrs: 1.00

23ARTA227**Life Drawing**

A study of human anatomy and the figure using a variety of drawing media in the context of fine art. BoK: FA. Credit Level: U. Credit Hrs: 1.00

23ARTA228**Life Drawing**

Continuation of 30FAA227. A study of human anatomy and the figure using a variety of drawing media in the context of fine art. BoK: FA. Credit Level: U. Credit Hrs: 1.00

23ARTA229**Life Drawing**

Continuation of 30FAA228. A study of human anatomy and the figure using a variety of drawing media in the context of fine art. BoK: FA. Credit Level: U. Credit Hrs: 1.00

23ARTA251**Archival Materials For the Artist**

This is an introductory class for the working artist, student or collector who wants to know more about the range of materials used in making artwork and what constitutes archival quality. Pass/Fail. BoK: NA. Credit Level: U. Credit Hrs: 1.00

23ARTA252**Collage as an Art Form**

This course will explore a variety of techniques and materials used in collage. BoK: NA. Credit Level: U. Credit Hrs: 1.00

23ARTA286**American Art: 1776-1900**

Painting, sculpture, and architecture in the United States from the Revolution to 1890. Transfer Module. BoK: FA, HP. Credit Level: U. Credit Hrs: 3.00

23ARTA287**American Art: 1900-1945**

From Ashcan School through abstract expressionism. Transfer Module. BoK: FA, HP. Credit Level: U. Credit Hrs: 3.00

23ARTA288**Contemporary Art**

Study of art forms which have emerged since 1945. Transfer Module. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23ARTA289**Symbolist Movement in Art**

Themes and theories of Symbolism. Emphasis on leading turn-of-the-century artists such as Gauguin, Hodler, Munch, Ensor, Redon, Moreau, Klimt, and others. Transfer Module. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23ARTA290**Current Art Scene**

Fourth Street and beyond. The ideas, issues, and aesthetics behind the arts on view in Cincinnati galleries, museums, and studios. Course will include some visits to galleries or studios, and meeting with practicing artists, curators, and critics. BoK: FA. Credit Level: U. Credit Hrs: 3.00

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Art Appreciation**23ARTA348****Myth and Symbolism in Religious Art**

A discussion of religious artworks and their meaning from many religions and time periods. This course will show a commonality between the visual iconography of various religious groups and illustrate how art and religion are closely linked both as ceremonial tools and demonstrations of one's devoutness. Prereq: 30RELG101. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23ARTA379**Sculpture Foundry**

A course dealing with the basic techniques of casting art objects in aluminum or bronze. BoK: NA. Credit Level: U. Credit Hrs: 2.00

23ARTA497**Independent Study**

Please complete and submit an Independent Study Application Form which is available from the College Registration Office. BoK: NA. Credit Level: U. Credit Hrs: 1.00-12.00

23ARTA498**Independent Study**

Please complete and submit an Independent Application Form available from the college office. BoK: NA. Credit Level: U. Credit Hrs: 1.00-12.00

23ARTA499**Independent Study**

Please complete and submit an Independent Application Form available from the college office. BoK: NA. Credit Level: U. Credit Hrs: 1.00-12.00

23ARTA532**Art Interpretation**

Literal and metaphoric interpretation of 20th century American paintings. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

23ARTA577**Thinking: Visual Component**

Brain research and cognitive studies provide the background for studying the two different ways the brain processes information and for studying ways to improve visualizing capability in art-related or in non-art related endeavors. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23ARTA580**Socialization of Values: The Visual Component**

The role of beliefs and values in the socialization process as they relate to the created visual environment. Major characteristics of high and popular culture, their publics and creators will be explored in light of social forces politics, economics, and the subliminal power of media. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

23ARTA776**Generic Research Methods**

Introductory course in thinking about research: purposes, problems, research questions, hypotheses, and conjectures, kinds of research methods available, and underlying philosophies. Credit Level: G. Credit Hrs: 3.00

Art Education**23ARTE287****Independent Studies**

Individual project in collaboration with a faculty member on subject of mutual interest; based on written proposal. BoK: NA. Credit Level: U. Credit Hrs: 1.00-3.00

23ARTE289**Independent Studies**

Individual project in collaboration with a faculty member on subject of mutual interest; based on written proposal. BoK: NA. Credit Level: U. Credit Hrs: 1.00-3.00

23ARTE387**Independent Studies**

Individual project in collaboration with a faculty member on subject of mutual interest; based on written proposal. BoK: NA. Credit

Art Education**23ARTE387****Independent Studies**

Level: U. Credit Hrs: 1.00-3.00

23ARTE389**Independent Studies**

Individual project in collaboration with a faculty member on a subject of mutual interest; based on written proposal. BoK: NA. Credit Level: U. Credit Hrs: 1.00-3.00

23ARTE487**Independent Studies**

Individual project in collaboration with a faculty member on subject of mutual interest; based on written proposal. BoK: NA. Credit Level: U. Credit Hrs: 1.00-3.00

23ARTE489**Independent Studies**

Individual project in collaboration with a faculty member on a subject of mutual interest; based on written proposal. Prereq: as free elective: instructor and advisor's perm; as overload: 2.5 cumulative average and instr and advisor's approval. BoK: NA. Credit Level: U. Credit Hrs: 1.00-3.00

23ARTE530**Field Experience with Saturday School**

First-hand experience teaching children and adolescents that includes Saturday mornings during the last six weeks of the term. This course is taught in conjunction with Content I. May include museums and other educational settings "outside school walls." Coreq: 23ARTE710. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

23ARTE531**Field Experience**

First-hand experience teaching children and adolescents in public and/or private schools. This course is taught in conjunction with Content II during the winter term. Coreq: 23ARTE711. BoK: NA. Credit Level: U, G. Credit Hrs: 2.00

23ARTE532**Field Experience**

First-hand experience teaching children and adolescents in public and/or private schools. This course is taught in conjunction with Content III during the spring term. Coreq: 23ARTE712. BoK: NA. Credit Level: U, G. Credit Hrs: 2.00

23ARTE541**Student Teaching and Seminar**

Weekly seminar supports student teaching through sharing of experiences related to art curriculum and instruction, classroom management and student discipline, intra and interpersonal issues with school personal. Visiting speakers and guidance in writing resumes, interviewing for jobs, and preparing paperwork for licensure. Prereq: 23ARTE712, 23ARTE532. BoK: DC, SS. Credit Level: U, G. Credit Hrs: 1.00

23ARTE542**Student Teaching and Seminar**

Weekly seminar supports student teaching through sharing of experiences related to art curriculum and instruction, classroom management and student discipline, intra and interpersonal issues with school personal. Visiting speakers and guidance in writing resumes, interviewing for jobs, and preparing paperwork for licensure. Prereq: 23ARTE712, 23ARTE532. BoK: DC, SS. Credit Level: U, G. Credit Hrs: 1.00

23ARTE546**Community-Based Environmental Art**

"Service learning," interdisciplinary, lecture- studio course that integrates fine art, design, urban planning and art education. Students team with urban/rural youth to design public/ environmental art that mitigates blight, builds community, and helps improve prospects of the youth. Optional summer course is offered to implement the works

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Art Education**23ARTE546****Community-Based Environmental Art**

designed. BoK: FA., SE. Credit Level: U, G. Credit Hrs: 4.00

23ARTE548**Global Art**

Students explore the impact of the system of globalization in art and education with an emphasis on cultural awareness and dialogue. BoK: FA., DC. Credit Level: U, G. Credit Hrs: 3.00

23ARTE550**Museum Internship**

Provides students opportunities to experience art education programs offered in the museum first hand. Students work as "interns", assisting museum educators to implement programs designed specifically to engage children and adolescents with original works of art. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-3.00

23ARTE560**Student Teaching**

Observation, participation, teaching (internship) under supervision of a cooperating classroom teacher (mentor) and university supervisor. Minimum of 18 clock hours actual teaching required for each hour of credit given. Prereq: 23ARTE712, 23ARTE532. BoK: NA. Credit Level: U, G. Credit Hrs: 7.00-14.00

23ARTE561**Student Teaching**

Observation, participation, teaching (internship) under supervision of a cooperating classroom teacher (mentor) and university supervisor. Minimum of 18 clock hours actual teaching required for each hour of credit given. Prereq: 23ARTE712, 23ARTE532. BoK: NA. Credit Level: U, G. Credit Hrs: 7.00-14.00

23ARTE600**Teaching Art in an Age of Technology**

Explores basic and advanced computer literacy skills applied in teaching art K-12. Students survey current issues in computer technology while learning to use contemporary digital equipment and programs. Students examine Internet resources for art curriculum writing, presentation, and web design BoK: SS. Credit Level: G, U. Credit Hrs: 3.00

23ARTE650**Portfolio Development**

Instruction to help students prepare an art education portfolio that synthesizes knowledge, skills, and dispositions in art and pedagogy developed through the art education curriculum. A successful review of the completed portfolio, for which this course provides preparatory instruction, is now required for licensure to be granted. BoK: NA. Credit Level: G, U. Credit Hrs: 2.00

23ARTE651**Portfolio Presentation**

Presentation of art education portfolio that synthesizes knowledge, skills, and dispositions in art and pedagogy developed through the art education curriculum. A successful review of the completed portfolio is required for licensure to be granted. BoK: NA. Credit Level: G, U. Credit Hrs: 1.00

23ARTE774**History of Art Education**

The development of art education in American schools, related to changes in culture, education and art. BoK: HP. Credit Level: U, G. Credit Hrs: 3.00

23ARTE710**Art Education Content I**

Introduction to the dynamics of teaching and learning about pluralistic forms and processes of art making. Students examine how learning about objects and artifacts relates to children and adolescents' perception, cognition, and interpretation processes. Credit Level: G. Credit Hrs: 4.00

Art Education**23ARTE711****Art Education Content II**

Critical and historical inquiry into art; relationship to creating and to philosophical inquiry; multi-cultural approaches; contextual criticism; inquiry skills; questioning techniques; historiography; resources; discussions; motivation; integration of other subjects. Prereq: 23ARTE710. Credit Level: G. Credit Hrs: 4.00

23ARTE712**Art Education Content III**

This course focuses on the nature of philosophical inquiry and cross-cultural aesthetics. Students reflect on their own aesthetic beliefs and values and explore methods for introducing aesthetics in educational settings. Prereq: 23ARTE711. Credit Level: G. Credit Hrs: 4.00

23ARTE720**Multicultural Art Education**

Students will examine theories, goals, and objectives of multicultural, intercultural, intracultural, and pluralistic art education in the United States. Key concepts like race, ethnicity, class, and gender will be examined through an inquiry-based approach. Identity, representation, and relationships between knowledge and power will be explored. Students will look at and analyze curricula and resources for teaching art from a multicultural perspective, and write a paper that focuses on a current, key topic in multicultural art education. Credit Level: G. Credit Hrs: 3.00

23ARTE788**Graduate Seminar in Art Education**

Examination of current issues in art education. Study of various philosophies to generate different views on how art education should proceed. Critical analysis of literature advocating the different views. Credit Level: G. Credit Hrs: 3.00

23ARTE789**Curriculum and Program Development in Art Education**

Issues, options and techniques for comprehensive curriculum design and development. Credit Level: G. Credit Hrs: 3.00

23ARTE790**Culminating Project**

"Capstone experience" of M.A. program. The project takes the form of a paper that demonstrates student's ability to synthesize and apply knowledge and cognitive skills acquired in the program. Credit Level: G. Credit Hrs: 3.00

23ARTE804**Directed Readings**

Selected readings related to student's research focus. Written contract required before qtr begins. Credit Level: G. Credit Hrs: 1.00-6.00

23ARTE806**Directed Readings**

Selected readings related to student's research focus. Written contract required before quarter begins. Credit Level: G. Credit Hrs: 1.00-15.00

23ARTE835**Art and Social Responsibility**

Graduate seminar that examines art in contemporary societies and its impact on art education. Course focuses on art and culture as affected by, for example, gender, social class, sexual orientation, disability, and ethnicity within a framework of social justice Credit Level: G. Credit Hrs: 3.00

23ARTE872**Individual Study in Art Education**

Individual work on a problem in art education. (Primarily for advanced students.) Credit Level: G. Credit Hrs: 1.00-6.00

23ARTE971**Doctoral Dissertation Research**

Research directed toward topic development and completion of doctoral dissertation (Ed.D.) as it specifically pertains to art education.

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Art Education**23ARTE971****Doctoral Dissertation Research**

Written contract required before quarter begins. Offered each quarter.

Credit Level: G. Credit Hrs: 1.00-15.00

Art History**23ARTH111****History of Art I: Ancient-Early Medieval**

Survey of art and architecture in the ancient world and medieval Europe until about A.D. 1100. Transfer Module. BoK: DC, HP. Credit Level: U.

Credit Hrs: 3.00

23ARTH111H**History of Art I: Ancient-Early Medieval**

Survey of art and architecture in the ancient world and medieval Europe until about A.D. 1100. Transfer Module. BoK: DC, HP. Credit Level: U.

Credit Hrs: 3.00

23ARTH112**History of Art II: Romanesque-Renaissance**

Survey of European art and architecture from about 1100 to 1600.

Transfer Module. BoK: DC, HP. Credit Level: U. Credit Hrs: 3.00

23ARTH112H**History of Art II: Romanesque-Renaissance**

Survey of European art and architecture from about 1100 to 1600.

Transfer Module. BoK: DC, HP. Credit Level: U. Credit Hrs: 3.00

23ARTH113**History of Art III: Seventeenth-Twentieth Centuries**

Survey of European and American art and architecture from 1600 to the present. Transfer Module. BoK: DC, HP. Credit Level: U. Credit Hrs:

3.00

23ARTH113H**History of Art III: Seventeenth-Twentieth Centuries**

Survey of European and American art and architecture from 1600 to the present. Transfer Module. BoK: DC, HP. Credit Level: U. Credit Hrs:

3.00

23ARTH140**Survey of East Asian Art**

This introductory course covers the major monuments of Indian, Chinese, and Japanese art from the prehistoric period to the present. It is designed to offer a broad overview of the visual and spiritual traditions of East Asia with special focus on Buddhist art and later developments in secular art. Lectures will be supplemented by videos, demonstrations, and visits to the Cincinnati Art Museum. BoK: HP., DC. Credit Level: U. Credit Hrs: 3.00

23ARTH191**Modern Painting and Sculpture**

Survey of the major artists and monuments from Post-Impressionism to the present, including works by Picasso, Matisse, Kandinsky, Moore, Pollock, De Kooning. Transfer Module. BoK: HP. Credit Level: U. Credit

Hrs: 3.00

23ARTH223**Medieval Art II**

European art and architecture from the beginning of the Romanesque period until the end of the Middle Ages. BoK: HP. Credit Level: U. Credit

Hrs: 3.00

23ARTH224**Early Medieval Architecture**

Churches, places and fortifications in Europe from the beginning of the fourth century to the year 1000. BoK: HP. Credit Level: U. Credit Hrs:

3.00

23ARTH247**Study Abroad Seminar**

Selected topics and travel experience designed to introduce students to the nature of university life, to globalization issues, and to several disciplines and/or professions through an experience abroad. Perm of

Art History**23ARTH247****Study Abroad Seminar**

Instructor. BoK: FA, HP. Credit Level: U. Credit Hrs: 4.00

23ARTH270**Asian Art I: China**

This intermediate undergraduate course offers a survey of Chinese architecture, sculpture, and painting from the prehistoric era to the present. Through lectures, class discussions, and videos, students will gain basic understanding of major artistic styles and visual principles in Chinese art. BoK: HP., DC. Credit Level: U. Credit Hrs: 3.00

23ARTH271**Asian Art II: Japan**

Introduction to the art of Japan. BoK: HP., DC. Credit Level: U. Credit Hrs: 3.00

23ARTH314**Approaches to Art History**

Introduction to the aims, history, and methods of art historical research. Emphasis on analytical techniques, various approaches, key scholars, and the ways Art History is practiced. BoK: HP. Credit Level: U. Credit Hrs: 3.00

23ARTH355**History of European Baroque Art I: The Art and Architecture of Italy, France, England, & Germany**

One of two courses designed to provide a solid overview of the Baroque period and culture, by introducing and focusing on the principles and characteristics of Baroque art and architecture, and then by exploring in detail how the Baroque took shape in the context of the various countries of Europe. Part one focuses on Baroque art in Italy, France, England, and Germany, while Part two covers Flemish, Dutch, and Spanish Baroque art. Prereq: 23ARTH113. BoK: DC. Credit Level: U. Credit Hrs: 3.00

23ARTH356**History of European Baroque Art II: Flemish, Dutch and Spanish Art**

One of two courses designed to provide a solid overview of the Baroque period and culture, by introducing and focusing on the principles and characteristics of Baroque art and architecture, and then by exploring in detail how the Baroque took shape in the context of the various countries of Europe. Part one focuses on Baroque art in Italy, France, England, and Germany, while Part two covers Flemish, Dutch, and Spanish Baroque art. Prereq: 23ARTH113. BoK: DC. Credit Level: U. Credit Hrs: 3.00

23ARTH371**Nineteenth Century Art to 1850**

Neoclassicism and Romanticism in European and American painting and sculpture, with emphasis on works by David, Ingres, Goya, Delacroix, Geraint, Constable, and Turner. BoK: HP. Credit Level: U. Credit Hrs: 3.00

23ARTH372**Nineteenth Century Art: 1850 to 1900**

Realism, Impressionism, Post-Impressionism, Symbolism, and Early Expressionism in European and American painting and sculpture, with emphasis on Courbet, Monet, Renoir, Gauguin, Van Gogh, and Munch. BoK: HP. Credit Level: U. Credit Hrs: 3.00

23ARTH384**Two Hundred Years of American Art: 1776-1976**

Painting, sculpture, and architecture in the United States from the Revolution to the present. BoK: HP. Credit Level: U. Credit Hrs: 3.00

23ARTH387**Independent Study**

Individual projects in collaboration with a faculty member on subjects of mutual interest, based on written proposal. Prereq: As a free elective, instructor's and adviser's approval; as overload, 2.5 cumulative average and instructor's and adviser's approval. Perm of Instructor. BoK: NA.

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Art History**23ARTH387****Independent Study**

Credit Level: U. Credit Hrs: 1.00-3.00

23ARTH397**Public Art and Funding in the US**

To familiarize students with key issues involving public art and public funding in the U.S. by examining selected topics. BoK: HP. Credit Level: U. Credit Hrs: 3.00

23ARTH481**Seminar in Art History**

Required course for Art History majors only. Survey of history of field, with emphasis on contemporary method logics. BoK: HP. Credit Level: U. Credit Hrs: 3.00

23ARTH510**Philosophy and Performance**

This upper-level undergraduate and graduate course (500-level) explores philosophical thinking about performance, art, politics, and identity from a range of historical and cultural perspectives. Theoretical work is rigorous, and students will engage texts, media presentations, and live performance (as both spectators and performers). In addition to written assignments, projects, and possible field trips, students are required to participate in solo and ensemble performances. BoK: DC., SE. Credit Level: U, G. Credit Hrs: 3.00-4.00

23ARTH533**Northern Painting I**

A study of painting in the Netherlands, c. 1400-1600 with emphasis on Rubens, Weyden, Bosch, and Bruegel. Rembrandt, portrait, landscape, and genre painting. BoK: HP. Credit Level: U, G. Credit Hrs: 3.00-4.00

23ARTH535**Northern Painting II**

A study of 17th century Netherlandish painting with emphasis on Rubens, Rembrandt, portrait, landscape, and genre painting. BoK: HP. Credit Level: U, G. Credit Hrs: 3.00-4.00

23ARTH550**History of Japanese Prints I**

This dual-level course is the first half of a two-quarter survey of Japanese woodblock prints. Prints from the eighteenth and nineteenth centuries will be the focus of this course. In addition to stylistic development of the prints, special attention will also be paid to the cultural milieu in which woodblock prints arose and flourished -- especially the literary circle, the world of theatre, and the pleasure quarters in the city of Edo. The course will include visits to the Cincinnati Art Museum. BoK: HP., DC. Credit Level: U, G. Credit Hrs: 3.00-4.00

23ARTH551**History of Japanese Prints II**

This is the second part of the two-quarter course on the history of Japanese prints. It will cover the prints from the second half of the nineteenth century to the present. Modern and contemporary Japanese painting and prints have been increasing- increasingly attracting the attention of scholars and collectors in the last few decades. In the first few meetings, students will be given an overview of Edo period prints. They will also be introduced to various currents in modern Japanese art including painting in both Japanese and Western styles. The rest of the quarter will be devoted to investigations of the revival of wood block prints from the nineteenth and early twentieth centuries and the subsequent cross- pollination between Japanese prints and contemporary European woodcuts. BoK: HP., DC. Credit Level: U, G. Credit Hrs: 3.00-4.00

23ARTH562**African American Art, 1945-present**

African-American painting, sculpture, prints, photography, performances, installations, environments, videos, and street art from 1945 to present. Issues include civil rights, antiwar, and women's movements. BoK: HP., DC. Credit Level: U, G. Credit Hrs: 3.00-4.00

Art History**23ARTH562****African American Art, 1945-present**

African-American painting, sculpture, prints, photography, performances, installations, environments, videos, and street art from 1945 to present. Issues include civil rights, antiwar, and women's movements. BoK: HP., DC. Credit Level: U, G. Credit Hrs: 3.00-4.00

23ARTH564**History of Photography**

Traces the development of photography in the Western world from early experiments and inventions in the 18th century to the latest technology in the 1940s. BoK: HP. Credit Level: U, G. Credit Hrs: 3.00-4.00

23ARTH567**Video Art**

Survey of recent work in Video Art. Each week the class will look at video, interactivity, politics, or responses to broadcast media. Each week the class will screen and discuss original examples of video art, from a variety of decades, all dealing with aspects of that week's topic. In addition to these screenings, each week several students will be tasked to do short presentations on contemporary artists working in other media, whose work connects to the theme. Weekly reading assignments will prepare students for work to be presented and discussed in the following week. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00-4.00

23ARTH581**Spatial Politics**

This course provides an overview of art and architecture from the 1950s to today in relation to understandings of place and spatiality that have dominated critical debates in recent decades. Focus in this course falls to contemporary cultural works and terminology. BoK: HU., DC. Credit Level: U, G. Credit Hrs: 3.00-4.00

23ARTH584**Elective Studies in Art History**

Selected special topics in art historical studies. BoK: HP. Credit Level: U, G. Credit Hrs: 3.00-4.00

23ARTH585**Twentieth Century Art I**

Development of new forms and ideas in the art of Matisse, Kandinsky, Mondrian, and the Futurists. BoK: HP. Credit Level: U, G. Credit Hrs: 3.00-4.00

23ARTH586**Twentieth Century Art II**

Dada-Surrealist painting, performance, writings. Abstract expressionist painting in America. BoK: HP. Credit Level: U, G. Credit Hrs: 3.00-4.00

23ARTH587**Twentieth Century Art III**

Art of the 60s and current trends; varieties of expression and a study of the criticism. BoK: HP. Credit Level: U, G. Credit Hrs: 3.00-4.00

23ARTH588**Contemporary Art and Theory**

a survey of art of the past two decades with special attention to key issues informing artistic practice in the visual arts today BoK: HP. Credit Level: U, G. Credit Hrs: 3.00

23ARTH730**Folk/Outsider/Self-Taught Art**

The class will consider ways in which modern American identity is formed & maintained, the defining of marginalized social groups as "other" & the collecting of their artifacts as art. We'll examine aesthetic works displayed in galleries, by collectors, & analyzed by art critics & historians. Credit Level: G. Credit Hrs: 4.00

23ARTH750**Historiography**

This seminar examines the history of Art History from its inception to the present, highlighting significant methodologies and specific art historians. Credit Level: G. Credit Hrs: 4.00

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Art History**23ARTH751****Research Seminar**

Required of all first-year graduate students. Discussion of art historical methods and use of research tools, followed by a survey of major contemporary schools of art-historical research. Credit Level: G. Credit Hrs: 4.00

23ARTH752**Thesis Colloquium**

Thesis Colloquium and Professional Practices Seminar. Designed to guide students through the thesis process by getting the proposal approved and writing the introduction and a chapter, and familiarize them with current practices in the field regarding professional organizations, conferences, and publications. Required of all students. Prereq: 23ARTH751. Credit Level: G. Credit Hrs: 4.00

23ARTH791**Independent Study**

An individual project in collaboration with a faculty member on a subject of mutual interest. Perm of Instructor. Credit Level: G. Credit Hrs: 1.00-4.00

23ARTH802**Rembrandt**

An examination of the life, paintings, and graphic works of Rembrandt, and a study of the place of the artist in 17th-century art. Credit Level: G. Credit Hrs: 4.00

23ARTH804**Collection Management: Registration and Conservation**

In depth examination of principles and practices of managing collections in museums. Also includes a section on the study of the treatment and materials used by conservators to protect and restore museum objects. Credit Level: G. Credit Hrs: 4.00

23ARTH805**Colonialism, Postcolonialism, Globalism, and Exhibition**

A seminar dealing with contemporary postcolonial theory and criticism in relation to the history of exhibitions of the 19th and 20th Centuries, spanning the spectacular display of so-called primitive arts and peoples to now-contemporary state-sponsored biennials. Credit Level: G. Credit Hrs: 4.00

23ARTH806**Curating Architecture**

Addresses the increasing extent to which artists, galleries and museums are exhibiting or are incorporating innovative forms of interior design in installation work as display strategies. Credit Level: G. Credit Hrs: 4.00

23ARTH807**Dissolving The White Cube**

A course on the evaluation of contemporary curating from the debates in the 1960s around the concept of the gallery as white cube to the post-studio practices of the present. Credit Level: G. Credit Hrs: 4.00

23ARTH808**Exhibition Planning and Design**

Study of the exhibition planning & design process, label writing, design & display methods, lighting, publications, public programming and outreach. Special consideration will be given to the challenges museums face in presenting material from other cultures. Credit Level: G. Credit Hrs: 4.00

23ARTH809**Museum Education**

A comprehensive study of developments in museum educational initiatives of the last 30 years with a particular emphasis on recent attempts by museums to expand their reach into more diverse ethnic and economic communities. Evaluation of the effectiveness of technology in applied Museum Ed. Credit Level: G. Credit Hrs: 4.00

Art History**23ARTH838****Japanese Aesthetics**

This course specifically deals with various aspects of the aesthetic sensibilities that characterized Japanese art from the eleventh century to the seventeenth century. The period between the 1000s and the 1600s was the time when most of the artistic, religious, and literary concepts that characterize Japanese painting came into being. Students will study those major concepts by examining primary and secondary sources by artists, art historians, and authors. Credit Level: G. Credit Hrs: 4.00

23ARTH839**Modern Japanese Art, 1850-1940**

This is a seminar on Japanese art of the 19th century and the first half of the 20th century, a time of tremendous cultural turmoil. In this class students will investigate the rise of bipartisan-ship in the world of painting-Japanese style and Western style- with a view to the intellectual and sociopolitical backgrounds. They will also examine recent scholarship on other media, such as wood- block prints, graphic design, and photography, to gain a deeper understanding of the complexity of modern Japanese visual culture. Credit Level: G. Credit Hrs: 4.00

23ARTH845**Northern Baroque Painting: Rubens**

An in-depth study of Peter Paul Rubens and his place in Flemish art during the seventeenth century. Credit Level: G. Credit Hrs: 4.00

23ARTH848**Dutch History/Genre Painting**

A study of 17th century Dutch history and/or genre painting. Credit Level: G. Credit Hrs: 4.00

23ARTH865**Museum Management**

Introduction to the theory and practice of museum operations. Topics include: collection care; exhibition and education program development; ethics; tax and legal issues; fund raising; budgeting; strategic planning; audience facilities; board and staff roles and responsibilities. Credit Level: G. Credit Hrs: 4.00

23ARTH870**Collection Management**

In-depth examination of principles and practices of managing collections in museums, including: accessing, cataloging, documentation, storage, loans, insurance, computerization, etc Credit Level: G. Credit Hrs: 4.00

23ARTH871**Interpretation of Collections**

Comprehensive study of the ways in which museums use their collections to provide educational experiences for visitors. Prereq: 23ARTH865. Credit Level: G. Credit Hrs: 4.00

23ARTH872**Problems in Museum Administration**

Investigation of current issues in the museum field considered within a comprehensive context; the conceptualization, definition, and development of a museum organization from mission statement to facility. Prereq: 23ARTH865. Credit Level: G. Credit Hrs: 4.00

23ARTH873**Conservation Methods**

Study of the treatment methods and materials used to restore museum objects, as well as preventative measures used to reduce deterioration. Prereq: 23ARTH865. Credit Level: G. Credit Hrs: 4.00

23ARTH874**Technology in Museums**

Examination of the role of computers in museum- specific applications, such as collections, exhibitions, fund raising, internet, educational programming, etc. Prereq: 23ARTH865. Credit Level: G. Credit Hrs: 4.00

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Art History**23ARTH875****Graduate Museum Internship**

200-hour placement at a museum in which students gain practical experience in museum operations, geared toward career goals of individual students. Placement is arranged through certificate program director, with supervision and evaluation by student, museum supervisor, and program director. Prereq: 23ARTH865. Credit Level: G. Credit Hrs: 2.00-4.00

23ARTH879**Topical Graduate Seminar**

Selected graduate topics in art history studies. Credit Level: G. Credit Hrs: 4.00

23ARTH890**Directed Research**

This course allows graduate students to conduct advanced research for faculty who are working on specific, substantial projects such as books or exhibitions. Students have the unusual opportunity to gain in-depth knowledge about a particular area of study, such as a period in art history, an individual artist, or a style, by conducting research using primary source materials in local and regional archives, libraries, and museums. Credit Level: G. Credit Hrs: 4.00

23ARTH891**Thesis**

Research and writing of the Master's thesis. Credit Level: G. Credit Hrs: 1.00-12.00

23ARTH892**Thesis**

Research and writing of the Master's thesis. Credit Level: G. Credit Hrs: 1.00-12.00

23ARTH893**Thesis**

Research and writing of the Master's thesis. Credit Level: G. Credit Hrs: 1.00-12.00

23ARTH898**Art of Collecting**

This course examines the history of collecting art, and other cultural material, by individuals and institutions. We will study patterns of intention and behavior among the great art collectors/philanthropists in the West. We'll analyze of international, national and local acclaim. Credit Level: G. Credit Hrs: 4.00

Digital Design**23DGTL201****Digital Design I**

Studio course. Study of formal visual principles and visual systems design strategies using vector based and interactive tools to develop interactive aesthetics. Prereq: 23FDST101, 23FDST102, 23FDST103. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23DGTL202**Digital Design I**

Studio course. Integration of various digital visual forms: drawn, image capture (digital scanning and photography), visual systems, and letterform with concept communication. Prereq: 23DGTL201. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23DGTL203**Digital Design I**

Studio course. Exploration of formal visual principles of motion and aesthetics using a vector time-based system. Prereq: 23DGTL202. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23DGTL211**Design Ideation I**

Studio course. Exploration of hand and digitally drawn representational image making. Iconic and symbolic systems, interaction, and meaning. Prereq: 23FDST103, 23FDST102, 23FDST101. BoK: FA. Credit Level:

Digital Design**23DGTL211****Design Ideation I**

U. Credit Hrs: 3.00

23DGTL212**Design Ideation I**

Studio course. Exploration of interface design concepts. Strategies for the design of interface, development of information architecture, and information design. Prereq: 23DGTL211. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23DGTL213**Design Ideation I**

Studio course. Polygonal and surface form generation. Emphasis on aesthetics topics: form, counter form, surface attributes, composition and lighting. Prereq: 23DGTL212. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23DGTL221**Digital Image Design I**

Studio course. Fundamentals of photographic technique, technical considerations of digital photography and scanned images. Exploration of the aesthetics of digital image making and manipulation. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23DGTL222**Digital Image Design I**

Studio course. Integration of meaning with layered, acquired images. Exploration of degrees of representation and impact on meaning and aesthetics. Prereq: 23DGTL221. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23DGTL231**Design Technology I**

Survey of the internet, its history, culture, technology and legal issues. Students are introduced to basic web design and techniques through exercises. Prereq: 23FDST131, 23FDST132, 23FDST133. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23DGTL232**Design Technology I**

Survey and exploration of computers and programming as digital design tools. Students develop a foundational understanding of programming as a formal process through practical exercises. Prereq: 23DGTL231. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23DGTL241**Visible Language Design I**

Studio course. Exploration of the visualization of language in the digital environment. Technical and readability issues. Emphasis on aesthetics and typographic systems. Prereq: 23FDST101, 23FDST102, 23FDST103. BoK: FA, SS. Credit Level: U. Credit Hrs: 3.00

23DGTL242**Visible Language Design I**

Studio course. Exploration of motion and interaction in typography. Emphasis on aesthetics of motion and interaction and their impact on meaning in typographic systems. Prereq: 23DGTL241. BoK: FA, SS. Credit Level: U. Credit Hrs: 3.00

23DGTL251**Audio Design I**

Project based survey of technical considerations of audio recording and digital manipulation and layering. Exploration of audio concepts and theories of meaning. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23DGTL270**History of Digital Design**

Historical perspectives of the development of digital media and digitally mediated environments. Survey of the history of information processing hardware, communication systems and networks, aesthetics and information pragmatics, information theory, programming and software. Lecture course. Prereq: 23FDST270. BoK: HP. Credit Level: U. Credit Hrs: 3.00

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Digital Design**23DGTL270****History of Digital Design**

Historical perspectives of the development of digital media and digitally mediated environments. Survey of the history of information processing hardware, communication systems and networks, aesthetics and information pragmatics, information theory, programming and software. Lecture course. Prereq: 23FDST270. BoK: HP. Credit Level: U. Credit Hrs: 3.00

23DGTL271**Digital Design Seminar I**

Research-oriented complement to concurrent studio focusing on consideration of the logical, philosophical, metaphysical, ethical and conceptual underpinnings of design leading toward the formation of a personal design philosophy. BoK: NA. Credit Level: U. Credit Hrs: 2.00

23DGTL272**Digital Design Seminar II**

Seminar course. Research-oriented complement to concurrent studio focusing on consideration of communication concepts: semiotics, linguistics, media types, information types and verbal visual characteristics. Prereq: 23DGTL271. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23DGTL273**Digital Design Seminar III**

Research-oriented complement to concurrent studio focusing on theoretical considerations related to media influence on message. Context considerations, content malleability, mass media, individual user experience, broadcast communication, two-way communication. Prereq: 23DGTL272. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23DGTL280**Multimedia for E-Media**

Principles of interactive multimedia design for Electronic Media majors. Exploration of interactive interface design issues. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23DGTL281**Core Topics**

Issues in various design topics as determined by faculty. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23DGTL282**Core Topics**

Issues in various design topics as determined by faculty. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23DGTL283**Core Topics**

Issues in various design topics as determined by faculty. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23DGTL301**Digital Design II**

Studio course. Exploration of Design and programming of applications for emerging platforms, including embedded and networked environments. Prereq: 23DGTL203. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23DGTL302**Digital Design II**

Studio course. Design and programming of interactive real-time 3D. Students examine key technical and aesthetic issues through projects and exercises. Prereq: 23DGTL301. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23DGTL311**Design Ideation II**

Studio course. Exploration of visual principals in 3D modeling and ideation. Low polygon as well as production level creation. Prereq: 23DGTL213. BoK: FA. Credit Level: U. Credit Hrs: 3.00

Digital Design**23DGTL312****Design Ideation II**

Studio course. Exploration of 3D animation and ideation. Motion studies and basic character animation. Prereq: 23DGTL311. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23DGTL321**Motion Design I**

Studio course. Introduction to visual storytelling using the medium of 2D animation. Digital Storytelling and animatic. Prereq: 23DGTL222. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23DGTL322**Motion Design I**

Studio course. Exploration of interactive motion typography with emphasis on dynamic meaning transformation using vector based interactive tools. Prereq: 23DGTL321. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23DGTL371**Digital Design Seminar IV**

Research-oriented complement to concurrent studio with focus on issues in narrative structure and the process of storytelling. Prereq: 23DGTL272. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23DGTL372**Digital Design Seminar V**

Research-oriented complement to concurrent studio course, exploring various issues surrounding design for interactive 3D technology and communication. Prereq: 23DGTL371. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23DGTL373**User/Learner Centered Design: Seminar**

Introduction to cognition, learning theory and Usability testing. Time and motion perception. Creation of on-line documentation. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23DGTL388**Independent Studies**

Individual project in collaboration with a faculty member on subject of mutual interest; based on written proposal BoK: NA. Credit Level: U. Credit Hrs: 1.00-3.00

23DGTL401**Digital Design III**

Studio course. Introduction to interactive spaces and environments: advanced interface design. Prereq: 23DGTL302. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23DGTL402**Digital Design III**

Studio course. Introduction to interactive narrative. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23DGTL411**Design Ideation III**

Studio course. Investigation of advanced 2D and 3D visualization on collaboration projects. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23DGTL412**Design Ideation III**

Studio course. Interdisciplinary projects in advanced visualization. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23DGTL421**Motion Design II**

Integration of meaning with motion imagery/digital video. Study of aesthetics of motion. Exploration of degrees of representation of motion imagery and impact on meaning and aesthetics. Studio course. Prereq: 23DGTL322. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23DGTL422**Motion Design II**

Integration of meaning with layered motion imagery/digital video. Study

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Digital Design**23DGTL422****Motion Design II**

of aesthetics of motion. Exploration of meaning. Studio course. Prereq: 23DGTL421. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23DGTL471**Digital Design Seminar VI**

Research-oriented complement to concurrent studio focusing on exploration into Film/Video narrative concepts. Exploration of techniques and concepts behind modern videography and motion design. Prereq: 23DGTL372. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23DGTL472**Digital Design Seminar VII**

Research-oriented complement to concurrent studio focusing on issues pertinent to the professional world. Prereq: 23DGTL471. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23DGTL488**Independent Studies**

Individual project in collaboration with a faculty member on subject of mutual interest; based on written proposal. BoK: NA. Credit Level: U. Credit Hrs: 1.00-3.00

23DGTL501**Digital Design IV**

Studio course. Experimentation with and development of novel cross-disciplinary design applications in informatics or global services within a team based problem solving structure. Prereq: 23DGTL402. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23DGTL502**Digital Design IV**

Studio course. Extension of 23DGTL501 with alternative pathways. Prereq: 23DGTL501. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23DGTL511**Digital Design Methodology**

Studio course. Research, analysis and concept development for required senior capstone project. Prereq: 23DGTL412. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23DGTL512**Digital Design Methodology**

Studio course. Further concept development, modeling, and usability testing for required senior capstone project. Prereq: 23DGTL511. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23DGTL571**Digital Design Seminar VIII**

Research-oriented complement to concurrent studio focusing on research theory and conceptualization in digitally mediated environments. Prereq: 23DGTL472. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23DGTL572**Digital Design Seminar IX**

Research-oriented complement to concurrent studio focusing on research theory, analysis, and design of interactive environment display systems. Prereq: 23DGTL571. BoK: NA. Credit Level: U. Credit Hrs: 3.00

Design**23DSGN100****Interdisciplinary Topics**

Interdisciplinary course for programs and/or faculty jointly teaching a cross-disciplinary studio, lecture, lab, or seminar. Perm of Department. BoK: NA. Credit Level: U. Credit Hrs: 1.00-12.00

23DSGN172**Photography**

Introductory lectures only, presenting basic principles of camera work in black and white and color photographic techniques. Emphasis on content and composition of photography. BoK: FA. Credit Level: U.

Design**23DSGN172****Photography**

Credit Hrs: 3.00

23DSGN173**Photography II**

A continuation of aesthetic and technical skills. Course study focuses on use of color film, artificial and existing light, and advanced metering technique. Individual investigation for greater personal expression will be encouraged. Students must have a 35mm SLR camera. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23DSGN200**Interdisciplinary Topics**

Interdisciplinary course for programs and/or faculty jointly teaching a cross-disciplinary studio, lecture, lab, or seminar. Perm of Department. BoK: NA. Credit Level: U. Credit Hrs: 1.00-12.00

23DSGN201**Visual Literacy**

An introduction to the physiology, psychology and dynamics of visual communication. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23DSGN204**Principles of Digital Design I**

Elements and principles of digital design that underline all spacial arts. A hands-on course in digital design using Adobe Illustrator. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23DSGN205**Principles of Digital Design II**

Continuation of 23DSGN204. A hands-on course using Adobe Illustrator. Prereq: 23DSGN204. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23DSGN219**Digital Video I**

An overview of the basic steps involved in video production process: pre-production, production, post-production. This entails a discussion of the principles of conceptualization, planning, scheduling, budgeting, organization and visualization involved in the pre-production stage of creating a video program. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23DSGN220**Digital Video II**

The course will explore the various theoretical, technical, and aesthetic tasks and decisions involved in digital desktop video editing. Through demonstrations and hands-on sessions, students will become familiar with the processes involved in editing in the digital realm, specifically using the Adobe Premiere. Prereq: 23DSGN219. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23DSGN270**History of Visual Communication**

Chronological survey of visual communication from prehistoric origins to the present digital era. The course will study those pivotal events, achievements, individuals and pioneers that influenced and contributed towards the discipline's visual communication evolution. Presented in an interdisciplinary context, students will learn how visual communication has always been a vital component of cultural periods and human history. They will discover how it constantly responded to (and affected) the cultural, socioeconomic, scientific, political and technology developments. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23DSGN279**Introduction to Computers and Digital Publishing**

A hands-on course in digital publishing. Intended for students who wish to learn the basics of a desktop publishing software program. Features such as style sheets, document importation, drawing and writing tools, and printing will be introduced. Course is part of Applications cluster. Prereq: 23DSGN201. BoK: NA. Credit Level: U. Credit Hrs: 3.00

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Design**23DSGN281****International Travel**

International travel to observe universal trends, fashion trends, universal and cultural symbology. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23DSGN282**International Travel**

International travel to observe universal trends, fashion trends, universal and cultural symbology. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23DSGN283**Digital Illustrating**

Offering an expanded knowledge of graphic design using draw programs this course allows students to enhance their digital publishing skills by becoming proficient in the vector environment. Drawing short-cuts and transformation methods are stressed, along with the building process for object-oriented rendering. Course is part of Applications cluster. Prereq: 23DSGN279. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23DSGN288**Digital Painting I**

This class will introduce students to a unique computer program that allows the user to generate traditional mediums like charcoal, oil and water color paints, crayon, pencil, pen and ink, airbrush and much more. Prereq: 23DSGN283. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23DSGN289**Digital Painting II**

This class will utilize the Painter 5 program in a unique but traditional setting. Students will sketch and develop illustrations and paintings while working from live models and still lifes while learning traditional rendering skills. Prereq: 23DSGN288. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23DSGN300**Interdisciplinary Topics**

Interdisciplinary course for programs and/or faculty jointly teaching a cross-disciplinary studio, lecture, lab, or seminar. Perm of Department. BoK: NA. Credit Level: U. Credit Hrs: 1.00-12.00

23DSGN307**Interactive Animation and Design**

This program has opened many doors for e interactive animation and design static web pages become doorways to movies, audio sounds and more. This program has captured 80% of the Web and is growing every day. Students will have an opportunity to participate and play with vector graphic animation that is easily assembled into scenes for Web animations and interactive CDs. Prereq: 23DSGN283. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23DSGN310**Digital Image Editing**

This intensive, hands-on course explores the vast capabilities of Adobe Photoshop, focusing on advanced manipulation techniques for photos and graphics. Participants learn to scan and enhance digital images, use layers, work with channels, and create impressive special effects using filters. Course is part of the Applications cluster. Prereq: 23DSGN283. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23DSGN311**Design Visualization**

Two-dimensional visual presentation of design concepts for today's technology using mixed media, emphasizing efficient execution and quality of content. Exercises explore techniques appropriate for various levels of design development, from thumbnail sketches to finished renderings; visual dynamics of function and context and organization. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23DSGN312**Design Visualization**

Continuation of 23DSGN311. Advanced exercises similar to 311. Emphasis is on more complex composition and color visualization skills.

Design**23DSGN312****Design Visualization**

BoK: FA. Credit Level: U. Credit Hrs: 3.00

23DSGN313**Design Visualization**

Continuation of 23DSGN312. Emphasis on organization of complete professional design presentations. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23DSGN314**Digital 3-D and Animation**

This class will allow students to create frames and render them in 3-D while allowing them to move freely through space in a very visual manner. Prereq: 23DSGN289, 23DSGN310, 30IT289, 30IT310. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23DSGN318**Advanced Digital Illustrating and Photo Editing**

Class covers some advanced capabilities of Photoshop and Illustrator not covered in preceding classes. Tips and tricks of both programs help students to understand some step-by-step, hands-on learning that brings the program's more expert functions into a practical, everyday use. Prereq: 23DSGN283, 23DSGN310, 30IT283, 30IT310. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23DSGN321**Brand Identity**

A graphic design course focusing on Typography and Logo Signature Marks in the corporate and brand identity arena. The background history, hands-on development and deepened understanding will benefit any designer Prereq: 23DSGN283. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23DSGN351**Intermediate Photography I**

(Formerly Photography for Designers.) Lectures and exercises in photographic lighting to explore both technical and aesthetic effects. Individuals select personal projects to demonstrate their mastery of the lecture material. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23DSGN352**Intermediate Photography II**

Continuation of 23DSGN351. Photography in both studio and on-site settings, with emphasis on lighting, staging and composition appropriate to illustrating form and demonstrating features of 3-dimensional objects. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23DSGN361**Digital Photography**

An introduction to digital photography offering students an opportunity to integrate photography and art. The skills learned in this class can complement many college majors. This course is one of the requirements in the Applied Design Certificate Program. Prereq: 23DSGN283, 23DSGN310, 30IT283, 30IT310. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23DSGN381**International Travel**

International travel to observe universal trends, fashion trends, universal and cultural symbology. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23DSGN382**International Travel**

International travel to observe universal trends, fashion trends, universal and cultural symbology. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23DSGN400**Interdisciplinary Topics**

Interdisciplinary course for programs and/or faculty jointly teaching a cross-disciplinary studio, lecture, lab, or seminar. Perm of Department. BoK: NA. Credit Level: U. Credit Hrs: 1.00-12.00

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Design**23DSGN400****Interdisciplinary Topics**

Interdisciplinary course for programs and/or faculty jointly teaching a cross-disciplinary studio, lecture, lab, or seminar. Perm of Department. BoK: NA. Credit Level: U. Credit Hrs: 1.00-12.00

23DSGN410**Web Graphic Design**

Web design from a graphic artist/designer perspective. Students will learn to design web pages with design criteria and to implement their designs in html format. Prereq: 23DSGN283, 23DSGN310, 30APDS310, 30IT310. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23DSGN419**Programming for Graphic Designers**

This course deals with the programming needs of graphic designers as they work on the WWW. Prereq: 23DSGN205, 23DSGN307, 30IT307. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23DSGN421**Senior Digital Design Project**

This course allows students to integrate all of their course work into one final project. This is intended as a culmination of the program. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23DSGN481**International Travel**

International travel to observe universal trends, fashion trends, universal and cultural symbology. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23DSGN482**International Travel**

International travel to observe universal trends, fashion trends, universal and cultural symbology. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23DSGN499**Independent Study in Design**

Please complete and submit an Independent Study Application form available from the college office. BoK: FA. Credit Level: U. Credit Hrs: 1.00-12.00

23DSGN500**Interdisciplinary Topics**

Interdisciplinary course for programs and/or faculty jointly teaching a cross-disciplinary studio, lecture, lab, or seminar. Perm of Department. BoK: NA. Credit Level: U. Credit Hrs: 1.00-12.00

23DSGN581**International Travel**

International travel to observe universal trends, fashion trends, universal and cultural symbology. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23DSGN582**International Travel**

International travel to observe universal trends, fashion trends, universal and cultural symbology. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23DSGN600**Interdisciplinary Topics**

Interdisciplinary course for programs and/or faculty jointly teaching a cross-disciplinary studio, lecture, lab, or seminar. Perm of Department. Credit Level: G. Credit Hrs: 1.00-12.00

23DSGN700**Interdisciplinary Topics**

Interdisciplinary course for programs and/or faculty jointly teaching a cross-disciplinary studio, lecture, lab, or seminar. Perm of Department. Credit Level: G. Credit Hrs: 1.00-12.00

Design**23DSGN701****Studio: Visual Studies I Color Systems**

Introduction to advanced visual studies. Students will examine color systems as parameters and variables leading to an understanding of principles governing the making and use of color as an essential component of visual language used for the embodiment of content. Credit Level: G. Credit Hrs: 3.00

23DSGN702**Studio: Visual Studies II Form Systems**

Students will explore form systems as parameters and variables leading to an understanding of principles governing the making and use of form: dot, line, shape, an essential component of visual language used for the embodiment of content. Credit Level: G. Credit Hrs: 3.00

23DSGN703**Studio: Visual Studies III Multiples Systems**

Students will explore computer encoded form generating systems of parameters and variables that generate multiples leading to an understanding of principles governing the making and use of multiples and the implications for the embodiment of content. Credit Level: G. Credit Hrs: 3.00

23DSGN711**Design Strategy, Theory & Practice**

Introduction to Design as a Strategic problem solving process. Students will explore methods of design thinking that apply to all design disciplines including design thinking, integrated product development, strategy development, translational research and other methods of design practice that apply across disciplines. Principles of collaboration: importance of cross- functional teams, methods for making group decisions and the role of the individual in the design process will be experienced and discussed. Credit Level: G. Credit Hrs: 3.00

23DSGN712**Interaction Design Theory & Practice**

Introduction to Interaction Design. Students will explore the principles of Interaction as a means to embody processes, often with physical products, and measure the effectiveness of the result. Exploration will occur in the context of cross-disciplinary collaboration. Principles of collaboration: importance of relationship, dealing with differences in vocabulary, proper governance styles and shared purpose will be experienced and discussed. Credit Level: G. Credit Hrs: 3.00

23DSGN713**Visualization Design Theory & Practice**

Introduction to Visualization Design. Students will explore the principles of Visualization as a means to embody data and measure the effectiveness of the result. Exploration will occur in the context of cross-disciplinary collaboration with scientific researchers on shared project. Principles of collaboration: importance of relationship, dealing with differences in vocabulary, proper governance styles and shared purpose will be experienced and discussed. Credit Level: G. Credit Hrs: 3.00

23DSGN717**Teaching Practicum**

Supervised experience in curriculum development and classroom teaching, in lecture, seminar, lab, or studio courses. Credit Level: G. Credit Hrs: 1.00-9.00

23DSGN721**CDRI/Consortium Projects**

Exploration of Translational Design Research. Students will explore professional Design Research in the context of a sponsored project related to government or industry. Credit Level: G. Credit Hrs: 3.00

23DSGN722**CDRI/Consortium Projects**

Exploration of Translational Design Research. Students will explore professional Design Research in the context of a sponsored project related to government or industry. Credit Level: G. Credit Hrs: 3.00

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Design**23DSGN723****CDRI/Consortium Projects**

Exploration of Translational Design Research. Students will explore professional Design Research in the context of a sponsored project related to government or industry. Credit Level: G. Credit Hrs: 3.00

23DSGN724**Summer CDRI/Consortium/Professional Projects**

Exploration of Translational Design Research. Students will explore professional Design Research in the context of a Summer-long sponsored project with a client or for government or industry. Credit Level: G. Credit Hrs: 3.00

23DSGN731**Technique Workshop: 3D Modeling & Prototyping**

Introduction to techniques for computationally based 3D modeling. Learning will occur in the context of the Rapid Prototyping Lab. Credit Level: G. Credit Hrs: 1.00

23DSGN732**Technique Workshop: Programming**

Introduction to the basic principles and techniques of Computer Programming. Learning will occur in Processing software environment. Credit Level: G. Credit Hrs: 1.00

23DSGN733**Design Graduate Studies**

Independent study, advanced studio/lab, or thesis- related research in interdisciplinary design. Credit Level: G. Credit Hrs: 1.00-5.00

23DSGN734**Design Graduate Studies**

Independent study, advanced studio/lab, or thesis- related research in interdisciplinary design. Credit Level: G. Credit Hrs: 1.00-5.00

23DSGN741**Digital Design Graduate Studies**

Graduate studies in advanced studio/lab, or thesis-related research in Digital Design. Credit Level: G. Credit Hrs: 1.00-5.00

23DSGN742**Digital Design Graduate Studies**

Graduate studies in advanced studio/lab, or thesis-related research in Digital Design. Credit Level: G. Credit Hrs: 1.00-5.00

23DSGN743**Digital Design Graduate Studies**

Graduate Studies in advanced studio/lab, or thesis-related research in Digital Design. Credit Level: G. Credit Hrs: 1.00-5.00

23DSGN751**Research Methods 1: Exploratory & Constructive**

Introduction to the subject matter of design research: form and people, followed by an overview of Exploratory Research approaches designed to identify new problems and structure a domain. Students will explore qualitative and quantitative research methods including: Interviews, Surveys, Needs Analysis, Card Sorting, Task Analysis, Focus Groups, Ethnographic Field Studies and Action Research. Credit Level: G. Credit Hrs: 3.00

23DSGN752**Research Methods 2: Empirical & Analysis**

Overview of Empirical Research methods designed to test feasibility and measure effectiveness of proposed design solutions. Students will explore principles of experiment design, statistical analysis, probability and hypothesis testing. Credit Level: G. Credit Hrs: 3.00

23DSGN753**Seminar: Applied Research - Thesis Preparation**

Introduction to the requirements and expectations of the graduate Design thesis project. Credit Level: G. Credit Hrs: 3.00

23DSGN754**Seminar: Design Business**

Introduction to the role of design in business. Students will explore

Design**23DSGN754****Seminar: Design Business**

design thinking and design research and their relationship to traditional business thinking and research. Particular attention will be devoted to the role of design in business innovation. Credit Level: G. Credit Hrs: 3.00

23DSGN755**Seminar: Beauty, Design & Business**

Introduction to the role of aesthetics in design and business. Students will explore aesthetic theory from a practical perspective including the place of beauty in the cognitive and emotive dimensions of individual and societal behavior. Credit Level: G. Credit Hrs: 3.00

23DSGN761**Seminar: Basic Design Research - Perception**

Introduction to Perception for Design. Students will understand and appreciate the role of Perception and Cognition in design. Learning will occur in the context of both readings and experimental studies of the parameters of visual form including preattentively processed visual form. Credit Level: G. Credit Hrs: 3.00

23DSGN762**Graduate Design Research Studio I**

Advanced research-oriented studio. Focus may be discipline-based or interdisciplinary. Credit Level: G. Credit Hrs: 4.00

23DSGN763**Graduate Design Research Studio I**

Advanced research-oriented studio. Focus may be discipline-based or interdisciplinary. Credit Level: G. Credit Hrs: 4.00

23DSGN781**Colloquium: Collaboration & Faculty Research Foci**

Introduction to Design Theory. Students will understand key Design Theories, the importance of both Product - design making, and Process - design thinking, and design criteria such as Sustainability and Usability. Students will understand and cultivate a commitment to excellence in the context of an introduction to the School of Design faculty. Credit Level: G. Credit Hrs: 3.00

23DSGN791**Master Class: Visualization**

Exploration of Visualization Design. Students will explore an advanced project involving Visualization Design in the context of a focused week-long experience with a visiting master faculty. Credit Level: G. Credit Hrs: 1.00

23DSGN792**Master Class: Interaction**

Exploration of Interaction Design. Students will explore an advanced project involving interaction Design in the context of a focused week-long experience with a visiting master faculty. Credit Level: G. Credit Hrs: 1.00

23DSGN793**Master Class: Interdisciplinary**

Exploration of Interdisciplinary Design. Students will explore an advanced project involving Interdisciplinary design in the context of a focused week-long experience with a visiting master faculty. Credit Level: G. Credit Hrs: 1.00

23DSGN801**Studio: Visual Studies IV Time Systems**

Students will explore chrono graphic systems of parameters and variables leading to an understanding of principles governing the making and use of time and the implications of time as a means for the embodiment of content. Credit Level: G. Credit Hrs: 3.00

23DSGN802**Graduate Design Seminar II**

Advanced seminar topics on design, technology, society, and environment. Credit Level: G. Credit Hrs: 4.00

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Design**23DSGN803****Graduate Design Seminar II**

Advanced seminar topics on design, technology, society, and environment. Credit Level: G. Credit Hrs: 4.00

23DSGN811**Design Thesis I**

Guidance on individual thesis projects. Credit Level: G. Credit Hrs: 1.00-6.00

23DSGN812**Design Thesis 2**

Guidance on individual thesis projects. Credit Level: G. Credit Hrs: 1.00-6.00

23DSGN813**Design Thesis 3**

Guidance on individual thesis projects. Credit Level: G. Credit Hrs: 1.00-6.00

23DSGN817**Teaching Practicum**

Supervised experience in classroom teaching, in lecture, seminar, lab, or studio courses. Credit Level: G. Credit Hrs: 1.00-9.00

23DSGN821**CDRI/Consortium Projects**

Exploration of Translational Design Research. Students will explore professional Design Research, in the context of a sponsored project related government or industry. Credit Level: G. Credit Hrs: 3.00

23DSGN822**CDRI/Consortium Projects**

Exploration of Translational Design Research. Students will explore professional Design Research, in the context of a sponsored project to government or industry. Credit Level: G. Credit Hrs: 3.00

23DSGN823**CDRI/Consortium Projects**

Exploration of Translational Design Research. Students will explore professional Design Research, in the context of a sponsored project related to government or industry. Credit Level: G. Credit Hrs: 3.00

23DSGN831**Design Graduate Studies**

Independent study, advanced studio/lab, or thesis- related research in interdisciplinary design. Credit Level: G. Credit Hrs: 1.00-5.00

23DSGN832**Design Graduate Studies**

Independent study, advanced studio/lab, or thesis- related research in interdisciplinary design. Credit Level: G. Credit Hrs: 1.00-5.00

23DSGN833**Design Graduate Studies**

Independent study, advanced studio/lab, or thesis- related research in interdisciplinary design. Credit Level: G. Credit Hrs: 1.00-5.00

23DSGN834**Design Graduate Studies**

Independent study, advanced studio/lab, or thesis- related research in interdisciplinary. Credit Level: G. Credit Hrs: 1.00-5.00

23DSGN841**Digital Design Graduate Studies**

Graduate studies in advanced studio/lab, or thesis-related research in Digital Design. Credit Level: G. Credit Hrs: 1.00-5.00

23DSGN842**Digital Design Graduate Studies**

Graduate studies in advanced studio/lab, or thesis-related research in Digital Design. Credit Level: G. Credit Hrs: 1.00-5.00

23DSGN843**Digital Design Graduate Studies**

Graduate studies in advanced studio/lab, or thesis-related research in

Design**23DSGN843****Digital Design Graduate Studies**

Digital Design. Credit Level: G. Credit Hrs: 1.00-5.00

23DSGN851**Thesis Preparation & Coordination**

Guidance on individual thesis projects with emphasis on the thesis preparation and defense. Credit Level: G. Credit Hrs: 3.00

23DSGN861**Graduate Design Research Studio II**

Advanced research-oriented studio. Focus may be discipline-based or interdisciplinary. Credit Level: G. Credit Hrs: 4.00

23DSGN862**Graduate Design Research Studio II**

Advanced research-oriented studio. Focus may be discipline-based or interdisciplinary. Credit Level: G. Credit Hrs: 4.00

23DSGN863**Graduate Design Research Studio II**

Advanced research-oriented studio. Focus may be discipline-based or interdisciplinary. Credit Level: G. Credit Hrs: 4.00

23DSGN881**Colloquium: Knowledge Theory & Generation**

Exploration of the roles of research in design. Students will review Exploratory/Basic Research, Constructive/Translational research and Empirical /Evaluative research and evaluate their roles in knowledge generation. Students will understand how to formulate Theory from Research Findings. Study will occur in the context of forming a theory and reporting findings. Credit Level: G. Credit Hrs: 3.00

23DSGN882**Colloquium: Knowledge Building & Scholarship**

Students will reflect and review the graduate experience from the viewpoint of Scholarship and the generation of new Knowledge. Students will understand academic writing and the Peer Review Process, develop skill in writing and presenting. Study will occur in the context of reporting thesis findings. Credit Level: G. Credit Hrs: 3.00

23DSGN891**Master Class: Visualization**

Exploration of Visualization Design. Students will explore an advanced project involving Visualization Design in the context of a focused week-long experience with a visiting master faculty. Credit Level: G. Credit Hrs: 1.00

23DSGN892**Master Class: Interaction**

Exploration of Interaction Design. Students will explore an advanced project involving Interaction Design in the context of a focused week-long experience with a visiting master faculty. Credit Level: G. Credit Hrs: 1.00

23DSGN893**Master Class: Interdisciplinary**

Exploration of Interdisciplinary Design. Students will explore an advanced project involving Interdisciplinary Design in the context of a focused week-long experience with a visiting master faculty. Credit Level: G. Credit Hrs: 1.00

Fine Arts - Art**23FAA101****Methods and Concepts I**

Basic principles for visual communication with an emphasis on visual perception as it relates to art. Introduction to 2D and 3D materials. BoK: FA. Credit Level: U. Credit Hrs: 4.00

23FAA102**Methods and Concepts II**

Basic principles of color, covering theory and application. Prereq: 23FAA101. BoK: FA. Credit Level: U. Credit Hrs: 4.00

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Fine Arts - Art**23FAA103****Methods and Concepts III**

Exercises introducing diverse functions and meanings of art and design, with an emphasis on basic compositional principles. Prereq: 23FAA102. BoK: FA. Credit Level: U. Credit Hrs: 4.00

23FAA105**Digital Foundations I**

A three-quarter sequence of two credit courses that will focus on the theoretical and practical application of computers while building general skills and exposing the student to a wide array of software. The course will progress from general computing concepts to 2-D graphical representation then culminating in a 3-D animation and video production. Students will learn general concepts during a lecture portion of the class then apply these concepts utilizing specific software in a lab component of the class. BoK: NA. Credit Level: U. Credit Hrs: 2.00

23FAA106**Digital Foundations II**

A three-quarter sequence of two credit courses that will focus on the theoretical and practical application of computers while building general skills and exposing the student to a wide array of software. The course will progress from general computing concepts to 2-D graphical representation then culminating in a 3-D animation and video production. Students will learn general concepts during a lecture portion of the class then apply these concepts utilizing specific software in a lab component of the class. BoK: NA. Credit Level: U. Credit Hrs: 2.00

23FAA107**Digital Foundations III**

A three-quarter sequence of two credit courses that will focus on the theoretical and practical application of computers while building general skills and exposing the student to a wide array of software. The course will progress from general computing concepts to 2-D graphical representation then culminating in a 3-D animation and video production. Students will learn general concepts during a lecture portion of the class then apply these concepts utilizing specific software in a lab component of the class. BoK: NA. Credit Level: U. Credit Hrs: 2.00

23FAA222**Current Arts Forum**

Discussion and analysis of artists' work and ideas to assist in understanding the nature of art and art making. BoK: FA. Credit Level: U. Credit Hrs: 2.00

23FAA241**Basic Drawing I**

An intensive drawing course. Basic problems in the observation and interpretation of form with concern for space, line, volume, shape, and composition. Varied subject matter and media. BoK: FA. Credit Level: U. Credit Hrs: 4.00

23FAA242**Basic Drawing II**

Continuation of Basic Drawing I. Basic problems in the observation and interpretation of form, with the added study of basic color principles. Varied subject matter and media. Prereq: 23FAA241. BoK: FA. Credit Level: U. Credit Hrs: 4.00

23FAA243**Basic Drawing III**

Continuation of Basic Drawing II. Basic problems in the observation and interpretation of form, with added emphasis on stylistic approaches. Varied subject matter and media. Prereq: 23FAA242. BoK: FA. Credit Level: U. Credit Hrs: 4.00

23FAA311**Introductory Ceramics: Handbuilding**

Introduction of basic properties and techniques of clay. Course includes all basic handbuilding techniques as well as glaze application.

Fine Arts - Art**23FAA311****Introductory Ceramics: Handbuilding**

Prereq: 23FAA243, 23FAA103. BoK: FA. Credit Level: U. Credit Hrs: 4.00

23FAA312**Introductory Ceramics: Handbuilding**

Introduction of basic properties and techniques of clay. Course includes all basic handbuilding techniques as well as glaze application. Prereq: 23FAA243, 23FAA103. BoK: FA. Credit Level: U. Credit Hrs: 4.00

23FAA321**Life Drawing I**

Intensive study of human anatomy. The human figure as a vehicle for drawn images. Prereq: 23FAA243, 23FAA103. BoK: FA. Credit Level: U. Credit Hrs: 4.00

23FAA322**Life Drawing II**

Continuing study of the human anatomy. The human figure as a vehicle for drawn images. Prereq: 23FAA321, 23FAA103, 23FAA243. BoK: FA. Credit Level: U. Credit Hrs: 4.00

23FAA324**Introduction to Animation Art**

Introductory work in the use of animation as a medium for artistic expression. Studio course in which students create works of art and study the practice of professional artists working in this field. BoK: FA. Credit Level: U. Credit Hrs: 4.00

23FAA325**Introduction to Game Art**

Introductory work in the use of computer games as a medium for artistic expression. Studio course in which students create works of art and study the practice of professional artists working in this field. BoK: FA. Credit Level: U. Credit Hrs: 4.00

23FAA326**Introduction to Internet Art**

Introductory work in the use of the Internet as a platform for artistic expression. Studio course in which students create works of art and study the practice of professional artists working in this field. BoK: FA. Credit Level: U. Credit Hrs: 4.00

23FAA327**Introduction to Programming for Artists**

Introductory work in the use of computer programming as a medium for artistic expression. Studio course in which students create works of art and study the practice of professional artists working in this field. BoK: FA. Credit Level: U. Credit Hrs: 4.00

23FAA328**Introduction to Sound Art**

Introductory work in the use of sound as a medium for artistic expression. Studio course in which students create works of art and study the practice of professional artists working in this field. BoK: FA. Credit Level: U. Credit Hrs: 4.00

23FAA329**Introduction to Video for Artists**

Introductory work in the use of video as a medium of artistic expression. Studio course in which students create works of art and study the practice of professional artists working in this field. BoK: FA. Credit Level: U. Credit Hrs: 4.00

23FAA330**Intermediate Drawing**

Exploration in drawing through a broad range of media, processes, and individualized problem solving. Prereq: 23FAA243, 23FAA103. BoK: FA. Credit Level: U. Credit Hrs: 4.00

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Fine Arts - Art**23FAA331****Introduction to Interactive Art**

Introductory work in the design of interactive artwork and the use of the interface as a medium of artistic expression. Studio course in which students create works of art and study the practices of professional artists working in this field. BoK: FA. Credit Level: U. Credit Hrs: 4.00

23FAA334**Introduction to New Media**

Introductory work in the use of new media as a medium of artistic expression. BoK: FA. Credit Level: U. Credit Hrs: 4.00

23FAA335**Computer Animation I**

Introduction to 2D and 3D computer animation techniques. Prereq: 23FAA243, 23FAA103. BoK: FA. Credit Level: U. Credit Hrs: 4.00

23FAA336**Computer Animation II**

Continuing work in Computer Animation. Prereq: 23FAA243, 23FAA103, 23FAA335. BoK: FA. Credit Level: U. Credit Hrs: 4.00

23FAA341**Introductory Painting**

Intensive one-quarter introduction to painting. Varied subject matter and media. Prereq: 23FAA243, 23FAA103. BoK: FA. Credit Level: U. Credit Hrs: 4.00

23FAA342**Introductory Painting**

Continued intensive one-quarter introduction to painting. Varied subject matter and media. Prereq: 23FAA243, 23FAA103, 23FAA341. BoK: FA. Credit Level: U. Credit Hrs: 4.00

23FAA343**Introductory Painting**

Intensive one-quarter introduction to painting. Varied subject matter. Prereq: 23FAA243, 23FAA103, 23FAA342. BoK: FA. Credit Level: U. Credit Hrs: 4.00

23FAA351**Introductory Relief Printmaking**

Beginning relief printing experience. Primarily black and white. Prereq: 23FAA243, 23FAA103. BoK: FA. Credit Level: U. Credit Hrs: 4.00

23FAA352**Introductory Relief Printmaking**

Continuing relief printing experience. Primarily color. Prereq: 23FAA243, 23FAA103. BoK: FA. Credit Level: U. Credit Hrs: 4.00

23FAA354**Introductory Litho Printmaking**

Introduction to the art and technique of hand lithography in a variety of media on stones and metal plates. Prereq: 23FAA103, 23FAA243. BoK: FA. Credit Level: U. Credit Hrs: 4.00

23FAA355**Introductory Litho Printmaking**

Introduction to the art and techniques of hand lithography in a variety of media on stones and metal plates. Prereq: 23FAA103, 23FAA243. BoK: FA. Credit Level: U. Credit Hrs: 4.00

23FAA357**Introductory Intaglio Printmaking**

Beginning experiences in etching, engraving and drypoint on metal plates. Prereq: 23FAA103, 23FAA243. BoK: FA. Credit Level: U. Credit Hrs: 4.00

23FAA358**Introductory Intaglio Printmaking**

Beginning experiences in etching, engraving and drypoint on metal plates. Prereq: 23FAA103, 23FAA243. BoK: FA. Credit Level: U. Credit Hrs: 4.00

Fine Arts - Art**23FAA361****Introductory Sculpture**

A beginning studio course which explores the concepts, techniques, and tools involved in the creation of sculpture. Prereq: 23FAA103, 23FAA243. BoK: FA. Credit Level: U. Credit Hrs: 4.00

23FAA362**Introductory Sculpture**

A beginning studio course which explores the concepts, techniques, and tools involved in the creation of sculpture. Prereq: 23FAA103, 23FAA243. BoK: FA. Credit Level: U. Credit Hrs: 4.00

23FAA371**Introductory Photography**

Lectures and exercises in basic photographic technology and aesthetics. Prereq: 23FAA103, 23FAA243. BoK: FA. Credit Level: U. Credit Hrs: 4.00

23FAA372**Introductory Photography**

Lectures and exercises in basic digital photographic technology and aesthetics. A digital single lens reflex camera with manual control capability is a requirement for this class. Prereq: 23FAA101, 23FAA102, 23FAA103, 23FAA243. BoK: FA. Credit Level: U. Credit Hrs: 4.00

23FAA376**Intermediate Photography**

Exploration of large format cameras, fine printing processes and related traditional photographic practices. Prereq: 23FAA104, 23FAA371, 23FAA372. BoK: FA. Credit Level: U. Credit Hrs: 4.00

23FAA377**Intermediate Photography II**

Exploration of traditional and digital color photographic technologies. Prereq: 23FAA104, 23FAA371, 23FAA372. BoK: FA. Credit Level: U. Credit Hrs: 4.00

23FAA378**Digital Still Photography**

Exploration of digital still photography in relation to PhotoShop, image capture, color management and digital output possibilities. Prereq: 23FAA103, 23FAA371, 23FAA372. BoK: FA. Credit Level: U. Credit Hrs: 4.00

23FAA381**Video for Artists I**

Introduction to basic tools and concepts of video art including camerawork, lighting, sound recording, non-linear editing, and DVD authoring. Students complete several short video projects. Prereq: 23FAA107. BoK: FA. Credit Level: U. Credit Hrs: 4.00

23FAA382**Video for Artists II**

Intermediate level course in techniques and concepts of video art. The class focuses on building image-sound relationships, developing camera and editing skills, and DVD authoring. Prereq: 23FAA381. BoK: FA. Credit Level: U. Credit Hrs: 4.00

23FAA384**Introduction to Media Art**

Students are exposed to the possibilities of art making in a range of new media forms including digital stills, interactive art and web design. Prereq: 23FAA107. BoK: FA. Credit Level: U. Credit Hrs: 4.00

23FAA385**Introduction to Media Art II**

Students are exposed to the possibilities of art making in a range of new media forms including digital stills, interactive art and web design. Prereq: 23FAA384. BoK: FA. Credit Level: U. Credit Hrs: 4.00

23FAA411**Independent Study**

Special art projects for advanced Fine Arts majors only. Subject to acceptance of written proposal, prior to registration, by both instructor and department chair. BoK: NA. Credit Level: U. Credit Hrs: 1.00-6.00

H=University Honors course.

BoK (Breadth of Knowledge) Coding. DC: Diversity & Culture. EC: English composition. FA: Fine Arts. HP: Historical Perspectives. HU: Humanities. LT: Literature. NS: Natural Sciences. QR: Quantitative Reasoning. SE: Social & Ethical Issues. SS: Social Sciences.

Fine Arts - Art**23FAA411****Independent Study**

Special art projects for advanced Fine Arts majors only. Subject to acceptance of written proposal, prior to registration, by both instructor and department chair. BoK: NA. Credit Level: U. Credit Hrs: 1.00-6.00

23FAA412**Independent Study**

Special art projects for Fine Arts majors only. Subject to acceptance of written proposal, prior to registration, by both instructor and department chairperson. BoK: NA. Credit Level: U. Credit Hrs: 1.00-6.00

23FAA413**Independent Study**

Special art projects by advanced Fine Arts majors only. Subject to acceptance of written proposal, prior to registration, by both instructor and department chair. BoK: NA. Credit Level: U. Credit Hrs: 1.00-6.00

23FAA414**Independent Study**

Special art projects for advanced fine arts majors only. Subject to acceptance by written proposal, prior to registration, by instructor and department chairperson. BoK: NA. Credit Level: U. Credit Hrs: 1.00-6.00

23FAA416**Advanced Ceramics**

Handbuilding, glaze calculation and firing techniques. Increased emphasis on conceptualization. Prereq: 23FAA311, 23FAA312, 23FAA330. BoK: FA. Credit Level: U. Credit Hrs: 4.00

23FAA417**Advanced Ceramics**

Handbuilding, glaze calculation and firing techniques. Increased emphasis on conceptualization. Prereq: 23FAA311, 23FAA312. BoK: FA. Credit Level: U. Credit Hrs: 4.00

23FAA418**Advanced Ceramics**

Handbuilding, glaze calculation and firing techniques. Increased emphasis on conceptualization. Prereq: 23FAA311, 23FAA312. BoK: FA. Credit Level: U. Credit Hrs: 4.00

23FAA421**Advanced Drawing**

Problems in drawing as a major medium of expression with an increased emphasis on conceptualization. Prereq: 23FAA321, 23FAA322, 23FAA330. BoK: FA. Credit Level: U. Credit Hrs: 4.00

23FAA422**Advanced Drawing**

Problems in drawing as a major medium of expression with an increased emphasis on conceptualization. Prereq: 23FAA243. BoK: FA. Credit Level: U. Credit Hrs: 4.00

23FAA431**Advanced Electronic Arts**

Advanced coursework in electronic media with an emphasis on concept development, the effective expression of ideas, and refining technical skills BoK: FA. Credit Level: U. Credit Hrs: 4.00

23FAA432**Advanced Electronic Arts**

Advanced coursework in electronic media with an emphasis on concept development, the effective expression of ideas, and refining technical skills BoK: FA. Credit Level: U. Credit Hrs: 4.00

23FAA433**Advanced Electronic Arts**

Advanced coursework in electronic media with an emphasis on concept development, the effective expression of ideas, and refining technical skills BoK: FA. Credit Level: U. Credit Hrs: 4.00

Fine Arts - Art**23FAA434****New Media**

Advanced production course emphasizing electronic media as an art form, developing and directing projects, and creative uses of new media. Students may explore work in a wide range of new media, including digital stills, computer animation, video, installation, sound art, interactive art, and other forms. BoK: FA. Credit Level: U. Credit Hrs: 4.00

23FAA441**Advanced Painting**

Personal development, invention, freedom of expression in all painting media. Prereq: 23FAA341, 23FAA330. BoK: FA. Credit Level: U. Credit Hrs: 4.00

23FAA442**Advanced Painting**

Personal development, invention, freedom of expression in all painting media. Prereq: 23FAA341. BoK: FA. Credit Level: U. Credit Hrs: 4.00

23FAA443**Advanced Painting**

Personal development, invention, freedom of expression in all painting media. Prereq: 23FAA341, 23FAA644. BoK: FA. Credit Level: U. Credit Hrs: 4.00

23FAA451**Advanced Printmaking**

Personal development and experimentation using various print media with an increased emphasis on concept. Prereq: 23FAA103, 23FAA243, 23FAA351, 23FAA354, 23FAA357. BoK: FA. Credit Level: U. Credit Hrs: 4.00

23FAA452**Advanced Printmaking**

Personal development and experimentation using various print media with an increased emphasis on concept. Prereq: 23FAA103, 23FAA243, 23FAA357, 23FAA354. BoK: FA. Credit Level: U. Credit Hrs: 4.00

23FAA453**Advanced Printmaking**

Personal development and experimentation using various print media with an increased emphasis on concept. Prereq: 23FAA103, 23FAA243, 23FAA351, 23FAA354, 23FAA357. BoK: FA. Credit Level: U. Credit Hrs: 4.00

23FAA461**Advanced Sculpture**

In-depth studio course for exploring the creation of sculpture form for students with prior experience in sculpture. Prereq: 23FAA361, 23FAA362, 23FAA330. BoK: FA. Credit Level: U. Credit Hrs: 4.00

23FAA462**Advanced Sculpture**

In-depth studio course for exploring the creation of sculpture form for students with prior experience in sculpture. Prereq: 23FAA361, 23FAA362. BoK: FA. Credit Level: U. Credit Hrs: 4.00

23FAA463**Advanced Sculpture**

In-depth studio course for exploring the creation of sculpture form for students with prior experience in sculpture. Prereq: 23FAA361, 23FAA362. BoK: FA. Credit Level: U. Credit Hrs: 4.00

23FAA471**Advanced Photography**

Intensive study in specialized areas of the photo processes, with increased emphasis on conceptualization. Prereq: 23FAA376, 23FAA377, 23FAA378. BoK: FA. Credit Level: U. Credit Hrs: 4.00

23FAA472**Advanced Photography**

Intensive study in specialized areas of the photo processes, with increased emphasis on conceptualization. Prereq: 23FAA376,

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LT: Literature. NS: Natural Sciences. QR: Quantitative Reasoning. SE: Social & Ethical Issues. SS: Social Sciences.

Fine Arts - Art**23FAA472****Advanced Photography**

23FAA377, 23FAA378. BoK: FA. Credit Level: U. Credit Hrs: 4.00

23FAA473**Advanced Photography**

Intensive study in specialized areas of the photo processes, with increased emphasis on conceptualization. Prereq: 23FAA376, 23FAA377, 23FAA378. BoK: FA. Credit Level: U. Credit Hrs: 4.00

23FAA520**Senior Thesis Project**

This course is for the development of a "Thesis Project" in the visual arts, which culminates in exhibition for DAAPWorks. An IP (In Progress) grade will be given at the end of the autumn with a final grade to be determined at the end of the spring quarter. BoK: FA. Credit Level: U. Credit Hrs: 2.00

23FAA521**Senior Thesis Colloquy**

Review and study of contemporary artistic theory combined with intense analysis of student's creative research, resulting in original thesis statement. Restricted to seniors in Fine Arts who, during the academic year the course is taken, are planning to participate in DAAPWorks. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23FAA524**Advanced Animation Art**

Advanced work in the use of animation as a medium for artistic expression. Studio course in which students create works of art and study the practice of professional artists working in this field. Prereq: 23FAA324. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00-10.00

23FAA525**Advanced Game Art**

Advanced work in the use of computer games as a medium for artistic expression. Studio course in which students create works of art and study the practice of professional artists working in this field. Prereq: 23FAA325. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00-10.00

23FAA526**Advanced Internet Art**

Advanced work in the use of the Internet as a platform for artistic expression. Studio course in which students create works of art and study the practice of professional artists working in this field. Prereq: 23FAA326. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00-10.00

23FAA527**Advanced Programming for Artists**

Advanced work in the use of computer programming as a medium for artistic expression. Studio course in which students create works of art and study the practice of professional artists working in this field. Prereq: 23FAA327. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00-10.00

23FAA528**Advanced Sound Art**

Advanced work in the use of sound as a medium for artistic expression. Studio course in which students create works of art and study the practice of professional artists working in this field. Prereq: 23FAA328. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00-10.00

23FAA529**Advanced Video for Artists**

Advanced work in the use of video as a medium of artistic expression. Studio course in which students create works of art and study the practice of professional artists working in this field. Prereq: 23FAA329. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00-10.00

23FAA531**Advanced Interactive Art**

Advanced work in the design of interactive artwork and the use of the interface as a medium of artistic expression. Studio course in which students create works of art and study the practices of professional artists working in this field. Prereq: 23FAA331. BoK: FA. Credit Level:

Fine Arts - Art**23FAA531****Advanced Interactive Art**

U, G. Credit Hrs: 1.00-10.00

23FAA534**Advanced New Media**

Advanced work in the use of new media as a medium of artistic expression. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00-10.00

23FAA540**Special Studio**

A studio that concentrates on a specific conceptually-based strategy for making art, emphasizing intra-disciplinary creative environment within which to explore art. BoK: FA. Credit Level: U, G. Credit Hrs: 4.00

23FAA541**Special Studio**

A studio that concentrates on a specific conceptually-based strategy for making art, emphasizing intra-disciplinary creative environment within which to explore art. BoK: FA. Credit Level: U, G. Credit Hrs: 4.00

23FAA542**Special Studio**

A studio that concentrates on a specific conceptually-based strategy for making art, emphasizing intra-disciplinary creative environment within which to explore art. BoK: FA. Credit Level: U, G. Credit Hrs: 4.00

23FAA543**Special Studio**

A studio that concentrates on a specific conceptually-based strategy for making art, emphasizing intra-disciplinary creative environment within which to explore art. BoK: FA. Credit Level: U, G. Credit Hrs: 4.00

23FAA544**Special Studio**

A studio that concentrates on a specific conceptually-based strategy for making art, emphasizing intra-disciplinary creative environment within which to explore art. BoK: FA. Credit Level: U, G. Credit Hrs: 4.00

23FAA545**Special Studio**

A studio that concentrates on a specific conceptually-based strategy for making art, emphasizing intra-disciplinary creative environment within which to explore art. BoK: FA. Credit Level: U, G. Credit Hrs: 4.00

23FAA550**Installation Art**

This course will provide students with an interdisciplinary experience that enables them to explore concepts of site-specific, non-traditional and multimedia art. It provides an introduction to the practice of Installation Art, allowing students to experiment with constructing space while investigating issues of scale, repetition, color, line and content within a defined physical space using a variety of media. BoK: FA. Credit Level: U, G. Credit Hrs: 4.00

23FAA571**Practicum**

The application of professional practice skills for fine artists. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23FAA644**Life Painting**

Advanced problem solving and individual work in oil paint using the human form as a reference. Prereq: 23FAA321, 23FAA322, 23FAA341, 23FAA342. BoK: FA. Credit Level: U, G. Credit Hrs: 4.00

23FAA664**Figure Modeling**

Modeling the human form for sculpture from observation. Prereq: 23FAA321, 23FAA361, 23FAA330. BoK: FA. Credit Level: U, G. Credit Hrs: 4.00

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Fine Arts - Art**23FAA665****Sculpture Foundry**

A course in the basic techniques of casting art objects in aluminum or bronze. Prereq: 23FAA361, 23FAA362. BoK: FA. Credit Level: U, G. Credit Hrs: 3.00

23FAA680**Studio Research Assistantship**

Students will conduct research for Fine Arts faculty who are working on specific, substantial studio art research projects. Students will gain indepth knowledge about the work that goes into a long term project, the business aspects of being a working artist, exhibition preparation, and marketing and promotion of art work. Perm of Instructor. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-4.00

23FAA681**Professional Internship**

This course provides constructive learning experiences in support of the visual arts through supervised activity within the studio of a professional art-related organization such as a gallery, museum, studio, or production facility. If working with a professional artist, students will have the opportunity to gain in depth knowledge about the work that goes into a long term project, the business aspects of being a working artist, exhibition preparation, and marketing and promotion of art work. If working for an organization, students will gain experience in practices and requirements and how they interface either with other departments or with other businesses. The student will gain an understanding of day to day operations and the interactions of colleagues within the organization ** students must pick up the guidelines for this internship in the School of Art office prior to registration of the class.** Perm of Instructor. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-4.00

23FAA683**Gallery Internship**

Supervised work in professional gallery. 9 hours each week to assist in gallery preparation, installation, lighting, packing, openings, etc. Perm of Instructor. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00-4.00

23FAA717**Post-Baccalaureate Advanced Ceramics**

Handbuilding, glaze calculation and firing techniques. Increased emphasis on conceptualization. Credit Level: G. Credit Hrs: 1.00-8.00

23FAA727**Post-Baccalaureate Advanced Drawing**

Problems in drawing as a medium of expression with an increased emphasis on conceptualization. Credit Level: G. Credit Hrs: 1.00-8.00

23FAA737**Post-Baccalaureate Advanced Electronic Media**

Development and preproduction of a film or video project, live action, computer, or drawn animation, including script writing and budgeting. Credit Level: G. Credit Hrs: 1.00-8.00

23FAA747**Post-Baccalaureate Advanced Painting**

Personal development, invention, freedom of expression in all painting media. Credit Level: G. Credit Hrs: 1.00-8.00

23FAA757**Post-Baccalaureate Advanced Printmaking**

Personal development and experimentation using various print media with an increased emphasis on conceptualization. Credit Level: G. Credit Hrs: 1.00-8.00

23FAA767**Post-Baccalaureate Advanced Sculpture**

In-depth exploration in an area of stylistic and philosophical interest in sculpture. Credit Level: G. Credit Hrs: 1.00-8.00

23FAA804**Critical History of Museums and Curating**

This course consider the changes in museum and collecting practices since the start of the Great Exhibitions & the founding of the

Fine Arts - Art**23FAA804****Critical History of Museums and Curating**

national museums in the 19th century. Also addresses the growth in the last 30 years of artists' curating practices & impact on exhibition content & design. Credit Level: G. Credit Hrs: 4.00

23FAA805**Curating New Media**

Reviews the challenges faced by museums and galleries when exhibiting new media like video & digital art, as well as applications of technology in museum display. Credit Level: G. Credit Hrs: 4.00

23FAA806**Graduate Installation Art**

Students from all disciplines develop & mount installation art works. Projects are often site- specific, collaborative, temporal, or multi-disciplinary. In addition to studio work, students view & discuss works by established artists & materials relevant to the subject. Credit Level: G. Credit Hrs: 4.00

23FAA821**Graduate Drawing**

Individual research and experimentation through projects employing a variety of drawing media. Credit Level: G. Credit Hrs: 1.00-10.00

23FAA822**Graduate Drawing**

Individual research and experimentation through projects employing a variety of drawing media. Credit Level: G. Credit Hrs: 1.00-10.00

23FAA823**Graduate Drawing**

Individual research and experimentation through projects employing a variety of drawing media. Credit Level: G. Credit Hrs: 1.00-10.00

23FAA828**Graduate 3D Studio**

An interdisciplinary graduate critique and independent studio experience. Credit Level: G. Credit Hrs: 1.00-10.00

23FAA829**Graduate 3D Studio**

An interdisciplinary graduate critique and independent studio experience. Credit Level: G. Credit Hrs: 1.00-10.00

23FAA830**Graduate 3D Studio**

An interdisciplinary graduate critique and independent studio experience. Credit Level: G. Credit Hrs: 1.00-10.00

23FAA831**Graduate Electronic Arts**

Graduate level work in electronic media, with an emphasis on concept development, the effective expression of ideas, and refining technical skills Credit Level: G. Credit Hrs: 1.00-10.00

23FAA832**Graduate Electronic Arts**

Graduate level work in electronic media, with an emphasis on concept development, the effective expression of ideas, and refining technical skills Credit Level: G. Credit Hrs: 1.00-10.00

23FAA833**Graduate Electronic Arts**

Graduate level work in electronic media, with an emphasis on concept development, the effective expression of ideas, and refining technical skills Credit Level: G. Credit Hrs: 1.00-10.00

23FAA834**Graduate New Media**

Graduate level work in advanced production, emphasizing electronic media as an art form, developing and directing projects, and creative uses of new media. Students may explore work in a wide range of new media, including digital stills computer animation, video, installation, sound art interactive art, and other forms. Credit Level: G. Credit Hrs:

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Fine Arts - Art**23FAA834****Graduate New Media**

1.00-10.00

23FAA841**Graduate Painting**

Individual research and experimentation through objects employing a variety of painting media. Credit Level: G. Credit Hrs: 1.00-10.00

23FAA842**Graduate Painting**

Individual research and experimentation through projects employing a variety of painting media. Credit Level: G. Credit Hrs: 1.00-10.00

23FAA843**Graduate Painting**

Individual research and experimentation through projects employing a variety of painting media. Credit Level: G. Credit Hrs: 1.00-10.00

23FAA851**Graduate Printmaking**

Individual research and experimentation through projects employing a variety of printmaking media. Credit Level: G. Credit Hrs: 1.00-10.00

23FAA852**Graduate Printmaking**

Individual research and experimentation through projects employing a variety of printmaking media. Credit Level: G. Credit Hrs: 1.00-10.00

23FAA853**Graduate Printmaking**

Individual research and experimentation through projects employing a variety of printmaking media. Credit Level: G. Credit Hrs: 1.00-10.00

23FAA871**Graduate Photography**

Individual research and experimentation through projects employing a variety of photographic media. Credit Level: G. Credit Hrs: 1.00-10.00

23FAA872**Graduate Photography**

Individual research and experimentation through projects employing a variety of photographic media. Credit Level: G. Credit Hrs: 1.00-10.00

23FAA873**Graduate Photography**

Individual research and experimentation through projects employing a variety of photographic media. Credit Level: G. Credit Hrs: 1.00-10.00

23FAA875**Graduate Fine Arts Thesis**

Work towards thesis exhibition, thesis paper, and oral defense. Credit Level: G. Credit Hrs: 4.00

23FAA888**Special Topic Graduate Seminar**

Seminar in a specific topic of current relevance to graduate students in Fine Arts. Credit Level: G. Credit Hrs: 3.00

23FAA891**Independent Graduate Study**

Independent study for Fine Arts graduate students. Perm of Instructor. Credit Level: G. Credit Hrs: 1.00-10.00

23FAA892**Independent Graduate Study**

Independent study for Fine Arts graduate students. Perm of Instructor. Credit Level: G. Credit Hrs: 1.00-10.00

23FAA893**Independent Graduate Study**

Independent student for Fine Arts graduate students. Credit Level: G. Credit Hrs: 1.00-10.00

Fine Arts - Art**23FAA894****Independent Graduate Study**

Independent study for Fine Arts graduate students. Credit Level: G. Credit Hrs: 1.00-18.00

23FAA895**Teaching Workshop**

Discussion of teaching methodologies and approaches to the presentation of subjects in studio, seminar, and lecture Credit Level: G. Credit Hrs: 3.00

Fashion Design**23FASH191****Fashion Show Production**

Aspects of fashion show production such as: fitting professional models, selection of music, themes, staging, audio-visual preparation, lineup. Final product is professional show. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23FASH204**Design Construction**

Principles in processes, methods, materials of clothing construction. Coreq: 23FASH221. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23FASH205**Design Construction**

Principles in processes, methods, materials of clothing construction. Prereq: 23FASH204. Coreq: 23FASH222. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23FASH206**Fashion Design I**

Introduction course in exploration of apparel design and construction process. Prereq: 23FASH205, 23FASH222, 23FASH223. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23FASH211**Design Communication I**

Fundamental principles of drawing the figure and apparel. Experimentation with variety of media and techniques. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23FASH212**Design Communication I**

Fundamental principles of drawing the figure and apparel. Experimentation with variety of media and techniques. Prereq: 23FASH211. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23FASH213**Design Communication I**

Fundamental principles of drawing the figure and apparel. Experimentation with variety of media and techniques. Prereq: 23FASH212. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23FASH221**Design Technology I**

Fundamental principles of pattern-making. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23FASH222**Design Technology I**

Fundamental principles of pattern-making. Prereq: 23FASH221. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23FASH223**Design Technology I**

Fundamental principles of pattern making. Prereq: 23FASH222. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23FASH232**History of Fashion I**

History of costume from primitive ornamentation to present. Evaluation of style, role of the designer, sociological, psychological aspect of clothing in society. Open to all majors. BoK: HP., SE. Credit Level: U.

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LT: Literature. NS: Natural Sciences. QR: Quantitative Reasoning. SE: Social & Ethical Issues. SS: Social Sciences.

Fashion Design**23FASH232****History of Fashion I**

Credit Hrs: 3.00

23FASH233**History of Fashion II**

History of costume from primitive ornamentation to present. Evaluation of style, role of the designer, sociological, psychological aspect of clothing in society. Open to all majors. Prereq: 23FASH232. BoK: HP, SE. Credit Level: U. Credit Hrs: 3.00

23FASH234**Textiles**

The history, development, marketing, uses of natural and man-made fibers. BoK: NS. Credit Level: U. Credit Hrs: 3.00

23FASH235**Textiles**

Comprehensive study of fibers, yarn, fabrics and finishes, their development, use and serviceability. Prereq: 23FASH234. BoK: NS. Credit Level: U. Credit Hrs: 3.00

23FASH261**Introduction to CAD**

Computer Aided Design development for the Fashion Industry. Presentation skill development. BoK: NS. Credit Level: U. Credit Hrs: 3.00

23FASH291**Fashion Show Production**

Aspects of fashion show production such as: fitting professional models, selection of music, themes, staging, audio-visual preparation, lineup. Final product is professional show. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23FASH350**Fashion Design II**

Exploration of apparel design and construction process. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23FASH351**Fashion Design II**

Exploration of apparel design and construction process. Prereq: 23FASH350. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23FASH354**Introduction to Fashion Design**

Design principles and theory as they apply to fashion design. Concentrates on the design process in use of various 2D media in design presentation. Prereq: 23FASH213. BoK: SS. Credit Level: U. Credit Hrs: 3.00

23FASH355**Design Communication II**

Design principles and theory as they apply to fashion design in visual communication. Concentrates on croquis and on use of various media in design presentation. Prereq: 23FASH213. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23FASH364**Introduction to Portfolio**

Introduction to 2-dimensional design methods. Concentration is on developing co-op portfolio and typographics for resume. BoK: NA. Credit Level: U. Credit Hrs: 1.00

23FASH365**Design Technology II**

Fundamental techniques of draping three-dimensional pattern making. Prereq: 23FASH223, 23FASH206. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23FASH366**Design Technology II**

A continuation of draping three-dimensional pattern making. Develops a higher degree of skill in handling more complex draping projects.

Fashion Design**23FASH366****Design Technology II**

Prereq: 23FASH365. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23FASH388**Independent Studies**

Individual project in collaboration with a faculty member on a subject of mutual interest; based on a written proposal. BoK: NA. Credit Level: U. Credit Hrs: 1.00-3.00

23FASH389**Independent Studies**

Individual project in collaboration with a faculty member on a subject of mutual interest; based on a written proposal. BoK: NA. Credit Level: U. Credit Hrs: 1.00-3.00

23FASH391**Fashion Show Production**

Aspects of fashion show production such as: fitting professional models, selection of music, themes, staging, audio-visual preparation, lineup. Final product is professional show. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23FASH423**Fashion Photography I**

Lectures and experience with photographic studio procedures and techniques: lighting, figure as subject, using natural and studio situations. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23FASH441**Fashion Design III**

Exploration of apparel design and construction process. Concentration on nonwovens. Prereq: 23FASH351. BoK: FA. Credit Level: U. Credit Hrs: 6.00

23FASH447**Fashion Design III**

Exploration of apparel design and construction process. Concentration on tailoring. Prereq: 23FASH351. BoK: FA. Credit Level: U. Credit Hrs: 6.00

23FASH451**Fashion Design Seminar**

Seminar with special topics in fashion design. Perm of Instructor. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23FASH452**Fashion Design III**

Exploration of apparel design and construction process with emphasis on non-wovens. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23FASH453**Design Research**

Collaborative research into a specific, industry-driven problem. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23FASH461**Design Communication III**

Introduction to watercolor techniques used in Fashion Illustration. Prereq: 23FASH213. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23FASH465**Portfolio**

Development of a professional portfolio. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23FASH471**Product Development Seminar**

Seminar with special topics in Product Development. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23FASH472**Product Development Seminar**

Seminar with special topics in Product Development. BoK: FA. Credit Level: U. Credit Hrs: 3.00

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LT: Literature. NS: Natural Sciences. QR: Quantitative Reasoning. SE: Social & Ethical Issues. SS: Social Sciences.

Fashion Design**23FASH488****Independent Studies**

Individual project in collaboration with a faculty member on a subject of mutual interest; based on a written proposal. BoK: NA. Credit Level: U. Credit Hrs: 1.00-3.00

23FASH489**Independent Studies**

Individual project in collaboration with a faculty member on a subject of mutual interest; based on a written proposal. BoK: NA. Credit Level: U. Credit Hrs: 1.00-3.00

23FASH491**Fashion Show Production**

Aspects of fashion show production such as: fitting professional models, selection of music, themes, staging, audio visual preparation, lineup. Final product is professional show. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23FASH541**Fashion Design IV**

Concept, design, sketches, pattern development, construction and presentation of a minicollection of garments. BoK: FA. Credit Level: U, G. Credit Hrs: 6.00

23FASH542**Fashion Design IV**

Exploration of apparel design and construction process and presentation of a mini collection of garments. Prereq: 23FASH541. BoK: NA. Credit Level: U, G. Credit Hrs: 6.00

23FASH553**Product Development II**

Concept design, sketches, presentation boards, prototype development and presentation of a product line for retail sales. BoK: SS. Credit Level: U. Credit Hrs: 6.00

23FASH588**Independent Studies**

Individual project in collaboration with a faculty member on a subject of mutual interest; based on a written proposal. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-3.00

23FASH589**Independent Studies**

Individual project in collaboration with a faculty member on a subject of mutual interest; based on a written proposal. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-3.00

23FASH591**Fashion Show Production**

Aspects of fashion show production such as: fitting professional models, selection of music, themes, staging, audio-visual preparation, lineup. Final product is professional show. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23FASH762**Product Development II**

Concept, design, sketches, presentation boards, prototype development and presentation of a product line for retail sale. Prereq: 23FASH761. BoK: NA. Credit Level: U. Credit Hrs: 6.00

23FASH731**Design Graduate Studies**

Graduate studies in advanced studio/lab, or thesis-related research in Fashion Design. Credit Level: G. Credit Hrs: 1.00-5.00

23FASH732**Design Graduate Studies**

Graduate studies in advanced studio/lab, or thesis-related research in Fashion Design. Credit Level: G. Credit Hrs: 1.00-5.00

23FASH733**Design Graduate Studies**

Graduate studies in advanced studio/lab, or thesis-related research in

Fashion Design**23FASH733****Design Graduate Studies**

Fashion Design. Credit Level: G. Credit Hrs: 1.00-5.00

23FASH751**Advanced History of Fashion I**

History of costume from primitive ornamentation to present. Evaluation of style, role of the designer, sociological, psychological aspect of clothing in society. Credit Level: G. Credit Hrs: 4.00

23FASH752**Advanced History of Fashion 2**

History of costume from primitive ornamentation to present. Evaluation of style, role of the designer, sociological, psychological aspect of clothing in society. Credit Level: G. Credit Hrs: 4.00

23FASH761**Product Development I**

Study of the process of product development as it pertains to retail. Researching, planning, developing, and presenting a product line for an identified target market with regard to styling, timing, and prices. Production options are studied and evaluated with regard to specification and quality development. Credit Level: G. Credit Hrs: 6.00

23FASH763**Seminar in Merchandising**

Current trends and issues are researched and discussed as they relate to manufacturing and merchandising. Case study analysis in buying and merchandising. Credit Level: G. Credit Hrs: 3.00

23FASH831**Design Graduate Studies**

Graduate studies in advanced studio/lab, or thesis-related research in Fashion Design. Credit Level: G. Credit Hrs: 1.00-5.00

23FASH832**Design Graduate Studies**

Graduate studies in advanced studio/lab, or thesis-related research in Fashion Design. Credit Level: G. Credit Hrs: 1.00-5.00

23FASH833**Design Graduate Studies**

Graduate studies in advanced studio/lab, or thesis-related research in Fashion Design. Credit Level: G. Credit Hrs: 1.00-5.00

Fashion Design Product Development**23FDPD204****Product Construction**

Principles in processes, methods, and execution of soft goods for the fashion marketplace. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23FDPD205**Product Construction**

Principles in processes, methods, and execution of soft goods for the fashion marketplace. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23FDPD211**Design Communication I**

Fundamental principles of drawing the figure and apparel. Experimentation with variety of media and techniques. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23FDPD212**Design Communication I**

Fundamental principles of drawing the figure and apparel. Experimentation with variety of media and techniques. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23FDPD213**Design Communication I**

Fundamental principles of drawing the figure and apparel. Experimentation with variety of media techniques. BoK: NA. Credit Level: U. Credit Hrs: 3.00

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Fashion Design Product Development**23FDPD221****Product Technology I**

Fundamental principles of pattern-making. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23FDPD222**Product Technology I**

Fundamental principles of pattern-making. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23FDPD261**Introduction to CAD**

Computer-aided design development for the Fashion Industry with emphasis on computer and presentation skills. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23FDPD271**Industry Theory and Practice**

Comprehensive study of fashion as a business; from design theory and process, to manufacturing, to retailer and ultimately the consumer. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23FDPD272**Industry Theory and Practice**

Comprehensive study of fashion as a business; from design theory and process, to manufacturing, to the retailer and ultimately the consumer. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23FDPD352**Fashion Buying**

A study of retail store buying, planning, merchandising and promotion. Merchandising mathematics are emphasized in relation to profit. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23FDPD353**Introduction to Product Development**

Fundamental principles of the product development process and introduction to marketing and product research, concept fashion development, trends research and design-driven product development. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23FDPD356**CAD Communication**

Introductory course in computer-aided fabric design, color and pattern development and digital printing for fabric development. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23FDPD453**Product Development I**

Study of the process of product development including trend analysis, brand analysis, design, merchandising and marketing. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23FDPD454**Product Development II**

Study of the process of product development including product design, prototype development and technical specifications for developing a product. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23FDPD455**Trend Forecasting**

Study of the theories and methodology in the field of trend forecasting and its impact on product development. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23FDPD465**Portfolio**

Developing and branding a fashion product development portfolio. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23FDPD552**Merchandising Seminar**

Current trends and issues are researched and discussed as they relate to fashion product development. Emphasis on the line selection process, line merchandising and visual merchandising. BoK: NA. Credit

Fashion Design Product Development**23FDPD552****Merchandising Seminar**

Level: U. Credit Hrs: 3.00

23FDPD553**Product Development III**

Design research methods and their impact on product development are explored and tested. A design research path is determined for a senior thesis project and the research is completed for a self-driven product development thesis project. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23FDPD554**Product Development IV**

Design and development and presentation of a branded fashion product line for a specified target market. The project is a self-directed thesis project presented for final evaluation to a jury of industry professionals. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23FDPD575**Global Design Issues**

Study and research into global design issues with respect to the fashion design and product development industry. Issues include global trade, culture and cultural impact on business, global ethics, universal design and sustainability. BoK: NA. Credit Level: U. Credit Hrs: 3.00

Foundation Studies**23FDST101****Foundation Studio -- Color**

The rudiments of visual perception using color; encompassing its theory and interaction. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23FDST102**Foundation Studio -- Form**

The rudiments of visual perception and the anatomy of a visual message in 2-dimensional spatial dynamics. Prereq: 23FDST101. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23FDST103**Foundation Studio -- Space**

The rudiments of 3-dimensional spatial dynamics; articulating form and space. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23FDST121**Foundation Studio -- Design Drawing**

Basic exercises in the observation, structure and articulation of form in space. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23FDST122**Foundation Studio -- Design Drawing**

Basic exercises in the observation, structure and articulation of form in space. Prereq: 23FDST121. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23FDST123**Foundation Studio -- Design Drawing**

Basic exercises in the observation, structure and articulation of form in space. Prereq: 23FDST122. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23FDST131**Digital Design Fundamentals**

Rudiments of basic computer operation encompassing raster and vector graphic-based applications, page layout, and networked communications. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23FDST132**Digital Design Fundamentals**

Rudiments of basic computer operation encompassing raster and vector graphic-based applications, page layout, and networked communications. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23FDST133**Digital Design Fundamentals**

Rudiments of basic computer operation encompassing raster and vector graphic-based applications, page-layout, and networked communications. BoK: NA. Credit Level: U. Credit Hrs: 3.00

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Foundation Studies**23FDST270****Sources of Modern Design**

The course will focus on the relationship between design and society during the past two-and-a-half centuries. The industrial and political revolutions of the eighteenth century will serve as a pivotal historic reference for the ways in which design has responded to the fundamental ideas of the modern era. Prereq: 23ARTH113. BoK: HP, SE. Credit Level: U. Credit Hrs: 3.00

23FDST280**Core Topics**

Core offering that is integral to or of equal professional and educational interest and relevancy for all disciplines. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23FDST370**Sources of Modern Design: University Honors Scholars Section**

Design, technology and society in the 19th and 20th centuries. BoK: HP., SE. Credit Level: U. Credit Hrs: 4.00

23FDST380**Core Topics**

Issues in various design topics as determined by faculty. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23FDST480**Core Topics**

Issues in various design topics as determined by faculty. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23FDST531**Technical Instruction Practicum**

The intent of this course is to provide technical assistance and support for first year students in Design. BoK: NA. Credit Level: U. Credit Hrs: 1.00-4.00

23FDST532**Technical Instruction Practicum**

The intent of this course is to provide technical assistance and support for first year students in Design. BoK: NA. Credit Level: U. Credit Hrs: 1.00-4.00

23FDST533**Technical Instruction Practicum**

The intent of this course is to provide technical assistance and support for first year students in Design. BoK: NA. Credit Level: U. Credit Hrs: 1.00-4.00

23FDST580**Design Topics**

Issues in various design topics as determined by faculty. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23FDST731**Design Graduate Studies**

Graduate studies in advanced studio/lab, or thesis-related research in Basic Design and Drawing. Credit Level: G. Credit Hrs: 1.00-5.00

23FDST732**Design Graduate Studies**

Graduate studies in advanced studio/lab, or thesis-related research in Basic Design and Drawing. Credit Level: G. Credit Hrs: 1.00-5.00

23FDST733**Design Graduate Studies**

Graduate studies in advanced studio/lab, or thesis-related research in Basic Design and Drawing. Credit Level: G. Credit Hrs: 1.00-5.00

23FDST770**Sources of Modern Design**

The course will focus on the relationship between design and society during the past two-and-a-half centuries. The industrial and political revolutions of the eighteenth century will serve as a pivotal historic reference for the ways in which design has responded to the

Foundation Studies**23FDST770****Sources of Modern Design**

fundamental ideas of the modern era. Credit Level: G. Credit Hrs: 3.00-4.00

23FDST831**Design Graduate Studies**

Graduate studies in advanced studio/lab, or thesis-related research in Basic Design and Drawing. Credit Level: G. Credit Hrs: 1.00-5.00

23FDST832**Design Graduate Studies**

Graduate studies in advanced studio/lab, or thesis-related research in Basic Design and Drawing. Credit Level: G. Credit Hrs: 1.00-5.00

23FDST833**Design Graduate Studies**

Graduate studies in advanced studio/lab, or thesis-related research in Basic Design and Drawing. Credit Level: G. Credit Hrs: 1.00-5.00

Graphic Design**23GRPH201****Design Aesthetics I: Studio**

Explores understanding, development and communication of visual form. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23GRPH202**Design Aesthetics II: Studio**

Explores understanding, development and communication of visual form. Prereq: 23GRPH201. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23GRPH211**Photo Design I**

Technical aspects of equipment, materials, processing. Emphasis on aesthetic analysis. Some special equipment expense required. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23GRPH212**Photo Design II**

Technical aspects of equipment, materials, processing. Emphasis on aesthetic analysis. Some special equipment expense required. Prereq: 23GRPH211. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23GRPH213**Photo Design III**

Technical aspects of equipment, materials, processing. Emphasis on aesthetic analysis. Some special equipment expense required. Prereq: 23GRPH212. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23GRPH221**Type Design**

Introduction to history and process of calligraphic and typographic symbology. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23GRPH222**Text Design**

Electronic manipulation of text exploring the potential for variations. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23GRPH223**Type/Text Design I**

Study of letterforms and designing with type. Aesthetics of typography. BoK: FA., SS. Credit Level: U. Credit Hrs: 3.00

23GRPH231**Drawn Design I**

Disciplined free hand drawing. Representational and aesthetic concern. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23GRPH271**Graphic Design Seminar I: Skills**

Explanation of printing, paper, typesetting, pre-press, and production methods. BoK: NA. Credit Level: U. Credit Hrs: 3.00

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Graphic Design**23GRPH272****Graphic Design Seminar II: Form**

Seminar addresses issues and information related to the curricular level, social context, and form investigations. Prereq: 23GRPH271. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23GRPH301**Design Aesthetics III**

Explores understanding, development, and communication of visual form. Prereq: 23GRPH202. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23GRPH311**Photo Design IV**

Integration of photodesign techniques with typography, symbology, and dimension. Prereq: 23GRPH213. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23GRPH321**Type/Text Design II**

Legibility, multiple and sequential experiences. Interrelationships of text, heading, format, grids, and design elements. Prereq: 23GRPH223. BoK: FA, SS. Credit Level: U. Credit Hrs: 3.00

23GRPH322**Type/Text Design III**

Legibility, multiple and sequential experiences. Interrelationships of text, heading, format, grids, and design elements. Prereq: 23GRPH321. BoK: FA, SS. Credit Level: U. Credit Hrs: 3.00

23GRPH331**Drawn Design II**

Representational image-making. Object, nature, and concept rendering. Prereq: 23GRPH231. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23GRPH332**Drawn Design III**

Representational image-making. Object, nature, and concept rendering. Prereq: 23GRPH331. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23GRPH341**Communication Design I**

Consideration of levels of communication, symbology, development of concept, environment, and audience. Prereq: 23GRPH202. BoK: FA, SS. Credit Level: U. Credit Hrs: 3.00

23GRPH342**Communication Design II**

Consideration of levels of communication, symbology, development of concept, environment, and audience. Prereq: 23GRPH341. BoK: FA, SS. Credit Level: U. Credit Hrs: 3.00

23GRPH371**Graphic Design Seminar III**

Seminar addresses issues and information related to the curricular level, social context, and content investigations. Prereq: 23GRPH272. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23GRPH372**Graphic Design Seminar IV**

Seminar addresses issues and information related to the level, social context, and content investigations. Prereq: 23GRPH371. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23GRPH388**Independent Studies**

Individual project in collaboration with a faculty member on subject of mutual interest; based on written proposal. BoK: NA. Credit Level: U. Credit Hrs: 1.00-3.00

23GRPH389**Independent Studies**

Individual project in collaboration with a faculty member on subject of mutual interest; based on written proposal. BoK: NA. Credit Level: U. Credit Hrs: 1.00-3.00

Graphic Design**23GRPH441****Communication Design III**

Special attention to the problem-solving process and inclusive methods of visual communication. Prereq: 23GRPH342. BoK: FA, SS. Credit Level: U. Credit Hrs: 3.00

23GRPH442**Communication Design IV**

Special attention to the problem-solving process and inclusive methods of visual communication. Prereq: 23GRPH441. BoK: FA, SS. Credit Level: U. Credit Hrs: 3.00

23GRPH451**Design Systems I**

Development of visual programs for sequential viewing. Experimentation with slide presentation, video tape, film, and multi-media systems. Prereq: 23GRPH301. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23GRPH452**Design Systems II**

Development of visual programs for sequential viewing. Experimentation with slide presentation, video tape, film, and multi-media systems. Prereq: 23GRPH451. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23GRPH471**Graphic Design Seminar V: Concept**

Seminar addresses issues and information related to curricular level, social context, and concept investigations. Prereq: 23GRPH372. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23GRPH472**Graphic Design Seminar VI: Concept**

Seminar addresses issues and information related to curricular level, social context, and concept investigation. Prereq: 23GRPH471. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23GRPH488**Independent Studies**

Individual project in collaboration with a faculty member on subject of mutual interest; based on written proposal. BoK: NA. Credit Level: U. Credit Hrs: 1.00-3.00

23GRPH489**Independent Studies**

Individual project in collaboration with a faculty member on subject of mutual interest; based on written proposal. BoK: NA. Credit Level: U. Credit Hrs: 1.00-3.00

23GRPH551**Design Systems III**

Communication design problems requiring research, analysis, execution, and evaluation. Prereq: 23GRPH452. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23GRPH552**Design Systems IV**

Communication design problems requiring research, analysis, execution, and evaluation. Prereq: 23GRPH551. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23GRPH561**Design Methodology: Studio**

Research, procedure and social analysis in relationship to communication theory and practice. Prereq: 23GRPH452. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23GRPH562**Design Methodology: Studio**

Research, procedure and social analysis in relationship to communication theory and practice. Prereq: 23GRPH561. BoK: NA. Credit Level: U. Credit Hrs: 3.00

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Graphic Design**23GRPH571****Graphic Design Seminar VII: Synthesis**

Seminar addresses issues and information related to curricular level, social context, and competency synthesis. Prereq: 23GRPH472. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23GRPH572**Graphic Design Seminar VIII: History**

Traces the development of human graphic communication from prehistoric man to the present. Student team projects produce in-depth visual and verbal examination of specific topics. Prereq: 23GRPH571. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00-4.00

23GRPH588**Independent Studies**

Individual project in collaboration with a faculty member on subject of mutual interest; based on written proposal. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-3.00

23GRPH731**Design Graduate Studies**

Graduate studies in advanced studio/lab, or thesis-related research in Graphic Design. Credit Level: G. Credit Hrs: 1.00-5.00

23GRPH732**Design Graduate Studies**

Graduate studies in advanced studio/lab, or thesis-related research in Graphic Design. Credit Level: G. Credit Hrs: 1.00-5.00

23GRPH733**Design Graduate Studies**

Graduate studies in advanced studio/lab, or thesis-related research in Graphic Design. Credit Level: G. Credit Hrs: 1.00-5.00

23GRPH751**History of Graphic Design**

Review of Graphic Design history from the 1890s to 1990s. Credit Level: G. Credit Hrs: 4.00

23GRPH752**History of Graphic Design 2**

Review of Graphic Design history from the 1890s to 1990s. Credit Level: G. Credit Hrs: 4.00

23GRPH831**Design Graduate Studies**

Graduate studies in advanced studio/lab, or thesis-related research in Graphic Design. Credit Level: G. Credit Hrs: 1.00-5.00

23GRPH832**Design Graduate Studies**

Graduate studies in advanced studio/lab, or thesis-related research in Graphic Design. Credit Level: G. Credit Hrs: 1.00-5.00

23GRPH833**Design Graduate Studies**

Graduate studies in advanced studio/lab, or thesis-related research in Graphic Design. Credit Level: G. Credit Hrs: 1.00-5.00

Industrial Design: Transportation**23IDTR203****Transportation Design Studio**

Students are challenged with problems that establish the relationships among aesthetic fundamentals, including considerations of structure, function, materials and processes. Prereq: 23INDL202. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23IDTR213**Transportation Design Communications**

This studio is an introduction to techniques, which stresses freehand sketching and rendering. Emphasis is placed on proportion, perspective, and use of color. Prereq: 23INDL212. BoK: FA. Credit Level: U. Credit Hrs: 3.00

Industrial Design: Transportation**23IDTR223****Design Technology Transportation**

This studio includes computer based three-dimensional design techniques used in the vehicle design process. Prereq: 23INDL222. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23IDTR263**Seminar: The Making of Things III**

Introduction to materials, production, fabrication, and assembly methods for modeling and prototyping of proposed designs with transportation focus. Course content includes lecture, discussion, demonstrations, field trips, hands-on shop experience and certification in the use of specific shop tools. Prereq: 23INDL262. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23IDTR300**Figure Drawing ID**

Students learn traditional and contemporary figure drawing techniques. Emphasis is on practical application of the figure within product sketches and renderings that will enhance student's ability to more effectively communicate design proposals. (Directed Studio Elective) BoK: FA. Credit Level: U. Credit Hrs: 3.00

23IDTR301**Transportation Design Studio**

This studio further develops and refines the design skills and knowledge through problem solving activities with transportation products. Prereq: 23IDTR203. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23IDTR302**Transportation Design Studio**

Studio applies previous design experiences to problems of greater scope and closer association with current social needs. Prereq: 23IDTR301. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23IDTR311**Transportation Design Communications**

Studio exploring advanced visual communications in sketching and rendering techniques and the introduction of two-dimensional computer rendering techniques. Prereq: 23IDTR213. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23IDTR312**Transportation Design Communications**

This course continues to explore advanced visual communications in sketching and rendering techniques and the introduction of two-dimensional computer rendering techniques. Prereq: 23IDTR311. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23IDTR321**Design Technology Transportation**

Advanced use of computer based three-dimensional design techniques in the vehicle design process. Prereq: 23IDTR223. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23IDTR331**Seminar: Theory of Transportation Design I**

Lecture-seminar introducing principles and theories of design, transportation design, systematic design process, problem solving and creativity. Perm of Instructor. BoK: SS. Credit Level: U. Credit Hrs: 3.00

23IDTR332**Seminar: Theory of Transportation Design II**

Lecture-seminar in systematic design process, design research methods, and design issues in social responsibility. BoK: SS. Credit Level: U. Credit Hrs: 3.00

23IDTR341**Topical Studio III**

Transportation Design Studio focused on specific topic in a collaborative, multi-disciplinary format, most frequently with a corporate partner. Perm of Instructor. BoK: NA. Credit Level: U. Credit Hrs: 3.00

Industrial Design: Transportation**23IDTR342****Topical Studio III**

Transportation Design Studio focused on specific topic in a collaborative, multi-disciplinary format, most frequently with a corporate partner. Perm of Instructor. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23IDTR401**Transportation Design Studio**

Transportation design students develop solutions to problems that are varied in scope and nature. Emphasis is placed on contextual analysis, design process, and systems. Prereq: 23IDTR302. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23IDTR402**Transportation Design Studio**

Advanced transportation design students continue to research and develop solutions to problems that are varied in scope and nature. Emphasis is placed on contextual analysis, design process, technology, systems and marketing Prereq: 23IDTR401. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23IDTR411**Design Communications for Transportation**

Advanced exploration of sketching and rendering techniques in various media. Prereq: 23IDTR312. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23IDTR412**Design Communications for Transportation**

Continued advanced exploration of sketching and rendering techniques in various media. Prereq: 23IDTR411. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23IDTR441**Topical Studio IV**

Transportation Design Studio focused on specific topic in a collaborative, multi-disciplinary format, most frequently with a corporate partner. Perm of Instructor. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23IDTR442**Topical Design IV**

Transportation Design Studio focused on specific topic in a collaborative, multi-disciplinary format, most frequently with a corporate partner. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23IDTR461**Materials and Processes for Transportation**

Vehicle packaging introduces students to requirements that must be incorporated and adhered to in transportation design. Prereq: 23INDL361. BoK: NS. Credit Level: U. Credit Hrs: 3.00

23IDTR462**Materials and Processes for Transportation**

Lecture course exploring materials and manufacturing processes used in the transportation industry. Prereq: 23INDL461. BoK: NS. Credit Level: U. Credit Hrs: 3.00

23IDTR471**Human Factors in Transportation Design**

Human physical, psychological, and sociological properties, as the basis for transportation design. BoK: HP., SE. Credit Level: U. Credit Hrs: 3.00

23IDTR472**Human Factors for Transportation**

Human physical, psychological, and sociological, properties as the basis for transportation design. Prereq: 23INDL471. BoK: NS, SE. Credit Level: U. Credit Hrs: 3.00

23IDTR501**Transportation Capstone Studio**

Senior capstone thesis research and ideation development. Prereq: 23IDTR402. BoK: NA. Credit Level: U. Credit Hrs: 3.00

Industrial Design: Transportation**23IDTR502****Transportation Capstone Studio**

Conceptual and design development of senior capstone thesis. Prereq: 23IDTR501. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23IDTR503**Transportation Capstone Studio**

Advanced conceptual design development of senior capstone thesis. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23IDTR511**Transportation Design Communications**

Studio of advanced techniques in visual communications meeting professional standards, to include portfolio compilation and presentation and use of computer techniques and applications. Prereq: 23IDTR412. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23IDTR512**Transportation Design Communications**

Studio of advanced techniques in visual communications meeting professional standards, with emphasis on portfolio compilation and presentation and the use of computer techniques and applications. Prereq: 23IDTR511. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23IDTR513**Transportation Design Communications**

Advanced studio techniques in visual communications meeting professional standards, with emphasis on portfolio compilation and presentation, in addition to the use of advanced computer techniques and applications. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23IDTR531**Seminar: Social Issues in Design**

An elective lecture/seminar or studio based on special topics related to social, economic, and environmental issues in transportation design. Perm of Instructor. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23IDTR541**Topical Studio V**

Transportation Design Studio focused on specific topic in a collaborative, multi-disciplinary format, most frequently with a corporate partner. Perm of Instructor. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23IDTR542**Topical Studio V**

Transportation Design Studio focused on specific topic in a collaborative, multi-disciplinary format, most frequently with a corporate partner. Perm of Instructor. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23IDTR582**Career Design and Professional Development**

Information about career planning and job-seeking, including the development of cover letters, resumes, portfolios and the interview process. Practicing design professionals may serve as guest speakers to address topics relevant to the practice of Transportation Design and Industrial Design. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23IDTR583**Professional Mentorship**

This course is a series of lectures and presentations from a broad range of professional experts within the field of transportation design. These professionals expose students to different areas of expertise within the field including career planning, job seeking and portfolio packaging. Prereq: 23IDTR501. BoK: NA. Credit Level: U. Credit Hrs: 3.00

Industrial Design**23INDL201****Industrial Design**

Problems establishing relationships among aesthetic fundamentals, including considerations of structure, function, materials, process. Prereq: 23FDST101, 23FDST102, 23FDST103. BoK: FA. Credit Level: U. Credit Hrs: 3.00

H=University Honors course.

BoK (Breadth of Knowledge) Coding. DC: Diversity & Culture. EC: English composition. FA: Fine Arts. HP: Historical Perspectives. HU: Humanities. LT: Literature. NS: Natural Sciences. QR: Quantitative Reasoning. SE: Social & Ethical Issues. SS: Social Sciences.

Industrial Design**23INDL202****Industrial Design**

Problems establishing relationships among aesthetic fundamentals, including considerations of structure, function, materials, process. Prereq: 23INDL201, 23FDST103. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23INDL203**Industrial Design**

Problems establishing relationships among aesthetic fundamentals, including considerations of structure, function, materials, process. Prereq: 23INDL202, 23FDST103. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23INDL211**Design Communications**

In Design Communications students learn to express their design ideas in a concise, compelling and efficient way. Emphasis is on dry media such as pastels, marker and colored pencils. Some of the papers used include vellum, bond paper and half-tone paper. Students are also instructed to complete assignments digitally, the importance of accurate perspective and clear rendering of form is stressed. This course covers industrial design 2D visualization techniques for sophomore-level students. Prereq: 23FDST123. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23INDL212**Design Communications**

This Design Communication course covers many traditional industrial design visualization techniques. Emphasis is on developing the ability to efficiently communicate design ideas in a convincing manner using perspective, color, value and lighting to define form. Students are introduced to the importance of research, advanced technologies and benchmarking. Prereq: 23INDL211, 23FDST103. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23INDL213**Design Communications**

Advanced Sophomore Design Communication courses are designed to strengthen the product design student's electronic drawing and rendering skills to a professional level while at the same time fostering conceptual thinking. Projects of two or four week durations are undertaken covering a wide range of subjects from components to a complete product. Prereq: 23INDL212. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23INDL221**Design Technology**

Introduction to computer based three dimensional graphics techniques. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23INDL222**Design Technology**

This course covers many traditional industrial design visualization techniques. Emphasis is on developing the ability to efficiently communicate design ideas in a convincing manner using perspective, color, value and lighting to define form. Students are introduced to the importance of research, advanced technologies and benchmarking. Prereq: 23INDL221. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23INDL223**Design Technology**

This course covers many traditional industrial design visualization techniques. Emphasis is on developing the ability to efficiently communicate design ideas in a convincing manner using perspective, color, value and lighting to define form. Students are introduced to the importance Prereq: 23INDL222. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23INDL251**History of Industrial Design**

Factors influencing the form and technology of man-made objects from pre-industrial revolution period to twentieth century with emphasis on

Industrial Design**23INDL251****History of Industrial Design**

evolution of practice of industrial design. BoK: HP., SE. Credit Level: U. Credit Hrs: 3.00

23INDL252**History of Industrial Design**

Factors influencing the form and technology of man-made objects from pre-industrial revolution period to twentieth century with emphasis on evolution of practice of industrial design. Prereq: 23INDL251. BoK: HP, SE. Credit Level: U. Credit Hrs: 3.00

23INDL261**Seminar: The Making of Things I**

Introduction to materials, production, fabrication, and assembly methods for modeling and prototyping of proposed product designs. Course content includes lecture, discussion, demonstrations, field trips, hands-on shop experience and certification in the use of specific shop tools. Perm of Instructor. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23INDL262**Seminar: The Making of Things II**

Introduction to materials, production, fabrication, and assembly methods for modeling and prototyping of proposed product designs. Course content includes lecture, discussion, demonstrations, field trips, hands-on shop experience and certification in the use of specific shop tools. Prereq: 23INDL261. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23INDL263**Seminar: The Making of Things III**

Introduction to materials, production, fabrication, and assembly methods for modeling and prototyping of proposed product designs. Course content includes lecture, discussion, demonstrations, field trips, hands-on shop experience and certification in the use of specific shop tools. Prereq: 23INDL262. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23INDL301**Industrial Design Studio**

Further development and refinement of design knowledge and skills through problem-solving activities associated with typical consumer products. Prereq: 23INDL203. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23INDL302**Industrial Design Studio**

Application of previous design experience to problems of greater scope and closer association with current social needs and production methods. Prereq: 23INDL301. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23INDL311**Design Communication**

Advanced studio work in the science and art of objective visual communication using sketching and rendering techniques. Prereq: 23INDL223. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23INDL312**Design Communications**

Advanced studio work in the science and art of objective visual communication using sketching and rendering techniques. Prereq: 23INDL311. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23INDL321**Design Technology**

Advanced Alias modeling with integration of industrial design studio problems. Prereq: 23INDL382. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23INDL331**Seminar: Theory of Industrial Design**

Lecture-seminar introducing principles and theories of design, industrial design, systematic design process, problem solving and creativity. Perm of Instructor. BoK: SS. Credit Level: U. Credit Hrs: 3.00

H=University Honors course.

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Industrial Design**23INDL332****Seminar: Theory of Industrial Design II**

Lecture-seminar in systematic design process, design research methods, and design issues in social responsibility. Prereq: 23INDL331. BoK: SS. Credit Level: U. Credit Hrs: 3.00

23INDL341**Topical Studio III**

Industrial Design Studio focused on specific topic in a collaborative, multi-disciplinary format, most frequently with a corporate partner. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23INDL342**Topical Studio III**

Industrial Design Studio focused on specific topic in a collaborative, multi-disciplinary format, most frequently with a corporate partner. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23INDL351**History of Industrial Design**

Factors influencing the form and technology of man-made objects from pre-industrial revolution period to twenty-first century with emphasis on evolution of the practice of industrial design. Perm of Instructor. BoK: HP, SE. Credit Level: U. Credit Hrs: 3.00

23INDL352**Theory of Industrial Design**

Lecture-seminar in systematic design process, problem solving and creativity. Prereq: 23INDL351. BoK: SS. Credit Level: U. Credit Hrs: 3.00

23INDL362**Materials and Processes**

Survey of materials, production, and assembly methods utilized in the mass production of plastic parts. Design considerations used to select appropriate technology. Lecture, discussion, shop experience, inspection trips. Prereq: 23INDL361. BoK: NS. Credit Level: U. Credit Hrs: 3.00

23INDL391**Independent Studies**

Individual project in collaboration with a faculty member on a subject of mutual interest; based on written proposal. BoK: NA. Credit Level: U. Credit Hrs: 1.00-3.00

23INDL392**Independent Studies**

Individual project in collaboration with a faculty member on a subject of mutual interest; based on written proposal. BoK: NA. Credit Level: U. Credit Hrs: 1.00-3.00

23INDL401**Industrial Design**

Complex problems in industrial design, varied in scope and nature, emphasizing contextual analysis, design process, systems, and professional competence. Prereq: 23INDL302. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23INDL402**Industrial Design**

Complex problems in industrial design, varied in scope and nature, emphasizing contextual analysis, design process, systems, and professional competence. Prereq: 23INDL401. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23INDL411**Design Communications**

Continued exploration of sketching and rendering techniques and media. Prereq: 23INDL312. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23INDL412**Design Communications**

Continued exploration of sketching and rendering techniques and media. Prereq: 23INDL312. BoK: FA. Credit Level: U. Credit Hrs: 3.00

Industrial Design**23INDL431****Design Seminar**

An elective lecture or studio based on special topics developed by faculty or students. Prereq: 23INDL203. BoK: NA. Credit Level: U. Credit Hrs: 1.00-3.00

23INDL432**Design Seminar**

An elective lecture or studio based on special topics developed by faculty or students. BoK: NA. Credit Level: U. Credit Hrs: 1.00-3.00

23INDL441**Topical Studio IV**

Industrial Design Studio focused on specific topic in a collaborative, multi-disciplinary format, most frequently with a corporate partner. Perm of Instructor. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23INDL442**Topical Studio IV**

Industrial Design Studio focused on specific topic in a collaborative, multi-disciplinary format, most frequently with a corporate partner. Perm of Instructor. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23INDL461**Materials and Processes**

Survey of materials, production, and assembly methods utilized in the mass production of metal parts. Design considerations used to select appropriate technology. Lecture, discussion, shop experience, inspection trips. Prereq: 23INDL361, 23INDL362. BoK: NS. Credit Level: U. Credit Hrs: 3.00

23INDL462**Materials and Processes**

Survey of materials, production, and assembly methods utilized in the mass production of metal parts. Design considerations used to select appropriate technology. Lecture, discussion, shop experience, inspection trips. Prereq: 23INDL461. BoK: NS. Credit Level: U. Credit Hrs: 3.00

23INDL471**Human Factors in Industrial Design**

Problem oriented course covering concepts of human factors, science, systems and analysis as applied to consumer products. BoK: NS., SE. Credit Level: U. Credit Hrs: 3.00

23INDL472**Human Factors in Design**

Human physical, psychological, and sociological properties as the basis for design. BoK: NS., SE. Credit Level: U. Credit Hrs: 3.00

23INDL473**Theory of Industrial Design II**

Lecture-Seminar exploring methods and procedures pertaining to current studio work. Prereq: 23INDL352. BoK: SS. Credit Level: U. Credit Hrs: 2.00

23INDL474**Theory of Industrial Design II**

Lecture-Seminar exploring methods and procedures pertaining to current studio work. Prereq: 23INDL352. BoK: SS. Credit Level: U. Credit Hrs: 2.00

23INDL484**Design Technology III**

Basic computer graphics and problem solving techniques using departmental and college computer facilities. Prereq: 23INDL383. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23INDL491**Independent Studies**

Individual project in collaboration with a faculty member on a subject of mutual interest; based on written proposal. BoK: NA. Credit Level: U. Credit Hrs: 1.00-3.00

H=University Honors course.

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Industrial Design**23INDL492****Independent Studies**

Individual project in collaboration with a faculty member on a subject of mutual interest; based on written proposal. BoK: NA. Credit Level: U. Credit Hrs: 1.00-3.00

23INDL501**Industrial Design**

Undergraduate design thesis supplemented by a variety of short problems. Prereq: 23INDL402. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23INDL502**Industrial Design**

Undergraduate design thesis supplemented by a variety of short problems. Prereq: 23INDL501. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23INDL511**Design Communications**

Projects combining advanced techniques in visual communication, advanced portfolio compilation and presentation. Prereq: 23INDL412. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23INDL512**Design Communications**

Projects combining advanced techniques in visual communication, advanced portfolio compilation and presentation. Prereq: 23INDL511. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23INDL531**Design Seminar**

An elective lecture or studio based on special topics developed by faculty or students. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23INDL532**Design Seminar**

An elective lecture or studio based on special topics developed by faculty or students. BoK: NA. Credit Level: U. Credit Hrs: 1.00-3.00

23INDL541**Topical Studio V**

Industrial Design Studio focused on specific topic in a collaborative, multi-disciplinary format, most frequently with a corporate partner. Perm of Instructor. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23INDL542**Topical Studio V**

Industrial Design Studio focused on specific topic in a collaborative, multi-disciplinary format, most frequently with a corporate partner. Perm of Instructor. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23INDL581**Career Design and Professional Development**

Information about career planning and job- seeking, including the development of cover letters, resumes, portfolios and the interview process. Practicing design professionals serve as guest speakers to address topics relevant to the practice of Industrial Design. Perm of Instructor. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23INDL582**Career Design and Professional Development**

Information about career planning and job- seeking, including the development of cover letters, resumes, portfolios and the interview process. Practicing design professionals serve as guest speakers to address topics relevant to the practice of Industrial Design. Perm of Instructor. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23INDL591**Independent Studies**

Individual project in collaboration with a faculty member on a subject of mutual interest; based on written proposal. BoK: NA. Credit Level: U. Credit Hrs: 1.00-3.00

Industrial Design**23INDL592****Independent Studies**

Individual project in collaboration with a faculty member on a subject of mutual interest; based on written proposal. BoK: NA. Credit Level: U. Credit Hrs: 1.00-3.00

23INDL675**Human Factors in Design**

Human physical, psychological, and sociological properties as the basis for design. BoK: NS., SE. Credit Level: U, G. Credit Hrs: 3.00

23INDL623**Design Technology**

Experimental projects including computer simulation, intermediate computer graphics, and approaches to automated design. Credit Level: G. Credit Hrs: 1.00-3.00

23INDL731**Design Graduate Studies**

Graduate studies in advanced studio/lab, or thesis-related research in Industrial Design. Credit Level: G. Credit Hrs: 1.00-5.00

23INDL732**Design Graduate Studies**

Graduate studies in advanced studio/lab, or thesis-related research in Industrial Design. Credit Level: G. Credit Hrs: 1.00-5.00

23INDL733**Design Graduate Studies**

Graduate studies in advanced studio/lab, or thesis-related research in Industrial Design. Credit Level: G. Credit Hrs: 1.00-5.00

23INDL751**Advanced History of Industrial Design**

Factors influencing the form and technology of man-made objects from pre-industrial revolution period to twentieth century with emphasis on evolution of practice of industrial design. Credit Level: G. Credit Hrs: 1.00-4.00

23INDL752**Advanced History of Industrial Design**

Factors influencing the form and technology of man-made objects from pre-industrial revolution period to twentieth century with emphasis on evolution of practice of industrial design. Credit Level: G. Credit Hrs: 1.00-4.00

23INDL775**Human Factors in Design**

Human physical, psychological, and sociological properties as the basis for design. Credit Level: G. Credit Hrs: 4.00

23INDL831**Design Graduate Studies**

Graduate studies in advanced studio/lab, or thesis-related research in Industrial Design. Credit Level: G. Credit Hrs: 1.00-5.00

23INDL832**Design Graduate Studies**

Graduate studies in advanced studio/lab, or thesis-related research in Industrial Design. Credit Level: G. Credit Hrs: 1.00-5.00

23INDL833**Design Graduate Studies**

Graduate studies in advanced studio/lab, or thesis-related research in Industrial Design. Credit Level: G. Credit Hrs: 1.00-5.00

Interior Design**23INTD202****Interior Design Studio 2**

Application of design fundamentals to elementary problems of interior design. Applied graphic communication and exploration of problem-solving processes. Prereq: 23SAID201. BoK: FA, SS. Credit Level: U. Credit Hrs: 6.00

Interior Design**23INTD203****Interior Content Studio**

Creative problems of medium scale space planning and design, stressing programming as well as space planning techniques. Prereq: 23INTD202. BoK: FA, QR. Credit Level: U. Credit Hrs: 6.00

23INTD205**Communication Skills**

Fundamentals of accurate delineation through exercises in mechanical perspective and freehand sketching in limited media. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23INTD217**Place and Dwelling**

This interdisciplinary course focuses on the complex relationships between the activities and psychological dimensions of home place and the physical spaces and representational images which serve them. Prereq: 23SAID201. BoK: SE, DC. Credit Level: U. Credit Hrs: 3.00

23INTD223**Communication Skills II**

Introduction of rendering techniques for interior space. Prereq: 23INTD202. BoK: FA. Credit Level: U. Credit Hrs: 2.00

23INTD225**Introduction to Computer Graphics**

Continuation of computer graphics 23SAID193. BoK: NA. Credit Level: U. Credit Hrs: 2.00

23INTD269**Interior Design Materials and Construction**

Specific applications related to interior construction, materials, and detailing. Prereq: 23SAID201. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23INTD301**Interior Design Studio 3: Hospitality Design**

Design problems involving hospitality design in restaurants and hotels, and other public interiors such as resorts, convention centers, and other facilities for entertainment. Emphasis is placed on space planning, sequencing of spaces, fixture design and details, signage and logo design, materials and texture, and furnishings and equipment within nonresidential, public interiors oriented to the establishment of comfort, pleasure and entertaining. Project design assignments include a broad range of spatial and theme types from hotels, restaurants, and spas, to historic interiors for specialized clientele. Prereq: 23INTD203. BoK: FA, QR. Credit Level: U. Credit Hrs: 6.00

23INTD304**Graphic Representation 3**

Advanced projects combining several rendering techniques in a variety of media applied to delineating interior space. Prereq: 23INTD202. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23INTD327**History of Interior Design 1**

Beginnings of a comparative analysis of history and architecture as related to interior environments. BoK: HP. Credit Level: U. Credit Hrs: 3.00

23INTD328**History of Interior Design 2**

Continuation of comparative analysis of history and architecture as related to interior environments. BoK: HP. Credit Level: U. Credit Hrs: 3.00

23INTD342**Interior Design Content Studio**

Creative problems of a larger scope with special emphasis on architectural considerations. Prereq: 23INTD301. BoK: FA, QR. Credit Level: U. Credit Hrs: 6.00

Interior Design**23INTD364****Millwork**

Studies related to the joining of dissimilar materials; exercises to develop proficiency in casework and millwork design. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23INTD366**Interior Design Fiber Base Materials**

The uses of natural and man-made fiber base materials. Analysis, construction, usage, and specifications related to textiles and fabric materials applied to interior design. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23INTD388**Independent Studies**

Individual project in collaboration with a faculty member on a subject of mutual interest based on fully detailed written proposal. BoK: NA. Credit Level: U. Credit Hrs: 1.00-3.00

23INTD389**Independent Studies**

Individual project in collaboration with a faculty member on a subject of mutual interest based on a fully detailed written proposal. BoK: NA. Credit Level: U. Credit Hrs: 1.00-3.00

23INTD401**Interior Design Studio 4: Retail Design**

Design problems involving commercial retail design and issues of store planning in commercial retail environments. Particular emphasis is placed on space planning, sequencing of spaces, fixture design and details, lighting, signage and logo design, materials and texture, and furnishings and equipment within nonresidential, public interiors devoted to the retailing of commercial products. Project design assignments of retail spaces where a range of appeal and service may be utilized as a subject type for commercial contract design services and solutions are required. A broad range of commercial retail, from specialty to large chain retail and showrooms are offered. Prereq: 23INTD301. BoK: FA, QR. Credit Level: U. Credit Hrs: 6.00

23INTD414**Furniture Design Seminar**

World views into the marketing and production of furniture with focus on the technologies and material processes employed throughout world markets, formulating cross-cultural connections between design products and economic forces and resources in the production of contemporary furniture using the case-study format. BoK: SE. Credit Level: U. Credit Hrs: 3.00

23INTD439**Interior Design Programming and Research**

Programming: Introduction to planning procedures and program development for interior design. Design Research: Individual study and research directed toward development of a program for the terminal senior design project. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23INTD442**Interior Design Content Studio**

Problems involving design of commercial and institutional interiors with emphasis on space analysis and planning and coordination of furnishings and equipment. Prereq: 23INTD401. BoK: FA, QR. Credit Level: U. Credit Hrs: 6.00

23INTD455**Interior Design Theory IV**

Directed elective from university, college and department offerings. Examines interior design and design theories; intellectual contributions as well as cultural, social, and historical events which contribute to the development and definition of interior design and interior space. BoK: HU., QR. Credit Level: U. Credit Hrs: 3.00

23INTD487**Lighting**

Principles and techniques of power distribution, lighting, and luminaire design with emphasis on lighting effects and methods. BoK: NA. Credit

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Interior Design**23INTD487****Lighting**

Level: U. Credit Hrs: 3.00

23INTD488**Independent Studies**

Individual project in collaboration with a faculty member on a subject of mutual interest based on a fully detailed written proposal. BoK: NA.

Credit Level: U. Credit Hrs: 1.00-3.00

23INTD489**Independent Studies**

Individual project in collaboration with a faculty member on a subject of mutual interest based on a fully detailed written proposal. BoK: NA.

Credit Level: U. Credit Hrs: 1.00-3.00

23INTD501**Interior Design Senior Project Studio 1**

Comprehensive project summarizing principles and techniques of design applied to the student's chosen project developed from design research. Prereq: 23INTD401. BoK: NA. Credit Level: U. Credit Hrs: 6.00

23INTD502**Interior Design Senior Project Studio 2**

Summarization of principles and techniques of design applied to a major problem of the student's own choosing. Prereq: 23INTD501.

BoK: NA. Credit Level: U. Credit Hrs: 6.00

23INTD523**Communication Skills V**

Study of exhibition systems and environmental graphics as applied to the exhibit of senior project studio work. BoK: FA. Credit Level: U.

Credit Hrs: 2.00

23INTD537**Professional Practice 2**

Professional aspects of interior design practice, including business law, trade relations, office procedures and estimating. Prereq: 23INTD401.

BoK: NA. Credit Level: U. Credit Hrs: 3.00

23INTD565**Interior Specifications**

Introduction to the principles and methods of interior design specifications and their relationship to contract documents. Prereq: 23INTD202. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23INTD588**Independent Studies**

Individual project in collaboration with a faculty member on a subject of mutual interest based on a fully detailed written proposal. BoK: NA.

Credit Level: U, G. Credit Hrs: 1.00-3.00

23INTD589**Independent Studies**

Individual project in collaboration with a faculty member on a subject of mutual interest based on a fully detailed written proposal or for use by senior students participating in mentoring program with first-year students. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-3.00

Planning**23PLAN111****Principles of Planning Design Graphic****Communication I**

Skills development in the use of drafting equipment, letter forms, basic photography, color conceptual diagrams, and report graphics BoK: NA. Credit Level: U. Credit Hrs: 5.00

23PLAN112**Principles of Planning Design Graphic****Communication II**

Skills development in flowcharts, axonometric, and perspective drawings, freehand sketching, model making, audio, film, video, and multi media techniques BoK: NA. Credit Level: U. Credit Hrs: 5.00

Planning**23PLAN113****Principles of Planning Design Graphic****Communication III**

Skills development in preparation of a series of analytical planning drawings, and maps including base maps, land use, building conditions, movement systems, community facilities, figure ground, image, redesign, and development BoK: NA. Credit Level: U. Credit Hrs: 5.00

23PLAN151**Introduction to Urban Planning**

Survey of factors influencing development of cities. Introduction to planning goals, philosophy, concepts, processes, administration, literature, and history. BoK: SS., SE. Credit Level: U. Credit Hrs: 3.00

23PLAN203**Principles of Planning Design III/Lecture**

Lecture portion of man-environment relationships, emphasis on environmental structure, social structure, decision process. Coreq: 23PLAN213. Prereq.: 23PLAN112. BoK: NA. Credit Level: U. Credit Hrs: 2.00

23PLAN207**Land Use Controls**

The theory, practice and impacts of zoning, growth management, and other techniques of land use control. Methods and legal constraints to developing land use plans and land use development ordinances. BoK: SS. Credit Level: U. Credit Hrs: 3.00

23PLAN211**Site Analysis, Site Planning and Design**

Investigation of two- and three-dimensional basic design principles; color; human physiological constraints, basic man-environment relationships. Studio/Seminar. Prereq: 23PLAN111. BoK: FA, SS. Credit Level: U. Credit Hrs: 5.00

23PLAN212**Planning Design Studio:Neighborhood/District**

Consideration of function requirements; emphasis on a problem solving and analytical procedures. Prereq: 23PLAN112. BoK: FA, SS. Credit Level: U. Credit Hrs: 5.00

23PLAN213**Principles of Planning Design III**

Man-environment relationships, emphasis on environmental structure, social structure, decision process. Studio/Seminar. Prereq: 23PLAN203. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23PLAN247**Planning Study Abroad Seminar**

Selected topics and travel experience designed to introduce students to the nature of university life to globalization issues, and to several disciplines and/or professions through an abroad experience. Perm of Instructor. BoK: NA. Credit Level: U. Credit Hrs: 4.00

23PLAN251**Site Planning**

Factors influencing site development and site analysis. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23PLAN254**Introduction to GIS Applications in Planning**

An introduction to geographic information systems and applications in planning. A hands-on laboratory is included (priority given to planning students. Any slots left available will be filled on a first come first served basis) BoK: NA. Credit Level: U. Credit Hrs: 3.00

23PLAN255**Computer Graphics in Planning**

This course uses CAD to create three-dimensional models and a presentation graphics program to prepare for professional setting presentations of CAD models. Prereq: 23PLAN254. BoK: NA. Credit Level: U. Credit Hrs: 3.00

H=University Honors course.

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LT: Literature. NS: Natural Sciences. QR: Quantitative Reasoning. SE: Social & Ethical Issues. SS: Social Sciences.

Planning**23PLAN301****Local Planning Resources I**

Mentor program to familiarize new urban planning students with planning resources in the region. Perm of Department. BoK: NA. Credit Level: U. Credit Hrs: 1.00-2.00

23PLAN302**Local Planning Resources II**

Mentor program to familiarize new urban planning students with planning resources in the region. Perm of Department. BoK: NA. Credit Level: U. Credit Hrs: 1.00-2.00

23PLAN303**Planning Applications of Economic Concepts**

Provide an overview of basic economic concepts and their application to selected urban and regional planning issues. Students will have a basic knowledge of macro and micro economic concepts and will be able to apply them to important urban issues. Prereq: 15ECON101, 15ECON102. BoK: QR. Credit Level: U. Credit Hrs: 3.00

23PLAN331**Planning Design Studio: Comprehensive/Region**

Variable content associated with studio problems Prereq: 23PLAN211. BoK: FA, SS. Credit Level: U. Credit Hrs: 5.00

23PLAN341**Planning IIIa/Studio**

Student team activity on a particular planning problem. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23PLAN345**Planning Statistics I**

A computer-based course that covers basic research methods related to statistics, measurement principles, descriptive statistics, and elementary inductive statistics. BoK: QR. Credit Level: U. Credit Hrs: 3.00

23PLAN346**Planning Statistics II**

A continuation of Statistics I that covers basic tests of significance for multiple samples using nominal, ordinal, and ratio scale data. Coreq: 23PLAN345. BoK: QR. Credit Level: U. Credit Hrs: 3.00

23PLAN351**Understanding the Urban Environment**

Lecture and field trips using the Cincinnati region to demonstrate and explain how cities are designed. BoK: SS. Credit Level: U. Credit Hrs: 3.00

23PLAN352**Understanding the Urban Environment**

Lecture and field trips using the Cincinnati region to explain the organizational aspects of the city. BoK: SS. Credit Level: U. Credit Hrs: 3.00

23PLAN375**Organization Theory**

Introduction to the structures and dynamics of formal organizations; organizational theories and contexts in which organizations operate. A service learning course BoK: SS., SE. Credit

23PLAN397**Film and the Global Village: Studies of Development in Africa, Asia, and Latin America**

Introduction to urban problems in the Third World, which uses documentary videos to provide students with a vivid image of the places and issues of urban Africa, Asia and Latin America BoK: SS., DC. Credit Level: U. Credit Hrs: 3.00

23PLAN431**Planning IVa/Seminar**

Variable content associated with studio problem. BoK: NA. Credit Level: U. Credit Hrs: 2.00

Planning**23PLAN441****Planning Design Studio: Topical**

Student team activity on a particular planning problem Prereq: 23PLAN331. BoK: FA, SS. Credit Level: U. Credit Hrs: 5.00

23PLAN511**Independent Study in Community Planning**

Subject outlined by student and accepted for guidance by a member of the planning faculty BoK: NA. Credit Level: U. Credit Hrs: 1.00-3.00

23PLAN512**Independent Study in Community Planning**

Subject outlined by student and accepted for guidance by a member of the planning faculty. BoK: NA. Credit Level: U. Credit Hrs: 1.00-3.00

23PLAN513**Independent Study in Community Planning**

Subject outlined by student and accepted for guidance by a member of the planning faculty BoK: NA. Credit Level: U. Credit Hrs: 1.00-3.00

23PLAN514**Independent Study in Community Planning**

Subject outlined by student and accepted for guidance by a member of the planning faculty BoK: NA. Credit Level: U. Credit Hrs: 1.00-3.00

23PLAN528**Introduction to Historic Preservation**

Introduction to the processes of historic preservation, relationships to cultural and economic factors and planning and design processes. BoK: HP., SS. Credit Level: U, G. Credit Hrs: 3.00

23PLAN545**Methods of Research I for Planners**

Logic of social research methods, survey research, ethics of research and methods of evaluation research Prereq: 23PLAN345, 23PLAN346. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23PLAN546**Methods of Research II for Planners**

Research methods related to planning and human services delivery, including demographic analysis, economic analysis and use analysis, and transportation analysis Prereq: 23PLAN545. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23PLAN549**Planning Abroad Studio**

Individual and group studio project to address a planning issues in a foreign setting BoK: NA. Credit Level: U. Credit Hrs: 0.00-18.00

23PLAN550**Exchange Study**

Special program of study abroad. Open only on selected students. Requires approval of School Director BoK: NA. Credit Level: U. Credit Hrs: 1.00-18.00

23PLAN553**Urban Planning Law**

Survey of the legal, constitutional, legislative, and administrative concepts, controls, regulations, and procedures basic to urban planning. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23PLAN563**Theory of Planning**

Survey of planning theory; examines planning theory and intellectual contributions to planning principles and implementation; studies the generic nature of planning BoK: SS. Credit Level: U. Credit Hrs: 3.00

23PLAN577**Ethical Issues in Planning**

This applied ethics course provides a set of general ethical tools that can be used to analyze ethical issues faced by citizens and by planners. Case studies and ethic codes of the American Institute of Certified Planners will be discussed BoK: SE. Credit Level: U. Credit Hrs: 3.00

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Planning**23PLAN578****Senior Problem Proposal**

Guidance in the preparation of acceptable proposal for the Senior Problem. Perm of Instructor. BoK: NA. Credit Level: U. Credit Hrs: 1.00

23PLAN579**Social Justice and the City**

Nature of city life. Examination of different perspectives on the meaning and value of the city; living good life, responsibilities of political leadership, poverty, and social and economic equality. BoK: DC., SE. Credit Level: U. Credit Hrs: 3.00

23PLAN580**Introduction to Geographic Information Systems.**

Fundamental understanding of GIS, software availability, hardware configurations, database management, GIS project implementation, and a wide variety of issues associated with application of GIS. Included is a hands-on laboratory. Prereq: 23PLAN255. BoK: NA. Credit Level: U. Credit Hrs: 4.00

23PLAN581**GIS Planning Applications**

Advanced GIS concepts and skills and their applications to planning issues that require geographic data analysis. Student projects will be produced using advanced GIS analytical function Prereq: 23PLAN254, 23PLAN580. BoK: NA. Credit Level: U. Credit Hrs: 4.00

23PLAN584**Finance and Budgeting for Planners**

Public budgeting and finance for the urban planner. Prereq: 15ECON101, 15ECON102, 23PLAN303. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23PLAN588**Senior Planning Problem Research/Lecture**

Problem verification and goal setting leading to solution alternative selection Prereq: 23PLAN578. Coreq: 23PLAN598. BoK: NA. Credit Level: U. Credit Hrs: 2.00

23PLAN589**Senior Planning Problem Synthesis/Lecture**

Development of implementation plan for the selected alternative of the research phase. Prereq: 23PLAN578. Coreq: 23PLAN599. BoK: NA. Credit Level: U. Credit Hrs: 2.00

23PLAN591**Independent Study in Urban Planning**

Subject outlined by student and accepted for guidance by a member of the planning faculty BoK: NA. Credit Level: U. Credit Hrs: 1.00-5.00

23PLAN592**Mediation Skills**

Introduction to the theories and practice of conflict intervention. Focus on mediation of different kinds of disputes. BoK: SS., SE. Credit Level: U. Credit Hrs: 3.00

23PLAN598**Senior Planning Problem Research/Studio**

Problem verification and goal setting leading to solution alternative selection Prereq: 23PLAN578, 23PLAN588. Coreq: 23PLAN598. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23PLAN599**Senior Planning Problem Synthesis/Studio**

Development of implementation plan for the selected alternative of the research phase. Prereq: 23PLAN578, 23PLAN598. Coreq: 23PLAN589. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23PLAN603**Environmental Resource Analysis**

Concepts, issues, and processes within the context of policy development for land use planning and resource management at federal, state, and local levels. BoK: NS., SS. Credit Level: U, G. Credit Hrs: 3.00

Planning**23PLAN604****Principles of Urban Design**

Concepts, methods, analytical techniques, and processes fundamental to the practice of urban design. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

23PLAN605**Workshop in Land Use/Urban Design/Environmental Planning**

Application of generic and physical planning methods to a physical planning problem, based with real clients BoK: NA. Credit Level: U, G. Credit Hrs: 3.00-5.00

23PLAN606**Environmental Processes and Programs**

Analysis of environmental processes and various local, regional, state, national, and international programs to address environmental problems. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

23PLAN608**Seminar:**

Review and discussion of literature from ancient through contemporary periods, dealing with issues critical to modern practice. BoK: FA. Credit Level: U, G. Credit Hrs: 3.00

23PLAN609**Environmental Planning and Policy**

Public decision-making framework for environmental problems and major land, air and water management programs in the United States. Emphasis on planning strategies and management techniques. BoK: SS. Credit Level: U, G. Credit Hrs: 3.00

23PLAN610**Comprehensive Planning**

A thorough review of the major steps involved in the production of a municipal comprehensive plan. Also intended to give students a better understanding of the practical and political dimensions involved in the master planning process BoK: SS. Credit Level: U, G. Credit Hrs: 3.00

23PLAN612**Planning and Implementation of Planned Communities**

The course presents the history, social characteristics, economic foundations and physical forms of planned communities, especially in the Midwest. It starts with 18th and 19th century religious and utopian communities established by European communities and then concentrates on planned town experiments by benevolent capitalists, the federal government, and private developers. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

23PLAN620**Special Topics in Planning**

A study of priority issues in planning, processes, planning administration, implementation, or evaluation BoK: SS. Credit Level: U, G. Credit Hrs: 3.00

23PLAN621**Special Topics in Planning**

Study of priority issues in planning processes, planning administration, implementation or evaluation BoK: SS. Credit Level: U, G. Credit Hrs: 2.00-4.00

23PLAN622**Special Topics in Planning**

Study of priority issues in planning processes, planning administration, implementation or evaluation BoK: SS. Credit Level: U, G. Credit Hrs: 2.00-4.00

23PLAN623**Special Topics in Planning**

Study of priority issues in planning processes, planning administration, implementation or evaluation. BoK: SS. Credit Level: U, G. Credit Hrs: 2.00-4.00

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Planning**23PLAN624****Special Topics in Planning**

Study of priority issues in planning processes, planning administration, implementation or evaluation. BoK: SS. Credit Level: U, G. Credit Hrs: 2.00-4.00

23PLAN625**Special Topics Workshop**

Overview of selected planning/policy topics. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

23PLAN628**Introduction to Historic Preservation**

Introduction to the processes of historic preservation, relationships to cultural and economic factors and planning design processes. BoK: HP, SS. Credit Level: U, G. Credit Hrs: 3.00

23PLAN630**Housing Systems**

Housing viewed as social and economic, as market commodity and public provision, to be planned in relation to land use and public facilities. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

23PLAN641**Urban Lobbying I: Issues**

Guest seminars; lobbying for community and human services needs, influencing legislation, allocation of resources, media techniques. BoK: SS, DC. Credit Level: U, G. Credit Hrs: 3.00

23PLAN642**Urban Lobbying II: Communications**

Communicating community problems and human services needs; field experiences, public media critiques, teaching, consulting. BoK: SS, DC. Credit Level: U, G. Credit Hrs: 3.00

23PLAN643**Urban Lobbying III: Advocacy**

Student-led presentations, projects on urban issues, community communication techniques. BoK: SS, DC. Credit Level: U, G. Credit Hrs: 3.00

23PLAN651**Urban Spatial Structure**

Investigation of political, social and economic determinants of the use of urban land. Different theories are discussed and the contributions of various disciplines to a variety of general themes on spatial structure are explored. Prereq: 23PLAN303. BoK: SS. Credit Level: U, G. Credit Hrs: 3.00

23PLAN655**Politics of Implementation**

Examination of problems for implementation of urban plans. BoK: SE. Credit Level: U, G. Credit Hrs: 3.00

23PLAN656**Land Use and Environmental Dispute Resolution**

Examination of the relationship among land use, planning, public policy, and the environmental agenda. Focus on environmental justice and the ways in which environmental dispute can be lessened or resolved. BoK: SS. Credit Level: U, G. Credit Hrs: 3.00

23PLAN658**Transportation Planning**

Course presents the significance that transportation plays in the development of urban areas, its historical context, its constituent and necessary interconnected parts, its current problems, its future as mandated by U.S. federal regulations and the role the urban planner should play in the future of transportation planning. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

23PLAN659**Transportation Demand Forecasting I**

Fundamental concepts and theories of travel demand forecasting process; aggregate travel demand models; trip generation, trip distribution, model split network assignment. BoK: QR. Credit Level: U,

Planning**23PLAN659****Transportation Demand Forecasting I**

G. Credit Hrs: 3.00

23PLAN660**Transportation Demand Forecasting II**

Fundamental concepts and theories of travel demand forecasting process; aggregate travel demand models; trip generation, trip distribution, model split network assignment. Prereq: 23PLAN659. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

23PLAN661**History of Urban Spatial Environment**

Examines the history of urban spaces/places as results of cultural patterning. Utilizes cross-sectional analysis. BoK: HP. Credit Level: U, G. Credit Hrs: 3.00

23PLAN662**History of Urban Form**

Examines specific examples of urban form through history. Uses developmental analysis. BoK: FA. Credit Level: U, G. Credit Hrs: 3.00

23PLAN664**Highway Engineering**

Overview from programming through design to construction. Coverage of design controls and standards alignment and grade line, typical sections, geometric design, design with COGO, surveying, and mapping intersections and channelization, cross sections, and earthwork, drainage, and right of way, safety criteria maintenance of traffic, contract documents, legal, and environmental considerations. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

23PLAN665**Traffic Engineering**

Operation of transportation systems; traffic surveys, and studies; laws and ordinances; traffic control devices, including signs, pavement marking and traffic signals; speed capacity analysis. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

23PLAN667**Computer Methods in Transportation**

Use of computers to analyze traffic data and interpret models, use of current microcomputer software for capacity analysis and signal timing and traffic signals; signal systems, speed, and capacity analysis. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

23PLAN670**Planning Issues in Developing Nations**

Overview of issues of urban and regional development in developing nations, with readings from various disciplines topics include theories of development, processes of urbanization, immigration, housing, urban services, environment, regional development, and planning and policy responses. BoK: DC, SE. Credit Level: U, G. Credit Hrs: 3.00

23PLAN673**Methods in International Development Planning II**

Issues and techniques relevant to conducting field research in a foreign setting. Emphasis on the collection of primary data. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

23PLAN678**Historic Preservation in Planning**

The course focuses on historical preservation through the planning and design process. Topical subjects include: historical district delineation, zoning and historical preservation, legal and economic issues of historical preservation, and historical preservation guidelines for design. BoK: NA. Credit Level: G, U. Credit Hrs: 3.00

23PLAN679**International Development Planning Policy**

Survey of plans and policies used in urban and regional planning in developing nations. Covers the post-WWII era and focuses on different agencies and actors involved policy and plan development and implementation. BoK: SS. Credit Level: U, G. Credit Hrs: 3.00

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Planning**23PLAN679****International Development Planning Policy**

Survey of plans and policies used in urban and regional planning in developing nations. Covers the post-WWII era and focuses on different agencies and actors involved policy and plan development and implementation. BoK: SS. Credit Level: U, G. Credit Hrs: 3.00

23PLAN681**GIS Planning Applications**

Advanced GIS concepts and skills and their applications to planning issues that require geographic data analysis. Student projects will be produced using advanced GIS analytical functions Prereq: 23PLAN254. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

23PLAN700**Introduction to Graduate Research**

Preparation of the proposal for graduate project which demonstrates the ability to conduct independent research Credit Level: G. Credit Hrs: 4.00

23PLAN701**Concepts and Issues in Planning Practice**

Comprehensive introduction to societal, metropolitan, and community issues and to the main ideas and approaches utilized in the practice of planning. Credit Level: G. Credit Hrs: 4.00

23PLAN702**Social Science Research for Planners**

Introduction to the research process and selected qualitative and quantitative research methods commonly used in planning. Credit Level: G. Credit Hrs: 4.00

23PLAN703**Planning Theory**

Systematic presentation and analysis of theoretical foundations and specific theories of planning. Credit Level: G. Credit Hrs: 4.00

23PLAN704**Economic Analysis for Planners**

From the perspective of economic theory and reasoning, this course covers such basic planning related issues as the role of planning in markets, the relationship between efficiency and equity, and the use and limits of cost-benefit analysis to plans and policies. This course also prepares students for other planning courses that require a basic knowledge of the scope and limits of economic theory. Credit Level: G. Credit Hrs: 4.00

23PLAN705**Methods of Physical Analysis**

Introduction to planning graphics and mapping, physical data selection and recording, physical analysis including the mapping and analysis of environmental data, typography, land use, zoning, social and political characteristics, transportation, infrastructure and buildings. Introduction to photography, report graphics and presentation methods used in urban planning. Credit Level: G. Credit Hrs: 4.00

23PLAN706**Organizational Theory and Behavior in Planning**

Examination of the structure, functioning, and change within organizations in relation to planning and its professional practice. Credit Level: G. Credit Hrs: 4.00

23PLAN707**Workshop in Urban Design II**

Advanced urban design studio. Credit Level: G. Credit Hrs: 4.00

23PLAN709**Comprehensive Planning Workshop**

Planning and policy implications of one significant urban or metropolitan issue, one section emphasizing primarily quantitative analysis and modeling, the other qualitative social and aesthetic issues. Credit Level: G. Credit Hrs: 5.00

Planning**23PLAN710****Issues in Economic Development Planning**

Review and analysis of the causes of economic decline in inner cities, the ways in which urban poverty is perceived, the structural problems of local economics, and strategies for their mitigation. Introduction to the process and techniques of economic development and planning for communities and urban areas. Credit Level: G. Credit Hrs: 4.00

23PLAN711**Planning Law and Administration**

Exploration of the legal foundation of planning practice and organizational environments and administrative practices characterizing planning practice. Credit Level: G. Credit Hrs: 4.00

23PLAN712**Planning Methods and Techniques**

Introduction to quantitative methods commonly employed by planners, including linear regression, population, and employment projections, cohort survival, time series, and index numbers, economic base, and others. Extensive use of US Census. Credit Level: G. Credit Hrs: 4.00

23PLAN713**Economic Development Planning Methods I**

Survey and implementation of basic techniques used for economic development. The course covers economic base and employment multipliers, shift-share analysis, input-output analysis, and structural multipliers, gravity models and retail location analysis and real estate development analysis. Credit Level: G. Credit Hrs: 4.00

23PLAN714**Finance and Budgeting for Planners**

Fiscal and budgetary issues and methods in local and state governments, especially as related to urban and regional planning issues shaped by broader economic policies and ingovernmental transfer. Credit Level: G. Credit Hrs: 4.00

23PLAN715**Economic Development Planning Methods II**

Micro-level techniques used to plan, implement, and evaluate specific economic development proposals and actions. Credit Level: G. Credit Hrs: 4.00

23PLAN716**Structure and Dynamics of Human Settlements**

Survey of the economic, social, political, and environmental forces shaping cities and metropolitan regions influencing their spatial structure and internal functions. The course reviews the evolution of urbanization in the U.S., especially after WWII, analyzes market and social/ political forces affecting the patterns of growth and decline, and examines the political economy of urban systems, their land use regimes, their infrastructure and their efforts at reinventing and revitalizing their old cores and the structure of their economies. Credit Level: G. Credit Hrs: 4.00

23PLAN717**Land Use Control**

The theory, practice and impacts of zoning, growth management, and other techniques of land use control. Methods and legal constraints to developing land use plans and land use development ordinances. Credit Level: G. Credit Hrs: 4.00

23PLAN718**Community Planning Practicum - HUD Students**

Seminar sessions on the problems facing participating planners in various settings, organizations and communities. Studies of professional role relationships to clients, public officials, private sector and community groups. Credit Level: G. Credit Hrs: 1.00

23PLAN719**Policy Planning for Economic Development**

This seminar course explores the role of the state in economic development, examines the history and evolution of economic development policy and its institutions after the Second World War, and evaluates policies and strategies employed by federal, states, and local

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Planning**23PLAN719****Policy Planning for Economic Development**

governments to position them competitively as entrepreneurial entities in an increasingly globalized world economy. Credit Level: G. Credit Hrs: 4.00

23PLAN720**Site Planning**

Advanced discussion of factors influencing site analysis and development. Credit Level: G. Credit Hrs: 4.00

23PLAN721**Graduate Project Preparation**

This is the first of the four courses offered to support MCP students completing the required thesis research or project. Credit Level: G. Credit Hrs: 3.00

23PLAN723**Graduate Project in Planning I**

Graduate project focusing on problem articulation research, analysis and presentation of alternative solutions. Credit Level: G. Credit Hrs: 4.00

23PLAN724**Graduate Project in Planning II**

Graduate project focusing on the evaluation of alternatives, selection, evaluation of solution construction of the manner of the implementation including specifications of human, material and institutional resources required. Credit Level: G. Credit Hrs: 2.00

23PLAN725**Special Planning Topics**

Overview of selected planning/policy topics. Credit Level: G. Credit Hrs: 4.00

23PLAN726**Summer Planning Internship Seminar I**

Introduction to the selection of performance standards and evaluation of the required summer professional internship. Credit Level: G. Credit Hrs: 1.00

23PLAN727**Summer Planning Internship II**

Assessment and evaluation of required full time summer internship for all graduate students in the school of planning. Credit Level: G. Credit Hrs: 2.00

23PLAN728**American Political Institutions**

An introduction for international planning students to the governmental institutions and political processes that shape the profession of urban planning. Credit Level: G. Credit Hrs: 1.00

23PLAN731**Political and Ethical Issues in Planning**

Examination of political and ethical issues in planning practice linking current and projected large-scale national and urban problems and professional, knowledge, and growth. Credit Level: G. Credit Hrs: 4.00

23PLAN736**Environmental Processes and Issues**

Provides context of environmental processes and issues related to urban systems and urban growth. The introduction to actors in environmental planning. Credit Level: G. Credit Hrs: 4.00

23PLAN740**Independent Research in Community Planning**

According to the amount of research elected each quarter. Perm of Instructor. Credit Level: G. Credit Hrs: 1.00-15.00

23PLAN741**Independent Research in Community Planning**

According to the amount of research elected each quarter. Perm of Instructor. Credit Level: G. Credit Hrs: 1.00-15.00

Planning**23PLAN742****Independent Research in Community Planning**

According to the amount of research elected each quarter. Perm of Instructor. Credit Level: G. Credit Hrs: 1.00-15.00

23PLAN743**Independent Research in Community Planning**

According to the amount of research elected each quarter. Perm of Instructor. Credit Level: G. Credit Hrs: 1.00-15.00

23PLAN749**Graduate Planning Abroad Studio**

Individual and group studio project to address a planning issue in a foreign setting. Credit Level: G. Credit Hrs: 0.00-15.00

23PLAN750**Graduate Exchange Study**

Special program of study abroad. Open only to selected students. Requires approval of School Director. Credit Level: G. Credit Hrs: 1.00-15.00

23PLAN751**Directed Readings in Planning**

Systematic and thorough examination of a specific substantive topic, functional area or process in planning. Credit Level: G. Credit Hrs: 4.00-6.00

23PLAN753**Statistics for Planners**

The computer-based course prepares planning students to utilize sample data to prepare, implement, and evaluate policy and planning decisions. The course covers research methods related to statistics, measurement principles, descriptive statistics, tests of significance for a single and multiple samples, and an introduction to regression analysis. Credit Level: G. Credit Hrs: 4.00

23PLAN754**Computer Graphics for Planners**

Basic skills in presentation graphics, mapping, image manipulation and photography, desktop, and web design and publishing. ArcView, Photoshop PowerPoint, PageMaker, Excel, Netscape Composer. Credit Level: G. Credit Hrs: 4.00

23PLAN755**Computer Graphics in Planning**

This course uses CAD to create three-dimensional models and a presentation graphics program to prepare for professional setting presentations of CAD models. Prereq: 23PLAN754. Credit Level: G. Credit Hrs: 3.00

23PLAN767**Social Planning**

A study of the sociological factors generating, supporting altering planning, development processes, and the professional role of the planner. Credit Level: G. Credit Hrs: 4.00

23PLAN770**Planning Issues in Developing Nations**

Overview of issues of urban and regional development in developing nations, with readings from various disciplines. Topics include theories of development, processes of urbanization, immigration, housing, urban services, environment, employment, regional development, and planning and policy responses. Credit Level: G. Credit Hrs: 4.00

23PLAN773**Social Factors in Environmental Design**

This seminar is an experimental attempt to study, appreciate, and analyze the relationship (both one-way and reciprocal) between human behavior and other social factors on the one hand, and the man made and designed environment on the other. A good deal of attention will be paid to current and recent empirical research as well as published theoretical and conceptual ideas. Emphasis will be placed on reading, thinking, and exchanging ideas. Credit Level: G. Credit Hrs: 4.00

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Planning**23PLAN776****Peace Corps Practicum I**

Seminar sessions and independent study based on experience gained on assignment through the SOP Peace Corps programs. Addresses issues of community development work as a professional planner; including reflection on how returned volunteers use the knowledge and skills they developed during their overseas service to improve people's lives here at home. Credit Level: G. Credit Hrs: 0.00-4.00

23PLAN777**Peace Corps Practicum II**

Seminar sessions and independent study based on experience gained on assignment through the SOP Peace Corp programs. Addresses issues of community development work as a professional planner, including reflection on how returned volunteers use the knowledge and skills they developed during their overseas service to improve people's lives here at home. Credit Level: G. Credit Hrs: 0.00-4.00

23PLAN778**Peace Corp Master's International Guided Study**

Independent study based on hands-on experience while on assignment through the Peace Corps Master's International program. Covers issues of international development work as a professional, including methods of research and planning; cross- cultural relations; local, regional, or national planning efforts; and specific technical areas related to the student's assignment. Perm of Department. Credit Level: G. Credit Hrs: 0.00-15.00

23PLAN779**International Development Planning Policy**

Study of specific policies and programs their impacts, and policy evaluation. Credit Level: G. Credit Hrs: 4.00

23PLAN780**Introduction to Geographic Information Systems for Planners**

Fundamental understanding of GIS, software availability, hardware configurations, database management, GIS project implementation and a wide variety of issues. Includes a hands on lab. Credit Level: G. Credit Hrs: 4.00

23PLAN781**GIS Planning Applications**

Advanced GIS concepts and skills and their application to planning issue that require geographic data analysis. Student projects will be produced using advanced GIS analytical functions Credit Level: G. Credit Hrs: 4.00

23PLAN782**GIS Project Formulation and Management**

This is the third in a three course sequence of GIS courses. Students will design and carry out a GIS project that requires spatial analysis in analyzing a real world urban and/or regional issue such as land use, housing, environment, transportation and economic development. Credit Level: G. Credit Hrs: 4.00

23PLAN791**Independent Study in Urban Design**

Study proposal prepared by student and accepted for guidance by a member of the urban planning faculty. Credit Level: G. Credit Hrs: 1.00-6.00

23PLAN792**Mediation Skills in Urban Settings**

A systematic examination of concepts and processes related to the resolution of disputes within urban settings. Credit Level: G. Credit Hrs: 4.00

23PLAN793**Independent Study in Urban Design**

Study proposal prepared by student and accepted for guidance by a member of the urban planning faculty. Credit Level: G. Credit Hrs: 1.00-6.00

Planning**23PLAN794****Independent Study in Urban Design**

Study proposal prepared by student and accepted for guidance by a member of urban planning faculty. Credit Level: G. Credit Hrs: 1.00-6.00

23PLAN801**Metropolitan and Regional Structure and Dynamics**

Examines the economic social, political and environmental factors, which help shape the structure and the spatial configurations of regions. At the metropolitan level, it examines the dynamics of multiple political jurisdictions, the phenomena of suburbanization, sprawl and urban suburban polarization and the efforts of metropolitan regions to impose growth management schemes via political or planning devices and tools. Credit Level: G. Credit Hrs: 4.00

23PLAN802**Theories and Models of Regional and Development at the Global Level**

Review of theories of regional organization, the relationships among regions at various hierarchical levels, as well as growth and development as interpreted by several schools of thought. Emphasis given to the economic shaped by global forces in the industrialized world through market treaties and in the developing world through information and industrial technology. Labor mobility and outsourcing. Credit Level: G. Credit Hrs: 4.00

23PLAN803**Economy Environment and Sustainable Development**

Considers the economic development aspects of environmental policies, the literature and politics of cost/benefit and other methods of analysis of environmental implications, the global dimensions of environmental problems and the economic growth, environmental protection and conservation synergy promoted by the principles and objectives of sustainable development. Credit Level: G. Credit Hrs: 4.00

23PLAN804**Policy Analysis for Regional Development Planning**

Examines and evaluates the analytical tools used in regional development program and policy assessment while stressing Ohio and American models. Credit Level: G. Credit Hrs: 4.00

23PLAN805**Regional Political Economy**

Provides an overview of theories and approaches to political economy and their application to selected urban and regional planning and policy issues. This course examines major social science paradigms for analyzing relations among state, economy, and society. Provides a broad understanding of the structure and functions of subnational governments, nature of urban and regional economies and their relationship. Perm of Department. Credit Level: G. Credit Hrs: 4.00

23PLAN850**Seminar on the Implementation of and Management of Regional Development Plans and Programs**

Focuses on implementation aspects of regional development plans and programs. Beginning with the examination of regional development policies and their implementation, the seminar proceeds to review the institutional, budgetary and political sides of the implementation efforts at the regional level. Credit Level: G. Credit Hrs: 4.00

23PLAN901**Graduate Project Preparation**

Seminar designed to help students choose and define a topic for the Graduate Project. Credit Level: G. Credit Hrs: 1.00

23PLAN902**Community Planning Practicum**

Seminar sessions on the problems facing practicing planners in various settings, organizations, and communities. Studies of professional role relationships to clients, public officials, private sector, and community groups. Perm of Instructor. Credit Level: G. Credit Hrs: 1.00

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Planning**23PLAN904****Summer Planning Internship Seminar I**

Introduction to the selection, performance standards, and evaluation of the required summer professional internship. Credit Level: G. Credit Hrs: 1.00

23PLAN905**Summer Planning Seminar II**

Assessment and evaluation of required full-time summer internship for all graduate students in the School of Planning. Credit Level: G. Credit Hrs: 2.00

23PLAN910**Graduate Project in Planning I**

Graduate Project focusing upon problem articulation research, analysis and presentation of alternative solution. Credit Level: G. Credit Hrs: 4.00

23PLAN911**Individual Research in Planning**

According to amount of research elected. Perm of Instructor. Credit Level: G. Credit Hrs: 1.00-15.00

23PLAN912**Individual Research in Planning**

According to amount of research elected. Credit Level: G. Credit Hrs: 1.00-15.00

23PLAN913**Individual Research in Planning**

According to amount of research elected. Credit Level: G. Credit Hrs: 1.00-15.00

23PLAN914**Individual Research in Planning**

According to amount of research elected. Perm of Instructor. Credit Level: G. Credit Hrs: 1.00-15.00

23PLAN920**Graduate Project in Planning II**

Graduate project focusing upon evaluation of alternatives, selection and evaluation of solution, construction of the manner of implementation including specification of human, material, and institutional recourses required. Credit Level: G. Credit Hrs: 4.00

23PLAN931**Theory Construction and Research Design for Planners**

Study of grounding principles/processes for theory construction and research design; formulation of full research proposals. Credit Level: G. Credit Hrs: 4.00

23PLAN932**Research Execution and Evaluation for Planners**

Administration for research projects; evaluation of research effort for rigor, precision, validity, reliability, and relevance. Credit Level: G. Credit Hrs: 5.00-15.00

23PLAN933**Policy Formation and Evaluation for Planners**

Synthesis of theory and research to form policy for applications to specific contexts; comparative examinations of consequences. Credit Level: G. Credit Hrs: 4.00

23PLAN950**Doctoral Seminar in Research Design and Proposal**

Enables students to develop comprehensive dissertation proposal prior to the comprehensive examinations for admission to candidacy at the end of the second year of doctoral study. Credit Level: G. Credit Hrs: 4.00

23PLAN951**Directed Readings in Planning**

Systematic and thorough examination of a specific substantive topic, functional area, or process in planning. May be repeated but not to exceed 12 gr. cr. Credit Level: G. Credit Hrs: 4.00-6.00

Planning**23PLAN952****Seminar On Doctoral Dissertation Research**

Requires doctoral students in the dissertation writing phase to present their work in progress to their peers and the faculty for comment and criticism Credit Level: G. Credit Hrs: 4.00-6.00

23PLAN953**Directed Readings in Health Planning**

Systematic and thorough examination of specific planning processes and/or management models within health care settings. Credit Level: G. Credit Hrs: 4.00-6.00

23PLAN960**Doctoral Colloquium**

Colloquium for doctoral students and faculty to discuss and critique their current research Perm of Department. Credit Level: G. Credit Hrs: 0.00-2.00

23PLAN997**Doctoral Research in Planning**

Research of an advanced theoretical or empirical nature which advances the theory and method of planning and/or gives support to development of professional practice. Credit Level: G. Credit Hrs: 1.00-15.00

Architecture and Interior Design**23SAID001****Design Studio I-Trailer**

Accelerated version of 23SAID101,2,3 combined. BoK: FA. Credit Level: U. Credit Hrs: 9.00

23SAID002**Skills I-Trailer**

Intensified studio exercises introducing architectural drafting, including orthographic and paraline perspective; shade and shadow; freehand drawing; observation of form in the man-made environment and natural surroundings; graphics and ideation drawing. BoK: FA. Credit Level: U. Credit Hrs: 6.00

23SAID100**Interdisciplinary Topics**

Interdisciplinary course for programs and/or faculty jointly teaching a cross-disciplinary studio, lecture, lab, or seminar. Perm of Department. BoK: NA. Credit Level: U. Credit Hrs: 1.00-12.00

23SAID101**Design Lab 1: Inquiry and Disassembly**

This studio provides an introduction to design fundamentals through: inquiry, by the examination of complex relationships between form, space, perception, culture, conduct, and social activity; and disassembly, by the critical analysis and dismantling, both physically and graphically, of a complex object into its essential components and by the design and fabrication of an object that reuses these components for a different purpose. BoK: FA. Credit Level: U. Credit Hrs: 6.00

23SAID102**Design Lab 2: Body and Composition**

This studio explores the analogical relationship between the human body and the built environment, and the concepts of order and proportion in two- and three-dimensional composition. These explorations serve as a basis for a series of exercises that strengthen both design vocabulary and basic compositional skills. BoK: FA. Credit Level: U. Credit Hrs: 6.00

23SAID103**Design Lab 3: Transformation**

This studio focuses on design development achieved through transformation of various items including the generating idea, the spatial configuration, and especially spatial treatment in terms of light, color, texture, and materials. The studio applies principles and techniques of transformation through three-dimensional computer modeling programs, drawing, and physical models. Students undertake a series of exercises

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Architecture and Interior Design**23SAID103****Design Lab 3: Transformation**

that explore progressive incremental change through the design and fabrication of occupiable space. BoK: FA. Credit Level: U. Credit Hrs: 6.00

23SAID104**Documentation Lab 1**

This is the first of three courses that introduce students to a variety of communication and representational skills, including: freehand drawing, expressive sketching, analytical and diagrammatic drawing, and model making. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23SAID105**Documentation Lab 2**

This is the second of three courses that introduce students to a variety of communication and representational skills, including: freehand drawing, expressive sketching, analytical and diagrammatic drawing, and model making. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23SAID106**Documentation Lab 3**

This is the third of three courses that introduce students to a variety of communication and representational skills, including: freehand drawing, expressive sketching, analytical and diagrammatic drawing, and model making. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23SAID114**Environmental Studies Seminar**

This course is designed to reinforce and complement the content in 23SAID101 and 102 with discussion and field trips. Group discussions and field trips are in the company of a graduate student, who functions as a mentor for a small group of first-year students. BoK: NA. Credit Level: U. Credit Hrs: 1.00

23SAID115**Environmental Studies Seminar**

This course is designed to reinforce and complement the content in 23SAID 103 and 104 with discussion and field trips. Group discussions and field trips are in the company of a graduate student, who functions as a mentor for a small group of first-year students. Prereq: 23SAID114. BoK: NA. Credit Level: U. Credit Hrs: 1.00

23SAID116**Environmental Studies Seminar**

This course is designed to reinforce and complement the content in 23SAID105 and 106 with discussion and field trips. Group discussions and field trips are in the company of a graduate student, who functions as a mentor for a small group of first-year students. Prereq: 23SAID115. BoK: NA. Credit Level: U. Credit Hrs: 1.00

23SAID117**Introduction to Environmental Design I: Theory and Practice**

An introductory theoretical discussion of the social, technical, and aesthetic issues that must be considered in the design of culturally responsible environments. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23SAID118**Introduction to Environmental Design II: Design and Behavior**

The purpose of this course is to create awareness of and an introduction to issues in environmental design in general. Perm. of dept. Prereq: 23SAID117. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23SAID124**Principles of Design 1**

Elements and principles of design that underline all spatial arts. A studio course accompanied by lectures to develop an appreciation of design. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23SAID125**Principles of Design 2**

Continuation of 23SAID124 covering the elements and principles of design that underlie all spatial arts, with emphasis on black and white visual form through drawing exercises. A studio course accompanied

Architecture and Interior Design**23SAID125****Principles of Design 2**

by lectures to develop appreciation of design. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23SAID126**Principles of Design 3**

Continuation of 23SAID125 covering the elements and principles of design that underlie all spatial arts, with emphasis on the study of form organization combining previous quarters' experiences in more complex exercises. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23SAID127**Arts and Society: Arts, Crafts, and Design**

Introduction to an understanding and appreciation of architecture as part of a broad continuum of cultural expression; a reflective engagement with artifacts ranging in scale and media, as situated in their cultural worlds, as also reflected in literature, music, or broad social and intellectual themes. General focus on methods of production, the place of the artist in society, relation to power and money, cultural world view, political and philosophical contexts, and aesthetics. Includes student projects of prescriptive analysis of images (paintings, artifacts) from local museums, and Web-posted presentation/discussion venues. BoK: FA., DC. Credit Level: U. Credit Hrs: 3.00

23SAID127H**Arts and Society: Arts, Crafts, and Design**

Introduction to an understanding and appreciation of architecture as part of a broad continuum of cultural expression; a reflective engagement with artifacts ranging in scale and media, as situated in their cultural worlds, as also reflected in literature, music, or broad social and intellectual themes. General focus on methods of production, the place of the artist in society, relation to power and money, cultural world view, political and philosophical contexts, and aesthetics. Includes student projects of prescriptive analysis of images (paintings, artifacts) from local museums, and Web-posted presentation/discussion venues. BoK: FA., DC. Credit Level: U. Credit Hrs: 3.00

23SAID128**Arts and Society: Cities, Streets, and Dwellings**

Introduction to an understanding and appreciation of cultural expression through cities and their unique personalities; how that character is manifested in the forms, materials, and life-ways of streets and public spaces; how social and political life take place; dwellings and institutions as expressions of social structures and geographic conditions. Includes student projects and prescriptive analysis of settings (building, locations) in Cincinnati and the SW Ohio region, and Web-posted presentation/discussion venues. BoK: FA., DC. Credit Level: U. Credit Hrs: 3.00

23SAID128H**Arts and Society: Cities, Streets, and Dwellings**

Introduction to an understanding and appreciation of cultural expression through cities and their unique personalities; how that character is manifested in the forms, materials, and life-ways of streets and public spaces; how social and political life take place; dwellings and institutions as expressions of social structures and geographic conditions. Includes student projects and prescriptive analysis of settings (building, locations) in Cincinnati and the SW Ohio region, and Web-posted presentation/discussion venues. BoK: FA., DC. Credit Level: U. Credit Hrs: 3.00

23SAID129**Arts and Society: Monumental Expression**

Introduction to common and divergent formal themes with different cultural meanings around the world; monuments and their relationship to the natural order, such as life cycles, geographic settings, astronomical awareness, and religious or philosophical descriptions of the cosmos. Teaches familiarity with Western classical and medieval monuments, as well as sites from Asia, Africa, and Native America.

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Architecture and Interior Design**23SAID129****Arts and Society: Monumental Expression**

Emphasis on beginnings, archetypes, and architecture as a mode of socio-cultural understanding. BoK: FA., DC. Credit Level: U. Credit Hrs: 3.00

23SAID129H**Arts and Society: Monumental Expression**

Introduction to common and divergent formal themes with different cultural meanings around the world; monuments and their relationship to the natural order, such as life cycles, geographic settings, astronomical awareness, and religious or philosophical descriptions of the cosmos. Teaches familiarity with Western classical and medieval monuments, as well as sites from Asia, Africa, and Native America. Emphasis on beginnings, archetypes, and architecture as a mode of socio-cultural understanding. BoK: FA., DC. Credit Level: U. Credit Hrs: 3.00

23SAID167**Introduction to Building I**

Introduction to construction materials, physical systems, and processes and their effect on the making of architectural form. BoK: NS. Credit Level: U. Credit Hrs: 3.00

23SAID168**Introduction to Building II**

Continuation of Introduction to Building I with a deeper focus on structure and surfaces for building. BoK: NS. Credit Level: U. Credit Hrs: 3.00

23SAID191**Computer Skills 1**

This is the first of three courses that introduce students to electronic media and presentation. Students are also introduced to theoretical as well as practical applications of the computer. BoK: NS. Credit Level: U. Credit Hrs: 3.00

23SAID192**Computer Skills 2**

This is the second of three courses that introduce students to electronic media and presentation. Students are also introduced to theoretical as well as practical applications of the computer. Prereq: 23SAID191. BoK: NS. Credit Level: U. Credit Hrs: 3.00

23SAID193**Computer Skills 3**

This is the third of three courses that introduce students to electronic media and presentation. Students are also introduced to theoretical as well as practical applications of the computer. Prereq: 23SAID192. BoK: NS. Credit Level: U. Credit Hrs: 3.00

23SAID199**Accelerated Computer Skills**

Introductory course in computer graphics for Master of Architecture students entering with a non-design undergraduate degree. Topics include graphic layout, two- and three-dimensional representation, and web design. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23SAID200**Interdisciplinary Topics**

Interdisciplinary course for programs and/or faculty jointly teaching a cross-disciplinary studio, lecture, lab, or seminar. BoK: NA. Credit Level: U. Credit Hrs: 1.00-12.00

23SAID201**Immersion Studio**

This comprehensive, multidisciplinary studio introduces students of architecture and interior design to the methods and techniques of problem solving in building production at multiple scales of design intervention, emphasizing site considerations, building systems, structures, and interior environments. For one quarter, this studio serves as the hub for all academic work in the School's two undergraduate programs, including Skills, Construction 1, ET 1, History, and Professional Practice. A single syllabus and program,

Architecture and Interior Design**23SAID201****Immersion Studio**

developed by an interdisciplinary staff, constellates these topics around the particularities of a strategically developed design problem, such as housing, and then uses design to animate the relationship of these topics to appropriate forms and functions. Perm of Department. BoK: FA. Credit Level: U. Credit Hrs: 6.00

23SAID204**Representation Skills**

This course will explore the methods, techniques, tools, and critical principles of graphic representation in architecture and interior design, with special emphasis on drawing, diagramming, modeling, and one- and two-point perspective, developed and applied in the context of varied graphic media and digital software. Perm of Department. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23SAID217**Architecture through the Ages**

The history of Western and Near Eastern architecture from prehistoric times through antiquity; the architecture of non-Western cultures in Asia and Africa. Transfer Module. BoK: FA, HP. Credit Level: U. Credit Hrs: 3.00

23SAID218**Architecture through the Ages**

The history of architecture from the early Christian and Byzantine through the Medieval and Renaissance periods. Transfer Module. BoK: FA, HP. Credit Level: U. Credit Hrs: 3.00

23SAID219**Architecture through the Ages**

The history of architecture from the Baroque through the 18th and 19th centuries to the present, including the Modernism and Post-Modernism. Transfer Module. BoK: FA, HP. Credit Level: U. Credit Hrs: 3.00

23SAID227**History/Theory/Criticism: Precedent and Invention**

Survey and application of the techniques and processes of selection, analysis, and critical/ intentional transformation of prior works, an understanding of the dynamics of influence, and of the roles of tradition and change both in the socio-cultural reception of the built world, and in the cultural and ethical legitimacy of other learned professions. Prereq: 23SAID103. BoK: HP. Credit Level: U. Credit Hrs: 2.00

23SAID227H**History/Theory/Criticism: Precedent and Invention**

Survey and application of the techniques and processes of selection, analysis, and critical/ intentional transformation of prior works, an understanding of the dynamics of influence, and of the roles of tradition and change in both the socio-cultural reception of the built world, and in the cultural and ethical legitimacy of other learned professions. BoK: HP. Credit Level: U. Credit Hrs: 2.00

23SAID228**History/Theory/Criticism: The Classical Tradition**

A presentation of the body of classical ideals and the classical world, the origins and meanings of the Orders, as a basis for understanding Renaissance, Baroque, and Neoclassical architecture. Key works, ideas, texts, and theoretical and critical topics from antiquity, plus the fifteenth through early nineteenth centuries. Prereq: 23SAID227. BoK: HP. Credit Level: U. Credit Hrs: 3.00

23SAID228H**History/Theory/Criticism: The Classical Tradition**

A presentation of the body of classical ideals and the classical world, the origins and meanings of the Orders, as a basis for understanding Renaissance, Baroque, and Neoclassical architecture. Key works, ideas, texts, and theoretical and critical topics from antiquity, plus the fifteenth through early nineteenth centuries. BoK: HP. Credit Level: U. Credit Hrs: 3.00

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Architecture and Interior Design**23SAID229****History/Theory/Criticism: The Rise of Modern Architecture**

Introduction to ideological developments, major technical innovations, social and political circumstances through which European and American architecture and urbanism in the 20th century can be interpreted. Prereq: 23SAID228. BoK: HP. Credit Level: U. Credit Hrs: 3.00

23SAID229H**History/Theory/Criticism: The Rise of Modern Architecture**

Introduction to ideological developments, major technical innovations, social and political circumstances through with ropean and American architecture and urbanism in the 20th century can be interpreted. Prereq: 23SAID228. BoK: HP. Credit Level: U. Credit Hrs: 3.00

23SAID237**Interior Technology**

Introduction to interior design issues, materials, systems, and processes and their effect on the design of buildings. Coreq: 23SAID201. BoK: NS. Credit Level: U. Credit Hrs: 2.00

23SAID267**Construction 1**

Introduction to construction materials, physical systems and processes and their effect on the making of architectural form. Coreq: 23SAID201. BoK: NS. Credit Level: U. Credit Hrs: 2.00

23SAID268**Construction 2**

Continuation of Construction 1 with a deeper focus on structure and surfaces for building. Perm of Department. BoK: NS. Credit Level: U. Credit Hrs: 3.00

23SAID287**Environmental Technology 1**

The investigation of the thermal aspects of the environment, including consideration of physiology, climatology, natural adaptation, and thermal conditions. Prereq: 23SAID103. BoK: NS. Credit Level: U. Credit Hrs: 2.00

23SAID288**Environmental Technology 2**

The investigation of the thermal aspects of the environment, including consideration of physiology, climatology, natural adaptation, and thermal calculations. Perm of Department. BoK: NS. Credit Level: U. Credit Hrs: 3.00

23SAID294**Computer Skills**

An introduction to computer-aided design using AutoCAD software. Students will digitally reproduce an existing building in preparation for their first cooperative education experience. Prereq: 23SAID193. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23SAID300**Interdisciplinary Topics**

Interdisciplinary course for programs and/or faculty jointly teaching a cross-disciplinary studio, lecture, lab, or seminar. BoK: NA. Credit Level: U. Credit Hrs: 1.00-12.00

23SAID312**Elective Studio**

This elective studio will offer an exploration of issues related to particular areas of concentration within the undergraduate School of Architecture and Interior Design curricula. Prereq: 23ARCH202, 23INTD203. BoK: NA. Credit Level: U. Credit Hrs: 6.00

23SAID322**Elective Studio**

This elective studio will offer an exploration of issues related to particular areas of concentration within the undergraduate School of Architecture and Interior Design curricula. BoK: NA. Credit Level: U. Credit Hrs: 6.00

Architecture and Interior Design**23SAID327****American Architecture I: Colonialism and Early Republican**

The architecture and town-planning of the Prehistoric (Native American/Indian), Colonial, and Early Republican eras to about 1820; British Colonial developments including vernacular Late Medieval and Georgian influences on builder architects; concluding with careers of gentlemen architects Thomas Jefferson, Charles Bulfinch, and B. H. Latrobe. Weekend field trips will be available. Transfer Module. BoK: FA, HP. Credit Level: U. Credit Hrs: 3.00

23SAID328**American Architecture II: Victorian and Early Modern**

"Victorian" American architecture, structural technology and urban development from the War of 1812 to World War I; 19th century historical eclecticism, Greek and Gothic Revivals of the antebellum period; their later variants in the Gilded Age after the Civil War; turn-of-the-century American Renaissance, and the origins of modernism in works of Richardson, Sullivan and Frank Lloyd Wright. Field trips will be available. Transfer Module. BoK: FA, HP. Credit Level: U. Credit Hrs: 3.00

23SAID329**American Architecture III: Modern, Traditional, and Post-Modern**

The continuity of traditional historicist styles presented in contrast to the American Arts and Crafts Movement and the impact of the International Style (Bauhaus) and its Art Deco counterpart between the world wars; American modern architecture, technology, and urbanism after World War II in the context of the recent reaction known as Post-Modernism, an attempt to integrate the traditional and modern attitudes. Field trips will be available. Transfer Module. BoK: FA, HP. Credit Level: U. Credit Hrs: 3.00

23SAID332**Elective Studio**

This elective studio will offer an exploration of issues related to particular areas of concentration within the undergraduate School of Architecture and Interior Design curricula. Prereq: 23ARCH202, 23ARCH203. BoK: NA. Credit Level: U. Credit Hrs: 6.00

23SAID342**Elective Studio**

This elective studio will offer an exploration of issues related to particular areas of concentration within the undergraduate School of Architecture and Interior Design curricula. Prereq: 23ARCH202, 23INTD203. BoK: NA. Credit Level: U. Credit Hrs: 6.00

23SAID352**Elective Studio**

This elective studio will offer an exploration of issues related to particular areas of concentration within the undergraduate School of Architecture and Interior Design curricula. Prereq: 23ARCH202, 23INTD203. BoK: NA. Credit Level: U. Credit Hrs: 6.00

23SAID362**Elective Studio**

This elective studio will offer an exploration of issues related to particular areas of concentration within the undergraduate School of Architecture and Interior Design curricula. Prereq: 23ARCH202, 23INTD203. BoK: NA. Credit Level: U. Credit Hrs: 6.00

23SAID372**Elective Studio**

This elective studio will offer an exploration of issues related to particular areas of concentration within the undergraduate School of Architecture and Interior Design curricula. Prereq: 23ARCH202, 23ARCH203. BoK: NA. Credit Level: U. Credit Hrs: 6.00

23SAID382**Elective Studio**

This elective studio will offer an exploration of issues related to particular areas of concentration within the undergraduate School of Architecture and Interior Design curricula. Prereq: 23ARCH202, 23INTD203. BoK: NA. Credit Level: U. Credit Hrs: 6.00

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Architecture and Interior Design**23SAID387****Environmental Technology 1**

The investigation of the thermal aspects of the environment, including consideration of physiology, climatology, natural adaptation, and thermal calculations. BoK: NS., QR. Credit Level: U. Credit Hrs: 3.00

23SAID388**Environmental Technology 2**

Introduction to environmental control systems used to control the thermal environment. Prereq: 23SAID387. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

23SAID392**Elective Studio**

This elective studio will offer an exploration of issues related to particular areas of concentration within the undergraduate School of Architecture and Interior Design curricula. Prereq: 23ARCH202, 23INTD203. BoK: NA. Credit Level: U. Credit Hrs: 6.00

23SAID399H**Paris: Reading the City**

In this course we will study texts by authors whose observations about the city of Paris and its systems (of transportation, commerce, social relations, hygiene, etc.) complement the traditional view of the city as a formal, visual construction. At the core of this investigation is the notion of the city as an organism or body, animated by patterns that relate to but ultimately transcend the brick and mortar city. This class will culminate in a 1-2 week visit to Paris during the vacation following the quarter in which the course is offered. BoK: FA., HP. Credit Level: U. Credit Hrs: 3.00

23SAID400**Interdisciplinary Topics**

Interdisciplinary course for programs and/or faculty jointly teaching a cross-disciplinary studio, lecture, lab, or seminar. Perm of Department. BoK: NA. Credit Level: U. Credit Hrs: 1.00-12.00

23SAID427**Architecture of Cincinnati**

The history of Greater Cincinnati's man-made environment, from the 1700s until World War II. How have architects responded to our unique topography, social, cultural, and ethnic factors? BoK: FA., HP. Credit Level: U. Credit Hrs: 3.00

23SAID428**Cincinnati Architecture Seminar I**

Covering a range of possible topics from Gothic Cathedrals to Art Nouveau to Louis Sullivan, this seminar allows students the opportunity for original research. BoK: FA., HP. Credit Level: U. Credit Hrs: 3.00

23SAID429**Cincinnati Architecture Seminar II**

Conducted in informal seminar sessions, with some lectures as well as group discussion and the opportunity for students to contribute original research on topics related to the historic architecture of the Greater Cincinnati Area. BoK: FA., HP. Credit Level: U. Credit Hrs: 3.00

23SAID438**Introduction to Programming**

Introduction to the methods used for programming as a part of the pre-design phase of any design project. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23SAID491**Foreign Study Design Lab**

A design lab for students who have been approved for organized study abroad. BoK: FA., DC. Credit Level: U. Credit Hrs: 6.00

23SAID494**Foreign Study Seminar**

A seminar for students who have been approved for organized study abroad. BoK: DC. Credit Level: U. Credit Hrs: 3.00

Architecture and Interior Design**23SAID497****Foreign Study Lecture**

A lecture for students who have been approved for organized study abroad. BoK: DC. Credit Level: U. Credit Hrs: 3.00

23SAID500**Interdisciplinary Topics**

Interdisciplinary course for programs and/or faculty jointly teaching a cross-disciplinary studio, lecture, lab, or seminar. Perm of Department. BoK: NA. Credit Level: U. Credit Hrs: 1.00-12.00

23SAID600**Interdisciplinary Topics**

Interdisciplinary course for programs and/or faculty jointly teaching a cross-disciplinary studio, lecture, lab, or seminar. Perm of Department. Credit Level: G. Credit Hrs: 1.00-12.00

23SAID700**Interdisciplinary Topics**

Interdisciplinary course for programs and/or faculty jointly teaching a cross-disciplinary studio, lecture, lab, or seminar. Perm of Department. Credit Level: G. Credit Hrs: 1.00-12.00

Art, Art History and Art Education**23SOA100****Interdisciplinary Topics**

Interdisciplinary course for programs and/or faculty jointly teaching a cross-disciplinary studio, lecture, lab, or seminar. Perm of Department. BoK: NA. Credit Level: U. Credit Hrs: 1.00-12.00

23SOA200**Interdisciplinary Topics**

Interdisciplinary course for programs and/or faculty jointly teaching a cross-disciplinary studio, lecture, lab, or seminar. Perm of Department. BoK: NA. Credit Level: U. Credit Hrs: 1.00-12.00

23SOA300**Interdisciplinary Topics**

Interdisciplinary course for programs and/or faculty jointly teaching a cross-disciplinary studio, lecture, lab, or seminar. Perm of Department. BoK: NA. Credit Level: U. Credit Hrs: 1.00-12.00

23SOA400**Interdisciplinary Topics**

Interdisciplinary course for programs and/or faculty jointly teaching a cross-disciplinary studio, lecture, lab, or seminar. Perm of Department. BoK: NA. Credit Level: U. Credit Hrs: 1.00-12.00

23SOA500**Interdisciplinary Topics**

Interdisciplinary course for programs and/or faculty jointly teaching a cross-disciplinary studio, lecture, lab, or seminar. Perm of Department. BoK: NA. Credit Level: U. Credit Hrs: 1.00-12.00

23SOA600**Interdisciplinary Topics**

Interdisciplinary course for programs and/or faculty jointly teaching a cross-disciplinary studio, lecture, lab, or seminar. Perm of Department. Credit Level: G. Credit Hrs: 1.00-12.00

23SOA700**Interdisciplinary Topics**

Interdisciplinary course for programs and/or faculty jointly teaching a cross-disciplinary studio, lecture, lab, or seminar. Perm of Department. Credit Level: G. Credit Hrs: 1.00-12.00

Planning and Urban Studies**23SOP100****Interdisciplinary Topics**

Interdisciplinary course for programs and/or faculty jointly teaching a cross-disciplinary studio, lecture, lab, or seminar. Perm of Department. BoK: NA. Credit Level: U. Credit Hrs: 1.00-12.00

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LT: Literature. NS: Natural Sciences. QR: Quantitative Reasoning. SE: Social & Ethical Issues. SS: Social Sciences.

Planning and Urban Studies**23SOP200****Interdisciplinary Topics**

Interdisciplinary course for programs and/or faculty jointly teaching a cross-disciplinary studio, lecture, lab, or seminar. Perm of Department. BoK: NA. Credit Level: U. Credit Hrs: 1.00-12.00

23SOP300**Interdisciplinary Topics**

Interdisciplinary course for programs and/or faculty jointly teaching a cross-disciplinary studio, lecture, lab, or seminar. Perm of Department. BoK: NA. Credit Level: U. Credit Hrs: 1.00-12.00

23SOP400**Interdisciplinary Topics**

Interdisciplinary course for programs and/or faculty jointly teaching a cross-disciplinary studio, lecture, lab, or seminar. Perm of Department. BoK: NA. Credit Level: U. Credit Hrs: 1.00-12.00

23SOP500**Interdisciplinary Topics**

Interdisciplinary course for programs and/or faculty jointly teaching a cross-disciplinary studio, lecture, lab, or seminar. Perm of Department. BoK: NA. Credit Level: U. Credit Hrs: 1.00-12.00

23SOP600**Interdisciplinary Topics**

Interdisciplinary course for programs and/or faculty jointly teaching a cross-disciplinary studio, lecture, lab, or seminar. Perm of Department. Credit Level: G. Credit Hrs: 1.00-12.00

23SOP700**Interdisciplinary Topics**

Interdisciplinary course for programs and/or faculty jointly teaching a cross-disciplinary studio, lecture, lab, or seminar. Perm of Department. Credit Level: G. Credit Hrs: 1.00-12.00

Urban Administration and Urban Studies**23URBN405****Internship**

Full-time internship in urban studies for integration of academic work and field experience. BoK: NA. Credit Level: U. Credit Hrs: 3.00-15.00

23URBN406**Cultural Pluralism in the American City**

The implications of cultural differences. Designed to help professionals in social work, health, education, and law enforcement understand the difficulties and possibilities of working with minority subcultures. Offered alt. yrs. BoK: SS., DC. Credit Level: U. Credit Hrs: 3.00

23URBN407**Appalachians as an Urban Ethnic Group**

An introduction to the history, culture, and social structure of the Appalachian subculture with emphasis on the group's experience as urban migrants. Practice oriented for students interested in health, education, social work, community organization, or criminal justice work with cultural minorities. Offered alt. yrs. BoK: SS., DC. Credit Level: U. Credit Hrs: 3.00

23URBN408**Black Americans in the City**

The values and social institutions of the African-American subculture as a factor in the delivery of social welfare (health, education, social work, community organizing, criminal justice, etc.) services. Draws upon sociology, anthropology, and social welfare theory. Offered alt. yrs. BoK: SS., DC. Credit Level: U. Credit Hrs: 3.00

23URBN409**Old Age and the Community**

The crisis of a rapidly expanding aged population doomed to marginal life styles because of prejudices and lack of community planning. An assessment of economic, social, health, and psychological needs of the aged. Prereq: 15ENGL103. BoK: SS, SE. Credit Level: U. Credit Hrs: 3.00

Urban Administration and Urban Studies**23URBN473****Directed Studies**

Directed readings and tutorial conferences related to specific areas of Urban Studies. Prereq.: BoK: NA. Credit Level: U. Credit Hrs: 1.00-5.00

23URBN474**Independent Study in Urban Studies**

Please complete and submit an Independent Application form available from the college office. BoK: NA. Credit Level: U. Credit Hrs: 1.00-12.00

23URBN479**Social Justice and the City**

General Education-approved course that examines experiences of differences in cities and their implications for ideas for social justice. BoK: DC., SE. Credit Level: U. Credit Hrs: 3.00

23URBN578**Senior Problem Proposal in Urban Studies**

Preparation of the full proposal for senior year study. Prereq: 23PLAN546. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23URBN587**Urban Studies Thesis**

Terminal requirement for Urban Studies majors; research preparation and presentation of specific urban topic. Prereq: 23URBN578. BoK: NA. Credit Level: U. Credit Hrs: 6.00

23URBN591**Seminar in Urban Topics**

Overview of selected urban topics. BoK: NA. Credit Level: U, G. Credit Hrs: 2.00-6.00

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COLLEGE OF EDUCATION, CRIMINAL JUSTICE, AND HUMAN SERVICES
COURSE DESCRIPTIONS

(18) College of Education, Criminal Justice, and Human Services

2008 - 2009

Addictions

18ADDC202

Basic Pharmacology

How tolerance, cross-tolerance, synergism, and withdrawal lead to addiction. How the route of administration alters pharmacodynamics. How the liver and the kidneys change body chemical metabolism. The primary and secondary side effects of narcotic drugs. BoK: NS. Credit Level: U. Credit Hrs: 3.00

18ADDC203

Substance Abuse and Chemical Dependency in the Older Adult

The purpose of this course is to provide students with an understanding of the effect of mood altering substances in older adults, and of the specific treatment needs of this special population. The course will examine causes of substance abuse with this population, special clinical skills needed, and intervention strategies. Cultural prejudices toward older adults will also be a focus. BoK: SS., DC. Credit Level: U. Credit Hrs: 3.00

18ADDC205

Foundations in ATOD Prevention I

The purpose of this course is to introduce students to a comprehensive overview of the prevention discipline. The student will examine significant historical developments, populations served and their needs, and current research and practice, and will learn about resources available in the field. BoK: SS. Credit Level: U. Credit Hrs: 3.00

18ADDC209

Alcoholism

This course presents a multidimensional approach to the "disease" of alcoholism. It presents the sociological, psychological, physiological, moral, and behavioral factors and effects associated with the disorder, as well as a review of diagnostic and therapeutic tools currently in use. BoK: SS. Credit Level: U. Credit Hrs: 3.00

18ADDC211

Drugs and Behavior

In addition to basic information about the problems associated with substance abuse and identifying various drugs of abuse, the course also provides a review of the causes and correlational models associated with chemical dependency. The biochemical and predispositional variables of chemical dependency are also explored, as well as the psychological and behavioral effects on the dependent person and his family. Primary therapeutic and relapse interventions are presented, as well as the program modality referral process. BoK: SS. Credit Level: U. Credit Hrs: 3.00

18ADDC221

Assessment and Diagnosis in Addictions

Introduces the student to the clinical assessment and diagnostic process in addictions. The student will learn the key elements of making good assessments, and will become familiar with the diagnostic and statistical manuals and multidimensional paradigms. BoK: SS. Credit Level: U. Credit Hrs: 3.00

18ADDC231

Introduction to Counseling

An eclectic overview of various counseling theories, including some counseling perspectives more commonly used in the field of addiction treatment. Builds the foundation for development of a personal counseling approach. Fundamentals of the counseling process, basic requirements in a therapeutic relationship, and ethical considerations will be emphasized. BoK: SS. Credit Level: U. Credit Hrs: 3.00

18ADDC301

Addiction: Impact on the Family

Discusses the significant impact of addiction on family systems, including roles, dynamics, and symptoms that are commonly identified in both family members and the addicted person. The course also

College of Education, Criminal Justice, and Human Services

Addictions

18ADDC301

Addiction: Impact on the Family

explores co-dependency, sexuality, and transgenerational issues, as well as domestic violence and abuse. Assessment and intervention strategies will also be explored. BoK: SS. Credit Level: U. Credit Hrs: 3.00

18ADDC302

Neurobiology and Neuroendocrinology of Addiction

The physiology of the neuron and synapse. Sensory and motor nerve tracts in the spinal chord and brain. Brain formations which subserve pain, pleasure, and motor skills. How neurotransmitters, endorphins, and narcotics impinge on their function. BoK: NS. Credit Level: U. Credit Hrs: 3.00

18ADDC305

Nicotine Addiction and Treatment

This course will examine the use of tobacco products, focusing on the effects of nicotine addiction on the individual and society. The history of tobacco use and the politics and economics of the tobacco industry will also be explored. Students will be presented with the latest diagnostic, prevention, and treatment strategies used in nicotine addiction. BoK: SS. Credit Level: U. Credit Hrs: 3.00

18ADDC308

Sexual Addiction

A detailed introduction to the development, maintenance, and consequences of sexual addiction. Diagnosis and treatment modalities will be discussed, as well as the interaction of the addict with family dynamics, societal values, and the criminal justice system. Prereq: 18ADDC211. BoK: SE. Credit Level: U. Credit Hrs: 3.00

18ADDC309

Women and Addictions

Provides an exploration of specific issues relevant to women with a number of addictions. These include gender differences in usage patterns, cultural issues, physiological complications, psychological repercussions, and recovery concerns. Biases in therapeutic intervention are also reviewed. BoK: SS., DC. Credit Level: U. Credit Hrs: 3.00

18ADDC313

Eating Disorders: Women and Their Bodies

This course provides an in-depth study of the primary eating disorders of anorexia nervosa, bulimia nervosa, and binge eating. Gender issues, psycho-social issues, medical complications, treatment strategies, and prevention are also presented. BoK: SS. Credit Level: U. Credit Hrs: 3.00

18ADDC319

Substance Abuse in the Gay and Lesbian Community

This course focuses on some of the factors that lead to high rates of substance abuse among the gay and lesbian communities: homophobia, grief and loss, and community enabling. Also addressed are treatment issues, family issues, and health concerns related to this population, as well as unaddressed life issues and under-addressed treatment issues related to the gay and lesbian populations. Other related issues that are discussed are life transition issues, self-perception, coming out, communicable diseases, and co-dependency. BoK: SS., DC. Credit Level: U. Credit Hrs: 3.00

18ADDC321

Dual Diagnosis

Designed to provide a basic understanding of the nature and dynamic of the dually diagnosed person. The course covers the symptomatology of persons with both chemical addiction and a mental health problem. Included are the specific treatment needs of this population and the benefits of a "SA/MI" treatment module. Included are various clinical

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Addictions**18ADDC321****Dual Diagnosis**

definitions according to the DSM-IV, progression of psychiatric disorders, traditional versus specific treatment, medication and medical management, multi-disciplined treatment approaches, and more. BoK: SS. Credit Level: U. Credit Hrs: 3.00

18ADDC329**Holistic Assessment Processes in Addictive Disorders**

Designed to provide students with opportunities to master chemical dependency assessment skills. Students will learn theories related to: the nature of addiction, common effects of the addictive process on the addicts and the people in committed relationships with addicts, pre-post use symptoms of addiction. In addition, students will learn and practice skills related to: paper and pencil measures of addiction, interview techniques, and third party information gathering techniques. BoK: SS. Credit Level: U. Credit Hrs: 3.00

18ADDC330**Fundamentals of Cultural Competence**

Addresses the critical role culture plays in the development of and the recovery from chemical dependency. Specific cultures (African-American, Appalachian, Native American, and Hispanic) are among those examined in relation to their implications for addiction. The course also presents culture-specific factors associated with various assessment, diagnostic, and treatment strategies, as well as treatment implications. BoK: SS., DC. Credit Level: U. Credit Hrs: 3.00

18ADDC332**Individual Counseling Skills in Addictions**

This class will review four common theories of psychotherapy and their application in the addiction treatment setting. The class will be experiential and didactic with role play training sessions in major techniques from each theory. Student evaluations will be based on a paper, class participation, and a final multiple choice exam. BoK: SS. Credit Level: U. Credit Hrs: 3.00

18ADDC333**Introduction to Group Process**

An introduction to group theories, issues, and key concepts of group process. Students will learn how to apply these concepts in working with a variety of groups with a focus on addictions. The course provides a basic understanding of group theories, dynamics, processes, and development, with the focus on addiction therapy. Students will identify and experience group member roles and behaviors, and study group leadership characteristics, styles, and approaches. Various types of group work, including task, therapy, counseling, and psycho-educational modes, will be studied. BoK: SS. Credit Level: U. Credit Hrs: 3.00

18ADDC351**Substance Abuse and the Law**

An in-depth look at municipal, state, and federal laws related to substance abuse and trafficking. Course educates students about funding of drug trafficking, sale of controlled substances, illegal dispensing of drug samples, counterfeit controlled substances, criminal and civil forfeiture, probation, commitments for treatment, and many more legal problems for the substance abuse population. Course will give the student a better understanding of the legal implications and consequences of illegal drug activity and behavior. It may better prepare a counselor to work with the criminal justice system. BoK: SS. Credit Level: U. Credit Hrs: 3.00

18ADDC361**HIV/AIDS in Addictions and Social Service Practice**

The student will participate in discussions about AIDS origin (theories) and the salient societal features which permitted HIV to gain a foothold in this society. The student will learn the three stages of the disease progression and the mechanisms by which HIV impacts the immune system. HIV testing methodology, drugs as treatment, and prophylaxis will be discussed, along with payment sources for different drug companies. Students will also assess specific drugs and discuss them

Addictions**18ADDC361****HIV/AIDS in Addictions and Social Service Practice**

in terms of cost, drug company affiliations, use dosages, side effects, complications, contraindications, trials, and local availability. BoK: NS., SS. Credit Level: U. Credit Hrs: 3.00

18ADDC362**Adolescent Chemical Dependency**

This course focuses on the developmental tasks of adolescents, including physiological and psychological changes, independence, moral development, social and coping skills, and the psycho-social variables that impact adolescent growth and maladaptive behaviors, such as substance abuse. The course also discusses family issues, dynamics, and the behavioral impact of adolescent CD in various settings. BoK: SS. Credit Level: U. Credit Hrs: 3.00

18ADDC401**Group Leadership Skills in Addictions**

This course is recommended to those students who have completed Introduction to Group Process. The course focuses on techniques, clinical skills, ethical issues, screening, goal setting, group development, advanced counseling skills, experimental activities, and time-limited group process. The student should be prepared to be involved with role playing, group leadership exercises, and skill development. BoK: SS. Credit Level: U. Credit Hrs: 3.00

18ADDC402**Grantwriting and Fiscal Management in Addiction Prevention**

The purpose of this course is to introduce the student to the principles of program planning with a focus on proposal writing. The student will learn key elements of grantwriting, development of evaluation plans, and fiscal responsibilities, and will become familiar with essential elements of grantsmanship as applied in a framework specific to prevention. Perm of Instructor. BoK: NA. Credit Level: U. Credit Hrs: 3.00

18ADDC403**Supervision of Prevention Professionals and Volunteers**

The purpose of this course is to introduce students to the principles of organizational behavior and leadership models. The student will learn strategies and techniques, based in theory and practice, essential in supervising prevention professionals and community volunteers. The student will become familiar with employee motivation, conflict management, and team-oriented groups. Guidelines, roles, and responsibilities for Preceptorship in prevention certification will be discussed and will satisfy the Ohio Credentialing Board Preceptor training requirement. Prereq: 18ADDC205, 18ADDC211, 18ADDC304, 15ENGL103. BoK: SS. Credit Level: U. Credit Hrs: 3.00

18ADDC404**Anger and Addiction**

Explores the complex relationship between anger behavior and addiction. An experiential class designed to address the treatment of destructive anger patterns in addiction recovery. Includes aspects of treatment for self-destructive and family anger. Special emphasis is placed on the students' discovery of their own anger patterns and professional anger management issues. BoK: SS. Credit Level: U. Credit Hrs: 3.00

18ADDC405**Family Counseling Skills**

Course is designed for understanding the systemic deterioration of the family due to addiction: the family dynamic, family roles, and overall dysfunctioning process. It also teaches intervention strategies, therapeutic techniques to work with the "chemically dependent family," family relapse prevention, issues of sexuality in recovery, and a number of counseling styles that have been effective in family therapy. BoK: SS. Credit Level: U. Credit Hrs: 3.00

18ADDC409**Opiate Addiction and Treatment**

Students will be completely educated about addiction to the opiate drugs. The course is designed to help the treatment professional

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Addictions**18ADDC409****Opiate Addiction and Treatment**

understand the interrelationship between the physiological and psychological dynamics of opiate addiction. This will include scientific research on opiate addiction, methadone treatment, and other successful therapeutic strategies, as well as opiate addiction and criminal behavior, psychiatric co-morbidity, and many other correlational issues. BoK: SS. Credit Level: U. Credit Hrs: 3.00

18ADDC410**Legalized Gambling and Society**

Government is increasingly turning to lotteries, casino gambling, and other legalized gambling operations to secure revenue. Some statistical evidence suggests that there is a positive correlation between this increase and the number of problem gamblers in our society. This course will examine the impact of this phenomena and the distal consequences on communities which have chosen gambling as a revenue-generating support system. BoK: SS. Credit Level: U. Credit Hrs: 3.00

18ADDC411**Treatment of Gambling Addiction**

Designed to help students become more knowledgeable about compulsive gambling by studying the behavioral, psychological, and sociological correlates as well as assessment and diagnostic tools used to establish a clinical presentation. Students will also be exposed to therapeutic interventions and participate in role playing and practicum to assist them in learning clinical techniques. BoK: SS. Credit Level: U. Credit Hrs: 3.00

18ADDC421**Crisis Management in Therapy**

The student will learn to recognize crisis situations in therapy and develop skills and strategies to help the person in clinical crisis. Included features are: assessment of mental status, characteristics of behavior and speech, risk prediction variables, external and internal triggers, escalation, debriefing, and post-crisis depression. BoK: SS. Credit Level: U. Credit Hrs: 3.00

18ADDC422**Recovery and Relapse**

The student will learn the relapse and recovery process, including: the phases of recovery; how to recognize a healthy recovery from addiction; understanding relapse, the causes of relapse, triggers associated with relapse; manifestations of relapse; how to prevent relapse; and special problems of relapse associated with special populations and needs such as gender and cultural differences. BoK: SS. Credit Level: U. Credit Hrs: 3.00

18ADDC423**Spirituality and Recovery**

The examination and evaluation of the impact of active addiction on spirituality and the need for spiritual reformation and application for a successful recovery. The meaning and role of spirituality in a person's life and its therapeutic implications for recovery from addictions are major areas of focus. Specific cultural populations and spirituality, as well as relationships and spirituality, will also be studied. BoK: SS. Credit Level: U. Credit Hrs: 3.00

18ADDC432**Education and Prevention in Addictions**

Topics included are: addictions prevention planning and needs assessments along with review of addictions prevention programs that work and why; implementation issues such as funding, program management, building community support, and legal/ethical/public policy issues. Evaluation of addictions prevention program outcomes and impact are also included. BoK: SS. Credit Level: U. Credit Hrs: 3.00

18ADDC433**Creating Drug-Free Schools**

This course provides a framework for addictions prevention education for K-12 grades. It provides the basics for drug prevention, including what kids need to succeed, information about drugs, background on

Addictions**18ADDC433****Creating Drug-Free Schools**

children's developmental learning stages, specific lesson plans, and suggestions for working with parents, communities, and policy makers. A model national prevention curriculum from the U.S. Department of Education is presented. BoK: SS. Credit Level: U. Credit Hrs: 3.00

18ADDC434**Developing Community Prevention Programs**

Prepares the student for the process of developing prevention leadership skills. Very limited time and available resources will be used to achieve the best outcome of the course. This will make the participants cognizant of the realities of similar scarceness within the community. BoK: SS. Credit Level: U. Credit Hrs: 3.00

18ADDC435**Prevention Education and Training**

The purpose of this course is to introduce students to the elements and practice of leading and presenting to groups. The student will learn the "process" of training/education for imparting prevention-related knowledge, information, and skills to others in a variety of settings (formal and informal). Communication and facilitation skills for the student are emphasized. The course also presents culture-specific factors associated with prevention training assessment, design, delivery, and evaluation. BoK: SS. Credit Level: U. Credit Hrs: 3.00

18ADDC451**Ethics in Chemical Dependency Counseling**

An in-depth examination of the codes of ethics in addictions and human services. Emphasis is placed on the NAADAC code of ethics for addictions treatment providers. Experiential exercises and role playing to identify and resolve ethical issues and dilemmas will be used. BoK: SS., SE. Credit Level: U. Credit Hrs: 3.00

18ADDC461**Administration of Addiction Programs**

An overview of challenges that confront administrators of addiction programs and the skills and knowledge needed for successful management. The course includes profit versus nonprofit agencies, free-standing versus affiliated agencies, purview and authority, aspects of business, approaches to management, and leadership skills. BoK: SS. Credit Level: U. Credit Hrs: 3.00

18ADDC499**Independent Study in Addiction**

Please complete and submit an Independent Application form available from the College Office. BoK: SS. Credit Level: U. Credit Hrs: 1.00-12.00

18ADDC510**Clinical Supervision of Chemical Dependency Counselors**

This course is designed to introduce helping professionals to current perspectives on clinical supervision for substance abuse/dependency counselors. It is designed for counselors with some advanced skills and experiences who anticipate supervisory responsibilities, and for those professionals who are already doing some clinical supervision and would like an opportunity to expand their understanding and practice of supervising other professionals in the field of addictions. BoK: SS. Credit Level: U. Credit Hrs: 3.00

18ADDC519**Managed Care of Behavioral Medicine**

This course provides students with the skills to design a mental health or substance abuse clinic and to sell managed care contracts to large corporations. Included in the course of study will be understanding contract negotiation, HMO and PPO capitation formulas, and their outcome studies. Students will be given an opportunity to understand information-based health care data processing and become well versed in managed care terminology. BoK: SS. Credit Level: U. Credit Hrs: 3.00

Addictions**18ADDC521****Drug Abuse and Public Policy**

This course examines public policy relative to drug abuse; and examines the confusing and often contradictory array of facts, rhetoric, and myth that influence policy and public opinion. The course will review the history and current state of government and community efforts to regulate drug problems. Some of the areas studied are: the war on drugs, cultural driving policy, local community efforts, federal dollars, political leadership, and current research. BoK: SS. Credit Level: U. Credit Hrs: 3.00

18ADDC522**Addictions Casework Seminar**

This class provides skill development in doing casework with the addicted populations. A review of client admission, intake, assessment, and treatment planning as it relates to developing casework plans and the referral process will be a primary focus of the course. The course also explores developing appropriate case plans with special populations, including women, AIDS/HIV infected persons, dually diagnosed individuals, adolescents, and some culturally-specific populations. Students will develop case plans based upon the initial treatment planning. BoK: SS. Credit Level: U. Credit Hrs: 3.00

18ADDC531**Student Internship Program**

The Addictions Studies Internship program is designed to assist students gain practical experience in the field of addictions. While the main focus of the student Internship is to provide a clinically supervised practicum, an ancillary feature will be to allow students to network with treatment, correctional, and social service agencies, thereby gaining valuable knowledge of support systems available in the community. Student Internships do count as "work experience" by the Ohio Credentialing Board and may be extended by agreement with the receiving agency. Students must have a 2.5 average to qualify for an Internship, be accepted by the host agency, and have the approval of the Director of the Addictions Studies program. Students who do not qualify will substitute an additional elective to meet baccalaureate graduation requirements. Internships are primarily for baccalaureate students, but some certificate students may qualify for an Internship with the approval of the Director of the Addictions program. BoK: NA. Credit Level: U. Credit Hrs: 3.00

18ADDC532**Student Internship II**

The Addictions Studies Student Internship II is designed to allow students to gain practical experience and to meet licensure requirements. Prereq: 18ADDC531. BoK: SS. Credit Level: U. Credit Hrs: 3.00

18ADDC540**The Therapeutic Community in Addictions Treatment**

Course will examine the history, evolution, and current use of the therapeutic community as a modality for addictions treatment and the characteristics of the individual most amenable to this modality. The specifics (i.e., hierarchy, client roles and responsibilities, practitioner role, integration, and participation) will be identified and examined. The course will have a research component to it that will be integrated into the preparation for the student's capstone experience. BoK: SS. Credit Level: U. Credit Hrs: 3.00

18ADDC541**Capstone Experience in Addiction Studies**

This course or experience will introduce the student to the treatment process by actually allowing him or her to participate in a therapeutic encounter. It is designed to give the student a better understanding of the emotional experiences that accompany various levels and types of treatment modes and modalities and to promote greater empathy and objectivity when working with the addictions populations. Experiences will vary from group encounters in a therapeutic community to individual experiences in different treatment settings. BoK: NA. Credit Level: U. Credit Hrs: 3.00

Curriculum and Instruction**18CI247****Computer Tools for Teachers**

This course teaches both the basic and advanced levels of the Microsoft Office Suite of programs for educators. The emphasis is on how to use these tools to improve classroom instruction and management. BoK: NA. Credit Level: U. Credit Hrs: 4.00

18CI400**Teaching and Learning in Diverse Classrooms**

This course exposes students to the problems, issues, and experiences of students from under-represented groups based on race, ethnicity, language, socio-economic status, and sexual identity. BoK: SE. Credit Level: U. Credit Hrs: 3.00

18CI523**Field Experiences Practicum**

This course allows students to participate in a special practical experience working in a K-12 classroom. Permission from the Director of Field Experiences must be obtained before registering for this class. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

18CI572**Individual Study**

Individual research on a problem related to major field of study. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

18CI684**Global Education: Cross-Cultural Studies and Communication**

Analysis of current trends and programs on global/international education; focus on cross-cultural studies and communication as they affect teachers and students representing different world regions. BoK: DC. Credit Level: U, G. Credit Hrs: 3.00-6.00

18CI685**Global Education: Problems and Issues**

Developmental education approach to the in-depth study of selected issues and problems, how they affect the global state of affairs, and the development of a global community. BoK: DC. Credit Level: U, G. Credit Hrs: 3.00

18CI710**Math as an Interdisciplinary Topic**

This course will teach activities to help illustrate the connection between mathematics and other subject areas including music, art, social studies, science, and literacy. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

18CI660**Universal Design for Learning with Technology**

This course will explore recent advances critical for developing curriculum and resources to meet the needs of students with a wide range of abilities and disabilities. Cutting-edge research on the neuroscience of learning will provide a framework for understanding our individual differences. Based on this framework, this course will also cover how technology can be used to design instruction for a wide range of learning needs. Credit Level: G. Credit Hrs: 3.00

18CI670P**The Development of Mathematical Thinking**

This course is a requirement for the PreK-6 Mathematics Specialist Endorsement and examines theory and research that informs our understanding of the development of mathematical thinking in children. Credit Level: G. Credit Hrs: 3.00

18CI671P**Teaching and Learning of Pre K-6 Geometry and Measurement**

This course is a requirement for the pre K-6 mathematics specialist endorsement and examines theory and research that informs our understanding of the development of mathematical thinking in children. Credit Level: G. Credit Hrs: 3.00

18CI701**Masters Research Seminar: Curriculum and Instruction**

Research and bibliographic methods in curriculum and instruction;

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Curriculum and Instruction

18CI701

Masters Research Seminar: Curriculum and Instruction

analytic, evaluative writing about research; use of research facilities.

Credit Level: G. Credit Hrs: 3.00

18CI702

Inquiry Into Teaching and Learning

Explores various modes, formal and informal, for posing and pursuing questions about teaching and learning. Emphasizes the individual pursuit of research relevant to one's professional interests. Credit Level: G. Credit Hrs: 3.00

18CI703

The Role of Teachers in a Democratic Society

Builds on the theoretical, philosophical, and practical foundations of what it means to be a teacher in a democratic society, with applications to students' personal and professional lives as teachers. Credit Level: G. Credit Hrs: 3.00

18CI704

Forces Shaping the School Curriculum

Examines philosophical, historical, political/ legislative, and socio-cultural forces shaping school curricula, past and present. Provides multiple perspectives for identifying and evaluating the consequences of curricular choices. Credit Level: G. Credit Hrs: 3.00

18CI705

Addressing Diversity in the Classroom

Focuses on the nature of diversity, both in society and in the classroom, and its relationship to what is studied and how it is taught. Addresses nature and use of culturally responsive pedagogy to enhance learning and the classroom experience. Credit Level: G. Credit Hrs: 3.00

18CI711

Developing Number Sense

Designed to help classroom teachers develop skills and techniques for the teaching of number sense. Credit Level: G. Credit Hrs: 3.00

18CI716

Research Into Middle Childhood Education

This course examines the research base that addresses how middle schools function, how curriculum in middle schools is arranged, and how learning in middle schools is fostered and assessed. Credit Level: G. Credit Hrs: 3.00

18CI718

History and Philosophy of Science for Science Educators

This course deals with the interface of science and the philosophy of science during various historical time periods. Explores how historical context shapes what is accepted as science and scientific knowledge, the purpose of scientific investigation, and how scientific knowledge is validated. Credit Level: G. Credit Hrs: 3.00

18CI719

Research in Science Learning

This course examines empirical research in science education, including instructional practices, curriculum materials, student thinking and achievement, technology integration, and teacher decision making. Focuses on a variety of methods used and how researcher purposes influence methodology. Credit Level: G. Credit Hrs: 3.00

18CI720

Scientific Investigations within Environmental Education

An emphasis on integrating environmental education into the K-12 curriculum using scientific investigations as the foundation for the course. Credit Level: G. Credit Hrs: 3.00

18CI721

Using Literature in Social Studies

Explores ways of using literature to enrich the teaching of history and social studies in grades 4 through 12. Credit Level: G. Credit Hrs: 3.00

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18CI722

Current Issues in History Education

Introduces students to current theory, research, and policy debates in history education. Credit Level: G. Credit Hrs: 3.00

18CI723

Nature of Social Studies Education

Examines the nature and purposes of social studies in American schools from both historical and contemporary perspectives. Credit Level: G. Credit Hrs: 3.00

18CI724

Research in Social Studies Education

Introduces students to recent empirical research in social studies education. Credit Level: G. Credit Hrs: 3.00

18CI740

Topical Seminar in Mathematics Education

Study of various topics related to recent developments in the learning and teaching of mathematics in elementary and secondary schools. Recommended for inservice teachers and others interested in math education. Credit Level: G. Credit Hrs: 1.00-3.00

18CI745

Assessment in the Mathematics Classroom: K-12

An exploration of alternative and traditional assessments and their impact upon student learning in the mathematics classroom. Credit Level: G. Credit Hrs: 3.00

18CI746

Practicum in Higher Education

Observation and supervised experiences in a university or college setting. Credit Level: G. Credit Hrs: 1.00-6.00

18CI749

Design of On-line Learning Environments

An introduction to the design of on-line learning environments. This course explores current research on on-line learning while covering administration, facilitation, course development, and strategies to encourage reflection and interaction in on-line learning environments. How technologies can change traditional teaching, the way people work, and learning in schools. Credit Level: G. Credit Hrs: 3.00

18CI750

The Teaching and Learning of Algebra

Ways to provide opportunities for students of all ages to study algebraic concepts. Credit Level: G. Credit Hrs: 3.00

18CI751

Teaching/Learning Data Analysis

This course is designed to enable mathematics teachers of any grade level (K-12) to better understand data analysis and how to incorporate it into their classroom teaching. We also look at some of the research on teaching data analysis. Credit Level: G. Credit Hrs: 3.00

18CI752

Calculators and Computers as Tools in the Teaching of Mathematics

Participants explore uses of calculators and computers for the teaching of mathematics in grades K-12 and examine research on the impact of these tools on children's learning. Credit Level: G. Credit Hrs: 3.00

18CI754

Mathematics Education in the Early Elementary Grades

An in-depth exploration of students' invented strategies for mathematical problem solving across all mathematics curricular areas. Credit Level: G. Credit Hrs: 3.00

18CI760P

Family and Community Outreach

This course is part of National Board preparation whereby participants address family and community outreach options. Credit Level: G. Credit Hrs: 3.00

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Curriculum and Instruction

18CI761P

Connecting Content Knowledge to National Board Standards

This course is part of National Board preparation whereby participants will address how content knowledge is connected to the NB standards. Credit Level: G. Credit Hrs: 3.00

18CI762P

Learning Environments and Instructional Resources

This course is part of National Board preparation whereby participants will address learning environments and instructional resources to NB standards. Credit Level: G. Credit Hrs: 3.00

18CI763P

Assess Student Growth and Understanding

This course is part of National Board preparation whereby participants will address student assessment as it pertains to the NB standards. Credit Level: G. Credit Hrs: 3.00

18CI764P

Professional Writing for National Board Certification

This course is part of National Board preparation whereby participants will learn the genre of professional writing for the NB standards. Credit Level: G. Credit Hrs: 3.00

18CI774

Education Technology: Social, Ethical, Legal, and Human Issues

Critical examination of technology and its impact on society and individuals from an ethical, legal, and social perspective. Credit Level: G. Credit Hrs: 3.00

18CI775

Technology Internship

Technology Internship is a 3 credit field experience for a master's or doctoral student in the Instructional Design and Technology strand in Curriculum and Instruction. The Intern works in a school, non-profit organization, or corporation to gain real-world experience in the field of Instructional Design and Technology. 75 Internship hours required. Perm of Advisor. Credit Level: G. Credit Hrs: 3.00

18CI776

Applying Technology in the Classroom for Effective Learning

This course provides an overview of the increasingly complex array of technology-based media and hardware available for use in the classroom. Some of the topics covered are learning theories and integration models for technology-enhanced instruction, integrating digital technologies and software tools into the classroom, distance learning, and national and state educational technology standards for teachers and students. Credit Level: G. Credit Hrs: 3.00

18CI782

Classroom Management

Emphasizes relationship between instruction and discipline. Stresses skills necessary to implement humanistic, interactive, and behavioral models of classroom management. Credit Level: G. Credit Hrs: 1.00-3.00

18CI785

Improving Instructional Effectiveness

Study of teacher behaviors that influence the academic achievement of students. Credit Level: G. Credit Hrs: 3.00

18CI786

Math Problem Solving

Mathematical problem solving should be the primary emphasis of mathematics instruction at all levels. Methods for teaching and evaluating problem solving in grades K-12 are the focus of this course. Credit Level: G. Credit Hrs: 3.00

18CI787

Middle School Math Methods

Mathematics in the middle school/junior high school has often been little more than a repeat of topics from the elementary grades. Changes in the mathematics curriculum are having a significant impact on both curriculum and instruction. This course will examine current practices in

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Curriculum and Instruction

18CI787

Middle School Math Methods

teaching mathematics at this level. Credit Level: G. Credit Hrs: 3.00

18CI789

Effective Instruction in the Middle Level School

Study of instructional practices in effective schools. Includes models of teaching, classroom management, teaching methods for young adolescents, and methods to increase engaged learning time. Credit Level: G. Credit Hrs: 3.00

18CI791

Labs and Demonstrations in the Science Classroom

Science demonstrations and laboratory experiences will be developed and applied to various areas of science teaching. Management and safety procedures will be examined. Credit Level: G. Credit Hrs: 3.00

18CI792

Internship in Higher Education

Supervised learning experiences in various on-site locations. Periodic seminars for analysis of experiences. Credit Level: G. Credit Hrs: 1.00-6.00

18CI795

Technology Administration in Education

Study of problems, issues, and concerns in administering technology in educational settings. Focus on possible resolutions. Credit Level: G. Credit Hrs: 3.00

18CI801

Topical Seminar in Curriculum and Instruction

Special focus on selected topics in curriculum and instruction-related areas. Credit Level: G. Credit Hrs: 1.00-6.00

18CI811

Seminar in Higher Education

A study of current issues and projected trends in higher education. Focuses on the development of student capacities for judgment, fact-gathering, analysis, synthesis, and evaluation. Foci include continuing education and adult education. Credit Level: G. Credit Hrs: 3.00

18CI814

The Community/Junior College

The philosophy, history, functions, organization, curriculum, and trends in post-secondary, non-baccalaureate institutions. Credit Level: G. Credit Hrs: 3.00

18CI818

Seminar in the Community/Junior College

Analysis of current problems and issues in junior and community colleges. Foci include adult education. Credit Level: G. Credit Hrs: 3.00

18CI820

Instructional Technology Techniques in Higher Education

Psychology of adult learning plus examination of instructional strategies from developing concepts to establishing objectives to evaluating student and teacher performance. Instructional techniques focus on media and technology-based solutions as well as more traditional lectures, seminars, and discussion groups. Credit Level: G. Credit Hrs: 3.00

18CI832

Multimedia Studio I

Students learn a variety of tools for multimedia. Students work independently or in groups. Class functions as a guided studio where students participate in workshops, share their work, collaborate with peers, and obtain feedback/assistance from the instructor. Credit Level: G. Credit Hrs: 3.00

18CI833

Multimedia Studio II

Students learn a variety of tools for multimedia. Students work independently or in groups. Class functions as a guided studio where students participate in workshops, share their work, collaborate with

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Curriculum and Instruction

18CI833

Multimedia Studio II

peers, and obtain feedback/assistance from the instructor. Credit Level: G. Credit Hrs: 3.00

18CI834

Multimedia Studio III

Students pursue individually defined projects or develop "real" instructional design projects for clients. Students work independently or in groups. Class functions as a studio where students participate in workshops, share their work, collaborate with peers, and obtain assistance from the instructor. Prereq: 18CI832, 18CI833. Credit Level: G. Credit Hrs: 3.00

18CI841

Issues in Mathematics Education I

Addresses curricular background, significant reforms, specific content topics, and models of learning related to mathematics education in elementary and secondary schools. Credit Level: G. Credit Hrs: 3.00

18CI842

Issues in Mathematics Education II

Focuses on pedagogical and sociological topics related to the teaching and learning of school mathematics; designed for experienced educators. Prereq: 18CI841. Credit Level: G. Credit Hrs: 3.00

18CI849

Organization and Administration in Higher Education

Overview of various organizational structures (academic and administrative), intra- and inter-institutional governance, accountability, and responsibilities of major officers. Credit Level: G. Credit Hrs: 3.00

18CI850

Program Development in Higher Education

Designing appropriate learning experiences utilizing needs assessment, specification of objectives, staffing, content selection, and evaluation. Credit Level: G. Credit Hrs: 3.00

18CI871

Individual Study in Curriculum and Instruction

Cr. and hrs. to be arranged. Credit Level: G. Credit Hrs: 1.00-6.00

18CI872

Readings in Curriculum and Instruction

Cr. and hrs. to be arranged. Perm of Instructor. Credit Level: G. Credit Hrs: 1.00-6.00

18CI873

Individual Master's Thesis: Curriculum and Instruction

Research and writing on an approved topic; consultation with adviser; in lieu of Master's Comprehensive Examination. Credit Level: G. Credit Hrs: 1.00-9.00

18CI874

Individual Master's Project: Curriculum and Instruction

Writing and obtaining master committee's approval of master's project proposal and doing the research and writing for the final master's project. Credit Level: G. Credit Hrs: 1.00-6.00

18CI881

Learning Sciences and Technology

This course provides a fundamental understanding of learning sciences, an interdisciplinary field dedicated to studying learning and how learning may be facilitated in designed environments. Students will design a technology-based learning environment and conduct an evaluation of the embedded theories in an existing environment of their choice, such as digital media, games, or other innovative technologies. Credit Level: G. Credit Hrs: 3.00

18CI884

Instructional Design

This course is designed to address how to create interactive learning environments for multimedia instruction. The course introduces instructional design models and covers analyzing the problem/learner,

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18CI884

Instructional Design

designing instruction, assessment, and evaluation. Credit Level: G. Credit Hrs: 3.00

18CI885

Attitude Formation and Change

Examines theories of attitude formation and change and their application in classroom settings, and presents tools and strategies for assessing student attitudes. Credit Level: G. Credit Hrs: 3.00

18CI910

Science Education Research I: Teacher Preparation

Examines the current science education research on teacher preparation for major trends and findings; appropriate for doctoral students. Credit Level: G. Credit Hrs: 3.00-6.00

18CI921

Mentored Research in Curriculum and Instruction

Experience in educational research in the field of curriculum and instruction under the direction of an assigned Research Mentor. Perm of Instructor. Credit Level: G. Credit Hrs: 1.00-9.00

18CI936

IDT Doctoral Seminar I

This is the first of three sequential modules in the IDT Doctoral Seminar Series. This seminar series is designed to prepare doctoral students to become researchers in the field of instructional technology. Students will be oriented to the field, analyze the literature, and learn about design-based research methods. Perm of Instructor. Credit Level: G. Credit Hrs: 3.00

18CI937

IDT Doctoral Seminar II

This is the second of three sequential modules in the IDT Doctoral Seminar Series. This seminar series is designed to prepare doctoral students to become researchers in the field of instructional technology. Students will be oriented to the field, analyze the literature, and learn about design-based research methods. Perm of Instructor. Credit Level: G. Credit Hrs: 3.00

18CI938

IDT Doctoral Seminar III

This is the third of three sequential modules in the IDT Doctoral Seminar Series. This seminar series is designed to prepare doctoral students to become researchers in the field of instructional technology. Students will be oriented to the field, analyze the literature, and learn about design-based research methods. Credit Level: G. Credit Hrs: 3.00

18CI944

Theory, Ethics, Application of Research in Teaching

Study of ethical and value dimensions in teaching and research, diverse stakeholders, relationship of knowledge to improvement of professional practice in teaching, and teacher education research. Credit Level: G. Credit Hrs: 3.00

18CI951

Professional Seminar in Teacher Education I: Application of Theories of Teaching and Learning

Seminar in the application of theories of teaching and learning, to issues and problems in the field of teacher education. Credit Level: G. Credit Hrs: 3.00

18CI973

Individual Dissertation Guidance

Conferences with adviser and dissertation committee. Required in doctoral program. Credit Level: G. Credit Hrs: 1.00-15.00

18CI975

Teacher Education and Professional Development

This course is a seminar in the Teaching and Learning focus of the Curriculum and Instruction doctoral program. The content of the course centers on the theory and research on the education and professional development of teachers, including the topics of teacher socialization,

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Curriculum and Instruction**18CI975****Teacher Education and Professional Development**

teacher knowledge and beliefs, and teacher decision-making in the contexts of schooling. Although the course reading and organization offer students a sampling of the range of issues and research approaches to the empirical study of teacher education and teacher development, students are expected to supplement the reading with their own review of related literature. Credit Level: G. Credit Hrs: 3.00

18CI976**Policy Issues in Teaching and Learning**

This course is a seminar in the Teaching and Learning focus of the Curriculum and Instruction doctoral program. The content of the course centers on local, state, and national policy issues that influence teaching, learning, and teacher education, including the standards and accountability movement, professionalization and accreditation, multiculturalism, and other current social and political movements. Credit Level: G. Credit Hrs: 3.00

18CI977**Curriculum Theory**

This course is a seminar in the Teaching and Learning focus of the Curriculum and Instruction doctoral program. Includes curriculum theory and curriculum development as a reflection of current theory mirroring and following other political, ideological, and social theories in the history of education. This course looks at trends in curriculum theory in order to understand and critique their transactions with other educational themes such as standardized testing, urban reform, critical pedagogies, a just society, and political involvement with education. Credit Level: G. Credit Hrs: 3.00

Criminal Justice**18CJ101****Introduction to Criminal Justice**

Examines agencies and processes involved in administering justice: the legislature, the police, the prosecutor, the courts, and correctional systems. Focus is on the formal crime control process in the United States. BoK: SS., SE. Credit Level: U. Credit Hrs: 3.00

18CJ102**Introduction to Criminology**

An introductory survey course that covers the major theoretical explanations for crime and delinquency. BoK: SS., SE. Credit Level: U. Credit Hrs: 3.00

18CJ103**Introduction to Policing**

The development of U.S. policing, stressing the relationship of police to local politics and the effects of civil service, reform movements, and technological change. BoK: SS., SE. Credit Level: U. Credit Hrs: 3.00

18CJ104**Introduction to Corrections**

Familiarizes the student with the history, current practices, and future directions of corrections. BoK: SS., SE. Credit Level: U. Credit Hrs: 3.00

18CJ105**Introduction to Courts**

Dynamic analysis of the American courts with special emphasis on political and economic contexts within which the courts work. Includes survey of recent research on the American legal system. Prereq: 18CJ101. BoK: SS. Credit Level: U. Credit Hrs: 3.00

18CJ250**Criminal Justice Interviewing**

Develops a basic skill level in interviewing, interrogating, and testifying. Contrasts these three distinct verbal skills. Includes role playing to practice and reinforce techniques. BoK: SS. Credit Level: U. Credit Hrs: 3.00

Criminal Justice**18CJ252****Basic Police Photography**

Introduces students to the use of both 35mm and Polaroid cameras in police work, with emphasis placed on crime scene, traffic accident, and surveillance photography. Includes case law regarding the value of photographs as evidence. BoK: SS. Credit Level: U. Credit Hrs: 3.00

18CJ253**Practical Police Applications**

Introduces the student to the basic techniques of police patrol, with emphasis on a proactive patrol model, to prevent crime and apprehend violators. Discusses the power of observation, field interrogations, and the development of an informant network, as well as arrest techniques and prisoner handling procedures. BoK: SS. Credit Level: U. Credit Hrs: 3.00

18CJ273**Domestic Violence**

Application of crisis intervention theory to domestic disputes, with emphasis on student role-playing. BoK: SS., SE. Credit Level: U. Credit Hrs: 3.00

18CJ274**Managing Conflict and Assaultive Behavior**

Adapts and applies crisis intervention theory to the development and practice of control techniques for specific incidents of impending potential aggression and/or violence. Requires physical participation in simulations. BoK: SS., SE. Credit Level: U. Credit Hrs: 3.00

18CJ284**Legal Issues in Corrections**

Details the most relevant law and recent court decisions regarding the areas of corrections. Provides an understanding of both the rights of prisoners as well as the rights and liabilities of correctional personnel. BoK: HU., SE. Credit Level: U. Credit Hrs: 3.00

18CJ290**Criminal Justice in Film**

This is a course built around the genre of the Trial Movie, which presents a pleasurable forum for examining several different aspects of law and courtroom procedure, as well as providing the venue for debating the cornerstones of our society, law, justice, morality, and the social conventions that hold us together. BoK: SS. Credit Level: U. Credit Hrs: 3.00

18CJ302**Survey of Criminology**

An examination of the nature of crime and delinquency in American society. Special focus on the development of criminological theory. BoK: SS. Credit Level: U. Credit Hrs: 3.00

18CJ303**Survey of Policing**

The development of U.S. policing, stressing the relationship of police to local politics and the effects of civil service, reform movements, and technological change. BoK: SS., SE. Credit Level: U. Credit Hrs: 3.00

18CJ305**Survey of Courts**

Dynamic analysis of the American courts with special emphasis on political and economic contexts within which the courts work. Includes survey or recent research on the American legal system. Prereq: 18CJ101. BoK: SS, SE. Credit Level: U. Credit Hrs: 3.00

18CJ321**Serial Criminals**

The course will review historical explanations of serial criminals, as well as current biophysical theories and correlating psychosocial explanations. BoK: SS., SE. Credit Level: U. Credit Hrs: 3.00

18CJ322**Gangs and Violent Youth**

Historical and contemporary perspectives on gangs and gang subcultures; focus on gangs and other violent youthful offenders and

Criminal Justice

18CJ322

Gangs and Violent Youth

exploration of available treatment modes in the juvenile justice system. BoK: SS., SE. Credit Level: U. Credit Hrs: 3.00

18CJ324

Ethics in Criminal Justice

Examines ethical issues involved in the operation of the criminal justice system. BoK: SS. Credit Level: U. Credit Hrs: 3.00

18CJ332

White Collar Crime

Examines the nature, causes, costs, and control of corporate and white-collar crime. BoK: SS. Credit Level: U. Credit Hrs: 3.00

18CJ341

Correctional Rehabilitation

An overview of case management and counseling strategies in correctional settings. Includes development of treatment plans, counseling theory, components of helping process, principles of confidentiality, correctional classification, and characteristics of program effectiveness. BoK: SS., SE. Credit Level: U. Credit Hrs: 3.00

18CJ343

Community Corrections

Definition of probation and parole, treatment philosophies, and strategies for supervision. Practice in use of pre-sentence investigation and examination of innovations in community-based correctional alternatives. BoK: SS. Credit Level: U. Credit Hrs: 3.00

18CJ344

Philosophy of Punishment

Analyzes the process of punishment including the history, purposes, and types of criminal penalties. In addition to sentencing, such topics as corporal and capital punishment are explored. BoK: HU., SE. Credit Level: U. Credit Hrs: 3.00

18CJ346

Institutional Corrections

Institutional correctional facilities are examined in-depth, including an assessment of the history, functions, operations, and contemporary issues of prisons and jails. BoK: SS. Credit Level: U. Credit Hrs: 3.00

18CJ348

Police Organization and Management

Principles of organization and management as applied to law enforcement agencies; introduction to concepts of organizational behavior. BoK: SS. Credit Level: U. Credit Hrs: 3.00

18CJ350

Criminal Investigation

Principles of investigation including theory building; crime scene procedures; collection and preservation of evidence; developing leads; familiarity with criminalistics; and reconstruction of crime. BoK: SS. Credit Level: U. Credit Hrs: 3.00

18CJ351

Prevention and Control of Workplace Violence

The course will review the types of workplace violence; risk factors; environmental prevention; organizational policy development as a prevention strategy; the phenomena of "spill-over" violence; strategies for responding to violence in progress; hostage situations at the workplace; and dealing with the aftermath of violent incidents including debriefing strategy. BoK: SS., SE. Credit Level: U. Credit Hrs: 3.00

18CJ352

Police and the Community

This course examines changing crime patterns across different communities over time and those police strategies that have been implemented to deal with different crime problems. Community and problem-oriented policing strategies are explored as well as the role of the community in controlling crime problems. BoK: SS. Credit Level: U. Credit Hrs: 3.00

Criminal Justice

18CJ353

Police Effectiveness

Examines which police practices reduce crime and disorder, and which do not. Topics include response time, patrolling, detective work, domestic violence, problem-oriented policing, community policing, and drug enforcement. BoK: SS. Credit Level: U. Credit Hrs: 3.00

18CJ361

Hostage/Crisis Negotiations

Hostage/crisis negotiation is handled contrary to traditional police response. This course will cover the history of hostage/crisis negotiation, the two models which developed, an in-depth look at the team response, and methods used to successfully negotiate with people in these situations. BoK: SS., SE. Credit Level: U. Credit Hrs: 3.00

18CJ372

Constitutional Issues & Procedures

Familiarizes the student with certain basic legal, philosophical, and historical concepts pertinent to the criminal justice system. BoK: HP., SE. Credit Level: U. Credit Hrs: 3.00

18CJ373

Politics of Criminal Justice

An examination of the political influences on criminal justice practice and policies. BoK: SS. Credit Level: U. Credit Hrs: 3.00

18CJ383

Terrorism

Impact of modernization on propensity, preference, and opportunity for violence. Course provides historical information on terrorism, objectives of terror, modern terrorism, group movements, classification, and the tools of terror. BoK: SS., SE. Credit Level: U. Credit Hrs: 3.00

18CJ386

Race, Class, and Crime

A critical survey of the impact of racism and classism on the development and implementation of justice in the U.S. Includes a historical analysis and an examination of radical and Marxist criminology. BoK: SS. Credit Level: U. Credit Hrs: 3.00

18CJ387

Drugs and Crime

This course examines issues regarding the relationship between drugs and crime to include theoretical, measurement, and policy-related issues. BoK: SS. Credit Level: U. Credit Hrs: 3.00

18CJ388

Women and Crime

An examination of women and girls as victims and offenders, and women professionals in the criminal justice system. BoK: DC., SE. Credit Level: U. Credit Hrs: 3.00

18CJ404

Life-Course Criminology

This course examines the nature, both empirical and theoretical, of crime from a developmental perspective. BoK: SS. Credit Level: U. Credit Hrs: 3.00

18CJ405

Juvenile Delinquency

Examines various dimensions of the juvenile offender to include a discussion of the measurements, the correlates, the theories, and the parameters of juvenile offending. BoK: SS. Credit Level: U. Credit Hrs: 3.00

18CJ406

Contemporary Crime Theory

Examines recent theoretical developments in the explanation of criminal behavior. BoK: SS. Credit Level: U. Credit Hrs: 3.00

18CJ407

Crime Prevention

This course will examine crime prevention and the latest strategies used by police agencies to reduce crime. BoK: SS. Credit Level: U.

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Criminal Justice

18CJ407

Crime Prevention

Credit Hrs: 3.00

18CJ408

Biosocial Criminology

This class introduces undergraduate and graduate students to the growing literature linking biology to social development in general and to criminal behavior specifically. Special attention is paid to behavioral genetics and the heritability of traits, brain functioning and growth, and the functions of neurotransmitters. BoK: SS. Credit Level: U. Credit Hrs: 3.00

18CJ410

Psychology of Criminal Behavior

Principles of psychology as applied to crime causation and criminal justice system processing. BoK: SS. Credit Level: U. Credit Hrs: 3.00

18CJ420

Criminal Procedures

Constitutional aspects of criminal procedures, to include: investigations, arrests, search and seizures, pre-trial processes, trial rights, sentencing, and appeals. BoK: SS. Credit Level: U. Credit Hrs: 3.00

18CJ421

Criminal Law

Substantive criminal law. Major areas to be covered include: basic principles of criminal law, an analysis of various offenses, parties to crime, and defenses. BoK: SS. Credit Level: U. Credit Hrs: 3.00

18CJ473

Directed Studies

Directed readings and conferences related to specific areas of criminal justice. BoK: NA. Credit Level: U. Credit Hrs: 1.00-5.00

18CJ475

Advanced Criminal Justice Field Placement

Full-time placement in a criminal justice agency for integration of classroom learning with field experience. BoK: NA. Credit Level: U. Credit Hrs: 10.00

18CJ484

Juvenile Justice System

Processing of the juvenile offender from the delinquent act through treatment; the complexity in defining juvenile delinquency. BoK: SS. Credit Level: U. Credit Hrs: 3.00

18CJ490

Criminal Justice Research Methods

Logic of social research methods, survey research, methods of evaluation research, sampling, and the contrast between quantitative and qualitative research. BoK: QR. Credit Level: U. Credit Hrs: 3.00

18CJ491

Criminal Justice Statistics

Basic introduction to research and statistics in a criminal justice setting. Emphasis on measurement, descriptive, and inferential statistical methods. BoK: QR. Credit Level: U. Credit Hrs: 3.00

18CJ495

Criminal Justice Field Intern

Agency placement, field observation, trainee programs, and seminar for discussion and supervision. To be planned by agency, supervisor, and student. Includes professional development seminar. Perm of Instructor. BoK: NA. Credit Level: U. Credit Hrs: 3.00

18CJ496

Criminal Justice Field Placement

Agency placement, field observation, trainee programs, and seminar for discussion and supervision. To be planned by agency, supervisor, and student. Includes professional development seminar. BoK: NA. Credit Level: U. Credit Hrs: 3.00

Criminal Justice

18CJ610

Intervention, Relapse, and Recovery

This class is designed to help the advanced student understand the process of avoidance in recovery from addictions, mental health disorders, and behavioral illnesses. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

18CJ660

Early Intervention in Criminal Justice

The early origins of criminality, the programs demonstrated to be effective in intervening with youngsters at risk for or involved in criminal behavior, and the prospects for early intervention as a correctional policy agenda. BoK: SS. Credit Level: U, G. Credit Hrs: 3.00

18CJ700

Seminar in Criminal Justice

This course provides an overview of the theory and research on the criminal justice system, including police, courts, prosecution, and corrections. Special attention is given to the structural, organizational, and micro-level aspects of the criminal justice system and their interactions. Credit Level: G. Credit Hrs: 3.00

18CJ701

Pro-Seminar in Law and Social Control

This course provides an overview of the theory and research on the nature of law, legal institutions, and related mechanisms of social control. Credit Level: G. Credit Hrs: 3.00

18CJ702

Criminal Justice Management

Theory and research on complex organizations are applied in criminal justice settings. A contingency framework is developed through which alternative organizational goals, structures, staffing patterns, management styles, and planning strategies can be examined. Credit Level: G. Credit Hrs: 3.00

18CJ703

Criminal Justice Policy Analysis

This course is an overview of policy implementation and effectiveness in the criminal justice system. Policies are evaluated on an informal and formal levels in the area of policing, courts, and corrections. Credit Level: G. Credit Hrs: 3.00

18CJ720

Seminar in Criminology

This course presents an overview of the nature of crime in American society. Special focus is given to methods of measuring crime (official data, victimization data, and self-reports) and the major theoretical approaches to crime and crime control. Credit Level: G. Credit Hrs: 3.00

18CJ741

Basic Research Methods in Criminal Justice

An introduction to research design as applied to crime and criminal justice research. Includes an introduction to the scientific method, sampling, and basic research designs. Credit Level: G. Credit Hrs: 3.00

18CJ742

Applied Criminal Justice Research

This course examines issues concerning the conduct of research in criminal justice settings. Primary concern is with evaluation research. The course also includes research planning strategies, procedures for computer data analysis, and presentation of research findings. Credit Level: G. Credit Hrs: 3.00

18CJ749

Applied Statistics in Criminal Justice

The focus of this course is on data analysis. Topics include univariate descriptive statistics, inductive statistics, and the general linear model. Special attention will be paid to applying these statistics to data analysis in policing and corrections for the purpose of writing research reports. Credit Level: G. Credit Hrs: 3.00

Criminal Justice**18CJ750****Basic Statistics in Criminal Justice**

The purpose of this course is to provide an understanding of univariate descriptive statistics, probability theory, inductive statistics, and bivariate statistics through analysis of variance. Credit Level: G. Credit Hrs: 3.00

18CJ760**Theory and Philosophy of Corrections**

This course explores the major justifications for corrections: rehabilitation, retribution, deterrence, and incapacitation. Each theory's central principles, empirical adequacy, and policy implications are examined. Special consideration is given to the political ideology in forming debates on the purpose of corrections and to the difficulties of implementing correctional theories. Credit Level: G. Credit Hrs: 3.00

18CJ773**Directed Studies**

Directed readings and conferences related to specific areas of criminal justice. Credit Level: G. Credit Hrs: 1.00-5.00

18CJ775**Field Experience**

Agency placement, field observation, trainee programs, and seminar for discussion and supervision. To be planned by agency, supervisor, and student. Includes professional development seminar. Perm of Instructor. Credit Level: G. Credit Hrs: 1.00-9.00

18CJ780**Theory and Practice of Law Enforcement**

This course examines the development and functions of policing in contemporary American society. The impact of social, economic, and political forces on the structure and definition of contemporary police agencies are employed through a review of classical and contemporary literature on policing. Contemporary problems and issues in law enforcement are analyzed within the context of recent research. Credit Level: G. Credit Hrs: 3.00

18CJ783**Special Topics in Crime Prevention**

This course is a seminar on selected victimization and crime prevention issues. Credit Level: G. Credit Hrs: 3.00

18CJ784**Special Topics in Policing**

This course is a seminar on selected issues of policing. Credit Level: G. Credit Hrs: 3.00

18CJ790**Individual Work in Criminal Justice**

Supervised readings or research in criminal justice. Credit Level: G. Credit Hrs: 1.00-15.00

18CJ791**Special Topics in Criminal Justice**

Seminar on selected issues in criminal justice. Credit Level: G. Credit Hrs: 3.00

18CJ798**Demonstration Project Research I**

A two-quarter sequence in which students work with their Advisory Committees to demonstrate knowledge and skills of research in individual projects. Credit Level: G. Credit Hrs: 3.00

18CJ799**Demonstration Project Research II**

See 18CJ798. Credit Level: G. Credit Hrs: 3.00

18CJ800**Juvenile Justice System**

This course covers the systematic application of the juvenile justice system from arrest to detention and sentencing. Related issues covering diversion and programmatic treatment will be covered. Credit Level: G. Credit Hrs: 3.00

Criminal Justice**18CJ801****Seminar in Legal Issues in Criminal Justice**

This course examines law and legal change through a review of legal issues in criminal justice including search and seizure, rights of the accused, standards of evidence, and penal law. The course also familiarizes students with techniques of legal research and the use of computerized legal data bases. Specific topics and areas of emphasis may vary from year to year. Credit Level: G. Credit Hrs: 3.00

18CJ802**Seminar in Criminal Courts**

This course describes and analyzes the development and functions of criminal courts as a component of the criminal justice process. Drawing upon available research and literature, attention is directed at the roles and activities of the various courtroom actors, and the adjudication and sentencing process. Credit Level: G. Credit Hrs: 3.00

18CJ804**Seminar in Critical Perspectives on Criminal Justice**

This course examines critical and Marxist perspectives on crime. The course will focus on how the criminal justice system defines crime and how offenders are processed by the criminal justice system. In particular, racism and classism in the criminal justice system will be analyzed. Credit Level: G. Credit Hrs: 3.00

18CJ805**Seminar on Victimology**

This course discusses the role of the victim across perspectives of crime causation, the criminal justice system, societal responsiveness, and measurement of victimization. Credit Level: G. Credit Hrs: 3.00

18CJ806**Gender and Crime**

This course examines the role of gender and crime, including patterns of male and female crime as well as criminological explanations. Credit Level: G. Credit Hrs: 3.00

18CJ810**Seminar in Criminal Justice Theory**

This course is an advanced doctoral seminar in criminal justice theory. Students will define theory and explore the process of theory construction. The class will identify theories of criminal justice practices and examine the implications of those theories for research into criminal justice practices and operations. Credit Level: G. Credit Hrs: 3.00

18CJ811**Seminar in Criminal Justice Process**

This is an advanced doctoral seminar in the criminal justice process. This course is a substantive and methodological review of research on decision-making across the criminal justice system. The objective of the course is to tie together research on the criminal justice system and better prepare students to undertake research projects that have a systems perspective. Credit Level: G. Credit Hrs: 3.00

18CJ812**Seminar in Criminal Justice Program and Policy Evaluation**

This course examines the important role that evaluation plays in furthering knowledge about criminal justice phenomena and the efficacy of social action undertaken to address them. Credit Level: G. Credit Hrs: 3.00

18CJ820**Structural Theories of Crime**

This course reviews the major structural explanations of criminal behavior. Attention is given to each theory's historical origin, central principles, conceptual rigor, empirical status, and policy implications. Credit Level: G. Credit Hrs: 3.00

18CJ821**Individual Theories of Crime**

This course examines major individual-level theories of crime causation, including neurological, biochemical, developmental, psychodynamic, learning, cognitive, and social-psychological perspectives. Credit Level: G. Credit Hrs: 3.00

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Criminal Justice

18CJ821

Individual Theories of Crime

This course examines major individual-level theories of crime causation, including neurological, biochemical, developmental, psychodynamic, learning, cognitive, and social-psychological perspectives. Credit Level: G. Credit Hrs: 3.00

18CJ824

Criminal Offender

This course examines the individual criminal offender. Genetic, biological, psychological, and environmental factors are understood within a developmental paradigm. A special area of focus involves understanding behavior within and across contexts and time periods. Credit Level: G. Credit Hrs: 3.00

18CJ825

Seminar in White-Collar Crime

This course examines the etiology, types, explanations, costs, and control of white-collar crime. Special attention is paid to corporate crime and to the use of the criminal law in the control of this form of white-collar crime. Credit Level: G. Credit Hrs: 3.00

18CJ827

Seminar in Drugs and Crime

Examines the measurement of drug-involved behavior as well as the complex relationships between drugs and crime. The seminar also includes the examination of policy efforts toward controlling drug problems in the U.S. Credit Level: G. Credit Hrs: 3.00

18CJ828

Crime and the Lifecourse

This course examines issues and theories related to crime and the lifecourse. Credit Level: G. Credit Hrs: 3.00

18CJ829

Macro-Level Theories of Crime

This course will focus on macro-levels of approaches to crime and crime control. Credit Level: G. Credit Hrs: 3.00

18CJ830

Communities and Crime

This course explores community-level theory and research within criminology. Included is an explanation of theoretical and methodological issues such as: conceptualization and measurement of community, conceptualization and measurement of social disorganization, structural versus cultural effects in community models, social versus physical environmental effects, the role of community disorder in community crime models, the role of fear in community crime models, macro-level interactions within community-level models of crime, and use of theoretical and multi-level models in community crime research. Credit Level: G. Credit Hrs: 3.00

18CJ839

Fundamentals of Research Methods

An introduction to research design as applied to crime and criminal justice research. Includes an introduction to the scientific method and basic research designs. Credit Level: G. Credit Hrs: 3.00

18CJ840

Intermediate Research Methods in Criminal Justice

This course explores intermediate research methods in criminal justice. Credit Level: G. Credit Hrs: 3.00

18CJ841

Advanced Research Methods in Criminal Justice

This course examines the philosophy of social sciences issues as they apply to criminal justice and criminological constructs, measurement of change, and meta-methodological issues in criminological research. Credit Level: G. Credit Hrs: 3.00

18CJ850

Intermediate Statistics in Criminal Justice

This course provides an understanding of all theory, logic, and mathematics underlying the general linear model. Credit Level: G.

Criminal Justice

18CJ850

Intermediate Statistics in Criminal Justice

Credit Hrs: 3.00

18CJ851

Advanced Statistics in Criminal Justice

This course is designed to provide an understanding of least squares estimation in matrix notation, methods to correct heteroskedasticity, and techniques to examine discrete dependent variables. Credit Level: G. Credit Hrs: 3.00

18CJ860

Seminar in Correctional Rehabilitation

This course examines theories, techniques, and policies of correctional treatment from applied, planning, and evaluation perspectives. Credit Level: G. Credit Hrs: 3.00

18CJ861

Seminar in Institutional Corrections

This course examines the origins, evolution, and current status of correctional institutions. Special attention is given to classic studies of prisons and to the empirical research on life inside the prisons for inmates and for correctional personnel. Major policy issues are also studied. Credit Level: G. Credit Hrs: 3.00

18CJ862

Seminar in Community Corrections

This course is designed to provide an overview of various criminal justice programs found under the term "community corrections." Emphasis will be placed on developing theoretical models to distinguish what constitutes community corrections, and how various program types have been evaluated for effectiveness. Credit Level: G. Credit Hrs: 3.00

18CJ863

Seminar in Juvenile Corrections

This seminar examines the various components of the juvenile correctional system. Areas of interest include community-based detention, community treatment, wilderness programs, and traditional secure facilities. Credit Level: G. Credit Hrs: 3.00

18CJ865

Applied Corrections

This course introduces students to the application of evidence-based practices in corrections, including assessments, treatment manuals, and quality assurance protocols. Credit Level: G. Credit Hrs: 3.00

18CJ866

Minorities in Corrections

This course is a broad examination of racial/ethnic issues in corrections, including various issues surrounding the nexus between racial minorities and correctional policy and processing. Credit Level: G. Credit Hrs: 3.00

18CJ871

Applied Crime Prevention

The course teaches students how to apply crime prevention theory and research methods to the analysis of crime problems, development of prevention interventions, and evaluation of outcomes in real world settings. Credit Level: G. Credit Hrs: 3.00

18CJ872

Theory and Practice of Crime Prevention

This course is designed to provide an exploration of crime patterns and community-based approaches to reducing opportunity for crime, thus disrupting such patterns. Credit Level: G. Credit Hrs: 3.00

18CJ875

Demonstration Project

A continuation of 18CJ798 and 18CJ799. Credit Level: G. Credit Hrs: 1.00

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18CJ880

Policing in Context

This course examines historical and contemporary views of police organization and management. The principal concern is with alternative conceptions of the police organizational goal and implications of these alternatives for police organization and management. Credit Level: G. Credit Hrs: 3.00

18CJ881

Police Decision-Making

The course begins with an examination of the relationship between communities and crime, drawing from the ecology of crime research tradition. The class then examines the role of the police in controlling crime in different types of communities, focusing on community policing and the role of communities in controlling crime. Credit Level: G. Credit Hrs: 3.00

18CJ882

Seminar in Police Effectiveness

This course examines alternative criteria by which the effectiveness of police can be assessed, and critically reviews empirical studies of police effectiveness. Principal emphasis is placed on contemporary police innovations. Credit Level: G. Credit Hrs: 3.00

18CJ890

Advanced Individual Work in Criminal Justice

Supervised readings of research on advanced topics in criminal justice. Credit Level: G. Credit Hrs: 1.00-15.00

18CJ891

Advanced Special Topics in Criminal Justice

Seminar on selected advanced issues in criminal justice. Credit Level: G. Credit Hrs: 3.00

18CJ900

Criminal Justice Research Practicum I

This course will focus on the nature of the publication process within the field of criminal justice. Topics will include a review of the components of a publishable article, how to prepare an article for submission to a journal, how to select a scholarly outlet for a manuscript, and how journals evaluate article submissions. Students also will be shown how to review an article for a journal and how to present research at a professional meeting. Credit Level: G. Credit Hrs: 3.00

18CJ901

Advanced Data Analysis

This course provides an understanding of reading, manipulating, and analyzing data in SPSS for Windows. The logic of computer programming in SPSS is a major focus. Specific methods of data analysis include all of the statistical methods covered in the three doctoral statistics courses in addition to factor analysis, two-stage least squares, and event history (survival) analysis. Credit Level: G. Credit Hrs: 3.00

18CJ902

Criminal Justice Research Tool: Longitudinal Data Analysis

This course is designed to teach students how to analyze longitudinal data using time series analysis and other statistical techniques. Credit Level: G. Credit Hrs: 3.00

18CJ903

Criminal Justice Research Tool Sampling

This course will provide students with an understanding of sampling and sampling techniques as related to social science research. Credit Level: G. Credit Hrs: 3.00

18CJ905

Criminal Justice Research Tool: Multi-Level Modeling

This course focuses on the analysis of multi-level models of analysis. Credit Level: G. Credit Hrs: 3.00

18CJ906

Criminal Justice Research Tool: Structural Equations

This course will provide students with an understanding of structural

Criminal Justice

18CJ906

Criminal Justice Research Tool: Structural Equations

equations and their use and application to social science research. Credit Level: G. Credit Hrs: 3.00

18CJ908

Meta Analysis in Criminal Justice

This course introduces students to the theory and application of meta analysis in criminal justice. Students will learn how to conduct a meta analysis and how to interpret results. Prereq: 18CJ741, 18CJ750. Credit Level: G. Credit Hrs: 3.00

18CJ910

Criminal Justice Teaching Practicum I

The purpose of this course is to prepare students to teach criminal justice courses. It acquaints students with research on teaching, helping students design courses, develop assignments, and prepare lectures. Credit Level: G. Credit Hrs: 3.00

18CJ920

Advanced Crime Prevention

This course provides an understanding of the theoretical foundations of various crime prevention efforts. The focus is on understanding criminal opportunity within the environment. Specific theories which will inform our understanding of criminal opportunity include routine activities theory, crime pattern theory, defensible space theory, social disorganization theory, situational crime prevention, and rational choice theory. Credit Level: G. Credit Hrs: 3.00

18CJ990

Doctoral Dissertation Research

Individual guidance in doctoral dissertation research. Credit Level: G. Credit Hrs: 1.00-15.00

Counseling

18CNLSL301

SPECIAL TOPICS: HELPING TECHNIQUES

Special topics in counseling-related areas (e.g., personal development, interpersonal skills, leadership training, career development, life planning, concerns of special populations). BoK: NA. Credit Level: U. Credit Hrs: 1.00-15.00

18CNLSL302

Special Topics

Special topics in counseling-related areas (e.g., personal development, interpersonal skills, leadership training, career development, life planning, concerns of special populations). BoK: NA. Credit Level: U. Credit Hrs: 1.00-15.00

18CNLSL303

Special Topics

Special topics in counseling-related areas (e.g., personal development, interpersonal skills, leadership training, career development, life planning, concerns of special populations). BoK: NA. Credit Level: U. Credit Hrs: 1.00-15.00

18CNLSL402

Special Topics

Special topics in counseling-related areas (e.g., personal development, interpersonal skills, leadership training, career development, life planning, concerns of special populations). BoK: NA. Credit Level: U. Credit Hrs: 1.00-15.00

18CNLSL403

Special Topics

Training course for paraprofessionals in leadership skills. BoK: SE. Credit Level: U. Credit Hrs: 1.00-15.00

18CNLSL501

Special Topics

Special topics in counseling-related areas (e.g., personal development, interpersonal skills, leadership training, career development, life planning, concerns of special populations). BoK: NA. Credit Level: U, G.

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Counseling

18CNSL501 Special Topics

Credit Hrs: 1.00-15.00

18CNSL601 Special Topics

Special topics in counseling-related areas (e.g., personal development, interpersonal skills, career development, life planning, concerns of special populations). BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-15.00

18CNSL773 Counseling Program Development and Evaluation

Methods of planning and evaluating short- and long-term counseling interventions and programs. Credit Level: G. Credit Hrs: 3.00

18CNSL775 Career Development

Basic theoretical concepts involved with career development. Credit Level: G. Credit Hrs: 3.00

18CNSL781 Professional Orientation to Counseling

Introduction to and survey of the counseling profession, including roles, settings, functions, ethics, and theories. Credit Level: G. Credit Hrs: 3.00

18CNSL783 Tests in Counseling

Study of testing and measurement techniques in counseling individuals and groups. Credit Level: G. Credit Hrs: 3.00

18CNSL784 Counseling Theories

The study of classical and modern theories guiding counseling interventions, with emphasis placed on integration of the various theories into a personalized therapeutic approach; the clarification of skills used in fitting clients with serious mental disorders and substance abuse disorders; and justification of clinical decisions within theoretical frameworks. Credit Level: G. Credit Hrs: 3.00

18CNSL787 Group Theory and Process

This course provides students with core knowledge and skill in group work. Students will be exposed to classical types of groups, the skills necessary to function effectively as a member, leader, and observer, best practices in group work including multicultural competence in groups. Through didactic instruction and within class practice, participants will become skillful participants in and leaders of small groups. Students will also learn how to design, facilitate, and co-facilitate time-limited, theme-oriented psychoeducational groups. Credit Level: G. Credit Hrs: 3.00

18CNSL809 Abnormal Human Behavior

The study of the causes, etiology, treatment, and prognosis of mental and emotional disorders including clinical disorders, substance use disorders, and disorders of personality; implications for counseling in school and community settings. Credit Level: G. Credit Hrs: 3.00

18CNSL819 Preventive Counseling

Conceptual knowledge and practical applications of prevention to assist late adolescent and adult clients in averting educational and psychological problems. Credit Level: G. Credit Hrs: 3.00

18CNSL831 Counseling Institute-A

Summer Institute course of varying length, focused on a contemporary counseling issue of special interest that is not ordinarily addressed in the regular Counseling curriculum. See Division for details. Credit Level: G. Credit Hrs: 1.00-4.00

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Counseling

18CNSL832 Counseling Institute-B

Summer Institute course of varying length, focused on a contemporary counseling issue of special interest that is not ordinarily addressed in the regular Counseling curriculum. See Division for details. Credit Level: G. Credit Hrs: 1.00-4.00

18CNSL833 Counseling Institute-C

Summer Institute course of varying length, focused on a contemporary counseling issue of special interest that is not ordinarily addressed in the regular Counseling curriculum. See Division for details. Credit Level: G. Credit Hrs: 1.00-4.00

18CNSL834 Counseling Institute-D

Summer Institute course of varying length, focused on a contemporary counseling issue of special interest that is not ordinarily addressed in the regular Counseling curriculum. See Division for details. Credit Level: G. Credit Hrs: 1.00-4.00

18CNSL835 Counseling Institute-E

Summer Institute course of varying length, focused on a contemporary counseling issue of special interest that is not ordinarily addressed in the regular Counseling curriculum. See Division for details. Credit Level: G. Credit Hrs: 1.00-4.00

18CNSL836 Counseling Institute-F

Summer Institute course of varying length, focused on a contemporary counseling issue of special interest that is not ordinarily addressed in the regular Counseling curriculum. See Division for details. Credit Level: G. Credit Hrs: 1.00-4.00

18CNSL841 Family Counseling I

Introduction to theories and practices of family and marital counseling with a variety of clients. Credit Level: G. Credit Hrs: 3.00

18CNSL842 Family Counseling II

Continuation of the theory and practice of family and marital counseling including practice using different counseling skills. Prereq: 18CNSL841. Credit Level: G. Credit Hrs: 3.00

18CNSL851 CRRNT ISS SCH COUN

CRRNT ISS SCH COUN Credit Level: G. Credit Hrs: 3.00

18CNSL852 Counseling in the Schools

This course provides an overview of the roles and responsibilities of school counselors, scope of services, and school counseling programs in K-12 school settings. Students will review the historical background and current issues related to the school counseling profession and K-12 students. Credit Level: G. Credit Hrs: 3.00

18CNSL855 Community Counseling in Mental Health Settings

This course explores community counseling in mental health settings. Prereq: 18CNSL781. Credit Level: G. Credit Hrs: 3.00

18CNSL861 Chemical Dependency I

Explores the various methods of treatment for persons with chemical dependency, as well as issues influencing the field. Credit Level: G. Credit Hrs: 3.00

18CNSL862 Chemical Dependency II

Analyzes the various theories and methods and their relevance to counseling individuals and their families with problems of substance abuse. Prereq: 18CNSL861. Credit Level: G. Credit Hrs: 3.00

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Counseling

18CNSL871

Individual Study

Individual research on a problem in guidance and counseling. For advanced students. Cr. and hrs. to be arranged. Credit Level: G. Credit Hrs: 1.00-6.00

18CNSL872

Readings

Selected readings in guidance and counseling. Written analyses required. For advanced students. Cr. and hrs. to be arranged. Credit Level: G. Credit Hrs: 1.00-6.00

18CNSL876

Special Topics

Individual and group work in concentrated areas of skill development and/or readings. Cr. and hrs. to be arranged. Credit Level: G. Credit Hrs: 1.00-15.00

18CNSL884

Counseling Pre-Practicum

Supervised experiences and critiques of taped materials to learn opening, closing, and reflective techniques in counseling. Normally taken with 18CNSL784. Credit Level: G. Credit Hrs: 3.00

18CNSL885

Leading Groups

Advanced group process; application of theory to leading a structured, theme-oriented group under supervision. Credit Level: G. Credit Hrs: 3.00

18CNSL886

Advanced Counseling Skills

Supervised experience in counseling through role-playing, recorded interviews, observation analysis, and evaluation of interviewing techniques. Credit Level: G. Credit Hrs: 3.00

18CNSL887

Field Practicum

Continuation of 18CNSL886. Supervised experience in counseling through role playing, recorded interviews, observation analysis, evaluation of interviewing techniques. Prereq: 18CNSL886. Credit Level: G. Credit Hrs: 3.00

18CNSL888

Master's Counseling Internship

Supervised counseling experience. Credit Level: G. Credit Hrs: 1.00-12.00

18CNSL889

Advanced Master's Counseling Internship

Advanced master's supervised counseling experience. Prereq: 18CNSL888. Credit Level: G. Credit Hrs: 1.00-9.00

18CNSL890

Child Counseling

Practicum focusing on counseling children. Credit Level: G. Credit Hrs: 3.00

18CNSL891P

Management in Human Services

Introduction of components necessary in managing a human service agency or similar type of organizations. Credit Level: G. Credit Hrs: 3.00

18CNSL895

Introduction to Problem Identification and Diagnosis in Counseling

The study of multidimensional assessment of, diagnosis of, and documentation of the necessity for and conduct of treatment for mental disorders and substance use disorders. On completion of this course, the student will be able to conduct and document a biopsychosocial diagnostic assessment, a multi-axial diagnosis of mental disorders and substance use disorders using the current edition of the DSM, prepare a comprehensive treatment plan, and prepare progress notes for a client's chart. Credit Level: G. Credit Hrs: 3.00

Counseling

18CNSL896

Counseling Management

Focus on components necessary to manage a counseling behavioral health unit. Credit Level: G. Credit Hrs: 3.00

18CNSL897

Leadership and Emotional Intelligence in Counseling

Introduction to leadership styles for supervising counselors. Credit Level: G. Credit Hrs: 3.00

18CNSL901

Advanced Counseling Internship

Advanced field application of counseling skills with on-site supervision. For doctoral and advanced students only. Credit Level: G. Credit Hrs: 1.00-12.00

18CNSL932

Advanced Research Seminar

Investigation into counseling/psychological research. Review of literature and planning research. Credit Level: G. Credit Hrs: 3.00

18CNSL933

Advanced Research Seminar

See 18CNSL932. Credit Level: G. Credit Hrs: 3.00

18CNSL961

Supervision of Counselors

Supervision of counselors in a lab setting. Offered in conjunction with 18CNSL884, 18CNSL886, or 18CNSL887. Credit Level: G. Credit Hrs: 1.00-6.00

18CNSL962

Supervision Practicum

Supervision of counselors in a laboratory setting. Offered in conjunction with 18CNSL884, 18CNSL886, or 18CNSL887. Prereq: 18CNSL961. Credit Level: G. Credit Hrs: 1.00-6.00

18CNSL963

Multicultural Counseling

This course provides students with an introduction to multiculturalism, cultural competence, and multicultural counseling. The course will challenge and encourage the student toward self-examination and new insights. Activities and assignments will facilitate objective critical/analytical thinking as a basis for developing interpersonal skills and competencies necessary for rendering culturally appropriate counseling services to diverse populations in school, mental health, and chemical addictions service settings. Credit Level: G. Credit Hrs: 3.00

18CNSL973

Individual Dissertation Guidance

Conferences with adviser and reading committee (required in doctoral program). Cr. and hrs. to be arranged. May be repeated for a total of 45 cr. hrs. Credit Level: G. Credit Hrs: 1.00-15.00

18CNSL981

Ethical, Professional, and Legal Issues in Counseling

Group discussion of ethical conduct, professional practice, licensure and legal issues, and values conflicts in counseling. Credit Level: G. Credit Hrs: 3.00

18CNSL984

Advanced Practicum in Counseling

Advanced Practicum in teaching and supervising counselors; includes an experimental requirement. Credit Level: G. Credit Hrs: 3.00

18CNSL985

Testing and Assessment

The use of testing and assessment techniques in assessing mental and emotional disorders, substance use disorders, and treatment outcomes in school and community settings. Credit Level: G. Credit Hrs: 3.00

18CNSL986

Counseling ProSeminar I: Individuals and Families

Updates knowledge of current concepts and trends in individual and family issues pertinent to ecological counseling. Perm of Instructor.

H=University Honors course.

BoK (Breadth of Knowledge) Coding. DC: Diversity & Culture. EC: English composition. FA: Fine Arts. HP: Historical Perspectives. HU: Humanities.

LT: Literature. NS: Natural Sciences. QR: Quantitative Reasoning. SE: Social & Ethical Issues. SS: Social Sciences.

Counseling

18CNSL986

Counseling ProSeminar I: Individuals and Families

Credit Level: G. Credit Hrs: 3.00

18CNSL987

Counseling ProSeminar II: Groups and Organizations

ProSeminar II addresses the group and organizational level of ecological foundations. Conceptual material will be presented and discussed via a small seminar format to investigate group and organizational vehicles for growth and change. Prereq: 18CNSL986. Credit Level: G. Credit Hrs: 3.00

18CNSL988

Counseling ProSeminar III: Institutions and Social Systems

Updates knowledge of current concepts and trends in institutions and social systems pertinent to ecological counseling. Prereq: 18CNSL987. Credit Level: G. Credit Hrs: 3.00

18CNSL989

Ecological Counseling Seminar I: Individuals and Families

Extends conceptual material of ProSeminar I through integration, synthesis, and application by using problem-based learning methods. Prereq: 18CNSL987. Credit Level: G. Credit Hrs: 3.00

18CNSL990

Ecological Counseling Seminar II: Groups and Organizations

Ecological Counseling Seminar II extends conceptual material of ProSeminar II through integration, synthesis, and appreciation of using problem-based learning methods. Prereq: 18CNSL989. Credit Level: G. Credit Hrs: 3.00

18CNSL991

Ecological Counseling Seminar III: Institutions and Social Systems

Extends conceptual material of ProSeminar III through integration, synthesis, and application by using problem-based learning methods. Prereq: 18CNSL987. Credit Level: G. Credit Hrs: 3.00

Early Childhood Education

18ECE191

Orientation to Professional Practice in Early Childhood

Designed to introduce students to problems and procedures related to schools and centers. Prearranged visits are part of the course. BoK: NA. Credit Level: U. Credit Hrs: 3.00

18ECE231

Classroom Organization and Management

Methods for guiding children in preschool settings with emphasis on positive discipline strategies and communication skills. Recommended prerequisite: Child Development I and Orientation to Professional Practice. BoK: NA. Credit Level: U. Credit Hrs: 3.00

18ECE234

Math and Science in Early Childhood Education

Methods of teaching math and science within a developmentally appropriate, integrated, early childhood setting. BoK: NA. Credit Level: U. Credit Hrs: 3.00

18ECE235

Language Arts and Literature I

Discussion of early language development and early reading and writing; methods of literacy learning; survey and use of literature. BoK: NA. Credit Level: U. Credit Hrs: 3.00

18ECE236

Language Arts and Literature II

Development of young children from early reading and writing to fluent reading and writing; integrating literature into the early childhood curriculum. BoK: NA. Credit Level: U. Credit Hrs: 3.00

18ECE242

Preschool Student Teaching

Supervised student teaching experience in a developmentally appropriate preschool setting. Placements are half days M-F. By

College of Education, Criminal Justice, and Human Services

Early Childhood Education

18ECE242

Preschool Student Teaching

application. AS degree Cohort only. Coreq: 18ECE235. BoK: NA. Credit Level: U. Credit Hrs: 2.00-6.00

18ECE243

Preschool Internship

Extension of Preschool Student Teaching with additional responsibilities. By application only. Placements are half days M-F. BoK: NA. Credit Level: U. Credit Hrs: 6.00

18ECE244

Early Childhood Education Internship for Family Child Care

The FCC Internship is the culminating experience in the Early Care and Education Associate of Arts degree program. Candidates participate in their own family child care homes with a mixed age group of children from birth through age 12 under the supervision of a UC instructor. Candidates are expected to assume and manage the full range of teaching/caregiving responsibilities for the group of children in order to fulfill course requirements. BoK: NA. Credit Level: U. Credit Hrs: 6.00

18ECE251

Infant/Toddler Programs

Design and implementation of developmentally appropriate programs for infants and toddlers. BoK: NA. Credit Level: U. Credit Hrs: 3.00

18ECE252

Practicum Seminar in Early Childhood I

In this seminar, students will be provided with opportunities to analyze experiences gained in an approved early childhood education program, reviewing theory, teaching skills, team teaching, classroom management, lesson planning, and evaluation. Prereq: 18ECE231. BoK: NA. Credit Level: U. Credit Hrs: 1.00

18ECE253

Practicum Seminar in Early Childhood II

In this seminar, students will be provided with opportunities to analyze experiences gained in an approved early childhood education program, reviewing theory, teaching skills, team teaching, classroom management, lesson planning, and evaluation. Coreq: 18ECE243. BoK: NA. Credit Level: U. Credit Hrs: 1.00

18ECE256

Creative Arts in Early Childhood Education

An examination of art, music, movement, and dramatic play curriculum content as well as strategies and techniques for involving young children in aesthetic experiences. BoK: NA. Credit Level: U. Credit Hrs: 3.00

18ECE257

Integrated Preschool Curriculum

Investigate preschool curriculum with respect to Ohio early education learning standards and content integration. AS degree Cohort only. Prereq: 18ECE256. BoK: NA. Credit Level: U. Credit Hrs: 3.00

18ECE261

Families and Culture in Early Childhood Education

Educational considerations in working with young children from a variety of cultural and ethnic backgrounds. Specific issues related to establishing culturally appropriate, family centered programs will be discussed. AS degree Cohort only. BoK: SS., DC. Credit Level: U. Credit Hrs: 3.00

18ECE262

Observation, Assessment, and Planning in Early Childhood

Presentation of techniques for observing, recording, and assessing the behavior of young children. Discussion of strategies for data collection and use of data for long- and short-term planning. BoK: NA. Credit Level: U. Credit Hrs: 3.00

18ECE264

Administration of Early Childhood Programs

Overview of administrative duties required in managing a variety of early childhood programs. Discussion of licensing standards, funding

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Early Childhood Education

18ECE264

Administration of Early Childhood Programs

issues, operating budgets, staff recruitment and retention, policies and procedures, and staff development. BoK: NA. Credit Level: U. Credit Hrs: 3.00

18ECE266

School Age Care

This course is intended for those who will be providing school age care in schools, centers, or family child care homes. Designed to help students understand and meet the unique needs of school age children through appropriate environments, activities, and guidance. BoK: NA. Credit Level: U. Credit Hrs: 3.00

18ECE268

Special Topics in Early Childhood Education

In-depth study of selected topics in early childhood education. BoK: NA. Credit Level: U. Credit Hrs: 3.00

18ECE271

Mentoring Adults in Early Childhood Programs

Overview of methods and principles of supervising preservice and/or new teachers in the field of early childhood education. Designed for experienced classroom teachers who have demonstrated strong skills in providing a developmentally appropriate early childhood program. BoK: NA. Credit Level: U. Credit Hrs: 1.00-3.00

18ECE276

Child Development I

Prenatal and early growth and development through age 6. Prereq: 15PSYC101. BoK: SS. Credit Level: U. Credit Hrs: 3.00

18ECE277

Child Development II

Growth and development of children in the school age and adolescent periods. Observation in schools and community groups. Prereq: 18ECE276. BoK: SS. Credit Level: U. Credit Hrs: 3.00

18ECE278

Health, Safety, and Nutrition in Early Childhood Education

Discussion of health, safety, and nutrition issues in early childhood settings. BoK: NA. Credit Level: U. Credit Hrs: 3.00

18ECE290

Early Childhood Social Development and Self Regulation

Investigation of the building blocks for fostering mentally, emotionally, and socially healthy children ages birth to five. BoK: NA. Credit Level: U. Credit Hrs: 3.00

18ECE292

Introduction to Inclusive Practices

Introduction to teaching practices and services for children with developmental delays, ages birth to five. BoK: NA. Credit Level: U. Credit Hrs: 3.00

18ECE400

Developmental Concerns

Issues related to preschool, kindergarten, and primary grade children (who are at risk, demonstrate developmental delays, are gifted/creative/talented, or have identified disabilities) and their families, including the identification/placement process, IEP's, parents' rights, etc. BoK: DC. Credit Level: U. Credit Hrs: 3.00

18ECE401

Accommodations and Adaptations in Early Childhood Education

In this course, designing appropriate family and child assessment-based Individualized Education Plans (IEP's) and Individual Family Service Plans (IFSP's) will be addressed. Also, collaborative problem solving, accommodations, classroom management, interventions, related services, etc. BoK: NA. Credit Level: U. Credit Hrs: 3.00

18ECE402

Families in Early Childhood Special Education

Study of family centered practices in working with families who have children with disabilities or other special needs. Cohort only. BoK: NA.

Early Childhood Education

18ECE402

Families in Early Childhood Special Education

Credit Level: U. Credit Hrs: 3.00

18ECE406

Collaboration and Case Management in Early Childhood Education

Study of the complexities of working with related service personnel in early childhood programs. Skill development is emphasized for serving as early intervention case managers. BoK: NA. Credit Level: U. Credit Hrs: 3.00

18ECE408

Early Childhood Education: Field Work

Field work experiences in early childhood education. Course offered to Art Education majors. BoK: NA. Credit Level: U. Credit Hrs: 1.00-6.00

18ECE411

Play and Development

This course focuses on child development as it specifically relates to young children's play. Topics include: play and its connection to learning; play and how it relates to development; and the teacher's role in facilitating play, development, and learning in the early childhood classroom. BoK: NA. Credit Level: U. Credit Hrs: 3.00

18ECE412

Selfhood in Infants and Toddlers

Study of selfhood in young children and its implications for theoretical and philosophical nurturing practices. BoK: NA. Credit Level: U. Credit Hrs: 3.00

18ECE415

Foundations of Literacy

This course is designed to assist students in the development of understanding of the reading and writing process for young children. Focus is on emergent literacy and methods for preschool literacy-rich environments. BoK: NA. Credit Level: U. Credit Hrs: 3.00

18ECE430

Classroom Management

Development of skills and competencies necessary for effective functioning in a setting with children ages 3-8. BoK: NA. Credit Level: U. Credit Hrs: 3.00

18ECE450

Infant Practicum

This field experience will provide the student with onsite observation and interaction with infants. Infants are defined as birth to 18 months. Prereq: 18ECE251, 18ECE412. BoK: NA. Credit Level: U. Credit Hrs: 3.00

18ECE451

Toddler Practicum

This field experience will provide the student with onsite observation and interaction with toddlers. Toddlers are defined as 18 to 36 months. Prereq: 18ECE251, 18ECE412. BoK: NA. Credit Level: U. Credit Hrs: 3.00

18ECE460

Language Development in Early Childhood Special Education

This course is an introduction to typical and atypical language development in early childhood education with a focus on young children ages birth to age five. Implications of ethnic, linguistic, psychological, and cultural differences for language learning are examined. The role of the teacher in enhancing language development in young children is discussed. BoK: NA. Credit Level: U. Credit Hrs: 3.00

18ECE468

Early Childhood Education Phonics I

This course will investigate research-based and historical-cultural contexts for phonics instruction in early childhood education. Cohort only. Perm of Instructor. BoK: NA. Credit Level: U. Credit Hrs: 3.00

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Early Childhood Education

18ECE470

Early Childhood Education Phonics II

This is a methods course about the teaching and learning of phonetics, phonics, word study, and spelling in relation to developing learners and a total reading program. Perm of Instructor. BoK: NA. Credit Level: U. Credit Hrs: 3.00

18ECE480

Teaching Reading Through Children's Literature

Through an investigation into developmentally and culturally appropriate reading materials for young children, students learn about literature genres, the path to fluent reading and writing, and common reading problems. BoK: NA. Credit Level: U. Credit Hrs: 3.00

18ECE490

Math/Science for Young Children

Methods of teaching math/science in preschool within an integrated curriculum and contexts that have contributed to current practices in educating young children in math and science. Focus is on pre-K through grade 1. Perm of Instructor. BoK: NA. Credit Level: U. Credit Hrs: 3.00

18ECE495

Stories of Teaching

An introductory course on the principles of developmentally appropriate practice and the history of early childhood education. Perm of Instructor. BoK: NA. Credit Level: U. Credit Hrs: 3.00

18ECE498

Projects and Documentation in Early Childhood Education

Capstone course for the Early Childhood Education Birth to Five option. Explore early childhood environments as a context for documenting children's work and reflecting on its meaning. Coreq: 18ECE408. BoK: NA. Credit Level: U. Credit Hrs: 3.00

18ECE500

PreSchool Practicum

Supervised observation and participation in preschool settings. Half days, M-F. By application only. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

18ECE501

Teaching Reading and Writing I

Facilitating the development of reading and writing skills in kindergarten and grade 1. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

18ECE502

Teaching Reading and Writing II

Facilitating the development of reading and writing skills in primary grades. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

18ECE504

Kindergarten Practicum

Supervised observation and participation two or more half-days per week in an approved kindergarten. Times for participation and seminars to be arranged. Perm of Instructor. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

18ECE505

Art Education Practicum

Practicum for Art Education majors at the Arlitt Child Development Center. Students observe early childhood education practice, create lesson plans, and implement plans under supervision. BoK: NA. Credit Level: U. Credit Hrs: 2.00

18ECE506

Assessment and Evaluation in Early Childhood Education

In-depth study of assessment of children ages birth to eight and early childhood education program evaluation. BoK: NA. Credit Level: U. Credit Hrs: 3.00

18ECE515

Practitioner Research in Early Childhood Education

Action research methods are implemented to study and improve practice in early childhood environments. Generally taken with

Early Childhood Education

18ECE515

Practitioner Research in Early Childhood Education

18ECE408, Fieldwork. BoK: NA. Credit Level: U. Credit Hrs: 3.00

18ECE525

Leadership in Early Childhood Education

Develop leadership skills including advocacy, supervision, accessing funding, and networking. BoK: NA. Credit Level: U. Credit Hrs: 3.00

18ECE530

Challenging Behaviors in Early Childhood Education

This course focuses on strategies and techniques to use data-driven decision making to intervene with children who challenge program integrity. BoK: NA. Credit Level: U. Credit Hrs: 3.00

18ECE540

Integrating Art, Music, Creativity in ECE

Art, drama, music, and movement curriculum content as well as strategies and techniques for involving children in aesthetic experiences. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

18ECE551

Integrating Math

Mathematics content and methods study for primary grades. Includes strategies for creating learning environments and experiences for optimal mathematics learning. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

18ECE560

Integrating Social Studies in ECE

Social Studies content and methods study for kindergarten and primary grades. Includes strategies for creating a social studies-rich learning environment. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

18ECE570

Integrating Science in ECE

Science content and methods study for primary grades. Includes strategies for creating learning environments and experiences for optimal learning of science content and the scientific process. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

18ECE572

Independent Study in Early Childhood Education

Independent work for Early Childhood Education majors. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00-6.00

18ECE575

Opening School Experience

Beginning field placement in the primary grades. Full days M-F, August and September. By application only. BoK: DC. Credit Level: U. Credit Hrs: 2.00

18ECE576

Primary Practicum

Practicum designed to experience and apply methods for teaching grades 1 through 3. Monday, Tuesday, Thursday. BoK: DC. Credit Level: U. Credit Hrs: 3.00

18ECE577

Early Childhood Education Internship

Full day Internship in grades 1 through 3. BoK: DC. Credit Level: U. Credit Hrs: 12.00

18ECE580

Curriculum in ECE

This seminar explores the origin of curriculum, evaluation of what is taught when to whom, and the nature of curriculum. BoK: DC. Credit Level: U. Credit Hrs: 3.00

18ECE582

Senior Seminar

Part of the capstone experience in Early Childhood Education, students reflect on practice and explore issues related to the profession of early childhood education. BoK: DC. Credit Level: U. Credit Hrs: 3.00

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Early Childhood Education

18ECE632

Internship II: Early Childhood Education

A full year, part-time teaching experience in a professional practice school or site. BoK: NA. Credit Level: U, G. Credit Hrs: 2.00-7.00

18ECE633

Intern III: Early Childhood Education

Third quarter of Internship in primary grades in a professional practice or professional development school. BoK: NA. Credit Level: U, G. Credit Hrs: 2.00-12.00

18ECE672

Kindergarten Education

Investigation into the physical, social, emotional, and cognitive development of kindergarten-age children with an emphasis on an integrated, inclusive setting. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

18ECE673

Administration and Supervision in Early Childhood Education

Processes, skills, and problems of administration and supervision for those in leadership roles in early childhood education. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

18ECE674

ECE Special Topics

This course will provide special education personnel with a thorough understanding of the tenets of preschool education philosophy, curriculum, and instruction for all children. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-9.00

18ECE676

Practicum/Intern Early Childhood Education

Graduate level field experience for non-majors. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-12.00

18ECE681

Integrated Curriculum in Early Childhood Education

An integrated, differentiated approach to teaching K-3 grades with an emphasis on problem-solving and application of knowledge to real-life situations. BoK: NA. Credit Level: G, U. Credit Hrs: 3.00

18ECE710

Young Learners with Disabilities

Developmental patterns of specific disabilities and designing IEP's and supports for young children with disabilities and their families. Credit Level: G. Credit Hrs: 3.00

18ECE755

Contexts of Early Intervention

Foundation for understanding different contexts in early intervention, including ecological, sociopolitical, funding, culture, and family, in relation to settings such as a hospital, home, public and private centers, schools, and community agencies. Credit Level: G. Credit Hrs: 3.00

18ECE762

Static Web Programming for Educators

This course covers how to create education-based web pages in HTML and store them on a webserver. Credit Level: G. Credit Hrs: 3.00

18ECE770

Survey of Early Childhood Education

Developmentally-based philosophy of early childhood education, history, types of programs, and basic ECE curriculum. Credit Level: G. Credit Hrs: 3.00

18ECE771

Workshop ECE

Graduate level topical workshop. Credit Level: G. Credit Hrs: 1.00-9.00

18ECE772

Early Childhood Education Laboratory and Seminar

Practicum experience in early childhood centers, five half-days each week plus seminar. Credit Level: G. Credit Hrs: 2.00-6.00

Early Childhood Education

18ECE773

Documenting Children's Learning and Development

Techniques for observing and recording linguistic, emotional, social, physical, and cognitive behaviors of normal and exceptional children. Credit Level: G. Credit Hrs: 3.00

18ECE774

Social Competence in Early Childhood Settings

Investigation of strategies and techniques used by teachers to guide children to engage in acceptable behaviors in the early childhood classroom. Emphasis is on the theory underlying practice. Credit Level: G. Credit Hrs: 3.00

18ECE775

Constructivism in Education

This course examines the theoretical foundation and practical implications of the constructivist educational perspective. Focus is on the theories of Piaget and Vygotsky. Credit Level: G. Credit Hrs: 3.00

18ECE776

Curriculum Analysis in Early Childhood Education

A theoretical and practical investigation of curriculum planning for early childhood programs. Credit Level: G. Credit Hrs: 3.00

18ECE777

Trends and Issues in Early Childhood Education

Controversial areas and new directions in early childhood education; legislation, social change, and future expectations. Focuses on the role of the child advocate. Credit Level: G. Credit Hrs: 3.00

18ECE778

Child Development Theory and Research

Discussion of selected problems in early childhood education. Credit Level: G. Credit Hrs: 3.00-9.00

18ECE779

Thesis/Project Guidance

Individual guidance for Early Childhood Education graduate students who are working on a culminating experience in the master's degree program. Credit Level: G. Credit Hrs: 1.00-15.00

18ECE780

Team Models in Early Intervention

A foundation for understanding early intervention team models, including team building, group asset development, communication, and leadership, specific to early intervention. Credit Level: G. Credit Hrs: 3.00

18ECE781

Evidenced-Based Practices in Early Intervention

Methods and management techniques in providing appropriate developmental experiences for children with disabilities in groups of typically developing children. Credit Level: G. Credit Hrs: 3.00

18ECE782

Play and Development

Review theories and research on play and the relationship to child development. Examine issues related to the interface of children's play and the early childhood classroom. Credit Level: G. Credit Hrs: 3.00

18ECE855

Early Intervention Internship

An experience with young children with disabilities, birth through five years of age. Interns are placed in community agencies, early programs, and programs for preschool children with disabilities. Credit Level: G. Credit Hrs: 3.00-15.00

18ECE871

Independent Study in Early Childhood Education

Independent work for students in the area of early childhood education. Credit Level: G. Credit Hrs: 1.00-15.00

18ECE872

Readings in Early Childhood Education

Special readings for students who wish to do in-depth exploration of an

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Early Childhood Education

18ECE872

Readings in Early Childhood Education

area in early childhood education. Credit Level: G. Credit Hrs: 1.00-6.00

18ECE876

Practicum/Internship in Early Childhood Education

An Internship which is individually planned and designed for selected students in the ECE master's degree program and for students in other master's and doctoral programs. Credit Level: G. Credit Hrs: 5.00-10.00

Educational Leadership

18EDLD601

Interpersonal Communications

Teachers and administrators develop communication skills to improve their communications with students, the community, and each other. Special scheduling: Administrator Development Academy. Consult program. BoK: NA. Credit Level: U, G. Credit Hrs: 2.00-3.00

18EDLD736

Foundations of Educational Administration

Three-quarter sequence of learning activities designed to develop competencies necessary for entry-level administrative positions. Special scheduling: Administrator Development Academy. Consult program. Credit Level: G. Credit Hrs: 1.00-4.00

18EDLD737

Foundations of Educational Administration

See 18EDLD736. Special scheduling: Administrator Development Academy. Consult program. Prereq: 18EDLD736. Credit Level: G. Credit Hrs: 1.00-4.00

18EDLD738

Foundations of Educational Administration

See 18EDLD736. Special scheduling: Administrator Development Academy. Consult program. Prereq: 18EDLD737. Credit Level: G. Credit Hrs: 1.00-4.00

18EDLD739

Supervision of Instruction

Analysis of historical perspectives of supervision and the contextual and organization theories that define the workplace. Application of skills, strategies, and individual perspectives for restructuring/reinventing education through the development of new visions of supervision. Credit Level: G. Credit Hrs: 4.00

18EDLD743

Computer Applications in School Administration

Experience in developing effective school management strategies through the use of microcomputer technology. Credit Level: G. Credit Hrs: 3.00

18EDLD772

Understanding Educational Organizations

Study of organizational theories and their application in education. Credit Level: G. Credit Hrs: 3.00

18EDLD773

Collective Bargaining in Education

Process of communications, contracts, arbitration, conciliation, fact finding, good faith negotiations, grievance procedures, legal counsel, negotiation laws, sanctions, strikes, and roles of individuals. Credit Level: G. Credit Hrs: 3.00

18EDLD774

Principles of Curriculum Organization and Development

Comprehensive curriculum designs for learning experiences including philosophical, social, cultural, and psychological variables. Credit Level: G. Credit Hrs: 3.00

18EDLD775P

Understanding Educational Organizations: Licensure

This course is part of a nine-credit-hour sequence covering the attributes of school superintendency, educational organizations, and ethics. Students enrolled in this class are completing the requirements

College of Education, Criminal Justice, and Human Services Educational Leadership

18EDLD775P

Understanding Educational Organizations: Licensure

for superintendent licensure. Credit Level: G. Credit Hrs: 1.00-6.00

18EDLD776P

Collective Bargaining in Educational Administration

Course includes the process of communication, contracts, arbitration, conciliation, fact finding, good faith negotiations, grievance procedures, legal counsel, negotiation laws, sanctions, strikes, and roles of individuals. Credit Level: G. Credit Hrs: 3.00

18EDLD778

Educational Leadership

Educational leadership theory, research, and practice. Credit Level: G. Credit Hrs: 3.00-4.00

18EDLD780P

Educational Leadership: Licensure

This course is directed toward developing educational leadership in individuals who are preparing for superintendency licensure. Students will develop an understanding of leadership definitions and theories, assessment, research, practice, and training. Credit Level: G. Credit Hrs: 1.00-6.00

18EDLD782

Planned Field Experience I and Seminar in Educational Administration

Planned field experience to provide actual experience for individuals as required for licensure in Ohio. Credit Level: G. Credit Hrs: 4.00

18EDLD783

School Business Management

Administration of school business affairs. Credit Level: G. Credit Hrs: 3.00

18EDLD803

A Study of Change and Change Techniques

Change process theory, research, models, and practice. Credit Level: G. Credit Hrs: 3.00-4.00

18EDLD810

Innovations in Curriculum

Students will develop an understanding of curriculum innovations, sources of innovations, and the stages of planned change in implementing innovations. Credit Level: G. Credit Hrs: 3.00

18EDLD812

Data Use for School Improvement

Evaluation in this course is the process of seeking, analyzing, and interpreting information for use in directing the development, implementation, and improvement of educational/curriculum programs. Credit Level: G. Credit Hrs: 3.00-4.00

18EDLD814

Program Evaluation

A review of the conceptual and technical skills in program evaluation for improved educational decision making. Credit Level: G. Credit Hrs: 3.00

18EDLD815P

Program Evaluation

Course is designed as an in-depth exploration of a variety of approaches to program evaluation. Class will focus on uses of evaluation methods to improve organizational performance, including aspects of change processes, curricula, training programs, and ongoing improvement and accreditation. Credit Level: G. Credit Hrs: 3.00

18EDLD816

Educational Policy Analysis

Methods and techniques of educational policy analysis and the application of analytical tools. Credit Level: G. Credit Hrs: 3.00

18EDLD850

LGBTQ Issues and Educational Leadership

This course explores multiple theoretical frame- works regarding identity and sexuality and their applications for educational leadership Credit

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Educational Leadership

18EDLD850

LGBTQ Issues and Educational Leadership

Level: G. Credit Hrs: 3.00

18EDLD870

Women in Educational Leadership

Competencies for women in educational leadership. Credit Level: G. Credit Hrs: 3.00

18EDLD871

Individual Study in Educational Administration

Individual research on a problem of administration. Credit Level: G. Credit Hrs: 1.00-6.00

18EDLD874

Personnel Administration

An in-depth study of personnel functions including hiring, employment, and withdrawal phases. Prereq: 18EDLD738. Credit Level: G. Credit Hrs: 3.00-4.00

18EDLD875

Administration of Pupil Services

Consideration of the learner population and their needs, problems, rights, and expectations. Prereq: 18EDLD738. Credit Level: G. Credit Hrs: 3.00-4.00

18EDLD877

Community and Educational Process

Study of the relationships of educational organizations and the broader community and new conceptualizations of community. Prereq: 18EDLD738. Credit Level: G. Credit Hrs: 3.00

18EDLD878

Fiscal Aspects of Education

An analysis of the financial support and business procedures in educational institutions. Prereq: 18EDLD738. Credit Level: G. Credit Hrs: 3.00-4.00

18EDLD879

Educational Facilities

Educational specifications, design, and construction processes as related to the administrator's responsibilities. Credit Level: G. Credit Hrs: 3.00-4.00

18EDLD880

School Law

Case law is used to focus on the operation of schools and constitutional issues. Credit Level: G. Credit Hrs: 3.00-4.00

18EDLD881P

Educational Facilities Licensure

Course covers educational specifications, design, and construction processes as related to the administrator's responsibilities. Credit Level: G. Credit Hrs: 3.00

18EDLD882

Planned Field Experience II

A second-level planned field experience for those seeking certification as an administrator. Credit Level: G. Credit Hrs: 4.00

18EDLD883

Seminar: Staff Development

Examination of staff development models and activities. Credit Level: G. Credit Hrs: 3.00

18EDLD885

Economics of Education

Examination of important relationships between education and the economy. Credit Level: G. Credit Hrs: 3.00

18EDLD890

Budgeting, Appropriating, and Accounting

Budgeting, appropriating, and accounting procedures in schools. Credit Level: G. Credit Hrs: 3.00

Educational Leadership

18EDLD893

Special Program Administration

This is a broad designation for a topic selected by the professor. Consult specific program via announcement from the listed instructor. Credit Level: G. Credit Hrs: 1.00-4.00

18EDLD894

Ethics and Educational Leadership

This course is designed to introduce you to a variety of theories of ethical thought and their relationship to educational leadership. Credit Level: G. Credit Hrs: 3.00

18EDLD894P

Ethics of Educational Leadership: Licensure

This course is part of a nine-credit-hour sequence covering the attributes of school superintendency, educational organizations, and ethics. Students enrolled in this class are completing the requirements for superintendency licensure. Credit Level: G. Credit Hrs: 1.00-6.00

18EDLD895

Board Relations

For educators who work with nonprofit boards of control. Credit Level: G. Credit Hrs: 3.00

18EDLD896P

Board Relations: Licensure

School Board Relations is structured around the understanding of roles and responsibilities, both of the superintendent and the school board, and the forces of the environment that impact school boards and the board-superintendent relations. Students in this class are completing the requirements for superintendency licensure. Credit Level: G. Credit Hrs: 1.00-6.00

18EDLD932P

Internship I: Licensure

This planned field experience is designed for educational administrators who are completing the requirements for licensure for superintendent positions. The student is required to secure a district site and cooperating, licensed, practicing district-level administrator. Credit Level: G. Credit Hrs: 1.00-6.00

18EDLD933P

Internship II: Licensure

This planned field experience is designed for educational administrators who are completing the requirements for licensure for superintendent positions. The student is required to secure a district site and cooperating, licensed, practicing district-level administrator. Credit Level: G. Credit Hrs: 1.00-6.00

18EDLD950

Superintendency

This course is to increase student understanding of the complexity of leading in the contemporary environment. To provide insights in the everyday world of individuals in this role to provide opportunity for knowledge, skill & attitude development to prepare the student in leadership. Credit Level: G. Credit Hrs: 3.00

18EDLD951P

Superintendency: Licensure

This course is the first of a nine-credit-hour sequence covering the attributes of school superintendency, educational organizations, and ethics. Students enrolled in this class are completing the requirements for superintendency licensure. Credit Level: G. Credit Hrs: 1.00-6.00

18EDLD973

Individual Dissertation Guidance

Hours and credits to be arranged. Credit Level: G. Credit Hrs: 1.00-15.00

Educational Studies

18EDST201

Schooling and Teaching in America

This course explores teaching in the United States with attention to

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Educational Studies**18EDST201****Schooling and Teaching in America**

standards-based education and reform; professionalization of teaching; diversity; democratic purposes of public schooling; educational inequities and social justice; curriculum and instruction; and legal, organizational, and political issues in education. BoK: HP., DC. Credit Level: U. Credit Hrs: 4.00

18EDST275**Human Learning and Development in Education**

This course examines the complex phenomena of learning, motivation, and human development, and how teachers can apply this knowledge in their practices. Major theories are covered on behaviorism, cognitive and social influences, motivation, and other factors affecting development across the lifespan. Emphasis is on knowledge of learners, including individual differences and multiple intelligences; exceptionalities; language acquisition; and home and community influences. Also covered are various pedagogical approaches that recognize developmentally appropriate pedagogical knowledge, assessment, and classroom management techniques. BoK: NA. Credit Level: U. Credit Hrs: 4.00

18EDST301**Human Development**

Physical, cognitive, social-emotional, and personality development of children up to six years. Prereq: 15PSYC101. BoK: SS. Credit Level: U. Credit Hrs: 3.00

18EDST302**Human Development**

Physical, cognitive, social-emotional, and personality development through middle childhood and adolescence. BoK: SS. Credit Level: U. Credit Hrs: 3.00

18EDST303**Human Development**

Developmental characteristics through young adulthood to old age. BoK: SS. Credit Level: U. Credit Hrs: 3.00

18EDST426**Social Inequalities and Schooling**

Course explores social inequalities in the practice of education and contemporary approaches for achieving social equity. BoK: HU., SE. Credit Level: U. Credit Hrs: 3.00

18EDST575**Independent Study**

Special topics in educational foundations on an individual basis. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

18EDST631**Human Learning Seminar: Secondary**

Introduction to analysis of learning in cognitive psychology; conceptual frameworks for understanding individual learners. Coreq: 18SEC511. BoK: SS. Credit Level: U, G. Credit Hrs: 3.00

18EDST633**Classroom Assessment and Evaluation**

Students will use performance-based and classroom assessment techniques to determine how well students are learning. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

18EDST675**Human Learning**

Theories of school learning and instruction and their application to classroom teaching. BoK: SS. Credit Level: U, G. Credit Hrs: 3.00

18EDST680**Education and Sex-Role Stereotyping**

The nature of sex-role stereotyping and ways to reduce bias in education. BoK: SE. Credit Level: U, G. Credit Hrs: 3.00

Educational Studies**18EDST681****Seminar on Peace Education**

A seminar for students of peace education. BoK: SE. Credit Level: U, G. Credit Hrs: 3.00

18EDST682**Conflict Resolution**

Surveys the theories and practices of conflict resolution utilized in educational settings. BoK: SE. Credit Level: U, G. Credit Hrs: 3.00

18EDST683**Peace Education and Popular Culture**

Establishes a dialogue among teachers utilizing popular culture in the development of values of peace and justice among students. BoK: SE. Credit Level: U, G. Credit Hrs: 3.00

18EDST684**Liberation Philosophy**

An overview of the perspectives of liberation philosophy and theology including feminist, African-American, Hispanic, Asian, and Latin American orientations. BoK: SE. Credit Level: U, G. Credit Hrs: 3.00

18EDST690**Introduction to Peace Education**

A survey of issues in peace education approached from interdisciplinary perspectives. BoK: SE. Credit Level: U, G. Credit Hrs: 3.00

18EDST691**General Mediation**

The course provides students with the sufficient theoretical grounding and skills to enable them to function as facilitators in the mediation process and to administer peer mediation programs. BoK: SE. Credit Level: G, U. Credit Hrs: 3.00

18EDST692**Cooperative Discipline**

The course provides teachers with a specialized body of theory and skills to enable them to create a classroom climate which will prevent many discipline problems. BoK: SE. Credit Level: G, U. Credit Hrs: 3.00

18EDST693**Alternatives to Violence**

This survey of the historical, social, and psychological perspectives on non-violent alternatives to conflict resolution provides students with a sufficient theoretical grounding and set of skills to enable them to facilitate the non-violent resolutions of conflicts. BoK: SE. Credit Level: U, G. Credit Hrs: 3.00

18EDST685P**Seminar in Violence Prevention**

Seminar for students interested in Peace Education, with an emphasis on theories and skills related to violence prevention. Credit Level: G. Credit Hrs: 3.00

18EDST686P**Peace Education and Media Literacy**

This course establishes a dialogue among teachers utilizing popular culture in the development of values of peace and justice among students. Credit Level: G. Credit Hrs: 3.00

18EDST694P**Students' Creative Response to Conflict**

Survey of historical, social, and psychological perspectives on non-violent alternatives to conflict resolution, with a focus on students. Credit Level: G. Credit Hrs: 3.00

18EDST695P**Introduction to Cooperative Discipline**

This course provides teachers with a specialized body of theory and skills which enables them to prevent discipline problems. Credit Level: G. Credit Hrs: 3.00

18EDST696P**Mediation for Classroom Teachers**

This course provides students with theoretical grounding and skills to

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Educational Studies

18EDST696P

Mediation for Classroom Teachers

enable them to function as facilitators in the mediation process and to administer peer mediation programs. Credit Level: G. Credit Hrs: 3.00

18EDST701

Politics of Education

Development of educational policy at the local, state, and national levels. Credit Level: G. Credit Hrs: 3.00

18EDST710

Introductory Statistical Methods

This course introduces fundamental techniques of data analysis and statistical inference, including descriptive statistics, t-tests, and correlation commonly used in the educational and behavioral sciences. Credit Level: G. Credit Hrs: 3.00

18EDST711

Intermediate Statistical Methods

This course covers essential techniques of data analysis and statistical inference, including ANOVA, ANCOVA, simple regression, and nonparametric tests commonly used in the educational and behavioral sciences. Credit Level: G. Credit Hrs: 3.00

18EDST721

Measurement and Assessment

Fundamentals of designing, developing, and evaluating data collection tools for research instrumentation and large-scale assessment. Credit Level: G. Credit Hrs: 3.00

18EDST735

Human Development: Early Childhood

Addresses human development from birth through age six. Credit Level: G. Credit Hrs: 3.00

18EDST736

Human Development: Middle Childhood

Addresses human development from age six through age twelve. Credit Level: G. Credit Hrs: 3.00

18EDST737

Human Development: Adolescence

Addresses human development from puberty through the end of adolescence. Credit Level: G. Credit Hrs: 3.00

18EDST738

Human Development: Adulthood

Addresses the developmental tasks of early and middle adulthood. Credit Level: G. Credit Hrs: 3.00

18EDST739

Human Development: Aging

Developmental tasks of the later years of life. Credit Level: G. Credit Hrs: 3.00

18EDST740

Adult Relationships

Seminar for advanced students in human development. Different topics selected each term; i.e., intimacy, work relationships, friendship. Grading: Pass/Fail. Credit Level: G. Credit Hrs: 3.00

18EDST745

Educational Sociology

Analysis and critique of schooling as an institution from a wide array of theoretical perspectives. Credit Level: G. Credit Hrs: 3.00

18EDST747

Social Theories in Education

Historical overview of classical, interpretive, and contemporary social theories in education. Credit Level: G. Credit Hrs: 3.00

18EDST750

Classroom-Based Action Research and Reflective Practice

Introduction to the practice of educational action research. Credit Level: G. Credit Hrs: 3.00

Educational Studies

18EDST755

Introduction To Research Methodology

Overview of the research process from problem formulation, literature review, research design, and data analysis to report writing. Credit Level: G. Credit Hrs: 3.00

18EDST762

Women, Culture, and Education

Issues of gender in learning and schooling from a cross-cultural perspective. Prereq: 15ANTH102. Credit Level: G. Credit Hrs: 3.00-4.00

18EDST771

Philosophy of Education

A survey of major philosophical issues in education. Credit Level: G. Credit Hrs: 3.00

18EDST775

Lifespan Human Development

Presents lifespan human development from a counseling perspective. Credit Level: G. Credit Hrs: 3.00

18EDST777

History of Education

History of education in American society. Credit Level: G. Credit Hrs: 3.00

18EDST778

Cultural Differences

Cross-cultural perspectives on the study of learning and schooling. Credit Level: G. Credit Hrs: 3.00

18EDST779

Appalachian Migrants in Urban Schools

Migratory patterns from rural to urban settings and effects on area schools. Credit Level: G. Credit Hrs: 2.00-3.00

18EDST785

Learning in Groups

Contemporary research and theory related to learning in groups in classroom settings. Credit Level: G. Credit Hrs: 3.00

18EDST787

Self-Concept and Achievement

Relationship between feelings of self-worth and achievement; effects of teaching-learning environment. Credit Level: G. Credit Hrs: 3.00

18EDST788

Community and Environmental Influences on the Schools

Dynamics of urban education including nature-nurture controversy, race, gender, and class as structural constraints. Credit Level: G. Credit Hrs: 3.00

18EDST789

Socio-Cultural Issues in Child Development

Psychological and cultural-political implications of different theories of child development and forms of child rearing. Credit Level: G. Credit Hrs: 3.00

18EDST792

Cultural Diversity and Mental Health

Examines mental health practices appropriate to the needs of socially and culturally diverse populations. Credit Level: G. Credit Hrs: 3.00

18EDST799

Seminar in Teaching Foundations

Seminar for graduate teaching assistants in Educational Studies only. Credit Level: G. Credit Hrs: 1.00-6.00

18EDST800

Modes Of Inquiry

An examination of the dominant research paradigms in education. Credit Level: G. Credit Hrs: 3.00

18EDST802

Introduction to Field Methods in Educational Research

Introduction to and practice of qualitative methods for studies of

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Educational Studies**18EDST802****Introduction to Field Methods in Educational Research**

learning and schooling. Credit Level: G. Credit Hrs: 3.00-4.00

18EDST812**Intermediate Field Methods: Strategies for Data Collection**

Design, data collection, data management, and field relations in the qualitative research process. Credit Level: G. Credit Hrs: 3.00

18EDST814**Anthropology and Education**

Application of anthropological theory and method to the study of learning, schooling, and culture acquisition. Credit Level: G. Credit Hrs: 3.00-4.00

18EDST822**Advanced Field Methods: Qualitative Data Analysis**

Methods for data analysis, use of theory, analytical systems, and narrative in the production of field study reports. Credit Level: G. Credit Hrs: 3.00

18EDST825**Marxist Theories**

Review of the foundational place of classical Marxist analysis in the sociology of education and the Marxist basis of contemporary critical post-modernist work in the field. Credit Level: G. Credit Hrs: 3.00

18EDST826**Marxist Applications**

Addresses the work of scholars who have actually implemented classic Marxist theory in their research. Credit Level: G. Credit Hrs: 3.00

18EDST835**Cognition and Learning**

Introduction to cognitive science with an emphasis on human learning. Credit Level: G. Credit Hrs: 3.00

18EDST836**Cognition and Thought**

Designing integrated learning to address individual differences through learning models, such as multiple intelligences and learning styles, as ways to approach curriculum, instruction, and assessment. Credit Level: G. Credit Hrs: 3.00

18EDST837**Cognition and Development**

Comprehensive overview of origins and developmental change in children's thinking. Credit Level: G. Credit Hrs: 3.00

18EDST838**Cognition and Technology: Special Topics**

Exploration of a topic in the connection among cognition, technology, and education. Credit Level: G. Credit Hrs: 3.00

18EDST839**Cognition and Culture**

Combines the study of culture with an understanding of relevant cognitive processes and the challenge of studying cognition as embedded in a specific cultural context. Credit Level: G. Credit Hrs: 3.00

18EDST840**History of Higher Education**

A historical overview of American higher education, 1636 to the present. Credit Level: G. Credit Hrs: 3.00

18EDST845**History of African-American Education: 1619-1865**

Historical overview of the education of African-Americans during the epoch of slavery until 1865. Schooling on the plantations for the slaves as well as education for the free blacks in cities will be investigated. Credit Level: G. Credit Hrs: 3.00

Educational Studies**18EDST846****History of African-American Education: 1865 to the Present**

An historical overview of the education of African-Americans after emancipation and through the twentieth century. Credit Level: G. Credit Hrs: 3.00

18EDST848**Oral History**

Understanding and conducting oral history research. Credit Level: G. Credit Hrs: 3.00

18EDST850**Action Research Seminar I**

First in a three-course sequence of Cohort seminars designed to provide students with the theoretical and practical skills necessary to conduct action research in urban school and community settings. Credit Level: G. Credit Hrs: 3.00

18EDST851**Action Research Seminar II**

Second in a three-course sequence of Cohort seminars designed to provide students with the theoretical and practical skills necessary to conduct action research in urban school and community settings. Credit Level: G. Credit Hrs: 3.00

18EDST852**Action Research Seminar III**

Third in a three-course sequence of Cohort seminars designed to provide students with the theoretical and practical skills necessary to conduct action research in urban school and community settings. Credit Level: G. Credit Hrs: 3.00

18EDST855**Quantitative Research Methods I: Research Design**

First course in a three-quarter sequence focusing on developing a quantitative research proposal. Credit Level: G. Credit Hrs: 3.00

18EDST856**Quantitative Research Methods II: Data Collection**

Second course of a three-quarter sequence focusing on developing an instrument for collecting quantitative data. Credit Level: G. Credit Hrs: 3.00

18EDST857**Quantitative Research Methods III: Data Analysis and Report Writing**

Third course in a three-quarter sequence focusing on analyzing quantitative data and writing up a research report. Credit Level: G. Credit Hrs: 3.00

18EDST861**Guided Research Experience**

Pre-dissertation supervised research project. Credit Level: G. Credit Hrs: 1.00-6.00

18EDST871**Individual Study**

Individual study under contract with a faculty member. Credit Level: G. Credit Hrs: 1.00-12.00

18EDST873**Master's Thesis Project**

Culminating experience for master's students. Credit Level: G. Credit Hrs: 1.00-9.00

18EDST878**Multivariate Analysis Of Differences**

This course covers comparison techniques, including MANOVA, MANCOVA, repeated measures analysis, and discriminant analysis, that fall under the umbrella of multivariate methods in educational research and behavioral sciences. Credit Level: G. Credit Hrs: 3.00

18EDST879**Multivariate Analysis Of Relationships**

This course covers correlational techniques, including multiple

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Educational Studies

18EDST879

Multivariate Analysis Of Relationships

regression, canonical correlation, logistical regression, factor analysis, and categorical data analysis, that fall under the umbrella of multivariate methods in educational research and behavioral sciences. Credit Level: G. Credit Hrs: 3.00

18EDST880

Advanced Multivariate Analysis: Structural Modeling And Multilevel Modeling

This course introduces students to two advanced techniques, structural equation modeling and multilevel modeling, that fall under the umbrella of multivariate methods in educational research and behavioral sciences. Credit Level: G. Credit Hrs: 3.00

18EDST882

Quantitative Research Synthesis

Addresses the problem of the accumulation of evidence in scientific research through the use of quantitative methods for meta analysis and research synthesis. Credit Level: G. Credit Hrs: 3.00

18EDST886

Experimental Research

Design and analysis of simple and complex experimental studies, including randomized design, repeated-measure design, nested design, and mixed design. Credit Level: G. Credit Hrs: 3.00

18EDST901

Pro-Seminar in Educational Foundations

Required for all first-year doctoral students. Credit Level: G. Credit Hrs: 3.00

18EDST902

Pro-Seminar in Educational Foundations

See 18EDST901. Credit Level: G. Credit Hrs: 3.00

18EDST903

Pro-Seminar in Educational Foundations

See 18EDST901. Credit Level: G. Credit Hrs: 3.00

18EDST973

Individual Dissertation Guidance

Students work with adviser in the process of preparing a dissertation. Credit Level: G. Credit Hrs: 1.00-15.00

18EDST989

Seminar in Educational Research

Selected topics in educational research on social foundations, psychological foundations, and research methodology. Credit Level: G. Credit Hrs: 1.00-4.00

Elementary Education

18ELE729

Elementary Education: Future Alternatives

Investigation of issues and problems affecting elementary education of the future: alternative schools, programs, and paths. Credit Level: G. Credit Hrs: 3.00

18ELE731

Principles and Practices in Elementary Education

Examines contemporary practices and innovations in elementary school programs. Credit Level: G. Credit Hrs: 3.00

18ELE871

Individual Study in Elementary Education

Hrs. and cr. to be arranged. Credit Level: G. Credit Hrs: 1.00-6.00

18ELE872

Readings in Elementary Education

Hrs. and cr. to be arranged. Credit Level: G. Credit Hrs: 1.00-6.00

College of Education, Criminal Justice, and Human Services English as a Second Language

18ESL081

Basic Academic English

This course is designed to provide non-native speakers of English an opportunity to develop and practice basic skills needed to prepare for entrance into academic reading and writing courses. BoK: NA. Credit Level: U. Credit Hrs: 3.00

18ESL090

Introduction to Academic Reading and Writing

This workshop course is designed to introduce non-native speakers of English to the skills required for successful academic reading and writing in preparation for 18ESL100. BoK: NA. Credit Level: U. Credit Hrs: 6.00

18ESL100

Academic Reading and Writing Strategies

This course is designed for non-native speakers of English who need to improve their academic reading and writing skills in preparation for freshman English. BoK: NA. Credit Level: U. Credit Hrs: 6.00

18ESL601

Communication and Listening Skills

This course is designed to assist non-native English speaking students to further develop their conversational English fluency. It focuses primarily on perfecting the vocabulary and fluency necessary to execute speech acts that are basic to everyday conversation and also touches on intonation, emphasis, and reductions. Prereq: OEPT, Placement Test, or Permission of Instructor. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

18ESL602

Speaking/Listening Skills I

The goals of this course are to increase oral fluency and to improve listening comprehension in both academic and everyday conversation. Students will work on improving their recognition and use of idiomatic English while participating in class discussions, as well as express opinions, debate, and negotiate conversation. Content information will be provided through lecture, readings, discussion, role-play, interviews and observations for the purpose of learning oral communication skills that include both speaking and listening. Prereq: 18ESL601, OEPT, Placement Test, or Permission of Instructor. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

18ESL603

Speaking/Listening Skills II

This class will assist students achieving intermediate academic listening and speaking skills. Students will enhance their skills in giving presentations, debates, and class discussion. Students will demonstrate critical thinking skills through negotiation, expression of opinions and speech persuasion. Students will broaden their academic vocabulary through the exploration of collocations and idioms. Aspects of American culture, especially university culture, will be covered as well. Prereq: 18ESL602, OEPT, Placement Test, or Permission of Instructor. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

18ESL604

Oral Presentation Skills

The goals of this course are to develop the academic presentation skills necessary for teaching and presenting in graduate seminars or professional meetings. Students will learn techniques for audience analysis, selection and organization of materials, developing and supporting arguments, dealing with questions, and effective oral delivery. Several videotaped oral presentations are required. Prereq: 18ESL603, OEPT, Placement Test, or Permission of Instructor. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

18ESL605

Improving Pronunciation

Improving Pronunciation is a classroom-based course that focuses on comprehensible articulation of vowels and consonants as well as the rhythm, stress and intonation of North American English speech. This course should be taken by students who are already fluent in English, but who want to improve their pronunciation skills for more effective

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English as a Second Language**18ESL605****Improving Pronunciation**

communication through practice activities that include speech/sound analysis, dialogue generation, role-play, and simulation and ethnographic assignments. Prereq: OEPT, Placement Test, or Permission of Instructor. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

18ESL606**American Culture and Communication**

This course will focus on the cultural aspects of verbal and non-verbal behavior, values, and communication styles while developing effective communication patterns in professional and pre-professional settings. Prereq: 18ESL603, OEPT, Placement Test, or Permission of Instructor. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

18ESL607**Strategies for Academic Success**

This course is designed to enhance student skills utilizing techniques for effective listening, note-taking strategies, reading, and writing skills for studying. In addition, it will introduce the student to the expectations of the American classroom culture. Prereq: OEPT, Placement Test, or Permission of Instructor. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

18ESL608**Editing Skills for ESL Writers**

This course is designed for international graduate students who need to improve their writing skills in order to become competent in basic academic English in the style commonly accepted in American universities. At the end of the course the students will be able to recognize and use vocabulary and grammatical structures common in academic writing and to produce texts employing a variety of modes of discourse. Prereq: Placement Test or Permission of Instructor. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

18ESL609**Introduction to Academic Writing**

This course serves as a continuation of 18ESL608 and is designed to familiarize students with the basic genres of academic writing seen across the disciplines and the modes of discourse that often characterize the writing in these genres. Students will be responsible for producing three major writing assignments: an Abstract, a Research Plan, and a Literature Review, all of which will draw on authentic models from the specific disciplines of class members. Several shorter papers will also be required through which students will become more familiar with some of the modes of discourse which inform various types of academic writing: summary, extended definition, process, critique, and synthesis. Many class periods will be conducted in a workshop format, and students will be expected to share their own works in progress as well as contribute thoughtfully and constructively on the works of their peers. Prereq: 18ESL608, Placement Test, or Permission of Instructor. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

18ESL610**Academic Writing for International Students**

This workshop course is designed to assist non-native speakers of English to recognize, analyze, and use academic criticism practices in discipline-specific research articles. Using texts from the student's courses, this reading and writing workshop will focus on the analysis of various genres present in their discipline, thus raising awareness of the generic features used by authors in different contexts. Acquiring this knowledge will enable students to manipulate the language features in their field in order to develop a portfolio of practical approaches to reading and writing. Prereq: 18ESL609, Placement Test, or Permission of Instructor. Prereq: 18ESL609. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

18ESL710**Teaching Skills for International TAs**

This course is designed to assist International Teaching Assistants (ITAs) to acquire, improve, and practice the skills they need for success in their instructional duties. The course focuses on the American educational system, teaching skills, and classroom language use from

English as a Second Language**18ESL710****Teaching Skills for International TAs**

pronunciation to pragmatics. Prereq: 18ESL603, OEPT, Placement Test, or Permission of Instructor. Credit Level: G. Credit Hrs: 3.00

Health, Fitness and Leisure Studies**18HFL146****Tennis I**

Introduction to tennis skills. BoK: NA. Credit Level: U. Credit Hrs: 1.00

18HFL152**Weight Training**

Provides a basic understanding of weight training including safe equipment use, lifting and spotting fundamentals, selection, and program design. BoK: NA. Credit Level: U. Credit Hrs: 1.00

18HFL153**Physical Conditioning**

Basic skills for improving cardiovascular fitness, strength, and flexibility. BoK: NA. Credit Level: U. Credit Hrs: 1.00

18HFL155**Handball**

Beginning skills and rules for handball. BoK: NA. Credit Level: U. Credit Hrs: 1.00

18HFL156**Racquetball**

Basic skills of racquetball. BoK: NA. Credit Level: U. Credit Hrs: 1.00

18HFL157**Self Defense**

An overview of a variety of techniques for personal self defense. BoK: NA. Credit Level: U. Credit Hrs: 1.00

18HFL164**Yoga: Stress Management**

Stress management through yoga. BoK: NA. Credit Level: U. Credit Hrs: 1.00

18HFL167**Tai Chi Chuan**

Introduction to the basic practice of Tai Chi Chuan. BoK: NA. Credit Level: U. Credit Hrs: 1.00

18HFL171**Water Aerobics**

Water resistance exercise routines set to music. BoK: NA. Credit Level: U. Credit Hrs: 1.00

18HFL172**Swimming I**

Swimming skills for beginners. BoK: NA. Credit Level: U. Credit Hrs: 1.00

18HFL175**Life Guarding**

Introduction to life saving skills. BoK: NA. Credit Level: U. Credit Hrs: 2.00

18HFL182**Group Fitness**

Aerobic activities, basic nutrition, and stress management for improving fitness and maintaining weight. BoK: NA. Credit Level: U. Credit Hrs: 1.00

18HFL191**Lifestyle Health and Fitness**

Knowledge and coping skills related to lifestyle health problems of stress, nutrition, exercise, and substance abuse. BoK: NA. Credit Level: U. Credit Hrs: 2.00

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Health, Fitness and Leisure Studies**18HFL192****Drug Education**

A basic introduction to substance abuse with emphasis on drugs and athletic performance. BoK: NA. Credit Level: U. Credit Hrs: 1.00

18HFL193**Weight Control**

Provides a basic understanding of weight control, including factors affecting body weight and information related to proper diet and exercise. BoK: NA. Credit Level: U. Credit Hrs: 1.00

18HFL194**Stress Management**

Provides a basic understanding of human stress including definitions, effects on the body, and a variety of techniques to help control stress levels. BoK: NA. Credit Level: U. Credit Hrs: 1.00

18HFL272**Swim Conditioning**

Techniques for improving or maintaining fitness levels through swimming. BoK: NA. Credit Level: U. Credit Hrs: 1.00

18HFL275**Water Safety Instruction**

Red Cross Water Safety Instructor course. Prereq: 18HFL175. BoK: NA. Credit Level: U. Credit Hrs: 2.00

18HFL284**Philosophy of Sports**

To provide a definition for the cultural institution of sports and an explanation of its place in society. This evaluation will be done with the aid of traditional philosophical analysis and theory, and will examine the concepts of sports and related conceptual issues, such as competition, winning, violence, heroism, and legend. Transfer Module. BoK: HU. Credit Level: U. Credit Hrs: 3.00

18HFL301**Social History of Baseball**

This course provides a historical and analytical study of a sport through social change and cultural assimilation. Issues such as urbanization, race and ethnicity, health and legal issues, educational policies, and the place of sport in society are discussed and defined. BoK: SS. Credit Level: U. Credit Hrs: 3.00

18HFL302**Basketball Society**

This course provides an analytical study of basketball in society as part of the development of sport and recreation in America and sociocultural change. The focus is on basketball as part of the American educational process, community health, the urban environment, religious and ethnic groups, transglobalization of sport, gender, race, and other societal issues. BoK: SS. Credit Level: U. Credit Hrs: 3.00

Health Education**18HPE101****Introduction to Health Promotion**

Historical, theoretical, ethical, and philosophical foundations of health education, including an emphasis on roles, responsibilities, work settings, and future directions of the profession. BoK: SS. Credit Level: U. Credit Hrs: 3.00

18HPE133**Personal Health Behavior**

Personal aspects of wellness, chronic and communicable disease. BoK: SS. Credit Level: U. Credit Hrs: 3.00

18HPE134**Mental Health Issues**

Basics of mental health, sexuality, substance use and abuse, emotional self-help. BoK: SS. Credit Level: U. Credit Hrs: 3.00

Health Education**18HPE136****Community Health**

Introduces the science and art of maintaining, protecting, and improving the health of people through organized community efforts. BoK: SS. Credit Level: U. Credit Hrs: 3.00

18HPE161**Prospective Applications in Athletic Training I**

Introduction to prophylactic injury prevention techniques for practice in the field of athletic training. BoK: NA. Credit Level: U. Credit Hrs: 1.00

18HPE162**Prospective Applications in Athletic Training II**

The application of injury management and screening techniques for the practice of athletic training. Prereq: 18HPE177, 18HPE161. BoK: NA. Credit Level: U. Credit Hrs: 1.00

18HPE171**Athletic Training Practicum I**

Application of psychomotor skills dealing with the prevention and management of physical activity and sports-related injuries. A review of emergency procedures, basic prophylactic taping/wrapping applications, equipment management, and other basic athletic training techniques. Perm of Instructor. BoK: NA. Credit Level: U. Credit Hrs: 1.00

18HPE172**Functional Anatomy for Athletic Training**

The study of surface and musculoskeletal anatomy with an emphasis in palpation, motion, and function for athletic training. BoK: NA. Credit Level: U. Credit Hrs: 1.00

18HPE177**Introduction to Athletic Training**

An introduction to the profession of athletic training and related fields. Basic methods of prevention, recognition, management, and injury risks factors of physical activity and sports-related injuries. BoK: NS., SS. Credit Level: U. Credit Hrs: 3.00

18HPE178**Fundamentals of Athletic Training**

An introduction to clinical applications of athletic training techniques and recognition and management of physical activity and sports-related injuries. Will provide a basic understanding of the operation of an athletic training room, the operation of selected therapeutic modalities and rehabilitation equipment, and basic competencies in athletic training. Prereq: 18HPE177. BoK: NA. Credit Level: U. Credit Hrs: 2.00

18HPE196**First Aid: Personal Safety**

Basic first aid and CPR. Red Cross certification upon completion. BoK: NA. Credit Level: U. Credit Hrs: 2.00

18HPE201**Introduction to Health Promotion**

Historical, theoretical, ethical, and philosophical foundations of health education, including an emphasis on roles, responsibilities, work settings, and future directions of the profession. BoK: SS. Credit Level: U. Credit Hrs: 3.00

18HPE241**Consumer Health**

Discusses the myriad of consumer-related health choices and how such choices ultimately affect the health of the community and individuals within the community. BoK: SS. Credit Level: U. Credit Hrs: 3.00

18HPE271**Athletic Training Practicum II**

Application of head, cervical spine, and upper extremity evaluation techniques. Application of Level I Proficiencies in athletic training relating to management of injuries under the direction of an approved clinical instructor. The student will complete practical experience in athletic training at an approved clinical site. Prereq: 18HPE171. BoK: NA. Credit Level: U. Credit Hrs: 1.00

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Health Education**18HPE272****Athletic Training Practicum III**

Application of lower extremity orthopedic evaluation techniques. Application of Level II clinical proficiencies in athletic training relating to injury recognition and management of the upper extremity, head, and cervical spine injuries to individuals involved in physical activity and sports under the direction of an approved clinical instructor. The student will complete practical experience in athletic training at an approved clinical site. Prereq: 18HPE271. BoK: NA. Credit Level: U. Credit Hrs: 1.00

18HPE273**Athletic Training Practicum IV**

Application of orthopedic evaluation techniques and management of upper and lower extremities. Application of Level II clinical proficiencies in athletic training relating to injury recognition and management of the lower extremity, pelvis, and lumbar spine injuries to individuals involved in physical activity and sports under the direction of an approved clinical instructor. The student will complete practical experience in athletic training at an approved clinical site. Prereq: 18HPE272, 18HPE278. BoK: NA. Credit Level: U. Credit Hrs: 2.00

18HPE276**First Aid and CPR Instructor**

Theory and pedagogy of teaching basic first aid and CPR. Red Cross instructor certification upon completion. BoK: NA. Credit Level: U. Credit Hrs: 3.00

18HPE278**Sports Injury Evaluation I**

The study of injury pathology and sports injury assessment, recognition, and management routines for the upper extremities, head, and cervical spine. BoK: NA. Credit Level: U. Credit Hrs: 3.00

18HPE279**Sports Injury Evaluation II**

The study of injury pathology and sports injury assessment, recognition, and management routines for the lower extremities, lumbar spine, and pelvis. Prereq: 18HPE278. BoK: NA. Credit Level: U. Credit Hrs: 3.00

18HPE309**Fitness and Health**

Overview of exercise and fitness and their relationship to health. BoK: NA. Credit Level: U. Credit Hrs: 3.00

18HPE310**Exercise Physiology**

Application of basic anatomy and physiology concepts to exercise. BoK: NS. Credit Level: U. Credit Hrs: 3.00

18HPE311**Assessment and Prescription**

Basic exercise assessment, prescription writing, and program implementation for apparently healthy individuals. BoK: NA. Credit Level: U. Credit Hrs: 3.00

18HPE312**Exercise Leadership Practicum**

Field work with experienced exercise professionals to develop skills and experience in leading exercise. BoK: NA. Credit Level: U. Credit Hrs: 1.00-3.00

18HPE313**Methods & Applications of Strength & Conditioning Programs**

A theoretical and practical approach to various methods applied in the development and implementation of activity-specific strength and conditioning programs for physically active individuals and competitive athletes. Prereq: 18HPE378. BoK: NA. Credit Level: U. Credit Hrs: 3.00

18HPE321**Chronic and Communicable Disease**

To provide an overview of the basic principles of communicable and noncommunicable diseases, with a strong focus on epidemiological indices. Emphasis will be on disease prevention and the role of health

Health Education**18HPE321****Chronic and Communicable Disease**

education. Prereq: 18HPE101, 18HPE133, 18HPE136. BoK: NA. Credit Level: U. Credit Hrs: 3.00

18HPE330**Child and Adolescent Health**

Organization and planning of community programs for health protection and health maintenance of children and adolescents. BoK: NA. Credit Level: U. Credit Hrs: 3.00

18HPE333**Health Promotion Program Planning and Development**

Provides requisite skills to conduct a community needs assessment and to plan effective health promotion programs in various settings. Develops the skills in Responsibility Areas I and II of Certified Health Education Specialists. Prereq: 18HPE548. BoK: NA. Credit Level: U. Credit Hrs: 3.00

18HPE334**Implementing and Promoting Health Programs**

Provides requisite skills to design, promote, present, and implement health promotion programs consistent with specified program goals and objectives. Develops the skills in Responsibility Area III of Certified Health Education Specialists. Prereq: 18HPE333. BoK: NA. Credit Level: U. Credit Hrs: 3.00

18HPE335**Health Care Delivery**

Organization, financing, and problems related to the health care system and the health needs of special groups. Prereq: 18HPE101. BoK: NA. Credit Level: U. Credit Hrs: 3.00

18HPE350**Service Learning in Community Health**

Experience in delivering health education services through a community agency. BoK: NA. Credit Level: U. Credit Hrs: 1.00-3.00

18HPE371**Athletic Training Practicum V**

Application of general medical, thoracic spine, abdominal, and facial evaluation techniques. Application of Level II clinical proficiencies in athletic training relating to orthopedic evaluation techniques and management of upper and lower extremities for individuals involved in physical activity and sports under the direction of an approved clinical instructor. Students will complete practical experience in athletic training at an approved clinical site. Prereq: 18HPE273, 18HPE279. BoK: NA. Credit Level: U. Credit Hrs: 1.00

18HPE372**Athletic Training Practicum VI**

Application of therapeutic modality techniques. Application of Level III clinical proficiencies in athletic training relating to the recognition, evaluation, and management of general medical illnesses and conditions, thoracic spine, abdomen, and facial injuries for those involved in physical activity and sports under the direction of an approved clinical instructor. Students will complete practical experience in athletic training at an approved clinical site. Prereq: 18HPE371, 18HPE377. BoK: NA. Credit Level: U. Credit Hrs: 1.00

18HPE373**Athletic Training Practicum VII**

Application of therapeutic rehabilitation techniques. Application of Level III clinical proficiencies in athletic training relating to implementation of therapeutic modalities for individuals involved in physical activity and sports under the direction of an approved clinical instructor. Students will complete practical experience in athletic training at an approved clinical site. Prereq: 18HPE372, 18HPE378. BoK: NA. Credit Level: U. Credit Hrs: 1.00

18HPE375**First Aid and CPR Instructor**

Theory and pedagogy of teaching basis first aid and CPR. Red Cross instructor certification upon completion. Perm of Department. BoK: NA.

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Health Education**18HPE375****First Aid and CPR Instructor**

Credit Level: U. Credit Hrs: 3.00

18HPE377**Advanced Topics in Sports Medicine**

Introduction to a core set of material as it pertains to: common medical illnesses, non-extremity injuries, and pharmacology. BoK: NA. Credit Level: U. Credit Hrs: 3.00

18HPE378**Therapeutic Modalities for Sports Injuries**

Introduction to the rationale and application of therapeutic modalities used in the profession of athletic training for physical activity and sports-related injuries. BoK: NA. Credit Level: U. Credit Hrs: 3.00

18HPE379**Rehabilitation of Sports Injuries**

Introduction to the theory and methodology of advance rehabilitation techniques for physical activity and sports injury rehabilitation. Prereq: 18HPE378. BoK: NA. Credit Level: U. Credit Hrs: 3.00

18HPE419**Internship: Health Promotion**

Internship in a health program under supervision of a professional health educator. BoK: NA. Credit Level: U. Credit Hrs: 3.00-15.00

18HPE471**Athletic Training Practicum VIII**

Evaluation of clinical skills and knowledge to prepare for the BOC Test. Application of Level III/IV proficiencies in athletic training relating to implementation of rehabilitation and strength and conditioning programs for injuries to individuals involved in physical activity and sports under the direct supervision of an approved clinical instructor. The student will complete practical experience at an approved clinical site. Prereq: 18HPE373, 18HPE379. BoK: NA. Credit Level: U. Credit Hrs: 1.00

18HPE476**Athletic Training Seminar**

A seminar concentrating on athletic training skill development for professional practice and examining current research and contemporary issues in athletic training. Application of Level III clinical proficiencies in athletic training relating to implementation of therapeutic modalities for individuals involved in physical activity and sports under the direction of an approved clinical instructor. Students will complete practical experience in athletic training at an approved clinical site. Perm of Instructor. BoK: NA. Credit Level: U. Credit Hrs: 2.00

18HPE477**Administration of Sports Medicine Programs**

Administrative components, policies, procedures, and organizational patterns in various athletic training settings. BoK: NA. Credit Level: U. Credit Hrs: 3.00

18HPE501**Lifestyle and Athletic Performance**

How to use lifestyle variables to improve athletic performance. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

18HPE507**Evaluation of Health and Fitness Programs**

Provides skills to plan and conduct evaluations of health promotion programs. Includes information on instrument development, data collection, basic data analysis, and report writing. Develops the skills in Responsibility Area IV of Certified Health Education Specialists. Prereq: 18HPE334. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

18HPE548**Health and Human Behavior**

Explores why people adopt health behaviors and how these behaviors can be altered. A major emphasis is on health behavior theory. Prereq: 18HPE101. BoK: SS. Credit Level: U, G. Credit Hrs: 3.00

Health Education**18HPE549****Human Sexuality**

Explores physical, mental, and social aspects of sexuality with major emphasis on sexuality education and the role of health education in the sexuality education process. BoK: SE. Credit Level: U, G. Credit Hrs: 3.00

18HPE550**Health Issues**

Controversial issues in health promotion will be reviewed and openly discussed. This class is a student-led class. You will have the opportunity to actively participate and mold the class discussion each and every session. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

18HPE551**Drugs and Society**

Examines drug use in American society and specific educational and community approaches to deal with the problem. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

18HPE552**Environmental Health**

Review of primary environmental health problems and their impact on individuals and society, and the role of health educators in environmental health. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

18HPE553**Minority Health Issues**

Study of health issues related to minority populations with special emphasis on their specific health needs and programs designed to meet those needs. BoK: DC. Credit Level: U, G. Credit Hrs: 3.00

18HPE554**International Health**

This class introduces the student to the primary health conditions, environmental concerns, population issues, health delivery systems, and health cultures in the regions of the world. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

18HPE555**Using Technology in Health Promotion**

The purpose of the course is to develop effective and efficient use of MS Office Tools and Web-Based resources for a variety of professional settings in the health promotion field. BoK: NA. Credit Level: G, U. Credit Hrs: 3.00

18HPE572**Independent Study**

Individual research on a health education problem for undergraduate students. May be repeated. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-3.00

18HPE601**Stress Reduction**

Examination of individual and organization sources of stress and techniques for the management and reduction of stress. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

18HPE611**Kinesiology**

Motor skills used in physical activity applied to effective movement. Prereq: 15BIOL202, 18HPE310. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

18HPE633**Aging: Program Development**

Development of program design skills for senior health and social services. Prereq: 18HPE310, 18HPE548. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

18HPE673**Workshop Health Education**

Special, unique, experimental, or topical classes that are scheduled on an as-needed basis. Consult department for current topics and prerequisites. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-12.00

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Health Education**18HPE673****Workshop Health Education**

Special, unique, experimental, or topical classes that are scheduled on an as-needed basis. Consult department for current topics and prerequisites. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-12.00

18HPE684**Health in the Middle School**

Develop a program of health instruction for middle school students. BoK: NA. Credit Level: G, U. Credit Hrs: 3.00

18HPE685**Women's Health Seminar**

A seminar introducing students to poignant physical, emotional, social, and political issues affecting women's health in today's world. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

18HPE701**Principles and Foundations of Health Promotion and Education**

Historical, theoretical, ethical, and philosophical foundations of health education, including an emphasis on roles, responsibilities, and work settings of master's level health educators. Future directions of the profession and graduate level professionals are also discussed. Credit Level: G. Credit Hrs: 3.00

18HPE702**Health Promotion Program Planning**

Requisite skills to conduct needs assessments, plan, implement, and evaluate health education programs in a variety of settings. Credit Level: G. Credit Hrs: 3.00

18HPE703**Community Organization and Mobilization**

This course will enable students to: 1) identify communities; 2) organize community members and agencies for the purpose of assessing needs, goal setting, implementing plans to address community needs, and evaluating these efforts; and 3) empower individuals within the community to take action. Credit Level: G. Credit Hrs: 3.00

18HPE704**Current Topics in Nutrition Education**

An examination of current information and trends in nutrition education for health education professionals. Credit Level: G. Credit Hrs: 3.00

18HPE731**Promoting Health Promotion Programs**

Current research in program planning and diffusions research with implications for marketing promotion. Credit Level: G. Credit Hrs: 3.00

18HPE732**Health Promotion Program Management**

Application of basic management concepts to health promotion. Credit Level: G. Credit Hrs: 3.00

18HPE751**Analysis of Health Indices**

Basic epidemiology with practical application of the principle measures of health status and epidemiology. Credit Level: G. Credit Hrs: 3.00

18HPE761**Physiology of Exercise**

Application of exercise physiology concepts to health and training. Credit Level: G. Credit Hrs: 3.00

18HPE762**Graded Exercise Testing**

ECG interpretation and principles of cardiovascular exercise testing for low- and high-risk individuals. Prereq: 18HPE761. Credit Level: G. Credit Hrs: 3.00

18HPE763**Fitness Evaluation and Exercise Prescription**

Fitness testing, writing exercise prescriptions, and implementing exercise programs for low- and high-risk individuals. Prereq: 18HPE762. Credit Level: G. Credit Hrs: 3.00

Health Education**18HPE764****Issues in Exercise Physiology**

An examination of current research trends and issues related to the field of exercise physiology. Credit Level: G. Credit Hrs: 3.00

18HPE781**Social and Behavioral Change in Public Health**

Course content will include concepts and methods of social and behavioral sciences relevant to the identification and solution of public health problems. Emphasis will be on theories and models of behavioral sciences that are used in health promotion. Credit Level: G. Credit Hrs: 4.00

18HPE782**Resource Development and Fundraising**

Techniques and skills for identifying sources of funding and developing proposals for external resources will be explored. Credit Level: G. Credit Hrs: 3.00

18HPE788**Pre-Research Seminar**

A seminar course to examine and critique current health education research with a focus on helping students to identify research topics they may be interested in studying for their theses. Credit Level: G. Credit Hrs: 1.00

18HPE789**Research Methods for the Health Sciences**

Survey of research methods and designs used in health/physical fitness/nutrition research, with a strong emphasis on thesis/dissertation proposal development. Credit Level: G. Credit Hrs: 3.00

18HPE791**Statistics for the Health Sciences**

Descriptive statistics used in biomedical and health education investigations. Credit Level: G. Credit Hrs: 3.00

18HPE802**Internship, Health Promotion, and Education**

Practical development and implementation of health programs in a community setting. Credit Level: G. Credit Hrs: 3.00-12.00

18HPE861**Health Education in Academia**

To assist doctoral-level health education students learn about the expectations of academic faculty-level positions and provide strategies for obtaining faculty positions and succeeding in academia. Credit Level: G. Credit Hrs: 2.00

18HPE862**Philosophy and Ethics of Health Education**

An exploration of philosophical and ethical issues surrounding health, health education, and health care in the United States. Case studies will be presented involving the AAHE/SOPHE Code of Ethics. Credit Level: G. Credit Hrs: 3.00

18HPE863**Health Communication**

This course provides students with an in-depth understanding of how communication and health decisions/behaviors affect each other. Health communication theory, conceptual frameworks, strategies, and practical issues related to health promotion and education professional practices are addressed. Credit Level: G. Credit Hrs: 3.00

18HPE865**Health Counseling**

An introduction to the counseling skills and theories used when working with clients in health education and health care settings. Credit Level: G. Credit Hrs: 3.00

18HPE871**Individual Study in Health**

Individual research in health. For advanced students. May be repeated. Credit Level: G. Credit Hrs: 1.00-3.00

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Health Education**18HPE872****Readings in Health**

Program of readings in research contributions in health. For advanced students. Credit Level: G. Credit Hrs: 1.00-3.00

18HPE880**Reading and Analyzing Health Education Research**

This course will enable students to critique research in health promotion and education by identifying strengths and weaknesses of research design, understanding statistical methods, proper interpretation of statistical results, and recognizing the practical significance of research. Credit Level: G. Credit Hrs: 3.00

18HPE881**Conducting Research with Vulnerable and Minority Populations**

This new course is designed to provide Health Promotion and Education PhD students with knowledge on the intricate and structured process of making research methodologies applicable and relevant when conducting studies with vulnerable populations. The course focuses on proven strategies, theories, and current practices in bridging the gap between mainstream research methodology and the needs and rights of special populations. Prereq: 18HPE789. Credit Level: G. Credit Hrs: 3.00

18HPE882**Survey Research**

Overview of effective survey research methods in health education. Topics include survey design, implementation, sampling, data collection, response rate enhancement, survey data analysis, and research ethics. Prereq: 18HPE789. Credit Level: G. Credit Hrs: 3.00

18HPE883**Measurement in Health Education**

Different measurement instruments in health education will be examined and critiqued. A major focus will be given to the skills necessary to develop new measurement instruments. A context of program evaluation will be utilized. Credit Level: G. Credit Hrs: 3.00

18HPE890**Writing for Publication I**

This course will help students learn about the publishing process and prepare a first draft of an article based on their thesis research. Topics will include the publishing process, selecting a journal, and following publication guidelines. Prereq: 18HPE891. Credit Level: G. Credit Hrs: 1.00

18HPE891**Master's Thesis - Health Promotion and Education**

Research supervised by departmental committee. Credit Level: G. Credit Hrs: 9.00

18HPE892**Master's Project -- Health Promotion and Education**

Independent or group study on an approved topic with practical application to health education. Credit Level: G. Credit Hrs: 3.00-6.00

18HPE990**Writing for Publication II**

This course will help students learn about the publishing process and prepare a first draft of an article based on their dissertation research. Topics will include the publishing process, selecting a journal, and following publication guidelines. Prereq: 18HPE991. Credit Level: G. Credit Hrs: 1.00

18HPE991**Dissertation Research in Health Education**

Directed doctoral-level research leading to the completion of the dissertation. Credit Level: G. Credit Hrs: 1.00-15.00

18HPE992**Advanced Doctoral Research Seminar I**

This course is designed to help advanced doctoral students understand the dissertation process and how to explore potential research topics for their dissertations. Prereq: 18HPE991. Credit Level: G. Credit Hrs: 1.00

Health Education**18HPE993****Advanced Doctoral Research Seminar II**

This course is designed to help advanced doctoral students prepare their dissertation proposal and prepare for a formal proposal hearing. Prereq: 18HPE992. Credit Level: G. Credit Hrs: 1.00

18HPE994**Advanced Doctoral Research Seminar III**

This course is designed to help advanced doctoral students analyze, report, and discuss the findings of their research. Prereq: 18HPE993. Credit Level: G. Credit Hrs: 1.00

Interdisciplinary**18INTR301****SIFE Internship (Students in Free Enterprise)**

This experiential internship emphasizes leadership, communication, and teamwork, and provides students with insight into the workings of a market economy. The supervised work experience must be approved by the SIFE faculty coordinator and must include a minimum of 90 supervised hours of work. The supervisor is required to submit an evaluation of the student's performance. This experience is limited to students enrolled in the AGS Students In Free Enterprise (SIFE) program. Prereq: 15ENGL103. BoK: NA. Credit Level: U. Credit Hrs: 3.00

18INTR302**SIFE Internship (Students in Free Enterprise)**

This experiential internship emphasizes leadership, communication, and teamwork, and provides students with insight into the workings of a market economy. The supervised work experience must be approved by the SIFE faculty coordinator and must include a minimum of 90 supervised hours of work. The supervisor is required to submit an evaluation of the student's performance. This experience is limited to students enrolled in the AGS Students In Free Enterprise (SIFE) program. Prereq: 18INTR301. BoK: NA. Credit Level: U. Credit Hrs: 3.00

18INTR303**SIFE Internship (Students in Free Enterprise)**

This experiential internship emphasizes leadership, communication, and teamwork, and provides students with insight into the workings of a market economy. The supervised work experience must be approved by the SIFE faculty coordinator and must include a minimum of 90 supervised hours of work. The supervisor is required to submit an evaluation of the student's performance. This experience is limited to students enrolled in the AGS Students In Free Enterprise (SIFE) program. Prereq: 18INTR302. BoK: NA. Credit Level: U. Credit Hrs: 3.00

18INTR397H**History & Controversy: The Social Uses of the Past**

Application of perspectives on the social uses of history to current texts, events, and controversies. BoK: NA. Credit Level: U. Credit Hrs: 3.00

18INTR401**SIFE Internship (Students in Free Enterprise)**

This experiential internship emphasizes leadership, communication, and teamwork, and provides students with insight into the workings of a market economy. The supervised work experience must be approved by the SIFE faculty coordinator and must include a minimum of 90 supervised hours of work. The supervisor is required to submit an evaluation of the student's performance. This experience is limited to students enrolled in the AGS Students In Free Enterprise (SIFE) program. Prereq: 18INTR303. BoK: NA. Credit Level: U. Credit Hrs: 3.00

18INTR402**SIFE Internship (Students in Free Enterprise)**

This experiential internship emphasizes leadership, communication, and teamwork, and provides students with insight into the workings of a market economy. The supervised work experience must be approved by the SIFE faculty coordinator and must include a minimum of 90

Interdisciplinary**18INTR402****SIFE Internship (Students in Free Enterprise)**

supervised hours of work. The supervisor is required to submit an evaluation of the student's performance. This experience is limited to students enrolled in the AGS Students In Free Enterprise (SIFE) program. Prereq: 18INTR401. BoK: NA. Credit Level: U. Credit Hrs: 3.00

18INTR403**SIFE Internship (Students in Free Enterprise)**

This experiential internship emphasizes leadership, communication, and teamwork, and provides students with insight into the workings of a market economy. The supervised work experience must be approved by the SIFE faculty coordinator and must include a minimum of 90 supervised hours of work. The supervisor is required to submit an evaluation of the student's performance. This experience is limited to students enrolled in the AGS Students In Free Enterprise (SIFE) program. Prereq: 18INTR402. BoK: NA. Credit Level: U. Credit Hrs: 3.00

18INTR561**Interdisciplinary Capstone Seminar I**

An interdisciplinary course built around a timely theme. Student is asked to write several short papers on topics related to the course theme and/or to his/her completion of the baccalaureate degree. The theme is explored through reading and group discussions. This course must be followed by 18INTR562. BoK: NA. Credit Level: U. Credit Hrs: 3.00

18INTR562**Interdisciplinary Capstone Seminar II**

A continuation of 18INTR561. The primary objective is to complete and present a senior paper and/or project related to both the theme covered in 18INTR561 and to the student's major area of study. Prereq: 18INTR561. BoK: NA. Credit Level: U. Credit Hrs: 3.00

18INTR601**Student Support Services I: Early Childhood Education**

This course will familiarize Interns with concepts and practices associated with support services related to learning, social, and health needs of all students. Information about and experience with intervention-based problem solving, in the context of Internship teaching and with their work with other professionals, are provided. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

18INTR602**Student Support Services II: Early Childhood Education**

This course will familiarize Interns with concepts and practices associated with support services related to learning, social, and health needs of all students. Information about and experience with intervention-based problem solving, in the context of Internship teaching and with their work with other professionals, are provided. BoK: NA. Credit Level: U, G. Credit Hrs: 2.00

18INTR604**Student Support Services I: Elementary**

This course will familiarize Interns with concepts and practices associated with support services related to learning, social, and health needs of all students. Information about and experience with intervention-based problem solving, in the context of Internship teaching and with their work with other professionals, are provided. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

18INTR605**Student Support Services II: Elementary**

This course will familiarize Interns with concepts and practices associated with support services related to learning, social, and health needs of all students. Information about and experience with intervention-based problem solving, in the context of Internship teaching and with their work with other professionals, are provided. BoK: NA. Credit Level: U, G. Credit Hrs: 2.00

Interdisciplinary**18INTR607****Student Support Services I: Secondary**

This course will familiarize Interns with concepts and practices associated with support services related to learning, social, and health needs of all students. Provides information about and experience with intervention-based problem solving, in the context of Internship teaching and collaboration with other professionals. BoK: NA. Credit Level: U, G. Credit Hrs: 2.00

18INTR608**Student Support Services II: Secondary**

This course will familiarize Interns with concepts and practices associated with support services related to learning, social, and health needs of all students. Information about and experience with intervention-based problem solving, in the context of Internship teaching and with their work with other professionals, are provided. BoK: NA. Credit Level: U, G. Credit Hrs: 2.00

18INTR611**Human Learning Seminar: Early Childhood Education**

A coordinated seminar to provide a conceptual framework for understanding individual learners both inside and outside the classroom. BoK: SS. Credit Level: U, G. Credit Hrs: 2.00

18INTR613**Assessment and Evaluation Seminar: Early Childhood Education**

A coordinated seminar designed to prepare Teacher Education students to understand and develop skills in the assessment and evaluation of teaching processes and learning outcomes. This coordinated seminar is taught during the professional practice school teaching Internship. BoK: SS. Credit Level: U, G. Credit Hrs: 2.00

18INTR615**Language and Communication Seminar**

A coordinated seminar focusing on the study of language learning, including factors influencing development and use. Interpersonal communication, literacy learning, and classroom interaction are emphasized. BoK: NA. Credit Level: U, G. Credit Hrs: 2.00

18INTR621**Human Learning Seminar**

See 18INTR611. BoK: SS. Credit Level: U, G. Credit Hrs: 2.00

18INTR622**Individual Diversity Seminar**

Seminar on diversity. BoK: SE. Credit Level: U, G. Credit Hrs: 2.00

18INTR623**Assessment and Evaluation Seminar: Elementary**

See 18INTR613. BoK: SS. Credit Level: U, G. Credit Hrs: 2.00

18INTR625**Language and Communication Seminar**

See 18INTR615. BoK: NA. Credit Level: U, G. Credit Hrs: 2.00

18INTR626**Social Inequalities and Schooling: Elementary Education**

Course studies social inequalities in the policies and practices of education using historical and contemporary perspectives. BoK: SE. Credit Level: U, G. Credit Hrs: 2.00

18INTR631**Human Learning Seminar: Secondary**

A coordinated seminar that has five basic themes related to how learning occurs. Examines relationships between learning theory and instructional practices. BoK: SS. Credit Level: U, G. Credit Hrs: 2.00

18INTR633**Assessment and Evaluation Seminar**

This course addresses the measurement and evaluation aspects of teaching. It emphasizes multiple ways of assessing learning and a variety of information sources for decision making and congruence of assessment goals and methods. Coreq: 18SEC520. BoK: SS. Credit

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Interdisciplinary

18INTR633

Assessment and Evaluation Seminar

Level: U, G. Credit Hrs: 2.00

18INTR634

Individual Development: Secondary

This course concentrates on the developmental aspects of the adolescent and on important social influences and encourages students to explore and identify their own values and attitudes toward adolescence. BoK: NA. Credit Level: U, G. Credit Hrs: 2.00

18INTR636

Social Inequalities and Schooling: Secondary

Examines the relationship between social class, racial/ethnic background, and performance in the educational system. It supports and builds on PPS internship instructional tasks and responsibilities. BoK: SE. Credit Level: U, G. Credit Hrs: 2.00

Legal Assisting Technology

18LGTN180

Introduction to Paralegal Profession

Overview of the training and purpose of paralegals. Roles of lawyer, law clerk, legal secretary, and paralegal in law firms, commercial enterprises, institutions, and agencies. Examines legal and paralegal ethics and unauthorized practice of law problems related to the lawyering function; interviewing and oral advocacy. BoK: SE. Credit Level: U. Credit Hrs: 3.00

18LGTN241

Estates and Probate

Study of the status of descent and distribution as well as administration of a decedent estate. Probate court administration of estates and drafting of wills. BoK: NA. Credit Level: U. Credit Hrs: 3.00

18LGTN251

Domestic Relations I

Introduces students to basic principles of domestic relations matters including the history of marriage, rights and obligations arising from a marital relationship, premarital agreements, annulment, marriage, divorce, and dissolution. Students will analyze statutes and apply to factual situations. This will include the determination of child support and spousal support awards, valuation of property, property division and settlement. Students will prepare forms and documents associated with domestic law issues and examine the domestic relations court. BoK: SS. Credit Level: U. Credit Hrs: 3.00

18LGTN252

Domestic Relations II

Related domestic relations matters including juvenile problems, custody of minor children, adoption procedures, and guardianship. Focuses on the protection of minor children in legal proceedings. BoK: NA. Credit Level: U. Credit Hrs: 3.00

18LGTN256

Litigation I

Federal and Ohio rules of civil procedure. Examination of court structure, venue, jurisdiction, and service of process. BoK: NA. Credit Level: U. Credit Hrs: 3.00

18LGTN257

Litigation II

Draft pleadings and motions, responses, and memoranda in support or opposition, discovery documents, orders, decrees, and other documents relevant to a civil proceeding. Practical application of the skills and procedures learned in Litigation I. Prereq: 18LGTN256. BoK: NA. Credit Level: U. Credit Hrs: 3.00

18LGTN258

Litigation III

Practical applications of the skills and procedures learned in Litigation I, II. Focus on trials. Prereq: 18LGTN257. BoK: NA. Credit Level: U. Credit Hrs: 3.00

College of Education, Criminal Justice, and Human Services

Legal Assisting Technology

18LGTN260

Basic Legal Principles

Processes of legal reasoning through studying four substantive areas of law affecting business: criminal law, contracts, real property, torts. Uses the case analysis approach to learning the law. BoK: NA. Credit Level: U. Credit Hrs: 3.00

18LGTN261

Legal Research I

Provides the student with an understanding of the law library as well as the use, organization, and interrelationships of the various legal research tools. Skill in researching various legal problems is provided. Prereq: 18LGTN260. BoK: NA. Credit Level: U. Credit Hrs: 3.00

18LGTN262

Legal Research II

Clear, concise legal writing style is developed. Students apply basic research skills learned in Legal Research I. Drafting of legal memorandums and legal briefs is emphasized. Students will learn to draft letters, opinions, and other legal documents. Prereq: 18LGTN261. BoK: NA. Credit Level: U. Credit Hrs: 3.00

18LGTN270

Tax Law for Paralegals

Theory and practice of local, state, and federal income taxation; does not include corporate income tax. BoK: NA. Credit Level: U. Credit Hrs: 3.00

18LGTN271

Bankruptcy and Debt Collection

The study of consumer bankruptcy and legal procedures for the collection of debt and judgments. BoK: NA. Credit Level: U. Credit Hrs: 3.00

18LGTN272

Administrative Litigation

Prepares the paralegal to advise and represent clients as permitted by the various state and federal administrative agencies. Preparation of documents, preparation of clients and witnesses, as well as oral advocacy before these agencies. Actual simulation with administrative hearing. BoK: NA. Credit Level: U. Credit Hrs: 3.00

18LGTN275

Corporate Law and Business Organizations

Various forms of business entities designed to acquaint the student with their formal structure, processes, and operations. BoK: NA. Credit Level: U. Credit Hrs: 3.00

18LGTN280

Real Estate for Paralegals

In-depth study of the law governing real property, including real estate transactions and conveyances such as deeds, contracts, leases, etc. Emphasizes problems encountered in drafting these conveyances. BoK: SS. Credit Level: U. Credit Hrs: 3.00

18LGTN290

Paralegal Practicum

The student will gain practical supervised experience as a paralegal prior to seeking employment in law or law-related offices. BoK: NA. Credit Level: U. Credit Hrs: 3.00

18LGTN301

Computer Applications for Paralegals

Introduction to computer technology and its application within the law firm, including the use of computers related to paralegal functions in litigation support, legal research, and case management applications. BoK: NA. Credit Level: U. Credit Hrs: 3.00

18LGTN321

Interviewing and Investigation for Paralegals

In-depth study of principles, methods, and investigative techniques utilized to locate, gather, document, and disseminate information. Emphasis on developing interviewing and investigating skills which prepare paralegals to communicate effectively while recognizing ethical

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Legal Assisting Technology**18LGTN321****Interviewing and Investigation for Paralegals**

problems. BoK: NA. Credit Level: U. Credit Hrs: 3.00

18LGTN401**Advanced Legal Research and Writing**

Improve practical legal research/writing skills learned in Legal Research I & II. Develop ability to put into written form results derived from identification/analysis of legal issues. Enhance word processing skills to facilitate production of a legal document, pleading, memorandum of law, or brief. BoK: NA. Credit Level: U. Credit Hrs: 3.00

18LGTN402**Trademarks, Patents and Copyrights**

This course will focus on statutory and common law rights dealing with intellectual property. This includes trademarks, which exist to identify and to distinguish products and services in the marketplace; copyrights, namely rights in literary, artistic, musical, dramatic, and sound and movie recordings and patents; exclusive rights granted to inventors. BoK: NA. Credit Level: U. Credit Hrs: 3.00

18LGTN410**Introduction to Law Practice Management**

This course will introduce students to the management of law firms and the unique challenges they face because of the roles nonlawyers have in an organization of professionals. It will discuss the structures within the firm and about working with people who fill those structures. BoK: NA. Credit Level: U. Credit Hrs: 3.00

18LGTN419**Alternate Dispute Resolution**

Provides a description and overview of dispute resolution mechanisms, including litigation, voluntary arbitration, negotiation, and mediation. Introduces student to the basic skills needed to begin to mediate with parties in conflict. BoK: NA. Credit Level: U. Credit Hrs: 3.00

18LGTN421**Legal Ethics and Professional Responsibility**

This course will introduce students to the types of ethical dilemmas that they will face once in the work force, and to methods for researching the answers to ethical dilemmas. BoK: NA. Credit Level: U. Credit Hrs: 3.00

18LGTN471**Advanced Paralegal Seminar**

This is an advanced paralegal course to challenge the student to integrate knowledge of theoretical concepts and practical application of legal research, litigation, property, torts, and business law through case analysis and the completion of writing assignments. BoK: NA. Credit Level: U. Credit Hrs: 3.00

Literacy**18LTCY500****Phonics in Context**

This course is designed to provide research-based and historical/cultural information about the teaching and learning of phonetics, phonics, word study, and spelling in relation to developing learners and a total reading program. BoK: NA. Credit Level: U, G. Credit Hrs: 5.00

18LTCY673**Phonetics and L2 Education**

This course is an analysis of the sound system of English for diagnosis and instruction of pronunciation problems for ESL students. The main goal of the course is to equip participants with appropriate phonological knowledge to understand better the characteristic interference and transfer difficulties that ESL/EFL students bring to the second language learning context. Perm of Instructor. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

18LTCY674**Grammar and L2 Education**

Analysis of the linguistic systems that constitute the English language and pedagogical applications of that analysis. BoK: NA. Credit Level: U,

Literacy**18LTCY674****Grammar and L2 Education**

G. Credit Hrs: 3.00

18LTCY701**Research in Second Language Acquisition**

Application of social science contemporary research methods to the scientific study of the second language learning process, foreign language, and bilingualism. Credit Level: G. Credit Hrs: 3.00

18LTCY720**Theory Into Practice: Models of Literacy**

Course studies the cultural and psychological bases of literacy. Stressing a process approach to literacy rooted in the social milieu of classrooms, the course applies theories to instruction. Credit Level: G. Credit Hrs: 3.00

18LTCY727**Poetry for Children and Young Adults**

Poetry is one of the most flexible genres available for use in classrooms as it can integrate content areas, be a model for writing, or simply enjoyed. Emphasis in this course is on gaining insight into the practical uses of poetry as well as writing it. Credit Level: G. Credit Hrs: 3.00

18LTCY728**Prose for Children and Young Adults**

Fiction and non-fiction books motivate most students to read more than assigned textbooks. Reading some of the best books, sharing teaching ideas, and finding out about award-winning authors is the focus of this course. Credit Level: G. Credit Hrs: 3.00

18LTCY730**Discourse Analysis**

A guide to the understanding of natural language acquisition and ways in which language can be examined and conveyed to learners. Credit Level: G. Credit Hrs: 4.00

18LTCY731**Adult/International Practicum**

Provides student teachers with the opportunity to put into practice their ideas about effective language teaching and learning within the context of an overseas teaching site. Credit Level: G. Credit Hrs: 1.00-15.00

18LTCY751**Making Meaning from Text**

Examines the various systems that readers and writers use to make meaning from text and how they orchestrate and integrate the various language systems. Also examines current methods for literacy instruction. Credit Level: G. Credit Hrs: 3.00

18LTCY755**Assessing and Supporting Literacy Skills and Development**

This course examines a wide range of assessment instruments and instructional methods to support the literacy development of K-12 struggling learners. The course stresses the application and interpretation of assessment tools and instruction within the context of individual differences and individual development. Also includes study in methods of communicating results to a wide variety of audiences. Prereq: 18LTCY720. Credit Level: G. Credit Hrs: 3.00

18LTCY756**Remedial Reading: Remedial Techniques**

Continued study of the theory and techniques of evidence-based diagnosis and remediation. Principles and activities of diagnosis and assessment of literacy difficulties. Examines procedures and materials for teaching students with literacy difficulties. Continued professional development of the reading specialist. Prereq: 18LTCY755, 18LTCY757. Credit Level: G. Credit Hrs: 3.00

18LTCY757**Literacy Practicum**

This Practicum course has multiple themes: (a) reflective teaching and assessment, (b) teaching and learning with culturally and language diverse students, and (c) tutoring. Perm of Instructor. Credit Level: G.

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Literacy**18LTCY757****Literacy Practicum**

Credit Hrs: 3.00

18LTCY758**Literacy Practicum II**

This practicum builds on the first with further evidence-based techniques and research that address multiple themes: (a) reflective teaching and assessment, (b) teaching and learning with culturally and language diverse students, (c) practice-based tutoring, and (d) professional development of the reading specialist. Perm of Instructor. Credit Level: G. Credit Hrs: 3.00

18LTCY771**Literacy as a Cultural and Linguistic Tool**

Analysis of the social, community, and cultural influences on literacy and literacy learners. Focuses on creating socially and culturally responsive classroom practices. Examines issues of second language learning in the content of the regular literacy program. Credit Level: G. Credit Hrs: 3.00

18LTCY772**Topical Seminar in Reading**

In-depth analysis of selected topics in literacy. May be adapted to meet the needs of particular school faculties. Perm of Instructor. Credit Level: G. Credit Hrs: 3.00

18LTCY773**Linking Reading and Writing in Classroom Instruction**

An exploration of reading and writing relationships with an emphasis on practical teaching strategies for classroom use, grades K-12. Credit Level: G. Credit Hrs: 3.00

18LTCY774**Teaching Literature of Ethnic-American Populations K-12**

Explores the wealth of literature written by ethnic-American writers (African-American, American Indian, Asian-American, and Hispanic-American) often excluded from anthologies. Pedagogical implications are explored. Credit Level: G. Credit Hrs: 3.00

18LTCY775**L2 Acquisition Theory**

Theories of second language acquisition and their implications for development of ESL teaching methods. Credit Level: G. Credit Hrs: 3.00

18LTCY776**PreK-12 TESL Methods I: Principles and Procedures**

Methods and techniques of teaching ESL in a variety of contexts. Prereq: 18LTCY775. Credit Level: G. Credit Hrs: 3.00

18LTCY777**PreK-12 TESL Methods II: Materials, Design and Development**

Methods, curriculum, and materials development for ESL; techniques for testing and evaluation. Prereq: 18LTCY776. Credit Level: G. Credit Hrs: 3.00

18LTCY778**PreK-12 Teaching English as a Second Language Practicum**

Supervised practice in teaching ESL. Prereq: 18LTCY777. Credit Level: G. Credit Hrs: 1.00-15.00

18LTCY779**Sociolinguistics and L2 Education**

An overview of sociolinguistic factors affecting second language variation and acquisition: societal and individual influences on language choice, use, maintenance, and change. It examines some major topics such as variation of language, language attitudes and motivations, language policies and implications for TESL, and some of the major research methods in sociolinguistics. This course takes an ecological perspective to language teaching and learning. It encourages students to explore activities and communities of practice as units of analyses in their research. Credit Level: G. Credit Hrs: 3.00

Literacy**18LTCY780P****Theories of Second Language Acquisition**

Course deals with theories of second language acquisition and their implications for development of ESL teaching methods and instructional strategies in relation to pre-K-12 culturally and linguistically diverse students. Linguistic, cognitive, affective, and social factors represented by most important second language theories will be discussed in relation to instructional applications. Credit Level: G. Credit Hrs: 3.00

18LTCY781P**Teaching Reading and Writing in ESL**

This course is designed to provide conceptual and educationally applied understanding of effective ESL pedagogical principles and strategies for teaching reading and writing and the implementation of methodology and reading and writing curriculum planning for pre-K-12 students. Credit Level: G. Credit Hrs: 3.00

18LTCY782P**ESL Teaching Methods I**

Teaching English as a Second Language Methods I is the first of two methods courses in the TESOL Endorsement program. Credit Level: G. Credit Hrs: 3.00

18LTCY783P**ESL Phonetics**

This online course provides students with appropriate phonological knowledge to better understand the characteristic transfer difficulties that ESL/EFL students bring to the second language learning context. Credit Level: G. Credit Hrs: 3.00

18LTCY784P**ESL Teaching Methods II**

Teaching English as a Second Language Methods II is the second of two methods courses in the TESOL Endorsement program. It is generally taught online. Coreq: 18LTCY780P, 18LTCY782P. Credit Level: G. Credit Hrs: 3.00

18LTCY785P**Sociolinguistics for TESL**

This course examines the sociolinguistics that influence students who are learning in an English as a Second Language environment. Part of the TESL Endorsement course sequence. Taught online. Credit Level: G. Credit Hrs: 3.00

18LTCY786P**Practicum in Teaching as a Second Language (P-12)**

This online course guides the practicum experience as the culminating experience in the course sequence for TESL Endorsement. The online portion accompanies an on-site classroom ESL experience guided by a mentoring, experienced ESL teacher. Prereq: 18LTCY780P, 18LTCY782P, 18LTCY784P. Credit Level: G. Credit Hrs: 3.00

18LTCY787P**Grammar for Teaching English as a Second Language**

This course is online and part of the TESOL Endorsement sequence. It covers the various grammatical concepts necessary for successful TESL curriculum. Credit Level: G. Credit Hrs: 3.00

18LTCY800**Lifelong Literacy Learning and Professional Development**

This course studies professional development in teachers and other literacy professionals. The course examines classroom inquiry, teacher collaboratives, and professional networks as vehicles for improving practice and creating professional communities, as well as models of best practice and their impact on teachers and student learning. Credit Level: G. Credit Hrs: 3.00

18LTCY801P**Foundations of Postsecondary Literacy Instruction**

This course critically examines readings and research in adult literacy, developmental education, and basic adult education from a historical, political, and cultural perspective. This is a professional graduate course offered by the Graduate Program in Literacy in the College of Education, Criminal Justice, and Human Services. Credit Level: G.

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Literacy

18LTCY801P

Foundations of Postsecondary Literacy Instruction

Credit Hrs: 3.00

18LTCY802P

Methods of Postsecondary Literacy Instruction: Focus on Reading

This course is designed to analyze, demonstrate, and practice methods of teaching adult literacy from an empowerment perspective. (P = College of Education, Criminal Justice and Human Services professional course. LTCY indicates a graduate teacher education course offered by the Graduate Program in Literacy.) Credit Level: G. Credit Hrs: 3.00

18LTCY803P

Practicum in Postsecondary Literacy Instruction

This course is designed to provide an opportunity for students to integrate practice with the theory and skills developed in the Pedagogy in Adult Literacy course. This is a professional graduate course offered by the Graduate Program in Literacy in the College of Education, Criminal Justice, and Human Services. Prereq: 18LTCY802P. Credit Level: G. Credit Hrs: 3.00

18LTCY804

PreK-12 Teaching English as a Second Language Assessment, Evaluation and Testing

Application of contemporary research to methodologies and measures for accurately assessing and linking assessment and instruction in pre-K-12 graders, adults, and international college students learning ESL. Credit Level: G. Credit Hrs: 3.00

18LTCY805P

Reading and Writing Processes at the Postsecondary Level

Examines various theories of reading and writing processes as they pertain to postsecondary literacy instruction. This is a professional graduate course offered by the Graduate Program in Literacy in the College of Education, Criminal Justice, and Human Services. Credit Level: G. Credit Hrs: 3.00

18LTCY806P

Methods of Postsecondary Literacy Instruction: Focus on Writing

Methods and techniques of literacy instruction at the postsecondary level with a focus on teaching writing. This is a professional graduate course offered by the Graduate Program in Literacy in the College of Education, Criminal Justice, and Human Services. Credit Level: G. Credit Hrs: 3.00

18LTCY807P

Projects in Postsecondary Literacy Instruction

Intensive focus on a variety of issues in postsecondary literacy instruction. This is a professional graduate course offered by the Graduate Program in Literacy in the College of Education, Criminal Justice, and Human Services. Credit Level: G. Credit Hrs: 3.00-6.00

18LTCY808P

Postsecondary ESL Literacy

This course addresses issues in English as a Second Language literacy instruction at the postsecondary level. This is a professional graduate course offered by the Graduate Program in Literacy in the College of Education, Criminal Justice, and Human Services. Credit Level: G. Credit Hrs: 3.00

18LTCY809P

Postsecondary Literacy: Second Language and Society

The course focuses on issues of dialect, culture, and society through the lens of postsecondary literacy instruction. This is a professional graduate course offered by the Graduate Program in Literacy in the College of Education, Criminal Justice, and Human Services. Credit Level: G. Credit Hrs: 3.00

Literacy

18LTCY850

Miscue Analysis

Study of miscue analysis procedures and research; application of miscue analysis for reading assessment and instruction; exploration of reading as a constructive and transactive process of meaning making. Credit Level: G. Credit Hrs: 3.00

18LTCY865

Content-based L2 Education: Theory, Research, and Practice

This course is designed for people interested in teaching English as a Second Language (TESL) and people who have English as a Second Language (ESL) students in their regular classes in K-12 and adult contexts. Students will learn theories, research, and strategies for teaching English language and subject-matter content simultaneously. Credit Level: G. Credit Hrs: 3.00

18LTCY867

Bilingual Education: Theory, Research, and Practice

This course focuses on the philosophical, theoretical, and educational applied modes of cognitive and language development that use bilingual education as a method of instruction. Credit Level: G. Credit Hrs: 3.00

18LTCY868

Teaching and Assessing College English as a Second Language: Reading and Writing

This course will present and combine current theories and approaches to ESL reading and writing. Multiple perspectives address issues relevant to researchers, teacher educators, in-service ESL educators, curriculum designers, program administrators, and mainstream composition and reading teachers. Credit Level: G. Credit Hrs: 3.00

18LTCY869

Teaching and Assessing College English as a Second Language: Oral

The course covers major issues related to oral communication in North American classroom, campus, and social contexts. Students will have opportunities to read and discuss recent works of representative scholars and current trends and issues, as well as theory and research, and explore best practices in teaching college ESL. Perm of Instructor. Credit Level: G. Credit Hrs: 3.00

18LTCY870

Research in Computer Assisted Language Learning

This course is a review and discussion of the history of Computer Assisted Second Language Acquisition (CASLA), the context and challenge for CASLA and CALL, and principles and procedures of CALL evaluation and assessment. Other topics include CALL research, CASLA design and application, and the future of CASLA. Credit Level: G. Credit Hrs: 3.00

18LTCY871

Individual Study in Literacy

Designed to provide advanced graduate students opportunities for individual, in-depth analysis of topics not fully addressed in the courses currently offered in the graduate program. Credit Level: G. Credit Hrs: 1.00-6.00

18LTCY872

Readings in Literacy

Designed to provide advanced graduate students opportunities for further in-depth study of and extensive reading in selected topics in the field of literacy. Credit Level: G. Credit Hrs: 1.00-6.00

18LTCY873

Individual Master's Thesis: Literacy

Research and writing on an approved topic. In lieu of comprehensive examination. Credit Level: G. Credit Hrs: 1.00-9.00

18LTCY874

Individual Master's Project: Literacy

Writings on an approved topic which culminates in a product that can be used by professionals in the field of literacy. In lieu of comprehensive examination. Credit Level: G. Credit Hrs: 1.00-6.00

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Literacy

18LTCY874

Individual Master's Project: Literacy

Writings on an approved topic which culminates in a product that can be used by professionals in the field of literacy. In lieu of comprehensive examination. Credit Level: G. Credit Hrs: 1.00-6.00

18LTCY875

Professional Portfolio: Literacy

A portfolio of the candidate's work that provides evidence she/he has met the International Reading Association's Standards for Reading Professionals. In lieu of comprehensive examination. Credit Level: G. Credit Hrs: 1.00-3.00

18LTCY878

Seminar: Survey of Research in Reading

Critical appraisal and discussion of classical and current studies in the research and teaching of reading. Credit Level: G. Credit Hrs: 3.00

18LTCY879

Seminar: Current Issues in Literacy

Investigation and analysis of current approaches, materials, issues, and problems in the process of acquiring literate behavior. Credit Level: G. Credit Hrs: 3.00

18LTCY880

Principles of Organizing a Literacy Curriculum

Planning, implementing, and supervising literacy programs. Credit Level: G. Credit Hrs: 3.00

18LTCY881

Seminar: Research on Writing Instruction

Explores two major themes: (1) historical and current research on writing development and the teaching of writing, and (2) current approaches to writing instruction in K-12 classrooms. Credit Level: G. Credit Hrs: 3.00

18LTCY882

Language and Emergent Literacy

Examines research on young children's reading and writing development from several disciplinary perspectives (e.g., psychology, linguistics, education); explicates significant implications for pre-K-2 literacy instruction. Credit Level: G. Credit Hrs: 3.00

18LTCY901

Frameworks for Literacy Research

Analysis of current theoretical frameworks for literacy research; exploration of links between theoretical frameworks for research and literacy practices in communities and schools. Credit Level: G. Credit Hrs: 3.00

18LTCY902

Guided Literacy Research I

Application of frameworks for literacy research to literacy research in social settings; analysis of methods for gathering and analyzing language and literacy data; explorations of genres of literacy research writing. Credit Level: G. Credit Hrs: 3.00

18LTCY903

Guided Literacy Research II

Further application of frameworks for literacy research to literacy research in social settings; continued analysis of methods for gathering and analyzing language and literacy data; exploration of genres of literacy research writing. Credit Level: G. Credit Hrs: 3.00

18LTCY910

Foundations of Research in SLA

This course, the first of a three-course doctoral sequence, examines the historical trends, theoretical frames, and research traditions undergirding research in SLA. We also explore qualitative and quantitative research paradigms, review research studies in SLA, and initiate a pre-dissertation research experience. Credit Level: G. Credit Hrs: 4.00

Literacy

18LTCY911

Advanced Study of Research in SLA

This course, the second in a three-course doctoral sequence, examines the political, social, and philosophical issues which affect our field, particularly in relation to bilingualism, language planning, and language policy. Credit Level: G. Credit Hrs: 4.00

18LTCY912

Focused Research in SLA

This course, the third of a three-course doctoral sequence, examines the issue of power, language, culture, and identity. Participants will explore these issues within the framework of their own research. Credit Level: G. Credit Hrs: 4.00

18LTCY921

Mentored Research in Literacy I

Apprenticeship experience in the design and conduct of literacy research. Credit Level: G. Credit Hrs: 3.00

18LTCY922

Mentored Research in Literacy II

Apprenticeship experience emphasizing data collection and analysis in the conduct of literacy research. Prereq: 18LTCY921. Credit Level: G. Credit Hrs: 3.00

18LTCY923

Mentored Research in Literacy III

Apprenticeship experience emphasizing data analysis and reporting the results of literacy research. Credit Level: G. Credit Hrs: 3.00

18LTCY930

Advanced Seminar in Literacy I

Selective topics seminar at the doctoral level. Topics may vary by instructor and quarter. In general, topics related to literacy and TESL. Credit Level: G. Credit Hrs: 3.00

18LTCY931

Advanced Seminar in Literacy II

Selective topics seminar at the doctoral level. Topics may vary by instructor and quarter. In general, topics related to literacy and TESL. Credit Level: G. Credit Hrs: 3.00

18LTCY932

Advanced Seminar in Literacy III

Selective topics seminar at the doctoral level. Topics may vary by instructor and quarter. In general, topics related to literacy and TESL. Credit Level: G. Credit Hrs: 3.00

18LTCY953

Professional Seminar in Teacher Education III: Language and Social Practices

Seminar examining how language practices shape knowledge and identity in educational settings. Credit Level: G. Credit Hrs: 3.00

18LTCY973

Individual Dissertation Guidance: Literacy

Doctoral candidate confers with major adviser and dissertation committee. Required in doctoral program. Credit Level: G. Credit Hrs: 1.00-15.00

Middle Childhood Education

18MDL201

Introductory Field Experience

Interactions in schools and/or with young people appropriate to the grade level license; reflective seminar to discuss these experiences. BoK: NA. Credit Level: U. Credit Hrs: 1.00

18MDL213

Instructional Technology: Middle School

Students will develop a set of skills and a knowledge base around the use of instructional technologies in the classroom, enabling them "to activate the learning environment through the use of technology" and to begin the development of their digital portfolio. BoK: NA. Credit Level: U. Credit Hrs: 3.00

H=University Honors course.

BoK (Breadth of Knowledge) Coding. DC: Diversity & Culture. EC: English composition. FA: Fine Arts. HP: Historical Perspectives. HU: Humanities. LT: Literature. NS: Natural Sciences. QR: Quantitative Reasoning. SE: Social & Ethical Issues. SS: Social Sciences.

Middle Childhood Education**18MDL325****Geometry and Measurement for Middle School Teachers**

This course focuses on the teaching of geometry and measurement.

Coreq: 15MATH305. BoK: NA. Credit Level: U. Credit Hrs: 3.00

18MDL500**Phonics in Middle School**

This course is designed to provide research-based and historical/cultural information about the teaching and learning of phonetics, phonics, word study, and spelling in relation to developing learners and a total reading program. BoK: NA. Credit Level: U, G. Credit Hrs: 5.00

18MDL501**Opening School Experience - Teaching Associate in Middle School**

Participation in a middle school professional practice school classroom from the opening day of the public schools until the first day of UC's autumn quarter. BoK: NA. Credit Level: U, G. Credit Hrs: 2.00

18MDL502**Field Experience I Middle School**

Practicum experience in a middle school classroom. Prereq: 18MDL521, 18MDL525. BoK: NA. Credit Level: U, G. Credit Hrs: 2.00

18MDL503**Field Experience: TA: II**

This is the second of three field experiences during the Teaching Associate year. Done in the same site as the Opening School Experience and Field Experience I. Teaching Associates are in the schools with their mentor teachers a minimum of one half-day (or three hours) per week. Perm of Department. BoK: SE, HP. Credit Level: U, G. Credit Hrs: 3.00

18MDL511**Middle School Organization and Practices**

Addresses the unique needs of middle level students in the context of their physical, social, emotional, and intellectual needs. Required for students seeking to be admitted to the Middle Childhood Education program. BoK: NA. Credit Level: G, U. Credit Hrs: 3.00

18MDL515**Classroom Management: Middle Childhood**

Designed to develop the ability to create and maintain a positive learning environment in the middle childhood classroom. Strategies for effective teaching, which will include issues of diversity, will be emphasized. Attention will be given to analyzing, resolving, and preventing managerial problems. Reflective teaching strategies will be presented. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

18MDL521**Foundations of Literacy: Middle School**

Theoretical underpinnings of literacy instruction in middle school classrooms. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

18MDL522**Literacy II: Assessment and Evaluation**

Discussion of a variety of assessment strategies and how these should be integrated with instruction in a middle school. Prereq: 18MDL521. BoK: NA. Credit Level: G, U. Credit Hrs: 3.00

18MDL523**Literacy III: Reading in the Content Areas**

This course provides participants with an overview of reading in the content areas, including particular curricular approaches and literacy strategies to use in middle school content classrooms. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

18MDL524**Principles and Practices: Language Arts**

Methods, materials, and strategies for language arts instruction. Prereq: 18MDL521, 18MDL525. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

Middle Childhood Education**18MDL525****Improving Reading Using Literature**

Course focuses on children's literature and its role in classrooms.

Current theories and methods about integrating literature into all curriculum areas will be discussed and demonstrated. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

18MDL531**Principles and Practices Science**

Prepares preservice teachers to teach science, integrating methods with concepts in areas of physical, biological, and earth sciences. BoK: NA. Credit Level: G, U. Credit Hrs: 3.00

18MDL541**Principles and Practices: Social Studies**

Provides the basic perspectives and skills necessary to teach social studies in the middle grades. Required for Middle Childhood Education students whose area of concentration is social studies. BoK: NA. Credit Level: G, U. Credit Hrs: 3.00

18MDL551**Middle School Mathematics I**

Addresses the unique needs of middle school students as they are acquiring competence in mathematics. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

18MDL561**Middle School Capstone Seminar**

This course holistically measures Middle Childhood Education candidates' professional behaviors and competencies through tasks designed for reflection, synthesis, and application of pedagogical information acquired during their studies in middle school education. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00

18MDL601**Portfolio Development I: Middle Childhood**

This course is designed to have each Middle Childhood preservice teacher prepare a professional portfolio during the Internship year. The portfolio needs to be in two forms: electronic (on a CD) and paper. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00

18MDL602**Portfolio Development II: Middle Childhood**

This course is designed to have each Middle Childhood preservice teacher prepare a professional portfolio during the Internship year. The portfolio needs to be in two forms: electronic (on a CD) and paper. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00

18MDL644**Internship I: Middle Childhood**

All Interns accepted by schools will be placed to complete a year-long Internship experience in grades 4-9. This experience will begin on the first day the public schools open after summer vacation (generally in the third week of August). Prereq: 18MDL503. BoK: NA. Credit Level: U, G. Credit Hrs: 2.00-20.00

18MDL645**Internship II: Middle Childhood**

All Interns accepted by schools will be placed to complete a year-long Internship experience in grades 4-9. This experience will begin on the first day the public schools open after summer vacation (generally in the third week of August). Prereq: 18MDL644. BoK: NA. Credit Level: U, G. Credit Hrs: 2.00-20.00

18MDL731**Science: Advanced Study**

This course emphasizes the designing, planning, and implementing of science curriculum materials as well as refining process and product teaching skills. Credit Level: G. Credit Hrs: 3.00

18MDL741**Advanced Study: Social Studies**

Addresses effective teaching of social studies for diverse learners in the middle grades. Required for Middle Childhood Education teaching

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LT: Literature. NS: Natural Sciences. QR: Quantitative Reasoning. SE: Social & Ethical Issues. SS: Social Sciences.

Middle Childhood Education

18MDL741

Advanced Study: Social Studies

Interns whose area of concentration is social studies. Credit Level: G.
Credit Hrs: 3.00

Paralegal Studies

18PARA180

Introduction to Paralegal Profession

Overview of the training and purpose of paralegals. Roles of lawyer, law clerk, legal secretary, and paralegal in law firms, commercial enterprises, institutions, and agencies. Examines legal and paralegal ethics and unauthorized practice of law problems related to the lawyering function; interviewing and oral advocacy. BoK: SE. Credit Level: U. Credit Hrs: 3.00

18PARA241

Estates and Probate

Study of the status of descent and distribution as well as administration of a decedent estate. Probate court administration of estates and drafting of wills. BoK: NA. Credit Level: U. Credit Hrs: 3.00

18PARA251

Domestic Relations I

Premarital and postmarital agreements, marriage contracts, divorce, and dissolution of marriage, including child support, alimony, property division, and settlement. BoK: SS. Credit Level: U. Credit Hrs: 3.00

18PARA252

Domestic Relations II

Related domestic relations matters including juvenile problems, custody of minor children, adoption procedures, and guardianship. Focuses on the protection of minor children in legal proceedings. BoK: SS. Credit Level: U. Credit Hrs: 3.00

18PARA256

Litigation I

Federal and Ohio rules of civil procedure. Examination of court structure, venue, jurisdiction, and service of process. BoK: NA. Credit Level: U. Credit Hrs: 3.00

18PARA257

Litigation II

Draft pleadings and motions, responses, and memoranda in support or opposition, discovery documents, orders, decrees, and other documents relevant to a civil proceeding. Practical application of the skills and procedures learned in Litigation I. Prereq: 18LGTN256. BoK: NA. Credit Level: U. Credit Hrs: 3.00

18PARA258

Litigation III

Practical applications of the skills and procedures learned in Litigation I, II. Focus on trials. Prereq: 18LGTN257. BoK: NA. Credit Level: U. Credit Hrs: 3.00

18PARA260

Basic Legal Principles

Processes of legal reasoning through studying four substantive areas of law affecting business: criminal law, contracts, real property, torts. Uses the case analysis approach to learning the law. BoK: SS. Credit Level: U. Credit Hrs: 3.00

18PARA261

Legal Research I

Provides the student with an understanding of the law library as well as the use, organization, and interrelationships of the various legal research tools. Skill in researching various legal problems is provided. Prereq: 18LGTN260. BoK: NA. Credit Level: U. Credit Hrs: 3.00

18PARA262

Legal Research II

Clear, concise legal writing style is developed. Students apply basic research skills learned in Legal Research I. Drafting of legal memorandums and legal briefs is emphasized. Students will learn to

Paralegal Studies

18PARA262

Legal Research II

draft letters, opinions, and other legal documents. Prereq: 18LGTN261. BoK: NA. Credit Level: U. Credit Hrs: 3.00

18PARA270

Tax Law for Paralegals

Theory and practice of local, state, and federal income taxation; does not include corporate income tax. BoK: NA. Credit Level: U. Credit Hrs: 3.00

18PARA271

Bankruptcy and Debt Collection

The study of consumer bankruptcy and legal procedures for the collection of debt and judgments. BoK: SS. Credit Level: U. Credit Hrs: 3.00

18PARA272

Administrative Litigation

Prepares the paralegal to advise and represent clients as permitted by the various state and federal administrative agencies. Preparation of documents, preparation of clients and witnesses, as well as oral advocacy before these agencies. Actual simulation with administrative hearing. BoK: SS. Credit Level: U. Credit Hrs: 3.00

18PARA275

Corporate Law and Business Organizations

Various forms of business entities designed to acquaint the student with their formal structure, processes, and operations. BoK: SS. Credit Level: U. Credit Hrs: 3.00

18PARA280

Real Estate for Paralegals I

In-depth study of interests in real property, studying various types of real estate transactions and conveyances such as deeds, contracts, leases, etc. BoK: SS. Credit Level: U. Credit Hrs: 3.00

18PARA290

Paralegal Practicum

The student will gain practical supervised experience as a paralegal prior to seeking employment in law or law-related offices. BoK: NA. Credit Level: U. Credit Hrs: 3.00

18PARA301

Computer Applications for Paralegals

Introduction to computer technology and its application within the law firm, including the use of computers related to paralegal functions in litigation support, legal research, and case management applications. BoK: NA. Credit Level: U. Credit Hrs: 3.00

18PARA321

Interviewing and Investigation for Paralegals

In-depth study of principles, methods, and investigative techniques utilized to locate, gather, document, and disseminate information. Emphasis on developing interviewing and investigating skills which prepare paralegals to communicate effectively while recognizing ethical problems. BoK: SS. Credit Level: U. Credit Hrs: 3.00

18PARA380

Tax Law for Paralegals

Theory and practice of local, state, and Federal income taxation; does not include corporate tax work. BoK: SS. Credit Level: U. Credit Hrs: 3.00

18PARA401

Advanced Legal Research and Writing

Improve practical legal research/writing skills learned in Legal Research I & II. Develop ability to put into written form results derived from identification/analysis of legal issues. Enhance word processing skills to facilitate production of a legal document, pleading, memorandum of law, or brief. BoK: NA. Credit Level: U. Credit Hrs: 3.00

Paralegal Studies

18PARA402

Trademarks, Patents and Copyrights

This course will focus on statutory and common law rights dealing with intellectual property. This includes trademarks, which exist to identify and to distinguish products and services in the marketplace; copyrights, namely rights in literary, artistic, musical, dramatic, and sound and movie recordings and patents; exclusive rights granted to inventors. BoK: SS. Credit Level: U. Credit Hrs: 3.00

18PARA410

Introduction to Law Practice Management

This course will introduce students to the management of law firms and the unique challenges they face because of the roles nonlawyers have in an organization of professionals. It will discuss the structures within the firm and about working with people who fill those structures. BoK: NA. Credit Level: U. Credit Hrs: 3.00

18PARA419

Alternate Dispute Resolution

Provides a description and overview of dispute resolution mechanisms, including litigation, voluntary arbitration, negotiation, and mediation. Introduces student to the basic skills needed to begin to mediate with parties in conflict. BoK: SS. Credit Level: U. Credit Hrs: 3.00

18PARA421

Legal Ethics and Professional Responsibility

This course will introduce students to the types of ethical dilemmas that they will face once in the work force, and to methods for researching the answers to ethical dilemmas. BoK: SS. Credit Level: U. Credit Hrs: 3.00

18PARA471

Advanced Paralegal Seminar

This is an advanced paralegal course to challenge the student to integrate knowledge of theoretical concepts and practical application of legal research, litigation, property, torts, and business law through case analysis and the completion of writing assignments. BoK: NA. Credit Level: U. Credit Hrs: 3.00

Professional Seminar

18PRFS125

FYE College Survival Skills

This is a First Year Experience course designed to help the freshman student navigate the University system. Topics include: financial aid, registration, study skills, time management, computer skills, and career selection. BoK: NA. Credit Level: U. Credit Hrs: 1.00-3.00

18PRFS126

First Year Service Learning

This is a First Year Experience course for freshmen in the College of Education, Criminal Justice, and Human Services. The course will incorporate service learning to enhance the knowledge of the student's specific major and provide real life experience. The course is intended to encourage students to access resources across the university and within the college as well as provide a real life experience in their chosen field. BoK: NA. Credit Level: U. Credit Hrs: 1.00-3.00

18PRFS127

FYE Steps to Success

This is a First Year Experience course for freshmen who are on probation after their first quarter in college. It is designed to help the student identify why he/she is on probation and what changes need to be made. Emphasis is on developing reading and writing skills, time management, and goal setting. BoK: NA. Credit Level: U. Credit Hrs: 1.00-3.00

18PRFS191

Advanced Physical Conditioning

This course teaches the benefits of healthy living by exploring/using the fitness center. BoK: NA. Credit Level: U. Credit Hrs: 1.00

College of Education, Criminal Justice, and Human Services Professional Seminar

18PRFS202

Pharmacology

This course introduces basic pharmacology, the history of drug use and discovery, and modern pharmacology. Drug receptors, drug actions, absorption, distribution, metabolism, and elimination are discussed. Also includes FDA approval, major body systems, prescription and OTC drugs, herbal preparations, and ethical issues about the non-medical use of drugs. An internet course. BoK: NA. Credit Level: U. Credit Hrs: 1.00-6.00

18PRFS210

Early Childhood Learning Community Orientation

This course will allow students to review the requirements for being successful. Students will develop goals to help them be successful and learn problem solving skills. BoK: NA. Credit Level: U. Credit Hrs: 1.00-6.00

18PRFS211

CDA Credential Course 1 - Theory 1

Study of child development theories and how they are applied in the early childhood setting. Topics and issues regarding culture, ability, gender, and socio-economic diversity are studied. Theoretical and practical aspects of planning appropriate programs. CDA resource file work. BoK: NA. Credit Level: U. Credit Hrs: 1.00-5.00

18PRFS212

CDA Credential Course II - Theory II

This course deals with behavior management of children in group settings. BoK: NA. Credit Level: U. Credit Hrs: 1.00-5.00

18PRFS213

CDA Credential Course III - Curriculum I

Early childhood curricula is studied in light of the information on child development studies in previous classes. Literacy (reading and writing development), developmentally appropriate art and music curricula, and the purpose and planning behind dramatic play will be emphasized. Family involvement practices and assessment procedures will be infused throughout the coursework. Prereq: 18PRFS211, 18PRFS212. BoK: NA. Credit Level: U. Credit Hrs: 1.00-5.00

18PRFS214

CDA Credential Course 4 - Curriculum II

Curriculum in early childhood will continue to be examined, particularly with regard to math and science. Students will write lesson plans for specific areas that include objectives for learning concepts and early academic skills. They will learn how to plan, implement, monitor, assess, and modify an integrated curriculum that will foster social development and accelerate positive outcomes for young children. Prereq: 18PRFS213. BoK: NA. Credit Level: U. Credit Hrs: 1.00-5.00

18PRFS215

CDA Math and Literature

This course implements writing and music into the early childhood curriculum. BoK: NA. Credit Level: U. Credit Hrs: 3.00

18PRFS216

CDA Science

This course implements math and science into the early childhood curriculum. BoK: NA. Credit Level: U. Credit Hrs: 3.00

18PRFS217

Child Development Associate Renewal, Topics in Perfecting Practice

Course is targeted at the CDA. Credential holder must renew the national certification. It will cover positive discipline techniques, inclusion of children with special needs, growth as a professional, and new ideas for curriculum development in early childhood. BoK: NA. Credit Level: U. Credit Hrs: 1.00-5.00

18PRFS218

Drugs and Behavior

This course provides an introduction to problems associated with drug abuse and chemical dependency using a historical perspective, associated psychological behavior and processes, physiological

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Professional Seminar

18PRFS218

Drugs and Behavior

processes, the disease concept, and various therapeutic models. Explores the student's own attitudes and feelings toward the use of drugs and their implications in a society that has been experiencing a crisis of "epidemic." BoK: NA. Credit Level: U. Credit Hrs: 1.00-6.00

18PRFS221

Assessment And Diagnosis in Addictions

This course covers clinical assessment and diagnostic process in addictions. The key elements of making a good assessment, self-assessment, use of assessment tools, interviewing techniques, impediments to the assessment process, and the use of a multidimensional assessment approach are covered. Includes use of the "decision tree" diagnostic thinking process and basic use of the multiaxial system in the DSM-IV, with concentration on addictive and compulsive behavioral categories. Includes an understanding of various diagnostic instruments. BoK: NA. Credit Level: U. Credit Hrs: 1.00-6.00

18PRFS302

Neurobiology And Neuroendocrinology of Addictions

This course provides an understanding of the basic anatomy and physiology of the neuron and synapse. Students will understand specialized brain formations which sub-serve pain, pleasure, and motor coordination. Neurotransmitters, agonists, and anti-agonists affecting brain receptors will be studied, as related to drug impingement activity. Mood and behavioral factors associated with drug and neurotransmitter interactions and neuroendocrinology of hormones will be studied. BoK: NA. Credit Level: U. Credit Hrs: 1.00-6.00

18PRFS304

PARKS & RECREATION: PROFESSIONAL INTERN PROJECT

The Professional Intern Project is an approved and directed demonstration project in a qualified recreation or park agency. Students will be introduced to the concept of applied research in the field of leisure. BoK: NA. Credit Level: U. Credit Hrs: 1.00-6.00

18PRFS305

Developmental Domains of Infants and Toddlers

This course will broaden our knowledge of how young children move through three distinct stages and where they stand developmentally. This understanding will strengthen the ability to provide responsive, reciprocal, and respectful care. BoK: NA. Credit Level: U. Credit Hrs: 1.00-6.00

18PRFS410

Recreation and Leisure Programming

This course covers the fundamentals of recreation and leisure programming, philosophy, and goals, and translating goals into activities and evaluation. BoK: NA. Credit Level: U. Credit Hrs: 1.00-6.00

18PRFS411

Recreation Arts Programming

This course focuses on developing lesson plans for age appropriate activities in a recreation setting. BoK: NA. Credit Level: U. Credit Hrs: 1.00-6.00

18PRFS412

SIRI Pre-K

This course deals with reading and literacy instruction for preschool through kindergarten-aged children. BoK: NA. Credit Level: U. Credit Hrs: 1.00-10.50

18PRFS413

Infant and Toddler Development

This course discusses various aspects of infant and toddler development, including emotional, social, motor, language, and cognitive development. BoK: NA. Credit Level: U. Credit Hrs: 1.00-6.00

18PRFS415

English as a Second Language: Academic Reading and Writing I

Students will develop the ability to read and comprehend texts on various academic topics with an emphasis on vocabulary expansion

College of Education, Criminal Justice, and Human Services

Professional Seminar

18PRFS415

English as a Second Language: Academic Reading and Writing I

and application of critical thinking skills. BoK: NA. Credit Level: U. Credit Hrs: 1.00-6.00

18PRFS416

English as a Second Language: Academic Reading and Writing II

Students will continue to develop the ability to read and comprehend texts on various academic topics with an emphasis on extensive reading and the enhancement of critical thinking skills. BoK: NA. Credit Level: U. Credit Hrs: 1.00-6.00

18PRFS500

ESL - Beginning Assessment and Testing in ESL

This course covers the application of methods and measures for accurately assessing and linking assessment and instruction for K-12 culturally and linguistically diverse students in the public schools. The class is designed for classroom aides. BoK: NA. Credit Level: U. Credit Hrs: 1.00-6.00

18PRFS501

Accommodations and Modifications for ESL Students

This course covers the specific strategies and techniques to facilitate the learning of English by ESL students in content classrooms. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-10.00

18PRFS502

Stress Management Online

Online undergraduate and graduate course designed to examine the entire field of stress management: etiology, personality, and disease; stress patterns in work and other environments; physical and mental responses. Students must register their email addresses and use Blackboard. Course entirely online. Part-time students should register for the 705 section. If section 707 is full and a full-time student registers for section 705, the student will be charged part-time tuition in addition to the full-time tuition. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

18PRFS503

Proportional Reasoning

Addresses the mathematics of proportional reasoning as described by the NCTM Principles and Standards for School Mathematics. Focuses on the expectations for middle school students. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

18PRFS504

ESL - Cultural Diversity in ESL

This course examines the ways in which culture shapes students' lives. It uses literature of communication, gender roles, religious practice, law, and politics within the context of cultural differences to recognize and respond appropriately to culturally-based differences. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

18PRFS505

ESL - Second Language Acquisition and the ESL Student

This course provides conceptual and practical understanding of effective second language methodology and curriculum planning for limited English proficient students. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

18PRFS506

OMAP Measurement and Geometry and Spatial Sense

The Ohio Mathematics Program (OMAP) focuses on the deep mathematical content that teachers need for high quality middle grade instruction. This class covers content in measurement, geometry, and spatial sense. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

18PRFS507

OMAP Data Analysis and Probability, and Number Sense and Operations

The Ohio Mathematics Academy Program (OMAP) focuses on the deep mathematical content that teachers need for high quality middle grade instruction. This module covers data analysis and probability, as well as number sense and operations. BoK: NA. Credit Level: U, G. Credit

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Professional Seminar

18PRFS507

OMAP Data Analysis and Probability, and Number Sense and Operations

Hrs: 1.00-6.00

18PRFS508

Ohio Early Learning Content Standards: Science

This module explores the teacher's role in supporting young children's early concepts of science. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

18PRFS509

Conflict Resolution

An online web-based course. The course surveys theories of conflict resolution and their application in educational settings. Two sections, with section 705 for part-time students. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-5.00

18PRFS511

Thinking Strategies and Instruction

Reading must be about thinking and constructing meaning. It is much more than pronouncing words. Researchers today define reading as a complex, recursive thinking process. Improve student comprehension, introduce thinking strategies, provide practical materials, apply learning. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

18PRFS512

Effectively Supporting Diverse Backgrounds

The object of this course is to increase cross-cultural competence in assessment, instruction, and teaming. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-5.00

18PRFS513

Special Topics in Music Education

Professional development class on various topics related to music education including curriculum, instruction, assessment, and best practices. Designed for in-service teachers engaged in Pre-K-12 music education. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

18PRFS514

Ohio Early Learning Content Standards: Mathematics

This module explores the teacher's role in supporting young children's early concepts of numbers and early addition and subtraction. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

18PRFS515

Global Education

This online course will help experienced students understand what Global Education is, how to review and critique a lesson plan, and how to incorporate Global Education into lesson plans. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

18PRFS516

Ohio Early Learning Content Standards Integrating Curriculum

This course supports teacher inquiry, community building, project documentation, responsive environments, play, intentional teaching and incidental learning opportunities, and assessment and accountability in early childhood environments. It is approved by ODE and offered to non-matriculated students as professional development. It is not open to CECH Early Childhood students unless by special permission. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

18PRFS517

OELCS Individualized Education Plan and Curriculum

This module will begin with the young child's view point on curriculum, proceed to a discussion on the relationship between curriculum and OELC standards, and conclude with an exploration of how the IEP can be used as a tool to access that curriculum for young children with disabilities. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-10.50

18PRFS518

Service Learning for Peace Education

This service learning class concentrates on instructional strategies that connect classrooms to communities, enhance academic achievement,

College of Education, Criminal Justice, and Human Services Professional Seminar

18PRFS518

Service Learning for Peace Education

encourage civic responsibility, and serve as an instrument of peace. Students will construct lesson plans, learn to build partnerships, and deepen their understanding of social justice. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

18PRFS519

English as a Second Language - Students in the Mainstream

This seven-lesson course aims to prepare teachers to work more effectively with English language learners in mainstream classes. Providing English language learners with appropriate instruction and support in the mainstream classroom takes extra time and effort but the payoff is worth it. Not only do ELL students benefit, so does the rest of the class. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

18PRFS520

Technology Academic Content Standards

This course provides an understanding of the Technology Standards implemented for classrooms by the Ohio Department of Education. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

18PRFS521

Leisure & Aging

Students will demonstrate knowledge of Ulysses' Adulthood and identify stereotypes and myths about aging and demographic trends. Students will define leisure and its role in successful aging, as well as examine the needs of the community and explore the development of the service industry. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

18PRFS522

Recreational Sports Programming

Students will understand the concepts and applications of effective sports programming and administration. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

18PRFS523

Developing Business and Education Programs

This course will identify and assess effective ways to identify activities and build partnerships to improve school programs and instruction. Often offered as part of regional and state conferences. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

18PRFS524

Constructivism in the Classroom: Instructional Planning

Covers the theory of constructivism, a model of learning based on active techniques and experience. Students will design and implement lesson plans based on these principles. Includes lesson planning techniques. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

18PRFS525

Standards-Based Instruction

Course covers instruction and assessment in a standards-based environment. It addresses application of standards in grades K-12 and subset ranges in various subject areas. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

18PRFS526

Special Education Collaboration Techniques

Collaborative techniques and issues in the schools surrounding special education. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-3.00

18PRFS527

Methods of Teaching Foreign Language

Covers the theory of teaching foreign language learning based on active techniques and experience. Students will design and implement lesson plans based on these principles. Includes lesson planning techniques. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

18PRFS528

Introduction to Therapeutic Recreation & Inclusion

The focus of this class is to introduce students to therapeutic recreation and inclusion services through public recreation programs. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

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Professional Seminar**18PRFS529****Introduction to Special Education**

An introduction to the field of special education. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

18PRFS530**SERRC: Attention Deficit Hyperactive Disorder**

Attention deficit hyperactive disorder in the school system. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-3.00

18PRFS531**Diagnosis and Assessment of Children with Disabilities**

Diagnosis and assessment of children with disabilities, including the identification process, diagnosis and assessment instruments, and assessment of the curriculum and content area. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

18PRFS532**Digital Literacy**

This class will show teachers the importance of using the internet with their students. The use of the internet to find information about various subjects is promoted and discussed in great detail. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

18PRFS533**Classroom Management**

This course will provide specific ideas and strategies that save time, promote classroom order, and increase students' learning focus. Topics include: materials management through guided discovery; logical consequences; rules, rituals, and routines; and successful classroom beginnings, transition, and closure. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

18PRFS534**Montessori Philosophy and Methods**

Students will gain a clear understanding of Maria Montessori and her work. The course will focus on the key concepts in the Montessori method. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-5.00

18PRFS535**Special Education Curriculum Design & Instruction**

To assist teachers in developing a variety of instructional methodologies to meet the diverse learning needs of students in the classroom. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

18PRFS536**The Learning Centered Classroom**

Strategies for dealing with diverse classrooms in terms of gender, grade level, academic skills, and ethnicity in order to promote student learning. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-5.00

18PRFS537**Montessori Overview**

Montessori principles will be discussed, with emphasis on the concept of sensitive periods, developmental stages, three modes of learning, the three period lesson, and the nomenclature cards used in early research. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

18PRFS538**Special Education Team Collaboration**

Team efforts and collaboration concerning special education in the schools. BoK: SE. Credit Level: U, G. Credit Hrs: 1.00-3.00

18PRFS539**Teaching Reading and Writing**

This course addresses facilitating the literacy development and reading and writing skills for diverse learners in the inclusive classroom, preschool through primary grades. An emphasis is on the relationship between language and communication development and literacy and interdisciplinary approaches, grounded in the Ohio Academic Content Standards. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

Professional Seminar**18PRFS540****Teaching Reading and Writing II**

This course addresses facilitating the literacy development and reading and writing skills for diverse learners in the inclusive classroom, middle and secondary grades through adulthood. An emphasis is on literacy related to functional skills and transitions, and literacy and interdisciplinary approaches, grounded in the Ohio Academic Content Standards. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

18PRFS541**Special Topic Pre-K-12**

Special topics in the Pre-K-12 setting. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-3.00

18PRFS542**Individuals with Learning Disabilities**

Identification, assessment, educational approaches, educational service alternatives, interactions in the home and classroom, and current issues and trends with regard to children, youth, and adults with learning disabilities are covered in this course. In addition, student characteristics and instructional implication of various disabilities related to learning styles and rates are addressed. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

18PRFS543**Effective Planning and Professional Practices in Early Childhood Special Education**

This course will allow teachers to examine appropriate intervention planning and instruction models for children on IEPs who are between the ages of 3 and 5 years old. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

18PRFS544**Supporting Differing Learning Styles**

This course allows educators to develop curriculum that meets the diverse learning needs of their students. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

18PRFS545**Teaching Geometry Using Technology K-2**

Effective planning and teaching methods for geometry units that integrate the use of technology. For K-2 teachers as inservice or preservice. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

18PRFS546**Computer Applications Class for Teachers**

The goal of this course is to acquaint the teacher with Microsoft Office, with particular emphasis on Microsoft Word, Access, and Excel. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

18PRFS547**Introduction to Computers**

The goal of this course is to acquaint the teacher with Windows, the internet, email, and educational software packages. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

18PRFS548**Standards-Driven Curriculum**

Standards-driven curriculum is part of a sequenced professional development program for teachers. Teachers are introduced to a design process that they can use to write rigorous and complex extended student work units. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-5.00

18PRFS549**Critical Thinking Skills Online**

Online course. A course designed to assist teachers developing critical thinking skills in their students to attain information literacy. Covers the information search model in an online environment. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

18PRFS550**Literacy Principles and Practices: Leadership**

Principles and current practices in literacy education and leadership.

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Professional Seminar

18PRFS550

Literacy Principles and Practices: Leadership

BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

18PRFS551

Special Education Literacy

This course examines literacy and literacy instruction in the special education field. BoK: DC. Credit Level: U, G. Credit Hrs: 1.00-3.00

18PRFS552

Elements of Instruction

This course is a study of the practical applications of learning theory in the classroom. Participants explore the latest in brain research, as well as "best practice" ideas for managing classroom time. BoK: NA. Credit Level: G, U. Credit Hrs: 1.00-6.00

18PRFS553

Standards-Based Classrooms

Teachers will clarify the meaning of the content area proficiency standards and develop standards-based units to provide evidence that students meet the Ohio-mandated proficiency standards. BoK: NA. Credit Level: G, U. Credit Hrs: 1.00-5.00

18PRFS554

Connecting Family, Community, and Schools

This course will instruct participants on how to develop strategies to increase family and community involvement in their schools. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

18PRFS555

New Teacher Induction (Online)

The course provides support in classroom management, transitioning to the teaching environment, and methods that lead to an increased rate of retention for highly qualified teachers to develop school-wide structures and strategies based on effective schools research. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

18PRFS556

New Teacher Induction (Online) Live Support Sessions

This course focuses on issues and topics for new classroom teachers in an interactive online environment. Topics vary with classroom conditions. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-5.00

18PRFS557

Montessori Methods (Advanced) - Structure and Organization

This advanced course explains the secondary Montessori classroom structure and organization, curriculum development, teaching methodology, field studies, and curriculum integration. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

18PRFS558

Early Childhood Practicum

Practicum experiences for Early Childhood Education students for grades K-3. BoK: NA. Credit Level: G, U. Credit Hrs: 1.00-6.00

18PRFS559

Socratic Seminar - Secondary Montessori

Socratic Seminar prepares students to conduct this mode of teaching. The structure and process are practiced throughout the course. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

18PRFS560

Integrating Computer Applications in Instruction

Designed for teachers who will learn how to integrate presentation, publishing, and web design software into classroom content. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

18PRFS561

Web Design Basics for Classroom Instruction

Designed for teachers who will learn how to use web design software to create instructional web content. BoK: NA. Credit Level: G, U. Credit Hrs: 1.00-6.00

College of Education, Criminal Justice, and Human Services

Professional Seminar

18PRFS562

Advanced Elements of Instruction

This course is for veteran mentors who will develop advanced techniques of inquiry, profiles of practice, and levels of performance. Mentors must have completed 18PRFS552 and Pathwise training. Prereq: 18PRFS552. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

18PRFS563

Arts as the Connecting Link in Curriculum Integration

The Arts Connections program by the Association for the Advancement of Arts Education. Week-long workshop for training in multiple intelligences, integrated curriculum, assessment design and development, arts and the proficiencies, and experience with professional artists. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-8.00

18PRFS564

Management of Parks and Recreation Facilities

This course is designed to provide students with an orientation into various management practices, structural makeup, design, operations, and functions related to managing recreational facilities. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

18PRFS565

Multimedia Strategies for Reading and Social Studies

This course uses materials developed with the CET Safe Passage project to develop the knowledge, skills, and dispositions needed to teach reading, writing, and social studies in the middle grades. Participants will learn to use the Safe Passage materials to align instruction with standards, use effective teaching strategies, teach inquiry skills, use a variety of print and electronic media, and develop assessment strategies. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

18PRFS566

Teaching Technology

This course will instruct teachers how to coach and teach novice or veteran teachers to develop competence in using technology to enhance student learning. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

18PRFS567

Nature and Needs of the Gifted

Emphasis for the coordinators/practitioners is on understanding the nature and needs of gifted learners. Focus of the class will be on the practical application of the identification and assessment tools and the planning and implementation of appropriate gifted services. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

18PRFS568

Developing Mathematical Ideas

This course explores how students experience mathematics, focusing on the reasoning processes - a shift from the mechanical use of algorithms. Written and videotaped case studies will be analyzed as students perform the four basic operations. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-5.00

18PRFS569

Internet Searching and Researching

This course introduces concepts and methods related to searching the internet, comparing search engines, and using internet content effectively in instruction. An online course. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

18PRFS570

Autism Spectrum Disorder

This course instructs teachers how best to communicate and teach students who are on the Autism Spectrum. The importance of using visual supports to encourage student learning will be emphasized. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

18PRFS571

Special Topics in Social Studies

Seminars in special topics related to teaching Social Studies in various grades K-12. May be offered online. BoK: NA. Credit Level: U, G. Credit

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Professional Seminar

18PRFS571

Special Topics in Social Studies

Hrs: 1.00-6.00

18PRFS572

Online Student Courses

This course will help teachers gain an understanding of the purposes and benefits of online courses for students. Teachers will also have the opportunity to explore policy issues associated with offering online student courses. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

18PRFS574

Data Driven Decisions for Instruction

Data collection and analysis as the basis of instructional decisions are examined. Includes data definitions, collection, graphing, and trend analysis. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

18PRFS575

Social Studies: U.S. Studies

This course will instruct teachers how to actively align their curriculum to the U.S. Social Studies standards. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

18PRFS576

Literature Review for Band Grades 5-12

Students will receive an overview of method books and materials appropriate for beginning band and middle/high school warm-up and techniques, and information regarding selection of appropriate literature for performance in band, grades 5-12. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

18PRFS577

Designing Online Courses

This course will teach students how to develop courses for use in an online environment. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

18PRFS578

Standards-Based Education for General Music Education

Students will learn standards-based strategies for effectively engaging students from diverse socio-economic, ethnic, cultural, and ability backgrounds, using an Orff-based approach, to increase student academic performance through concept-based learning. Correlation between fine arts and core content area concepts will be emphasized. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

18PRFS579

Conflict Resolution

This course helps educators understand how to teach conflict resolution skills and empower students to resolve conflicts. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

18PRFS580

Bridging Learning Theory in the Classroom

This course discusses ways to combine various theories in classroom teaching. Theories include behaviorism, cognitivism, constructivism, and brain-based learning. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

18PRFS581

Understanding Student Motivation

This course allows teachers to encourage a sense of belonging and success for every student. Teachers will learn the differences between extrinsic and intrinsic motivation and will learn ways to elicit motivation by addressing the basic needs of all children. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

18PRFS582

Teacher Behaviors that Promote Assessment for Learning

This course examines the teacher behaviors that promote quality assessment. Those behaviors include fairness, clarity, pride, and student centered planning. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

College of Education, Criminal Justice, and Human Services Professional Seminar

18PRFS584

Student Understanding and Achievement

This course allows teachers to understand what is needed in a classroom in order to promote student understanding and achievement, as well as how to establish positive teacher-student relationships. Teachers will also learn the importance of safe and affirming learning environments. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

18PRFS585

Administration of ECE Settings

This course will instruct students on the history and theories of administration and the role of administrators in public services. Students will learn about the jobs of administrators and what opportunities they will have in administration. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

18PRFS589

Management in ECE Settings

This course focuses on skills needed to support the day-to-day implementation of practices and standards that uphold the provision of quality services. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

18PRFS590

Reading and Writing Workshop: Teaching Reading, Writing and Learning Strategies

This course is designed to explore the reading and writing workshop approach to instruction in a standards-based classroom. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

18PRFS591

Instructional Strategies: Students with Mild to Moderate Educational Needs

An introduction to concepts and issues related to the teacher's ability to demonstrate an in-depth knowledge base in individual learning differences. The teacher will understand how students differ in their approaches to learning and create adapted learning opportunities. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

18PRFS592

Individual Education Plans

This course covers the multiple requirements for Individual Education Plans that are designed for special needs students, so that they will have access to, be involved in, and make progress in a general education curriculum. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

18PRFS593

Students With Disabilities

Examines the standards-based education impact on the development of Individualized Education Programs for students with disabilities. Also looks at statewide assessments such as the Ohio Graduation Test. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

18PRFS594

Teacher Evaluation System

Course participants will develop and demonstrate individualized professional growth plans and methods for documenting and benchmarking their professional growth. Plans will be showcased in a culminating presentation. BoK: NA. Credit Level: G, U. Credit Hrs: 1.00-4.00

18PRFS595

SERRC Learning Strategies

Current effective learning strategies in special education. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-5.00

18PRFS597

Second Language Acquisition

This course covers elements of second language acquisition for English learners. It includes the acquisition process, misconceptions of second language proficiency, communicative and cognitive demands, and language instruction. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

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Professional Seminar

18PRFS598

Evaluating a Science Fair

This course will provide active teachers with the knowledge, tools, and resources to evaluate science fairs relative to student, teacher, and school administration participation. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

18PRFS599

Grant Writing

Students will learn how to successfully develop a grant. The goal of this course is to develop a building-based leadership team for successful grant writing. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

18PRFS600

Teacher Evaluation Systems: Comprehensive Appraisal

National Boards (NBPTS) advanced candidate seminar. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-5.00

18PRFS603

Information/Library Literacy

Classroom teachers research literacy, library, and media standards and identify resources to integrate information in classroom instruction. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

18PRFS605

Math Grades 6-8

Effective planning and teaching methods for problem solving that integrate the use of technology, the internet, and computer software in math instruction for grades 6-8. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

18PRFS606

Teaching Arithmetic

This course reviews the four arithmetic operations and considers how children develop meaningful approaches to the operations. Students learn to analyze thinking processes and guide children in learning computation. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-5.00

18PRFS611

Teaching Communication Skills

This course develops critical communication skills for instruction and student relationships. Special attention is paid to effective utilization of technology and online communications. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

18PRFS612

The Online Learning Environment

Introduction to basic concepts of the internet and utilization of its content in classroom lessons. Includes completion of an internet-based lesson plan and classroom website for lesson management. BoK: NA. Credit Level: G, U. Credit Hrs: 1.00-6.00

18PRFS613

Developmental Psychology: Middle Childhood thru Adolescence

Topics include the physical and cognitive development extending from the middle childhood through adolescent years. Also includes implications for instruction. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-3.00

18PRFS614

Mentoring and Coaching in Early Childhood Education

Mentoring and coaching in early childhood education. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

18PRFS615

Reading in the Content Areas

Seminar course covering specific topics for reading in the content areas. May be offered online. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

18PRFS616

Art-Music in ECE

Methods and techniques in art and music integration in early childhood education. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

College of Education, Criminal Justice, and Human Services

Professional Seminar

18PRFS617

Reading for Proficiency in the Foreign Language Classroom

A seminar on reading, including reading for comprehension and reading for proficiency. BoK: NA. Credit Level: G, U. Credit Hrs: 1.00-2.00

18PRFS618

Instrumental Music Pedagogy

Students receive intensive review training in playing and teaching techniques for woodwind, brass, and percussion instruments. Includes skills for modeling performances and practices. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

18PRFS619

Urban Teacher Leaders in STEM

This course exposes practicing teachers to issues surrounding setting high expectations, understanding poverty, and culturally-relevant teaching in urban schools. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-9.00

18PRFS622

Phonics

This course addresses the teaching and learning of phonetics, phonics, word study, and spelling in relationship to developing learners in a diverse and inclusive classroom setting. BoK: NA. Credit Level: G, U. Credit Hrs: 1.00-6.00

18PRFS623

Environmental Education

Topics in environmental education for teachers. BoK: NA. Credit Level: G, U. Credit Hrs: 1.00-6.00

18PRFS624

The Inclusion Classroom

This course examines the principles of inclusion in classroom settings. It includes preparation, implementation, strategies, and assessment, all within the framework of No Child Left Behind. An online class. BoK: NA. Credit Level: G, U. Credit Hrs: 1.00-6.00

18PRFS625

Science Activity for Middle School

This course implements science curriculum and activities across the middle school curriculum. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-3.00

18PRFS626

Mentor Training and Instructional Efficiency

Mentor training and improved instructional effectiveness in the schools. BoK: NA. Credit Level: G, U. Credit Hrs: 1.00-9.00

18PRFS627

Designing Performance Assessment

The course addresses multiple issues of designing performance assessment targets, tasks, and scoring tools in a manner that assures quality. An online course. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

18PRFS628

Contemporary Issues

Contemporary issues in education and training. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-5.00

18PRFS629

Teacher Academy Practicum

A practicum experience for teachers who are guiding the classroom experiences of high school students who participate in the Teacher Academy vocational development program. Only open to Teacher Academy classroom teachers. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-9.00

18PRFS630

Cognitive Coaching

Mentor teachers will be trained to coach new teachers to grow as individuals, focusing on efficacy, flexibility, craftsmanship, consciousness, and interdependence. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

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Professional Seminar**18PRFS630****Cognitive Coaching**

Mentor teachers will be trained to coach new teachers to grow as individuals, focusing on efficacy, flexibility, craftsmanship, consciousness, and interdependence. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

18PRFS631**Managing Challenging Behavior**

This course addresses approaches to challenging student behaviors through influencing factors analysis and intervention approaches. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

18PRFS632**Cultural Diversity**

This course is one of a series of topical seminars in cultural diversity in an educational setting. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-5.00

18PRFS633**Reading and Writing Literary Braille**

Participants follow a programmed instruction text leading to mastery in both reading and writing the literary braille code. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

18PRFS635**Professional Learning Communities**

Designed for in-service teacher leaders and curriculum personnel in a K-12 setting. Examines strategies for creating and maintaining professional learning communities and whole faculty study groups. BoK: NA. Credit Level: G, U. Credit Hrs: 1.00-6.00

18PRFS639**Improving the Learning Environment**

Topic classes that address various ways in which teachers can improve the teaching and learning environment. Special attention is given to ways in which teachers can intervene and effectively modify student behaviors to improve achievement. BoK: NA. Credit Level: G, U. Credit Hrs: 1.00-6.00

18PRFS641**Staff Development Seminar**

Seminar in various areas of staff development. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-3.00

18PRFS642**Advanced Staff Development Seminar**

Advanced seminar in various areas of staff development. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-3.00

18PRFS646**Supervised Field Clinical Experience (Alternative Licensure)**

Teaching experience in supervised conditions. A planning, performance, and reflection cycle is used to cause candidates to become aware of factors that influence instruction. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

18PRFS647**Computer Programs for Teachers**

The goal of this class is to acquaint participants with the computer programs that are applicable to classroom instruction, student record maintenance, and communications. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

18PRFS648**Language Development**

This course is a survey of language development, including factors influencing development and learning, effects of disabilities on language development and learning, and the relationship of language and literacy emergent through adolescence. The role of cultural diversity and limited English proficiency will also be discussed. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

Professional Seminar**18PRFS649****Chemistry and Forensic Science for Teachers**

Teachers will learn how chemistry can help with understanding how a product works. Teachers will also learn basic forensic techniques including document analysis, soil analysis, blood analysis, and drug analysis. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

18PRFS650**Human Learning**

An introduction to the analysis of learning and teaching as it occurs in educational settings. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

18PRFS651**Montessori Secondary Structure and Organization**

This course examines program models and curriculum development at the secondary level. State and local standards are integrated with the Montessori Philosophy at the secondary level. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

18PRFS652**Montessori Erdkinder**

Students will form a strong community through seminars on stewardship and sustainability, shared work projects, and activities that illustrate the cycle of life and death. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

18PRFS653**NBPTS from Start to Finish**

A series of workshops to provide teacher mentors with additional training to support the development of new mentors. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

18PRFS655**NBPTS: Pre-Candidate Program**

During an intensive week-long institute, teachers develop an understanding of core concepts associated with this assessment process. They develop an understanding of the standards and the role they play in the assessment process. BoK: NA. Credit Level: G, U. Credit Hrs: 1.00-6.00

18PRFS659**Use of Technology in Classroom Science**

Science education and the integration of technology in the schools. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

18PRFS660**NBPTS: Advanced Candidate**

National Boards (NBPTS) advanced candidate seminar. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-5.00

18PRFS662**NBPTS Start to Finish - Course #2**

The second of two courses providing the cognitive and collegial support for teachers to qualify for National Board (NBPTS) certification. Prereq: 18PRFS653. BoK: NA. Credit Level: G, U. Credit Hrs: 1.00-6.00

18PRFS663**Special Topics Math**

Special topics in math education. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

18PRFS664**Special Topics in Science Education I**

Special topics in science education, first course. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-7.00

18PRFS665**Special Topics in Science Education II**

Special topics in science education, second course. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-7.00

18PRFS666**Cooperative Discipline**

This course will address causes of student misbehavior and help participants develop strategies to deal with student discipline in a

H=University Honors course.

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Professional Seminar

18PRFS666

Cooperative Discipline

positive and cooperative manner. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-5.00

18PRFS669

Conducting Classroom Walk-Throughs

This course trains teachers and principals to improve achievement in their schools using the walk-through procedure. Content includes specific actions and activities that will enhance the quality of student learning and achievement. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-5.00

18PRFS671

Math: Advanced Concepts Grades 6-12

Course is designed for teachers who are oriented toward the high school student with advanced concepts in middle school math. BoK: NA. Credit Level: G, U. Credit Hrs: 1.00-6.00

18PRFS672

SBE Earth and Space Sciences OSCI Institute

The Ohio Science Institute improves student achievement in Standards-Based Education (SBE) through teacher development related to understanding science content and process standards, developing inquiry learning approaches, meeting the needs of all students, creating assessments, and applying technology. This course concentrates on earth and space science. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

18PRFS673

SBE Physical Sciences OSCI Institute

The Ohio Science Institute improves student achievement in Standards-Based Education (SBE) through teacher development related to understanding science content and process standards, developing inquiry learning approaches, meeting the needs of all students, creating assessments, and applying technology. This course concentrates on physical sciences. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

18PRFS674

SBE Life Sciences OSCI Institute

The Ohio Science Institute improves student achievement in Standards-Based Education (SBE) through teacher development related to understanding science content and process standards, developing inquiry learning approaches, meeting the needs of all students, creating assessments, and applying technology. This course concentrates on life sciences. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

18PRFS675

Education and the Framework of Poverty

This course is designed to equip teachers to help students from poverty achieve success in the school and workplace. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

18PRFS676

Special Topics in Mathematics and Science Education

This series of classes examines topical areas in mathematics and science education including curriculum content, instructional strategies, and standards-based education. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

18PRFS677

Earth Science in Education

This course is designed to allow teachers to explore issues related to earth science and earth science education through an intensive, hands-on experience. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

18PRFS678

OISM Year One

First year training modules for intervention-based services. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

18PRFS679

OISM Advanced

Basic teaching in special education. BoK: NA. Credit Level: U, G. Credit

College of Education, Criminal Justice, and Human Services

Professional Seminar

18PRFS679

OISM Advanced

Hrs: 1.00-5.00

18PRFS680

Special Education Initiatives

Current initiatives in special education. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

18PRFS681

SERRC: Teaching II

Teaching methods in special education. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-3.00

18PRFS682

SERRC: Teaching III

Advanced teaching methods in special education. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-3.00

18PRFS683

Substitute Teaching

Students will learn to be prepared, knowledgeable, and able to manage classroom behavior in short-term and long-term substitute teaching assignments. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

18PRFS684

Helping Struggling Readers

Teachers will learn strategies to help struggling readers. Phonemic awareness, vocabulary, and making meaning will be discussed. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

18PRFS685

Mathematics Investigations K-6

Course focuses on best practices, math concepts, and math understanding, which will lead to strengthened content knowledge, math pedagogy, and lesson comprehension. The outcome of this course is alignment among test requirements, course of study objectives, and teaching/learning behavior. BoK: NA. Credit Level: G, U. Credit Hrs: 1.00-6.00

18PRFS686

Connected Mathematics Grades 6-8

This course introduces the content of the Connected Mathematics program and prepares teachers to teach the program at their grade level. BoK: NA. Credit Level: G, U. Credit Hrs: 1.00-6.00

18PRFS687

Teaching the Fundamentals for Calculus 9-12

A three-quarter course sequence for teachers. Includes review of mathematics content as it relates to the teaching and learning of pre-calculus and calculus concepts in grades 9-12. BoK: NA. Credit Level: G, U. Credit Hrs: 1.00-9.00

18PRFS688

SERRC Student

Focus on the student in special education. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-5.00

18PRFS689

Special Education Legislation

Current legislation and implications in special education. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-3.00

18PRFS691

English as a Second Language in Early Childhood Education

Students will learn various techniques in teaching children ages 0-5 who are learning English as a second language. BoK: NA. Credit Level: G, U. Credit Hrs: 1.00-6.00

18PRFS693

SERRC Staff Development

Various issues and topics for staff development in special education. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-5.00

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Professional Seminar

18PRFS694

Authentic Assessment: Science Portfolio

The course describes a viable methodology for assessing science students by using science portfolios. Each participant will be required to implement this methodology in his or her classroom. BoK: NA. Credit Level: G, U. Credit Hrs: 1.00-2.00

18PRFS695

Multiple Intelligence

Workshop offered online, with two sessions in-person, offered for teachers interested in learning about new developments regarding student intelligence and implications for classrooms. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-5.00

18PRFS696

Mentoring in Head Start

Teachers will learn various techniques to mentor students who are learning about Head Start teaching. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

18PRFS697

Interactive Writing

Learning how to integrate phonics, spelling, grammar, and writing requirements of the curriculum. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

18PRFS698

Introduction to Curriculum Mapping

Learners explore the history and purpose of curriculum mapping, the role an individual teacher plays in curriculum mapping, the types of maps, and the various data collected in the maps. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

18PRFS716

Understanding Student Motivation

This course will help teachers learn about student motivation, the power of intrinsic motivation, and how to enhance motivation. BoK: NA. Credit Level: G, U. Credit Hrs: 1.00-6.00

18PRFS717

Classroom Management: Building Relationships for Better Learning

This course instructs teachers on ways to build solid, working relationships with their students in order to maintain a positive, constructive working environment in the classroom. BoK: NA. Credit Level: G, U. Credit Hrs: 1.00-6.00

18PRFS718

Conflict Resolution

This course instructs teachers on how to handle conflict between students in a classroom setting. Teachers will learn how to become mediators and the various approaches to be used when becoming involved in resolving conflicts. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

18PRFS510

SERRC: Effective Teaching

Effective teaching strategies in special education. Credit Level: G. Credit Hrs: 1.00-5.00

18PRFS602

Cooperative Learning in the Classroom

This course will provide specific cooperative learning structures that work in all grade levels. Participants will examine the rationale and research for cooperative learning and be provided with dozens of cooperative learning structures that participants can use immediately. Topics include: team formation, seating arrangement, team building, class building, social skills, classroom management, and cooperative learning structures. Credit Level: G. Credit Hrs: 1.00-6.00

18PRFS607

Advanced Topics in Literacy

Current topics in literacy education. Credit Level: G. Credit Hrs: 1.00-6.00

College of Education, Criminal Justice, and Human Services Professional Seminar

18PRFS620

Advanced Topics Science, Mathematics and Engineering Education

Various current topics in science education. Credit Level: G. Credit Hrs: 1.00-6.00

18PRFS621

Perceptions of Teaching

Students will understand the public perceptions of what goes on in schools and will develop strategies to overcome the hurdles that accompany the profession of teaching. Credit Level: G. Credit Hrs: 1.00-10.00

18PRFS634

Introduction to Teaching GCT - Gifted, Creative, Talented

General introduction to the education of children. Credit Level: G. Credit Hrs: 1.00-6.00

18PRFS636

Algebra Content and Pedagogy for Middle Grade Teachers

This course will examine ideas of algebra content and pedagogy for teaching algebra in the middle grades. It will explore adult level algebra problems and algebra problems appropriate for middle grades students. It will experience, read about and discuss teaching algebra content. Credit Level: G. Credit Hrs: 1.00-10.00

18PRFS637

GCT Instructional Strategies

Develop knowledge and understanding of the legal aspects and policy considerations for individuals who may be gifted, creative, or talented. Credit Level: G. Credit Hrs: 1.00-6.00

18PRFS638

Legal Aspects of GCT - Gifted, Creative, Talented

Develop knowledge and understanding of the legal aspects and policy considerations for individuals. Credit Level: G. Credit Hrs: 1.00-6.00

18PRFS640

GCT Collaboration and Consultation

Students will understand services, networks, and organizations for individuals, use group problem skills, communicate to schools about the needs of gifted people, and communicate effectively with families of gifted individuals from diverse backgrounds. Credit Level: G. Credit Hrs: 1.00-6.00

18PRFS643

Cultural Diversity and Families of Children

Develop knowledge, understanding, and respect for the needs and requirements of students with diverse learning needs in various educational settings. Credit Level: G. Credit Hrs: 1.00-6.00

18PRFS644

GCT Practicum Teaching Children and Youth Who are Gifted

Develop and maintain a relationship with the mentor and other members of the team, and interact in the role of instructor to students. Credit Level: G. Credit Hrs: 1.00-6.00

18PRFS645

GCT Collaboration and Consultation

Students will understand services, networks, and organizations for individuals, use group problem skills, communicate to schools about the needs of gifted people, and communicate effectively with families of gifted individuals from diverse backgrounds. Credit Level: G. Credit Hrs: 1.00-6.00

18PRFS654

Special Topics Special Education Curriculum

Various topics in special education and the curriculum. Credit Level: G. Credit Hrs: 1.00-3.00

18PRFS656

Special Topic Learning Style

Issues surrounding learning styles in staff development and the schools. Credit Level: G. Credit Hrs: 1.00-6.00

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Professional Seminar

18PRFS657

Seminar Higher Education

Current issues in higher education for the teacher. Credit Level: G.

Credit Hrs: 1.00-3.00

18PRFS658

Special Topic Problems

Discussion concerning special problems in the schools. Credit Level: G.

Credit Hrs: 1.00-3.00

18PRFS667

Montessori Pedagogy of Place

Pedagogy of Place gives students a chance to experience real field studies within their own disciplines. During this class, teachers will learn to design their own experiential courses. Credit Level: G. Credit Hrs: 1.00-6.00

18PRFS668

Montessori Curriculum Development

Participants in this class will re-examine the models and curriculum presented in Curriculum Development. Implementing procedures for student accountability within the classroom and beyond will also be discussed. Credit Level: G. Credit Hrs: 1.00-6.00

18PRFS670

Montessori Practicum

Practicum will provide supervised teaching/learning experience and a period of observation, internalization, and further study, to bring together the theory and practice of Montessori Education. Credit Level: G. Credit Hrs: 1.00-6.00

18PRFS690

Special Topic Special Education

Special topics of interest in special education. Credit Level: G. Credit Hrs: 1.00-3.00

18PRFS692

Special Topics Collaborative Teaching

Special topics and issues in teaching collaboratively. Credit Level: G. Credit Hrs: 1.00-6.00

18PRFS699

NBPTS Summer Institute

Developing and understanding the standards of accomplished teaching of the NBPTS. Credit Level: G. Credit Hrs: 1.00-5.00

18PRFS700

Designing Performance Assessments

This course discusses various types of performance assessments, as well as techniques for creating them. Credit Level: G. Credit Hrs: 1.00-6.00

18PRFS701

Toward Equity in Achievement

This course will help leaders explore what it means to strive for equity in achievement and will provide insight about education policies. Credit Level: G. Credit Hrs: 1.00-6.00

18PRFS702

Advanced Cognitive Coaching

Teachers will be trained to be in-house trainers for the foundation level of Cognitive Coaching. Credit Level: G. Credit Hrs: 1.00-6.00

18PRFS703

SIRI Pre-Kindergarten Reading Instruction

State Institute for Reading Instruction, covering topics as a framework for conceptualizing early childhood learning and development. Credit Level: G. Credit Hrs: 1.00-10.50

18PRFS704

Leadership Development Support

A course meant to support leadership development in the schools. Credit Level: G. Credit Hrs: 3.00

College of Education, Criminal Justice, and Human Services

Professional Seminar

18PRFS705

State Institute for Reading Instruction (SIRI): Adolescent Literacy

This course provides teachers with foundational knowledge about adolescent literacy development, effective classroom reading instruction, and reading strategies within the Ohio Educational Standards and assessment system. Credit Level: G. Credit Hrs: 1.00-6.00

18PRFS706

Readings in Literacy: Literacy Specialist Project

A graduate literacy course, CORE, which focuses on literacy specialists' and teachers' study of CORE curriculum. It is based on the Ohio Standards and current research and evidence in literacy. Credit Level: G. Credit Hrs: 1.00-6.00

18PRFS707

Literacy CORE Pathway II

A graduate literacy course, Pathway II is focused on literacy specialists' and teachers' study of children's learning through diagnostic/evidenced-based methods. It involves multiple use of various developmental-appropriate assessments and instruction through a rigorous program of intervention. Credit Level: G. Credit Hrs: 1.00-5.00

18PRFS708

State Institute for Reading Instruction (SIRI): Focus on the First R

A four-day institute providing foundational knowledge and skills about reading development, effective classroom reading instruction in five essential components, differentiated instruction, and the state standards and assessment system. Credit Level: G. Credit Hrs: 1.00-6.00

18PRFS709

State Institute for Reading Instruction (SIRI): Focus on Reading Diagnostics and Lesson Design

A four-day institute for teachers who have completed the "First R" or have demonstrated advanced SBR training. Teachers learn to apply SBR instruction in an "assess, plan, teach" instructional cycle. Credit Level: G. Credit Hrs: 1.00-6.00

18PRFS710

Response to Intervention (RTI) Fundamentals

Response to Intervention (RTI) gives schools an opportunity to intervene early and change identification practices. This course covers the fundamentals, including federal law, history, research, implementation, and evaluation. An on-line class. Credit Level: G. Credit Hrs: 1.00-6.00

18PRFS711

Creating and Sustaining Professional Learning Centers

This course will investigate how contemporary school leaders communicate and collaborate with all stakeholders to promote improved student learning. Credit Level: G. Credit Hrs: 1.00-6.00

18PRFS712

Bullying: Let's Break the Cycle

Students will investigate the three components of an effective bullying definition; the effect of bullying on stakeholders' perspectives; strategies that support the bully; and identify successful intervention programs. Credit Level: G. Credit Hrs: 1.00-6.00

18PRFS713

Supervising Paraeducators in Your Classroom

This course deals with working with paraprofessional instructional aides in the classroom and in tutoring situations. Credit Level: G. Credit Hrs: 1.00-6.00

18PRFS714

Seminar in Special Issues in Math

Seminar in special topics and issues for the math area in teaching. Credit Level: G. Credit Hrs: 1.00-3.00

18PRFS715

Human Learning

An introduction to the analysis of learning and teaching as they occur in educational settings is presented in this course. Credit Level: G. Credit

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Professional Seminar

18PRFS715

Human Learning

Hrs: 1.00-6.00

18PRFS719

Field-Based Staff Development

Provides field-based instruction and supervised practice for staff development. Credit Level: G. Credit Hrs: 1.00-5.00

18PRFS720

OISM Coaching

This course is designed for OISM coaches who will assist their districts and buildings in the implementation of OISM. Credit Level: G. Credit Hrs: 1.00-6.00

18PRFS721

State Institute for Reading Instruction (SIRI): SIRI Extensions

Participants will implement a continuous and reflective professional development model for reading, writing, and content, based on State Institute for Reading Instruction (SIRI) guidelines. Credit Level: G. Credit Hrs: 1.00-6.00

18PRFS722

Seminar Methodology I

This seminar course examines different elementary, middle, and secondary teaching methodologies. Credit Level: G. Credit Hrs: 1.00-3.00

18PRFS723

Student Portfolios

This course examines various uses of a portfolio and the benefits of using it in the classroom. Credit Level: G. Credit Hrs: 1.00-6.00

18PRFS724

Integrating Technology, Multimedia, and Curriculum

Provides skills and experiences for integrating the use of technology and multimedia tools in curriculum for school-based staff. Credit Level: G. Credit Hrs: 1.00-5.00

18PRFS725

Seminar and Assessor Training

This course is designed strictly for veteran teachers who have been selected by their school districts to become assessors. They will understand the assessor's role in licensure as well as pass the APT to become assessors for the state. Credit Level: G. Credit Hrs: 1.00-6.00

18PRFS726

Seminar Reflective Practice

Seminar in reflective practice and teaching. Credit Level: G. Credit Hrs: 1.00-3.00

18PRFS727

Application Based Instruction: Pathwise Training

This training is to provide teachers with a working knowledge of the Pathwise framework. This will allow mentors to develop good observation skills, provide objective feedback and suggestions, as well as prepare entry-year teachers for Praxis III. Credit Level: G. Credit Hrs: 1.00-5.00

18PRFS728

Seminar in Teaching Language Arts

Seminar in topics related to teaching language arts. Topics vary with each seminar. Credit Level: G. Credit Hrs: 1.00-5.00

18PRFS729

Seminar in Standards-Based Curriculum

A series of seminars related to topics in standards-based curriculum and its effect on curriculum design and instructional strategies. Credit Level: G. Credit Hrs: 1.00-6.00

18PRFS730

Cooperative Grouping Strategies

This course is designed help teachers involve students in the process of active, rather than passive, learning techniques. Credit Level: G. Credit Hrs: 1.00-6.00

College of Education, Criminal Justice, and Human Services

Professional Seminar

18PRFS730

Cooperative Grouping Strategies

This course is designed help teachers involve students in the process of active, rather than passive, learning techniques. Credit Level: G. Credit Hrs: 1.00-6.00

18PRFS731

Strategic Reading in the Middle Years

Teachers will learn to teach strategic reading skills including strengthening comprehension skills, methods for scaffolding, and increasing vocabulary skills. Credit Level: G. Credit Hrs: 1.00-6.00

18PRFS732

Managing Literacy Learning Situations

This course will instruct teachers on how to design learning centers aligned to Ohio Literacy standards. Credit Level: G. Credit Hrs: 1.00-6.00

18PRFS733

Strategic Instructional Design

This course focuses on teacher behavior in two areas: effective lesson design and quality instructional practices. Credit Level: G. Credit Hrs: 1.00-6.00

18PRFS734

Action Research in Support of School Change and Continuous Improvement

Introduction to action research, evaluation, and case study research methods to support schools in applying data to drive their school change and continuous improvement efforts. Credit Level: G. Credit Hrs: 2.00-3.00

18PRFS735

Action Research in Support of School Change and Continuous Improvement

Action research, evaluation, and case study research methods to support schools in applying data to track their school change and continuous improvement efforts. Prereq: 18PRFS734. Credit Level: G. Credit Hrs: 2.00-3.00

18PRFS736

Action Research in Support of School Change and Continuous Improvement

Action research, evaluation, and case study research methods to support schools in applying data to track their school change and continuous improvement efforts. Prereq: 18PRFS735. Credit Level: G. Credit Hrs: 2.00-3.00

18PRFS737

Mathematics Professional Development

Students examine how children learn mathematics, research instructional strategies that improve student learning, and learn how to teach mathematics with problem solving as a primary focus. Credit Level: G. Credit Hrs: 1.00-5.00

18PRFS738

Engaging Activities to Motivate Your Students

Teachers will be presented with strategies and activities toward teaching in a standards-based Social Studies classroom. Credit Level: G. Credit Hrs: 1.00-6.00

18PRFS739

Engaging Activities Across All Standards

Teachers will be presented with strategies and activities toward teaching standards in American history, government, economics, and geography. Credit Level: G. Credit Hrs: 1.00-6.00

18PRFS740

Transforming Students from Academic Consumers to Producers

This course will instruct teachers to help prepare students for the OAT test. Teachers will learn to teach cross-curricular strategies. Credit Level: G. Credit Hrs: 1.00-6.00

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Professional Seminar

18PRFS741

Crafting Curriculum

This course focuses on guiding curriculum development questions and examines the way in which instruction and assessment are supported by the curriculum. Credit Level: G. Credit Hrs: 1.00-6.00

18PRFS742

Competence Promotion

The promotion of competence in teaching and learning techniques for the student. Credit Level: G. Credit Hrs: 1.00-3.00

18PRFS743

Literacy

This course will help teachers develop techniques to support literacy development. Credit Level: G. Credit Hrs: 1.00-6.00

18PRFS744

Phonics & Reading

Teachers will learn the fundamental principles and concepts to teach reading. Credit Level: G. Credit Hrs: 1.00-6.00

18PRFS745

Transitioning from Secondary to College Level Writing

This course will instruct teachers in ways to increase and improve writing skills of secondary students. Credit Level: G. Credit Hrs: 1.00-6.00

18PRFS746

Using Personal Finance to Enhance Learning in Mathematics

Teachers will learn to help students better understand math skills as they relate to personal finance decisions. Credit Level: G. Credit Hrs: 1.00-6.00

18PRFS747

German Art Expressionism

This course takes an in-depth look at German Expressionism, an art movement which occurred in pre-war Germany between 1900 and 1914. Credit Level: G. Credit Hrs: 1.00-6.00

18PRFS748

Learning Strategies

Students will understand that the two main memory systems govern different types of learning. Credit Level: G. Credit Hrs: 1.00-6.00

18PRFS749

Secondary Teaching Methods: Science

This course focuses on frameworks for thinking about instructional goals in the field, suitable instructional models and practices, values issues associated with the field, as well as pedagogical requirements uniquely associated with science subject matter. Credit Level: G. Credit Hrs: 1.00-6.00

18PRFS750

School Leadership

Issues in leadership in the schools. Credit Level: G. Credit Hrs: 1.00-6.00

18PRFS751

Teaching Calculus

This course addresses derivatives: graphical, numerical, and algebraic points of view; derivatives of the basic functions; and applications of differentiation. It also covers antiderivatives, integrals, definite integrals, integration, and infinite sequences. Credit Level: G. Credit Hrs: 1.00-9.00

18PRFS752

Advanced Topics in Gifted, Creative, or Talented Education

This course addresses topics in teaching children who are gifted, creative, or talented. Credit Level: G. Credit Hrs: 1.00-6.00

18PRFS753

Secondary Teaching Methods: Mathematics

This course focuses on frameworks for thinking about instructional goals in the field, suitable instructional models and practices, values issues associated with the field, as well as pedagogical requirements

College of Education, Criminal Justice, and Human Services

Professional Seminar

18PRFS753

Secondary Teaching Methods: Mathematics

uniquely associated with mathematics subject matter. Credit Level: G. Credit Hrs: 1.00-6.00

18PRFS754

Human Development: Adolescent

Topics in this course include principles, issues, and selected theories associated with development in middle childhood and adolescence. Credit Level: G. Credit Hrs: 1.00-6.00

18PRFS755

Mathematics Curriculum

This course prepares students to understand the measurement and evaluation aspects of teaching. Credit Level: G. Credit Hrs: 1.00-6.00

18PRFS756

Science Curriculum

This course prepares students to understand the aspects of teaching in the field of science. Credit Level: G. Credit Hrs: 1.00-6.00

18PRFS757

Calculus

Selected topics dealing with various functions, systems of linear equations, limits and derivatives will be presented, developed, and practiced. Credit Level: G. Credit Hrs: 1.00-6.00

18PRFS758

Topics in Probability and Statistics

Several mathematical topics underlying the mathematical approaches to probability and statistics will be presented, developed, and practiced. Credit Level: G. Credit Hrs: 1.00-6.00

18PRFS759

Fundamentals of Algebra with Geometry Topics

Selected topics dealing with various areas fundamental to the study of algebra, including related topics in geometry, will be presented, developed, and practiced. Credit Level: G. Credit Hrs: 1.00-6.00

18PRFS760

Technology Seminar

Seminar in current technology and its use in the classroom. Credit Level: G. Credit Hrs: 1.00-3.00

18PRFS761

Meeting Academic Standards with the Internet

Examines ways in which well-designed internet-supported activities can help students meet academic standards efficiently. Credit Level: G. Credit Hrs: 1.00-6.00

18PRFS762

Response to Intervention Models

This class focuses on implementation of school-wide intervention practices. Credit Level: G. Credit Hrs: 1.00-6.00

18PRFS763

Children's Authors on the Web

Introduces the basic concepts of author studies and how they can support and enhance student reading and writing. Locates and utilizes author studies available on the web. Credit Level: G. Credit Hrs: 1.00-6.00

18PRFS764

Creating and Sustaining Professional Learning Communities

This course instructs educators and administrators to accurately identify and meet the ever-changing needs of each student. Credit Level: G. Credit Hrs: 1.00-6.00

18PRFS765

Counselor's Academy

This course instructs support staff in various public K-12 settings to meet the needs of the students and families they are helping. Credit Level: G. Credit Hrs: 1.00-6.00

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Professional Seminar

18PRFS766

Professional Development Natural Life Sciences

Professional development in the natural life sciences. Credit Level: G. Credit Hrs: 4.00

18PRFS767

Professional Development Topics in Ecology

Professional development in the natural life sciences. Credit Level: G. Credit Hrs: 4.00-6.00

18PRFS768

Internship

An Internship experience applied to an identified area of professional development, most often associated with licensure or an endorsement. Credit Level: G. Credit Hrs: 1.00-6.00

18PRFS769

Teaching Young Children With Learning Disabilities

This course will introduce methods and strategies for teaching young children with learning disabilities. Credit Level: G. Credit Hrs: 1.00-3.00

18PRFS770

Application-Based Instruction

Current applications and their use in instruction. Credit Level: G. Credit Hrs: 2.00-3.00

18PRFS771

TALL: Teacher Academy for Leaders and Learners in Mathematics Education.

This course will instruct specialists and support staff in public K-12 settings to work with students and families in the area of mathematics education. Credit Level: G. Credit Hrs: 1.00-6.00

18PRFS772

Understanding Educational Organizations

This course is the study of organizational theories and their application within education. Credit Level: G. Credit Hrs: 1.00-6.00

18PRFS773

Assessment and Intervention for Early Childhood

This course covers foundations in theory, assessment, and intervention techniques for early childhood and preschool intervention. Credit Level: G. Credit Hrs: 1.00-6.00

18PRFS774

The Brain

Students will explore the physical aspects of the brain and consider its role in emotions, memory, reasoning, planning, and problem solving. Credit Level: G. Credit Hrs: 1.00-6.00

18PRFS775

Exploring the Jewish Experience

This course is designed for teachers in Jewish and non-sectarian schools who are responsible for teaching Jewish studies subjects, topics, and themes through texts, films, and literature. Credit Level: G. Credit Hrs: 1.00-12.00

18PRFS776

Analysis of Student Work

This course is intended to assist school-based mentors, university-based supervisors, interns, and new teachers in the analysis of student work. Credit Level: G. Credit Hrs: 1.00-6.00

18PRFS777

Introduction to Instructional Mentoring

This course is intended for educators wishing to become mentor teachers in K-12 schools. Emphasis will be on strategies for creating successful, collegial relationships between the mentor/mentee pairing. Credit Level: G. Credit Hrs: 1.00-6.00

18PRFS779

Cognitive Functions

The goal of this class is to provide pre-service teachers with information on how individuals learn, in order to influence how they think about, structure, and deliver instruction in the classroom. Credit Level: G.

College of Education, Criminal Justice, and Human Services

Professional Seminar

18PRFS779

Cognitive Functions

Credit Hrs: 1.00-6.00

18PRFS780

Evidenced-Based Practices in Early Intervention for Pre-K Special Needs Endorsement Licensure

A licensure only class in methods and management techniques in providing appropriate developmental experiences for children with disabilities in groups of typically developing children. Credit Level: G. Credit Hrs: 1.00-6.00

18PRFS781

Preschool Education and Issues for Early ChildhoodSpecial Education Teachers

This course will provide special education personnel with a thorough understanding of the tenets of preschool education philosophy, curriculum, and instruction for all children. Credit Level: G. Credit Hrs: 1.00-6.00

18PRFS782

Phonics II

This course is designed to provide research-based and historical/cultural information about the teaching and learning of phonetics, phonics, word study, and spelling in relation to developing learners and a total reading program. Credit Level: G. Credit Hrs: 1.00-6.00

18PRFS783

Reflection in Teaching

Participants will give thoughtful consideration to the ways in which they now engage in professional work. They will also identify personal priorities and resources for making a credible difference in education through their practice. Credit Level: G. Credit Hrs: 1.00-6.00

18PRFS802

Contemporary Issues in American Education

Contemporary issues and topics in the American education system. Credit Level: G. Credit Hrs: 3.00

18PRFS804

Assessment, Evaluation, and Testing in ESL

This online course deals with the application of contemporary research in methodologies and measurement for accurately assessing and linking assessment and instruction in pre-K-12 culturally and linguistically diverse students learning ESL. Discussion of the effect of culture, language, and socioeconomic status on the assessment of ESL learning and achievement and the evaluators' and teachers' attitudes toward diagnosis and instructional recommendations for ESL populations will be emphasized. Credit Level: G. Credit Hrs: 1.00-6.00

18PRFS893

Ethics in Educational Leadership

This course is designed to introduce students to a variety of theories of ethical thought and their relationship to educational leadership. Through exposure to multiple ethical modes of thought, the students are invited to reflect upon their own ethical positions and apply them directly to critical dilemmas. Credit Level: G. Credit Hrs: 1.00-6.00

18PRFS950

Superintendency

A course which examines the role, functions, skills, and responsibilities of the school superintendency. As such, it is a course which is multidisciplinary in nature because the position rests at the apex of all school systems. Credit Level: G. Credit Hrs: 1.00-6.00

Psychology

18PSYC721

School Organization and the Role of the School Psychologist

Orientation to schools as organizations, schools and educational issues, and the role and function of school psychologists and other professionals. Includes supervised field experiences. Credit Level: G. Credit Hrs: 3.00

H=University Honors course.

BoK (Breadth of Knowledge) Coding. DC: Diversity & Culture. EC: English composition. FA: Fine Arts. HP: Historical Perspectives. HU: Humanities. LT: Literature. NS: Natural Sciences. QR: Quantitative Reasoning. SE: Social & Ethical Issues. SS: Social Sciences.

Psychology

18PSYC721

School Organization and the Role of the School Psychologist

Orientation to schools as organizations, schools and educational issues, and the role and function of school psychologists and other professionals. Includes supervised field experiences. Credit Level: G. Credit Hrs: 3.00

18PSYC730

Introduction to Legal and Ethical Issues in School Psychology

Examines recent legislation, regulations, court decisions, and ethical standards in terms of their impact on the work of helping professionals. Credit Level: G. Credit Hrs: 1.00

18PSYC781

Professional Seminar III

Various professional seminars. Credit Level: G. Credit Hrs: 1.00-3.00

18PSYC805

Behavior Research and Accountability Methods

Examines research methods and designs appropriate to the study of children's learning and behavior problems; requires research project. Perm of Instructor. Credit Level: G. Credit Hrs: 3.00

18PSYC810

Developmental Principles and Psychopathology

Foundations for child development and developmental psychopathology from an ecological and competence enhancement perspective. Emphasis is on implications for intervention and practice. Credit Level: G. Credit Hrs: 3.00

18PSYC815

Social Cognitive Theory and Intervention

Reviews recent literature in social and cognitive learning that has implications for assessment and interventions with children. Credit Level: G. Credit Hrs: 1.00

18PSYC821

School Psychology Practicum I

Integrated field experience in individual child study, assessment and intervention design, and related professional skills. Credit Level: G. Credit Hrs: 1.00-5.00

18PSYC822

School Psychology Practicum II

Integrated field experience in individual child study, assessment and intervention design, and related professional skills. Credit Level: G. Credit Hrs: 1.00-5.00

18PSYC823

School Psychology Practicum III

Integrated field experience in individual child study, assessment and intervention design, and related professional skills. Credit Level: G. Credit Hrs: 1.00-5.00

18PSYC824

Early Intervention Practicum I

Integrated, applied, supervised experience in school psychological services in early childhood settings. Credit Level: G. Credit Hrs: 1.00-5.00

18PSYC825

Early Intervention Practicum II

Integrated, applied, supervised experience in school psychological services in early childhood settings. Credit Level: G. Credit Hrs: 1.00-5.00

18PSYC826

Early Intervention Practicum III

Integrated, applied, supervised experience in school psychological services in early childhood settings. Credit Level: G. Credit Hrs: 1.00-5.00

Psychology

18PSYC840

Theories of Measurement for School Psychology

This first course in a sequence of required assessment courses provides foundational, technical, and theoretical knowledge in assessment and measurement theory and concepts. Credit Level: G. Credit Hrs: 3.00

18PSYC841

Introduction to Intellectual Assessment

Measurement of intellectual and cognitive functioning of children and adolescents, interpretation of scores, and test use. Credit Level: G. Credit Hrs: 3.00

18PSYC842

Academic Assessment

Practice with advanced techniques in direct and norm-referenced academic assessment for use in intervention planning and progress monitoring. Credit Level: G. Credit Hrs: 3.00

18PSYC843

Functional Assessment

An intensive introduction to functional assessment with low incidence populations, with particular emphasis on functional behavioral assessment and intervention. Credit Level: G. Credit Hrs: 3.00

18PSYC850

Assessment and Intervention for Early Childhood

Foundations in theory, assessment, and intervention techniques for early childhood and preschool intervention. Credit Level: G. Credit Hrs: 3.00

18PSYC851

Family Interventions: Theory and Application

An examination of foundations for working with families in schools with emphasis on developing school-based interventions and increasing home-school collaboration. Perm of Instructor. Credit Level: G. Credit Hrs: 3.00

18PSYC852

School-Based Behavioral Counseling

Provides knowledge, skills, and practice for development, implementation, and evaluation of school-based counseling groups for children and adolescents from an ecobehavioral orientation. Requirements include co-leading group and data-based portfolio entry. Perm of Instructor. Credit Level: G. Credit Hrs: 3.00

18PSYC853

School-Based Behavioral Counseling Practicum

Supervised experiences in school-based behavioral counseling for groups and individuals. Prereq: 18PSYC852. Credit Level: G. Credit Hrs: 1.00-3.00

18PSYC855P

PreK Special Needs: Assessment and Intervention

Pre-K Special Needs Endorsement course addressing foundations in theory, assessment, and intervention techniques for early childhood. Credit Level: G. Credit Hrs: 3.00

18PSYC860

Applied Behavior Analysis

Provides intensive introduction and practice in applied behavior analysis procedures and their use in developing classroom intervention strategies. Perm of Instructor. Credit Level: G. Credit Hrs: 3.00

18PSYC861

Foundations in Social/Behavioral Assessment and Intervention

Examines and provides practice in implementing and evaluating school-based interventions within the methodology of applied behavior analysis. Emphasis is on application with social-emotional problems. Credit Level: G. Credit Hrs: 3.00

18PSYC862

Academic Interventions

Examines a wide range of research-based intervention procedures for children's academic problems. Practicum component included,

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Psychology

18PSYC862

Academic Interventions

Involving design and implementation of intervention program for students experiencing classroom difficulty. Credit Level: G. Credit Hrs: 3.00

18PSYC863

School-Based Mental Health Prevention and Intervention

Foundations and principles for effective school-based group and system level interventions and accountability, with an emphasis on school-wide prevention programs and crisis response. Credit Level: G. Credit Hrs: 3.00

18PSYC871

Individual Study in School Psychology

Individual research on a problem relevant to school psychology. Faculty/individual contract required. Credit Level: G. Credit Hrs: 1.00-15.00

18PSYC872

Consultation I

Examines variables which influence consultative effectiveness; emphasizes skill development in collaborative problem-solving techniques. Perm of Instructor. Credit Level: G. Credit Hrs: 3.00

18PSYC873

Consultation II

Examines the conceptual and practical basis for effective consultation-based service delivery and use of collaborative problem-solving at a systems level. Credit Level: G. Credit Hrs: 3.00

18PSYC877

Critical Examination and Legal-Ethical Issues for Professional Practice

Review of legal, ethical, and professional practice issues in school psychology. Includes critical review of current issues in professional practice. Credit Level: G. Credit Hrs: 2.00

18PSYC879

Field Practicum in School Psychology

School Psychology field practicum. Credit Level: G. Credit Hrs: 1.00-15.00

18PSYC881

Advanced School Experience I

Provides advanced experience in services delivery, leadership and systems change, supervision, and research for doctoral students in School Psychology. Involves field-based work and seminars. Prereq: 18PSYC821, 18PSYC822. Coreq: 18PSYC823. Credit Level: G. Credit Hrs: 1.00-15.00

18PSYC882

Advanced School Experience II

Provides advanced experience in services delivery, leadership and systems change, supervision, and research for doctoral students in School Psychology. Involves field-based work and seminars. Credit Level: G. Credit Hrs: 1.00-15.00

18PSYC883

Advanced School Experience III

Provides advanced experience in services delivery, leadership and systems change, supervision, and research for doctoral students in School Psychology. Involves field-based work and seminars. Credit Level: G. Credit Hrs: 1.00-15.00

18PSYC891

Internship in School Psychology I

Supervised experiences in an applied setting plus regular on-campus seminars as arranged. Perm of Instructor. Credit Level: G. Credit Hrs: 1.00-15.00

18PSYC892

Internship in School Psychology II

See 18PSYC891. Information, skills, and experiences in indirect service delivery methods. Perm of Instructor. Credit Level: G. Credit Hrs: 1.00-

Psychology

18PSYC892

Internship in School Psychology II

15.00

18PSYC893

Internship in School Psychology III

See 18PSYC891. Information, skills, and experiences in indirect service delivery methods. Perm of Instructor. Credit Level: G. Credit Hrs: 1.00-15.00

18PSYC905

Advanced Behavioral Research Methods

Examines advanced measurement, sampling, experimental design, and data analysis for single case experimental research. Designed for doctoral students in School Psychology and related disciplines. Credit Level: G. Credit Hrs: 2.00

18PSYC910

Advanced Behavioral Theory and Practice

Surveys major areas of learning from a behavioral point of view, from its parochial origins to specific demonstrations and applications in human and nonhuman research. Perm of Instructor. Credit Level: G. Credit Hrs: 2.00

18PSYC953

Doctoral Colloquium in School Psychology

Discussion of research experiences, professional issues, and leadership. Credit Level: G. Credit Hrs: 1.00

18PSYC954

Doctoral Colloquium in School Psychology

See 18PSYC953. Credit Level: G. Credit Hrs: 1.00

18PSYC961

Doctoral Internship in School Psychology

Culminating field-based Internship, providing comprehensive school psychological services, for doctoral-level School Psychology students. Credit Level: G. Credit Hrs: 1.00-15.00

18PSYC962

Doctoral Internship in School Psychology II

Culminating field-based Internship, providing comprehensive school psychological services, for doctoral-level School Psychology students. Prereq: 18PSYC961. Credit Level: G. Credit Hrs: 1.00-15.00

18PSYC963

Doctoral Internship in School Psychology III

Culminating field-based Internship, providing comprehensive school psychological services, for doctoral-level School Psychology students. Prereq: 18PSYC962. Credit Level: G. Credit Hrs: 1.00-15.00

18PSYC973

Individual Dissertation Guidance

Individual study. Credit Level: G. Credit Hrs: 1.00-15.00

Secondary Education

18SEC502

Curriculum in Secondary Schools: Foreign Language

Conceptions and theoretical perspectives of foreign language curriculum and components. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

18SEC503

Curriculum in Secondary Schools: Language Arts

Conceptions and theoretical perspectives of language arts curriculum and components. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

18SEC504

Curriculum in Secondary Schools: Mathematics

Conceptions and theoretical perspectives of mathematics curriculum and components. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

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Secondary Education**18SEC505****Curriculum in Secondary Schools: Science**

Conceptions and theoretical perspectives of science curriculum and components. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

18SEC506**Curriculum in Secondary Schools: Social Studies**

Conceptions and theoretical perspectives of social studies curriculum and components. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

18SEC511**Instructional Planning**

Focuses on pedagogical concepts and principles related to planning and teaching lessons. Relates theory and research to instructional practices. Emphasizes basic instructional models and techniques. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

18SEC515**Instructional Management**

Examines the impact of the physical and social organization on learner involvement and behavior. Addresses values and principles to be reflected in a teacher's managerial policies. Prereq: 18SEC511. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

18SEC516**Field/Clinical Experience II**

Fifty-hour experience at an assigned school involving observing and teaching in classrooms related to area of licensure sought. Addresses both instructional and management topics and issues. Prereq: 18SEC511. BoK: NA. Credit Level: U, G. Credit Hrs: 2.00

18SEC520**Secondary Teaching Methods: Language Arts**

Develops planning and teaching skills especially appropriate to the teaching English in secondary school classrooms. Prereq: 18SEC511. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

18SEC521**Field/Clinical Experience I: Language Arts**

Sixty-hour experience at an assigned school involving observing and teaching language arts in secondary school classrooms. Prereq: 18SEC511. Coreq: 18SEC520. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

18SEC530**Teaching Methods: Foreign Language**

Pedagogical and theoretical frameworks necessary to implement effective second language classroom instruction. Prereq: 18SEC511. Coreq: 18SEC531. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

18SEC531**Field/Clinical Experience I: Foreign Language**

Sixty-hour experience at an assigned school involving observing and teaching foreign language in secondary school classrooms. Prereq: 18SEC511. Coreq: 18SEC530. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

18SEC540**Secondary Teaching Methods: Mathematics**

Develops planning and teaching skills especially appropriate to the teaching of mathematics. Prereq: 18SEC511. Coreq: 18SEC541. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

18SEC541**Field/Clinical Experience I: Mathematics**

Sixty-hour experience at an assigned school involving observing and teaching mathematics in secondary school classrooms. Prereq: 18SEC511. Coreq: 18SEC540. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

18SEC550**Secondary Teaching Methods: Science**

Develops planning and teaching skills especially appropriate to the teaching of science subjects. Prereq: 18SEC511. Coreq: 18SEC551. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

Secondary Education**18SEC550****Secondary Teaching Methods: Science**

Develops planning and teaching skills especially appropriate to the teaching of science subjects. Prereq: 18SEC511. Coreq: 18SEC551. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

18SEC551**Field/Clinical Experience I: Science**

Sixty-hour experience at an assigned school involving observing and teaching science in secondary school classrooms. Prereq: 18SEC511. Coreq: 18SEC550. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

18SEC560**Secondary Teaching Methods: Social Studies**

Develops planning and teaching skills especially appropriate to the teaching of social studies. Prereq: 18SEC511. Coreq: 18SEC561. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

18SEC561**Field/Clinical Experience I: Social Studies**

Sixty-hour experience at an assigned school involving observing and teaching social studies in secondary school classrooms. Prereq: 18SEC511. Coreq: 18SEC560. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

18SEC568**Practicum in Secondary Education**

Restricted option for teaching opportunities in secondary schools. By special arrangement. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-3.00

18SEC570**Teaching Reading, Writing, and Learning Strategies**

Examines the role of reading and writing in content area classrooms. Addresses young adult reading, writing, and learning strategies and ways to enhance them. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

18SEC620**Applied Secondary Teaching Methods: English/Language Arts**

Refines and develops English/language arts-related teaching skills in conjunction with the Internship experience. Prereq: 18SEC511. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

18SEC630**Applied Secondary Teaching Methods: Foreign Languages**

Refines and develops foreign language-related teaching skills in conjunction with the Internship experience. Prereq: 18SEC511. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

18SEC640**Applied Secondary Teaching Methods: Mathematics**

Refines and develops mathematics-related teaching skills in conjunction with the Internship experience. Prereq: 18SEC511. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

18SEC650**Applied Secondary Teaching Methods: Science**

Refines and develops science-related teaching skills in conjunction with the Internship experience. Prereq: 18SEC511. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

18SEC660**Applied Secondary Teaching Methods: Social Studies**

Refines and develops social studies-related teaching skills in conjunction with the Internship experience. Prereq: 18SEC511. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

18SEC671**Teaching Literature in the Secondary School**

Examines adolescent and young adult literature, including development of interest and appreciation, materials, and programs. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

18SEC672**Reading Improvement in Secondary Schools**

Focuses on the diagnostic teaching of developmental and content area

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Secondary Education

18SEC672

Reading Improvement in Secondary Schools

reading, corrective techniques and materials, and program organization. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

18SEC673

Practicum in Secondary Reading

Sixty-hour clinical/field experience observing and practicing the techniques being developed in the corequisite reading improvement course. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-3.00

18SEC691

Internship Teaching I

Intensive experience at a secondary school involving the assumption of sustained teaching responsibilities. Prereq: 18SEC511. BoK: NA. Credit Level: U, G. Credit Hrs: 9.00

18SEC692

Internship Teaching II

Extended experience at a secondary school involving the assumption of sustained teaching responsibilities. Prereq: 18SEC511. BoK: NA. Credit Level: U, G. Credit Hrs: 9.00

18SEC782

Independent Study in Secondary Education

Restricted option for advanced study of special topics. By special arrangement with a program faculty member. Credit Level: G. Credit Hrs: 1.00-6.00

18SEC793

Master Internship Teaching

An intensive teaching experience at an approved secondary school. Credits are based on the nature of the Internship. Prereq: 18SEC511. Credit Level: G. Credit Hrs: 6.00-12.00

18SEC817

Secondary Education: Issues

Focuses on contemporary and enduring issues and problems influencing secondary schools in the United States. Credit Level: G. Credit Hrs: 3.00

18SEC871

Individual Study in Secondary Education

Restricted option for advanced study of special topics. By special arrangement with a program faculty member. Credit Level: G. Credit Hrs: 1.00-6.00

18SEC971

Individual Study in Secondary Education

Restricted option for doctoral students for advanced study of special topics. By special arrangement with a program faculty member. Credit Level: G. Credit Hrs: 1.00-6.00

18SEC972

Graduate Reading in Secondary Education

Restricted option for doctoral students. By special arrangement with a program faculty member. Credit Level: G. Credit Hrs: 1.00-6.00

Special Education

18SPED101

Orientation to Deafness

This course is intended to introduce students to the major concepts and issues in the field of deafness. This course also integrates the disciplines of history, anthropology, linguistics, creative arts, and literature as they apply to deaf culture and the deaf community. BoK: SS., DC. Credit Level: U. Credit Hrs: 3.00

18SPED191

American Sign Language I

A first level course in the visual, gestural language of American Sign Language (ASL). This course is designed to offer an overview of linguistic, cultural, and sociolinguistic information regarding ASL while developing communication skills, both receptive and expressive. An understanding of culture and identity of the deaf community will be

Special Education

18SPED191

American Sign Language I

incorporated into this course. BoK: DC. Credit Level: U. Credit Hrs: 3.00

18SPED192

American Sign Language II

A second level course in the visual, gestural language of American Sign Language (ASL). This course is designed to offer an overview of linguistic, cultural, and sociolinguistic information regarding ASL while developing communication skills, both receptive and expressive. An understanding of culture and identity of the deaf community will be incorporated into this course. This course will be conducted in sign language with minimal voicing. Prereq: 18SPED191. BoK: DC. Credit Level: U. Credit Hrs: 3.00

18SPED193

American Sign Language III

A third level course in the visual, gestural language of American Sign Language (ASL). This course is designed to offer an overview of linguistic, cultural, and sociolinguistic information regarding ASL while developing communication skills, both receptive and expressive. An understanding of culture and identity of the deaf community will be incorporated into this course. This class will be conducted in sign language with minimal voicing. Prereq: 18SPED191, 18SPED192. BoK: DC. Credit Level: U. Credit Hrs: 3.00

18SPED201

Introduction to Interpreting Theory and Practice

This course will provide students with foundations of working in the interpreting field including, influences of culture on communication, working in multicultural communities, cultural frames, processing models of interpretation, mediation challenges, history and professionalization of interpreting, principles of professional practice, interpreting models. Prereq: 18SPED291. BoK: DC. Credit Level: U. Credit Hrs: 3.00

18SPED202

Processing Skills Development for Interpreters

This course will introduce various cognitive processes involved in sign language interpreting including memorization, the role of memory in the interpretation process, acuity and discrimination, phrase and word level pattern inferences, and delayed repetition. Concept application will be demonstrated through performance-based assessment. BoK: DC. Credit Level: U. Credit Hrs: 3.00

18SPED205

Methods of Interpreting

This course concentrates on further development and application, including analysis, of consecutive and simultaneous sign language interpreting. Additional aspects of interpreting such as expanded lexicon, fingerspelling competencies and current topics will be addressed. Prereq: 18SPED202. BoK: DC. Credit Level: U. Credit Hrs: 1.00-6.00

18SPED210

Psychosocial Aspects of Deafness

This course is designed to introduce students to psychosocial aspects of deafness. Students will learn about the language, norms of behavior, values, and traditions. The evolution of a pathological view of deaf people to a cultural one will be analyzed from a historical and sociological perspective. BoK: SS., DC. Credit Level: U. Credit Hrs: 3.00

18SPED211

History of Deaf Heritage

This course is an introductory survey of the unique characteristics influencing deaf people throughout the past hundred years, and the achievements and accomplishments made by deaf individuals in various professional fields. Also, students will learn the importance of the national organizations of the deaf and of the achievements of deaf advocacy groups protecting the rights of deaf people. BoK: HP., DC. Credit Level: U. Credit Hrs: 3.00

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Special Education

18SPED250

Foundations and History of Special Education

This course is designed for teacher candidates to understand the issues and concepts related to the history and foundation of special education. This course is directly related to the Council for Exceptional Children (CEC) Special Education Content Standard #1: Foundations; Standard #2: Development and Characteristics of Learners; and Standard #3: Individual Learning Differences. BoK: SE. Credit Level: U. Credit Hrs: 4.00

18SPED291

Intermediate American Sign Language I

The course seeks to deepen students' grammatical competency on all linguistic levels: sign formation, vocabulary, morphology, syntax, and discourse. Emphasis will be placed upon improving students' receptive and productive abilities through exposure to connected discourse. BoK: DC. Credit Level: U. Credit Hrs: 3.00

18SPED292

Intermediate American Sign Language II

The course seeks to deepen students' grammatical competency on all linguistic levels: sign formation, vocabulary, morphology, syntax, and discourse. Emphasis will be placed upon improving students' receptive and productive abilities through exposure to connected discourse. Prereq: 18SPED291. BoK: DC. Credit Level: U. Credit Hrs: 3.00

18SPED293

Intermediate American Sign Language III

The course seeks to deepen students' grammatical competency on all linguistic levels: sign formation, vocabulary, morphology, syntax, and discourse. Emphasis will be placed upon improving students' receptive and productive abilities through exposure to connected discourse. Prereq: 18SPED291, 18SPED292. BoK: DC. Credit Level: U. Credit Hrs: 3.00

18SPED310

Legal Issues of Deafness

A comprehensive course about deaf and hard of hearing individuals seeking equal access to social services, education, employment, and medical care, including federal and state laws prohibiting discrimination against the handicapped. BoK: SS., DC. Credit Level: U. Credit Hrs: 3.00

18SPED311

Advanced Interpreting and Transliterating Skills Development

Course focuses on deeper understanding and application of cognitive processing skills employed during consecutive simultaneous interpretation. Course will focus on additional theoretical foundations related to interpreting skills needed to manage the interpreting process successfully. Perm of Instructor. BoK: DC. Credit Level: U. Credit Hrs: 3.00

18SPED312

Critical Analysis for Interpreters

Through application of the Demand-Control Schema, students explore and discuss the interpreting contexts, examine roles and responsibilities, and address situational issues occurring within these contexts. Prereq: 18SPED311. BoK: DC. Credit Level: U. Credit Hrs: 3.00

18SPED313

Discourse Analysis for Interpreters

This course is the study of discourse for interpreters by analyzing interpreters' communicative competence. Knowledge of what is appropriate in various language communities will be examined. This course also includes the study of conversational interactions in English and ASL, including an analysis of the context and intentions of the people within various communication events. BoK: NA. Credit Level: U. Credit Hrs: 3.00

18SPED314

Portfolio Assessment I

Course will provide students with a structured method for synthesizing

Special Education

18SPED314

Portfolio Assessment I

evidence of learning and accomplishments into a formal portfolio. BoK: DC. Credit Level: U. Credit Hrs: 1.00

18SPED321

Educational Interpreting and Transliterating Skills Development

Students will explore the role of the educational interpreter in K-12 and post-secondary settings. Relative laws and regulations, communication methods, resources, and practices by various members of the educational community will be covered. Topics that concern educational interpreters, including ethical and educational practices, will also be investigated. Perm of Instructor. BoK: DC. Credit Level: U. Credit Hrs: 3.00

18SPED322

Interpreting and Technology

This course is designed to study the relationship of technology on the deaf community. Students will engage in discussions to increase awareness and understanding of technology employed in various contexts. Students will also participate in activities designed to increase competencies needed for interpreting with technology. Perm of Instructor. BoK: DC. Credit Level: U. Credit Hrs: 3.00

18SPED323

Community Interpreting and Transliterating Skills Development

Course focus includes ethical topics in interpreting/transliterating, including students' role in the interpreting/transliterating process. Course will address various interpreting/ transliterating settings within community interpreting/transliterating in complex conflict resolutions. Course will focus on additional concepts related to advanced level interpreting/ transliterating skills specifically related to the influence of environmental factors. Prereq: 18SPED322. BoK: DC. Credit Level: U. Credit Hrs: 3.00

18SPED324

Business and Leadership of Interpreting

Students will explore various leadership theories and their application to the field of sign language interpreting. Business practices and ethics as they pertain to community sign language interpreters will be explored through use of small business service provider models. BoK: NA. Credit Level: U. Credit Hrs: 3.00

18SPED325

Educational Interpreting and Learning

Students will explore the role of the educational interpreter in K-12 and post-secondary settings. Relative laws and regulations, as well as communication methods, resources, and practices by various members of the educational community will be covered. Topics that concern educational interpreters including ethical and educational practices will also be investigated. Prereq: 18SPED321. BoK: DC. Credit Level: U. Credit Hrs: 3.00

18SPED326

Educational Interpreting and Language

This course examines child development and the acquisition of a first language for hearing and deaf children. Students gain understanding of children's growth and development and the role of language and the influence on interpreting experiences. BoK: NA. Credit Level: U. Credit Hrs: 3.00

18SPED391

Advanced American Sign Language and Linguistics

This course will cover Units 1-4 in Signing Naturally-Level III curriculum. Students will increase their skills in receptive and expressive American Sign Language grammar, semantics, syntax, and discourse via a total immersion experience (no voicing in the classroom). Prereq: 18SPED293. BoK: DC. Credit Level: U. Credit Hrs: 3.00

18SPED392

Advanced American Sign Language II

This course will cover Units 5-8 in Signing Naturally-Level III curriculum. Students will increase their skills in receptive and expressive American

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Special Education

18SPED392

Advanced American Sign Language II

Sign Language grammar, semantics, syntax, and discourse via a total immersion experience (no voicing in the classroom). BoK: DC. Credit Level: U. Credit Hrs: 3.00

18SPED393

Advanced American Sign Language III

Advanced American Sign Language III will cover Units 9-12 in Signing Naturally-Level III curriculum. Students will increase their skills in receptive and expressive American Sign Language grammar, semantics, syntax, and discourse via a total immersion experience (no voicing in the classroom). BoK: DC. Credit Level: U. Credit Hrs: 3.00

18SPED401

Field Experience Preparation

This course introduces students to the concepts and practice of service learning and mentoring/ guided leadership for interpreting. The course prepares students for service learning and guided leadership projects through design, development and discussion of proposals. Prereq: 18SPED313. BoK: SE. Credit Level: U. Credit Hrs: 2.00

18SPED402

Field Experience I: Service Learning

This is a field experience course designed to focus on service learning. The students will have the opportunity to interact with various members of the Deaf and/or Interpreting community to enrich their understanding of the culture and profession. Students will conduct projects previously designed during 18 SPED 401. Prereq: 18SPED401. BoK: DC. Credit Level: U. Credit Hrs: 6.00

18SPED403

FIELD EXPERIENCE II: MENTORING

This is a field experience course designed to focus on peer mentoring and development. The students will have the opportunity to interact with other student interpreters who are beginning their internship/practicum experience in sign language interpreting to enrich their understanding of and sensitivity to peer supervision and the novice interpreting experience. Students will conduct projects previously designed during SPED 401. Prereq: 18SPED402. BoK: DC. Credit Level: U. Credit Hrs: 6.00

18SPED404

Professionalism and Ethics

This course guides students in the investigation of professional identity and ethical practice. The course continues student knowledge and skill development for practice through the demand- control schema and interpreting discourse as it relates to ethical standards in the interpreting profession. Prereq: 18SPED312. BoK: SE. Credit Level: U. Credit Hrs: 3.00

18SPED406

Portfolio Assessment II

This course is second in a series of a two-part process for development and synthesis of evidence of learning for a final product, a professional portfolio. Students will examine current trends in the field of interpreting and beyond for collecting and integrating professional artifacts into a formal collection. Prereq: 18SPED314. BoK: SE. Credit Level: U. Credit Hrs: 1.00

18SPED442

Independent Study

Individual study in Special Education. Written agreement developed with faculty member required. BoK: NA. Credit Level: U. Credit Hrs: 1.00-3.00

18SPED508

Instructional Strategies: Students with Mild to Moderate Educational Needs

Instructional strategies for students with mild to moderate educational needs. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

College of Education, Criminal Justice, and Human Services

Special Education

18SPED509

Survey of Learning Disabilities: Mild to Moderate

Introduction to concepts and issues related to individual learning differences. BoK: NA. Credit Level: U. Credit Hrs: 3.00

18SPED511

Teaching Reading and Writing to Students with Disabilities I

A two-course sequence emphasizing cognitive processes related to reading and writing and identification of reading disorders in students with disabilities. BoK: DC. Credit Level: U, G. Credit Hrs: 3.00

18SPED512

Teaching Reading and Writing to Students with Disabilities II

A two-course sequence emphasizing reading methods, remediation, and intervention strategies to accommodate learners with reading disorders. This course will include interactions with students with disabilities in an applied setting. BoK: DC. Credit Level: U, G. Credit Hrs: 3.00

18SPED514

Seminar I: Mild to Moderate

Discussion of issues related to Internship and portfolio development. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

18SPED518

Instructional Strategies: Students with Moderate to Intense Educational Needs

Instructional strategies for students with moderate to intense educational needs. This course will include interactions with students with disabilities in an applied setting. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

18SPED519

Augmentative Communication

Integration of principles of language development with principles of augmentative communication. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

18SPED520

Teaching Associate I: Mild to Moderate

Develop skills and ways of knowing and doing in supporting learners with effective instruction. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-12.00

18SPED526

Seminar I: Moderate to Intense

Discussion of issues related to Internship and portfolio development. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

18SPED530

ABA for Educators

Creating a learning environment for classrooms with a special focus on the challenging learner. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

18SPED531

Curriculum Planning for Individuals With Learning Differences

Curriculum planning for individuals with learning differences, with special focus on transitions across the life span. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

18SPED532

Management of Challenging Behaviors

Foundations of theoretical and behavioral models, with special focus on positive behavioral support, functional assessments, and behavior support plans. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

18SPED533

Assessment and Evaluation in Special Education

Discussion and practice of components of effective assessment. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

18SPED538

Language Development in Typical and Exceptional Children

A survey of normal language development in children; factors influencing development and learning; effects of disabilities and other

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Special Education

18SPED538

Language Development in Typical and Exceptional Children

conditions on language development and learning. BoK: DC. Credit Level: U, G. Credit Hrs: 3.00

18SPED581

Overview of Mild, Moderate to Intense Disabilities and their Impact on Learning and Living

Develop in-depth knowledge base in characteristics of learning through reflection, critical analysis, and synthesis. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

18SPED600

The Challenging Learner in Society

An introduction to the concepts and issues related to the schooling, learning, and instruction of individuals who experience significant disabilities. BoK: DC. Credit Level: U, G. Credit Hrs: 3.00

18SPED601

Special Education and the Law

Topics associated with IDEA and related laws. Other topics include theories, learner characteristics, due process, IEP, services, professional ethics, and accountability issues. BoK: NA. Credit Level: G, U. Credit Hrs: 3.00

18SPED602

Current Issues in Special Education

This course focuses on various practices/models in providing services and meeting the challenges of individuals with special needs. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

18SPED604

Internship I: Mild to Moderate

Develop skills in supporting learner development and success. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-12.00

18SPED608

Internship I: Moderate to Intense

Develop skills in supporting learner development and success. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-12.00

18SPED611

Foundations of Literacy

This course focuses on instructional strategies to help children become literate. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

18SPED612

Teaching Reading and Writing through Literature

Teaching reading and writing through the use of literature. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

18SPED625

Intern Seminar in Special Education

Special Education issues seminar concurrent to post-graduate Internship experience. Prereq: 18SPED624. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-3.00

18SPED632

Individual Diversity: Secondary

This course addresses the issues of human diversity, as it is reflected in variations among individuals in learning styles and developmental rates, interaction styles, and accessing the environment through communication, mobility, vision, and audition. Coreq: 18SEC691. BoK: SE. Credit Level: U, G. Credit Hrs: 3.00

18SPED641

Phonics I - Special Education

This course is designed to provide research-based and historical/cultural information about the teaching and learning of phonetics, phonics, word study, and spelling in relation to developing learners and a total reading program. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

College of Education, Criminal Justice, and Human Services

Special Education

18SPED642

Phonics II - Special Education

This course is designed to provide research-based and historical/cultural information about the teaching and learning of phonetics, phonics, word study, and spelling in relation to developing learners and a total reading program. Prereq: 18SPED641. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

18SPED658

Individuals with Learning Disabilities

This course will focus on identification and assessment, educational approaches, educational services alternatives, interactions in the home and classroom, and current issues and trends with regard to children and youth who have learning disabilities. BoK: DC. Credit Level: U, G. Credit Hrs: 3.00

18SPED667

Working with Supporting Families

Discusses methods and interventions for working with and supporting families. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

18SPED691

Autism Spectrum Disorders: An Overview for Educators

Introduction to children within the autism spectrum. Survey of characteristics, impact on learning, and intervention strategies. Techniques and methods for providing meaningful educational experiences and activities with individuals who have autistic-like behavior. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

18SPED660P

Gifted Endorsement: Overview of Education for Gifted, Creative, or Talented Students

Develop knowledge, understanding, and respect for the needs and requirements of students with diverse learning needs in varied educational settings. This is a professional graduate course offered by the Graduate Program in Special Education in the College of Education, Criminal Justice, and Human Services. Credit Level: G. Credit Hrs: 3.00

18SPED661P

Gifted Endorsement: Creating Learning Environments

Students will demonstrate an understanding of technology for planning and managing; choose technologies to modify the instructional process; learn grouping practices that support different learning environments; and identify and prioritize areas of general and differentiated curricula. This is a professional graduate course offered by the Graduate Program in Special Education in the College of Education, Criminal Justice, and Human Services. Credit Level: G. Credit Hrs: 3.00

18SPED662P

Gifted End: Instructional Strategies

Develop knowledge and understanding of the legal aspects and policy considerations for individuals who may be gifted, creative, or talented. This is a professional graduate course offered by the Graduate Program in Special Education in the College of Education, Criminal Justice, and Human Services. Credit Level: G. Credit Hrs: 3.00

18SPED663P

Gifted End: Introduction

General introduction to the education of children. This is a professional graduate course offered by the Graduate Program in Special Education in the College of Education, Criminal Justice, and Human Services. Credit Level: G. Credit Hrs: 3.00

18SPED668P

Gifted End: Legal Aspects and Models

Develop knowledge and understanding of the legal aspects and policy considerations for individuals. This is a professional graduate course offered by the Graduate Program in Special Education in the College of Education, Criminal Justice, and Human Services. Credit Level: G. Credit Hrs: 3.00

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Special Education

18SPED702

Partnerships and Collaboration

Participants will become familiar with the philosophical bases and practical application of interacting collaboratively with colleagues, parents, community members, other professionals, and learners. An introduction to the concepts and issues related to the schooling, learning, and instruction of individuals who experience significant disabilities. Credit Level: G. Credit Hrs: 3.00

18SPED705

Instructional Assessment and Planning

This course (second in a three-quarter sequence) focuses on design, implementation, and assessment of instructional activities for challenging learners. Credit Level: G. Credit Hrs: 3.00

18SPED714

Theories of Language Development I

A survey of linguistic theories and their implications for language learning in normal and linguistically handicapped children and youth. Credit Level: G. Credit Hrs: 3.00

18SPED715

Theories of Language Development II

A continued survey of linguistic theories and their implications for language learning in normal and linguistically handicapped children and youth. Prereq: 18SPED714. Credit Level: G. Credit Hrs: 3.00

18SPED716

Techniques of Developing Language in Children and Youths

Application of language learning theory to classroom instruction and preparation of materials for students. Prereq: 18SPED715. Credit Level: G. Credit Hrs: 3.00

18SPED738

Documenting Professional Practice Through Media

Strategies for documenting and reflecting on professional practice through the use of video; generating evidence for best practice and student learning. Credit Level: G. Credit Hrs: 3.00

18SPED739

Documenting Professional Practice Through Writing

Describing student profiles, reflective questions, and assessment tools in writing; responding to prompts; generating written commentary describing teacher stance and reflections. Credit Level: G. Credit Hrs: 3.00

18SPED740

Teaching Associate Experience

This field experience provides participants with teaching experiences designing, implementing, and evaluating instruction for learners with disabilities. Credit Level: G. Credit Hrs: 1.00-3.00

18SPED745

Clinical/Field Practicum: Special Education

Experiences in schools and agencies serving individuals with disabilities. Credit Level: G. Credit Hrs: 1.00-3.00

18SPED766

Health, Wellness, Leisure, and Transitions

Techniques of delivering career education to individuals with disabilities. Credit Level: G. Credit Hrs: 3.00

18SPED767P

Gifted End: Cultural Diversity and Family GCT

Develop knowledge, understanding, and respect for the needs and requirements of students with diverse learning needs in various educational settings. This is a professional graduate course offered by the Graduate Program in Special Education in the College of Education, Criminal Justice, and Human Services. Credit Level: G. Credit Hrs: 3.00

18SPED768P

Gifted End: Assessment

Learn to analyze and understand assessment. Learn the implications of effective assessment for professional development and the role of bias and distortion in the assessment process. This is a professional

Special Education

18SPED768P

Gifted End: Assessment

graduate course offered by the Graduate Program in Special Education in the College of Education, Criminal Justice, and Human Services. Credit Level: G. Credit Hrs: 3.00

18SPED769P

Gifted End: Collaboration

Students will demonstrate an understanding of technology for planning and managing; choose technologies to modify the instructional process; learn grouping practices that support different learning environments; and identify and prioritize areas of general and differentiated curricula. This is a professional graduate course offered by the Graduate Program in Special Education in the College of Education, Criminal Justice, and Human Services. Credit Level: G. Credit Hrs: 3.00

18SPED770P

Gifted End: Practicum

Develop and maintain a relationship with the mentor and other members of the team, and interact in the role of instructor to students. This is a professional graduate course offered by the Graduate Program in Special Education in the College of Education, Criminal Justice, and Human Services. Credit Level: G. Credit Hrs: 3.00

18SPED778

Classroom Structure/Behavior Management for Special Education

Principles and practice in classroom structure and behavior management for special education. Credit Level: G. Credit Hrs: 3.00

18SPED781

Concepts and Issues in Developmental Disabilities

A survey course for full-time majors in the field studying the total range of mental disability. Credit Level: G. Credit Hrs: 3.00

18SPED783

Language Development: Implications for Special Education

A survey of normal language development in children; factors influencing language development and learning; implications for educating children with special needs in this area. Credit Level: G. Credit Hrs: 3.00

18SPED785

Thesis Guidance

Individual guidance for Special Education majors who are working on a thesis in the master's degree program. Credit Level: G. Credit Hrs: 1.00-9.00

18SPED786

Project Guidance

Individual guidance for Special Education majors who are working on a special project in the master's degree program. Credit Level: G. Credit Hrs: 1.00-9.00

18SPED787

Master's Project Seminar in Special Education

Exploration of current trends and issues for practitioners. Perm of Instructor. Credit Level: G. Credit Hrs: 3.00

18SPED790

Intervention Specialist Internship: Moderate to Intense

This course provides opportunities for the graduate student Intern to develop skills in supporting learners' development through the practice of effective instruction. Credit Level: G. Credit Hrs: 1.00-15.00

18SPED796

Intervention Specialist Internship: Mild to Moderate

Teaching Internship working with students who have mild to moderate educational needs. Perm of Instructor. Credit Level: G. Credit Hrs: 1.00-15.00

18SPED812

Study and Seminar in Communication Assessment

Survey of literature and research; review of procedures and materials on assessment of language, literacy learning, and development in the

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Special Education

18SPED812

Study and Seminar in Communication Assessment

variety of modes. Credit Level: G. Credit Hrs: 2.00-12.00

18SPED871

Individual Study in Special Education

Individual research on a problem in the field of special education. Must have signed contract before quarter begins. Credit Level: G. Credit Hrs: 1.00-6.00

18SPED872

Readings in Special Education

Selected readings regarding major research contributions in an area of special education. Written contract required before quarter begins. Credit Level: G. Credit Hrs: 1.00-6.00

18SPED879

Assessment and Intervention in the Classroom

This course will focus on special topics associated with assessment and evaluation of learners who have special needs. Credit Level: G. Credit Hrs: 3.00

18SPED891

Doctoral Seminar in Special Education I

Introduces selected research ideas and methodologies in special education and related fields. Credit Level: G. Credit Hrs: 1.00

18SPED892

Doctoral Seminar in Special Education II

Investigates and critically analyzes selected research literature in special education and related fields from a methodological and conceptual basis. Credit Level: G. Credit Hrs: 1.00

18SPED893

Doctoral Seminar in Special Education III

Investigates and critically analyzes selected research literature in special education and related fields from a methodological and conceptual basis. Credit Level: G. Credit Hrs: 1.00

18SPED897

Doctoral Research in Special Education I

First in a three-course sequence providing students with the foundational knowledge for disabilities studies. Perm of Instructor. Credit Level: G. Credit Hrs: 3.00

18SPED898

Doctoral Research in Special Education II

Second of a three-course sequence providing students with the skills to identify appropriate RFP's, design projects, and write proposals for external funding. Perm of Instructor. Credit Level: G. Credit Hrs: 3.00

18SPED899

Doctoral Research in Special Education III

Third of a three-course sequence providing students with skills emphasizing writing for scholarship, publication, and presentation. Perm of Instructor. Credit Level: G. Credit Hrs: 3.00

18SPED901

Theory and Practice in Multidiscipline Evaluation and Diagnosis of Exceptional Children

Advanced instruction in methods and techniques used in the appraisal of exceptional children and youth. Credit Level: G. Credit Hrs: 3.00-5.00

18SPED902

Practicum in Multidiscipline Evaluation and Diagnosis of Exceptional Children

Principles covered in 18SPED901 during supervised program of practical experience. Credit Level: G. Credit Hrs: 3.00-5.00

18SPED903

Seminar and Practicum on Multidiscipline Evaluation and Diagnosis of Exceptional Children

Case study approach. Problems of evaluation; appraisal of exceptional children and youth at CCDD. Credit Level: G. Credit Hrs: 3.00-5.00

Special Education

18SPED904

Doctoral Internship in Special Education

Orientation, observation, and participation in educational agencies devoted to serving exceptional children, youth, and adults. Quarter and time to be arranged. Credit Level: G. Credit Hrs: 3.00-15.00

18SPED952

Professional Seminar in Teacher Education II: Diversity of Learners and Schooling Processes

Seminar examining the diversity of learners in social groups and the socially constructed nature of the schooling practices that affect them. Credit Level: G. Credit Hrs: 3.00

18SPED971

Non-Thesis Research by a Doctoral Student

Individually supervised research project completed under the tutelage of a full-time faculty member. Credit Level: G. Credit Hrs: 3.00-15.00

18SPED973

Individual Dissertation Guidance

Hours and credit to be arranged. Offered quarterly. Credit Level: G. Credit Hrs: 1.00-15.00

18SPED975

Current Trends and Issues in Special Education: Seminar

An investigation of current trends and issues in the field of special education. Credit Level: G. Credit Hrs: 3.00

18SPED976

Clinical Internship in Special Education

Orientation, observation, and clinical practicum. Credit Level: G. Credit Hrs: 3.00-15.00

Treatment

18TRMT251

Child Protective Services

Course covers a broad knowledge base of child protective services (history, distinctive aspects, scope and demographics, process, treatment, problems, trends) and how this system interacts with law enforcement and the courts. Will explain the what and the why, not the how. BoK: SS., SE. Credit Level: U. Credit Hrs: 3.00

18TRMT252

Children and the Courts

The course will analyze judicial attempts to insure the safety and well-being of children in American society. The course will consider the child witness, the child as a crime victim, the orphaned child, and the child in the context of divorce. The course will provide a historical context in which the judicial response has mirrored societies' changing mores. BoK: SS., SE. Credit Level: U. Credit Hrs: 3.00

18TRMT271

Crisis Management

Crisis management is an extensive strategy integrated into human service work. This course will introduce undergraduate social workers and other human service workers to the concepts of crisis work. The course will focus on problems of living, oriented to the here and now. Students will learn strategies from numerous practice theories and interventions. BoK: SS. Credit Level: U. Credit Hrs: 3.00

18TRMT278

Stress Management in Treatment

This course provides an analysis of the nature of stress, beliefs about stress, current research, prevention, and coping strategies. BoK: SS. Credit Level: U. Credit Hrs: 3.00

18TRMT279

Gender Interaction in Treatment

This course examines gender communication and research that has been done on the subject. BoK: SS., HU. Credit Level: U. Credit Hrs: 3.00

Treatment**18TRMT281****Native American Culture and Treatment Applications**

Introduces students to Native American cultures by reviewing literature and cultural practices as they relate to treatment. BoK: DC., LT. Credit Level: U. Credit Hrs: 3.00

18TRMT283**Understanding the Intervention of Batterers**

The purpose of this course is to introduce the student to the theoretical aspect of understanding batterer intervention, including an historical overview of the intervention movement, theories related to intervention approaches, goals of batterer intervention, current trends, and setting up a comprehensive and effective batterer program. Students will become aware that "intervention of batterers" takes specific skills and knowledge beyond "general" intervention. BoK: SS., SE. Credit Level: U. Credit Hrs: 3.00

18TRMT310**Child Abuse I**

This course will consider the public system's response to children at risk. The focus will be upon remedies, both for children who engage in delinquent behavior and for families who put children at risk of abuse or neglect. BoK: SS., SE. Credit Level: U. Credit Hrs: 3.00

18TRMT311**Child Abuse II**

This course will follow Child Abuse I as a more in-depth discussion of child abuse and neglect topics. This course will go beyond identification as discussed in Child Abuse I to evaluation of child abuse, neglect, and treatment. BoK: SS., SE. Credit Level: U. Credit Hrs: 3.00

18TRMT312**Dynamics of Victimization**

The purpose of this course is to introduce the student to the dynamics of victimization. The student will learn some history of violence and oppression and the correlation between the two. The different types of abuse, the cycle of violence, and cultural reactions to abuse will be introduced to the student. BoK: SS., SE. Credit Level: U. Credit Hrs: 3.00

18TRMT313**Treating the Sexual Abuser**

The purpose of this course is to introduce the student to the parameters of services available in terms of treating the sexual offender. The student will learn the essential components of the therapeutic repertoire of skills including theoretical models of behavior, assessment, differential diagnoses, cognitive orientations, behavioral management, and relapse prevention. BoK: SS., SE. Credit Level: U. Credit Hrs: 3.00

18TRMT314**Treatment Issues/Strategies with Domestic Violence**

The purpose of this course is to introduce the student to the counseling, assessment, and treatment strategies with victims of domestic violence. Students will also gain knowledge of the characteristic behaviors of the victims of domestic violence and of developing treatment plans, and gain familiarity with varied forms of domestic violence and the essential need to correlate treatment strategies with these respective forms. BoK: SS., SE. Credit Level: U. Credit Hrs: 3.00

18TRMT315**Assessment and Treatment Strategies with Batterers**

The goal of this course is to help students develop the necessary skills for assessing and co-facilitating batterer intervention groups. This course is vital to understanding and developing safe intervention strategies that will end the violence toward intimate partners. The course will include guest speakers from the domestic violence field, video tapes, and lecture/discussion. Students will also be required to role-play as co-facilitators and group members. BoK: SS., SE. Credit Level: U. Credit Hrs: 3.00

18TRMT316**Abnormal Behavior I**

This class introduces undergraduate and graduate students to the

Treatment**18TRMT316****Abnormal Behavior I**

growing literature linking biology to social development in general and to criminal behavior specifically. Special attention is paid to behavior genetics and the heritability of traits, brain functioning and growth, and functions of neurotransmitters. BoK: SS. Credit Level: U. Credit Hrs: 3.00

18TRMT317**Abnormal Behavior II**

Continuation of 18TRMT316. Prereq: 18TRMT316. BoK: SS. Credit Level: U. Credit Hrs: 3.00

18TRMT318**Abnormal Behavior III**

Continuation of 18TRMT316 & 317. Prereq: 18TRMT316, 18TRMT317. BoK: SS. Credit Level: U. Credit Hrs: 3.00

18TRMT322**Domestic Violence and the Law**

This course was developed to provide students with essential legal information as it relates to federal, state, and local laws; and the associated legal processes that are involved with stalking and domestic violence. This is an essential course for those students working with both perpetrators and victims of domestic violence. BoK: SS., SE. Credit Level: U. Credit Hrs: 3.00

18TRMT361**Grief: Death and Dying**

This course provides skills to enable the social worker to assist family members and others to cope with death and dying. BoK: SS. Credit Level: U. Credit Hrs: 3.00

18TRMT385**Single Parent Families**

Reality will be separated from myth of the single parent family - the fastest growing American family form. Offered alternate years. BoK: SS. Credit Level: U. Credit Hrs: 3.00

18TRMT394**Introduction to DSM IV**

This course will introduce undergraduate social workers and other human service workers to the basic concepts of psychopathology and to the Diagnostic and Statistical Manual IV of the American Psychiatric Association, used in the assessment of mental disorders. The course will include a focus on the influences of human diversity in a psycho/social assessment. BoK: SS. Credit Level: U. Credit Hrs: 3.00

18TRMT411**Child Sexual Abuse**

This course will provide an introduction to and overview of general and specific issues related to child sexual abuse. Emphasis will be given to the impact of culture on issues of sexual abuse. BoK: SS., SE. Credit Level: U. Credit Hrs: 3.00

18TRMT415**Childhood Trauma and Recovery**

This course will explore the "costs" of traumatic abuse to the individual, family, community, and society. While examining the enormous impact of abuse on one's self-concept and interpersonal relationships, the course will also emphasize stages of recovery throughout the lifespan. BoK: SS., SE. Credit Level: U. Credit Hrs: 3.00

18TRMT421**Child Abuse Prevention Strategies for Educators**

This course will provide information and strategies to utilize in the identification, intervention, and prevention of child abuse. This course will also meet the requirements of Ohio House Bill 55, required of all elementary school staff, and a certificate for such can be provided. BoK: SS., SE. Credit Level: U. Credit Hrs: 3.00

18TRMT429**Counseling the Sexual Abuser**

Introduces the student to the parameters of services available in terms

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Treatment**18TRMT429****Counseling the Sexual Abuser**

of treating the sexual offender. Students will learn essential components of the therapeutic repertoire of skills, including theoretical models of behavior, assessment, differential diagnoses, cognitive orientations, behavioral management, and relapse prevention. BoK: SS., SE. Credit Level: U. Credit Hrs: 3.00

18TRMT571**Children's Rights**

Emerging rights of children, from the US Supreme Court landmark decision of In Re Gault in 1967 to the present. Changing precepts of the rights of children; rights of parents; and the interest of the State regarding delinquency, ungovernability, corporal punishment, abortion, contraception, commitment to mental health facilities, termination of parental rights, support, and emancipation. BoK: SS., SE. Credit Level: U. Credit Hrs: 3.00

18TRMT572**Children's Rights II**

Children's Rights II will consider the public system's response to children at risk. The focus will be upon remedies, both for children who engage in delinquent behavior and for families who put children at risk of abuse or neglect. BoK: SS., SE. Credit Level: U. Credit Hrs: 3.00

Urban Educational Leadership**18UEL801****Professional Seminar in Urban Educational Leadership**

This course is limited to first year doctoral students in Urban Educational Leadership for whom it is required as preparation for meeting program requirements. Credit Level: G. Credit Hrs: 3.00

18UEL802**Professional Seminar in Urban Educational Leadership**

This course is limited to first year doctoral students in Urban Educational Leadership for whom it is required as preparation for meeting program requirements. Credit Level: G. Credit Hrs: 3.00

18UEL871**Individual Study in Urban Educational Leadership**

Supervised individual study of selected issues in urban educational leadership. By contract with faculty member. Perm of Instructor. Credit Level: G. Credit Hrs: 1.00-6.00

18UEL876**Special Topics in Urban Education Leadership**

Seminar on selected issues in urban educational leadership. Perm of Instructor. Credit Level: G. Credit Hrs: 1.00-3.00

18UEL877**Practicum in Urban Education Leadership**

Supervised practicum designed to allow students to examine selected leadership issues in urban educational schools and communities. By contract with faculty member. Perm of Instructor. Credit Level: G. Credit Hrs: 1.00-6.00

18UEL879**Leadership in P-16 Partnerships**

Seminar examining how the quality of student learning and achievement in urban schools can be enabled through strong, sustaining, and systemic partnerships involving key institutions across the community. Credit Level: G. Credit Hrs: 3.00

18UEL901**Theoretical Foundations of Urban Education Leadership**

Cohort seminar designed to introduce students to the theoretical frameworks and research practices surrounding urban educational leadership issues. Credit Level: G. Credit Hrs: 3.00

18UEL912**UEL Seminar: Leading Urban Educational Organizations through Change**

Cohort seminar designed to introduce students to the methods and

Urban Educational Leadership**18UEL912****UEL Seminar: Leading Urban Educational Organizations through Change**

theoretical frameworks used by education leaders to foster change in urban educational organizations. Credit Level: G. Credit Hrs: 3.00

18UEL913**Leading, Learning, and Teaching in Urban Communities**

Cohort seminar designed to introduce students to the processes used by educational leaders to facilitate effective learning and teaching in urban educational organizations. Credit Level: G. Credit Hrs: 3.00

18UEL914**Social, Political, Economic, and Legal Contexts of Urban Educational Leadership**

Cohort seminar designed to introduce students to the various social, political, economic, and legal contexts surrounding the practice of urban educational leadership. Credit Level: G. Credit Hrs: 3.00

18UEL930**Internship Development**

Course provides students with guidance in the development and location of mentored Internships. Credit Level: G. Credit Hrs: 3.00

18UEL931**Internship I**

First in a two-course sequence of mentored Internships designed to give students opportunities to practice and develop leadership skills in urban school and community settings. Credit Level: G. Credit Hrs: 3.00

18UEL932**Internship II**

Second in a two-course sequence of mentored Internships designed to give students opportunities to practice and develop leadership skills in urban school and community settings. Prereq: 18UEL931. Credit Level: G. Credit Hrs: 3.00

18UEL973**Individual Dissertation Guidance**

Individual guidance in doctoral dissertation research. Hours and credits to be arranged. Perm of Instructor. Credit Level: G. Credit Hrs: 1.00-15.00

COLLEGE OF ENGINEERING

COURSE DESCRIPTIONS

(20) College of Engineering

2008 - 2009

College of Engineering 1

Aerospace Engineering & Engineering Mechanics

20AEEM100

Introduction to Aerospace Engineering

Introduction to college staff and organizations. Small group work by major, including ethics, the co-op program, and a team project in creative problem solving. BoK: NA. Credit Level: U. Credit Hrs: 1.00

20AEEM101

Mechanics I

Study of statics. Moments, resultant forces and equilibrium for particles and rigid bodies, friction. Ea. qtr. Lecture_(formerly 20ENFD101) Prereq: 15PHYS201. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

20AEEM102

Mechanics II

Study of motion and the relationship between force, mass and acceleration for particles. Work-energy and impulse-momentum concepts. Ea. qtr. Lecture_(formerly 20ENFD102) Prereq: 20AEEM101, 15PHYS201. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

20AEEM103

Mechanics III

Centroids, center of gravity. Study of motion and the relationship between force, mass and acceleration for rigid bodies. Lecture (Formerly 20ENFD103) Prereq: 20AEEM102. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

20AEEM110

Introduction to Aircraft Engineering

History of Aviation. Topical case studies from trade and technical publications. Aeronautical terminology. Role of disciplines and their interrelations. Role and importance of basic sciences and mathematics. Design, fabricate, and test a flying wing. Prereq: 20AEEM100. BoK: NA. Credit Level: U. Credit Hrs: 1.00

20AEEM111

Introduction to Spacecraft Engineering

Development of the fundamental concepts of spaceflight mechanics. Applications to Earth- orbiting spacecraft. Prereq: 20AEEM100. BoK: NA. Credit Level: U. Credit Hrs: 1.00

20AEEM120

Introduction to Engineering Mechanics I

Interdisciplinary nature of engineering mechanics. Role of sub disciplines and their interrelation. Roles and importance of basic sciences and mathematics to engineering mechanics roles of theoretical and experimental methods. Case studies from trade publications. Role of professional societies. BoK: NA. Credit Level: U. Credit Hrs: 1.00

20AEEM121

Introduction to Engineering Mechanics II

History of non destructive evaluation. History of biomechanics. History of composite materials. Employment opportunities. Role of graduate education. Communication and presentation skills. BoK: NA. Credit Level: U. Credit Hrs: 1.00

20AEEM211

Basic Integrated Engineering

Elementary design concepts, team problem-solving, optimization of fundamental engineering problems, and oral and written communication skills. Prereq: 20ENFD112, 20ENFD101, 15MATH253, 15PHYS201. BoK: QR. Credit Level: U. Credit Hrs: 3.00

20AEEM212

Probabilistic Engineering

Probability and statistics for design and reliability, design case studies, and continuation of engineering design experience from Basic Integrated Engineering. Prereq: 20AEEM211, 15MATH254. BoK: QR. Credit Level: U. Credit Hrs: 3.00

Aerospace Engineering & Engineering Mechanics

20AEEM313

Modeling and Simulation of Physical Systems

Modeling of physical systems, actuators and sensors. Transient response, design of physical systems to meet constraints. Introduction to computer simulation and virtual laboratory. Prereq: 20ENFD102, 20ENFD112, 15MATH273, 15PHYS203. BoK: QR. Credit Level: U. Credit Hrs: 3.00

20AEEM320

Introduction to Astrodynamics

General formulation of differential equations of motion of particles and systems of particles in non-rotating and rotating frames; equilibrium; linearization and stability; two-body and central force problems; energy methods; introduction to rigid body dynamics. 3 lec. BoK: NS., QR. Credit Level: U. Credit Hrs: 3.00

20AEEM329

Fundamentals of Engineering Measurements

Principles of modern computer-based engineering measurements, sensors, data acquisition systems, signal processing, data storage and display. Prereq: 15PHYS203, 15PHYS213. BoK: QR. Credit Level: U. Credit Hrs: 3.00

20AEEM336

Mechanics of Solids I

Stress-strain concepts. Stress-strain transformations. Failure theories. Uniaxial and combined stresses. Torsion. Symmetric beam bending. Prereq: 15MATH273. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

20AEEM337

Mechanics of Solids II

Shear deformation. Asymmetric bending. Stiffness of structures. Combined loadings. Energy methods. Stability and buckling. Prereq: 20AEEM336. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

20AEEM342

Fundamentals of Aerodynamics

Principles of ideal fluids and aerodynamics: potential theory; flow of perfect fluids around 2D bodies. Lift and pitching moment of an airfoil of infinite span. Panel method. Prereq: 15MATH254, 15MATH258, 15PHYS201, 20ENFD383. BoK: NS. Credit Level: U. Credit Hrs: 3.00

20AEEM352

Vibration Analysis

Free and forced vibration of systems with one and many degrees of freedom; introduction to continuous systems; computational techniques. Prereq: 20ENFD103, 15MATH273, 15MATH276. BoK: NS. Credit Level: U. Credit Hrs: 3.00

20AEEM360

Numerical Methods for Engineering Design

Interpolation and approximation, numerical integration, solutions of equations, systems of equations. Solution of ordinary differential equations; computer design problems with application to Aerospace Engineering and Engineering Mechanics. Prereq: 15MATH254, 15MATH273, 15MATH276, 20ENFD103. BoK: QR. Credit Level: U. Credit Hrs: 3.00

20AEEM361

Integrated Aircraft Engineering

Students will learn aircraft spacecraft and propulsion system nomenclature. Students will develop an appreciation for aerospace vehicles and propulsion systems through case studies of or in response to previous preliminary design efforts or via case studies from AIAA or aerospace contractors. Students will work in small groups on several aspects of a component or subsystem design on several aspects of a component or subsystem design of an aerospace vehicle or propulsion system component. Prereq: 15MATH254, 15MATH273, 20ENFD103. BoK: QR. Credit Level: U. Credit Hrs: 3.00

H=University Honors course.

BoK (Breadth of Knowledge) Coding. DC: Diversity & Culture. EC: English composition. FA: Fine Arts. HP: Historical Perspectives. HU: Humanities. LT: Literature. NS: Natural Sciences. QR: Quantitative Reasoning. SE: Social & Ethical Issues. SS: Social Sciences.

Aerospace Engineering & Engineering Mechanics**20AEEM361****Integrated Aircraft Engineering**

Students will learn aircraft spacecraft and propulsion system nomenclature. Students will develop an appreciation for aerospace vehicles and propulsion systems through case studies of or in response to previous preliminary design efforts or via case studies from AIAA or aerospace contractors. Students will work in small groups on several aspects of a component or subsystem design on several aspects of a component or subsystem design of an aerospace vehicle or propulsion system component. Prereq: 15MATH254, 15MATH273, 20ENFD103. BoK: QR. Credit Level: U. Credit Hrs: 3.00

20AEEM371**Integrated Engineering Mechanics I**

This course focuses on the application of engineering analysis techniques learned in other courses to the analysis of individual components that comprise a larger system. BoK: QR. Credit Level: U. Credit Hrs: 3.00

20AEEM382**Aerospace Vehicle Performance**

Development of equations for vehicle motion. Performance of aircraft and rockets in the atmosphere and in space. Prereq: 20ENFD102, 15MATH273, 20AEEM342. BoK: NS. Credit Level: U. Credit Hrs: 3.00

20AEEM383**Basic Fluid Mechanics**

Physical nature of fluids, statics. Conservation principles and their applications to engineering problems. Dimensional analysis, duct flow of real fluids. (Formerly 20ENFD383) Prereq: 15MATH273, 15MATH254, 20AEEM101. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

20AEEM403**Fundamentals of Control Theory**

Fundamentals of feedback control system modeling, transfer functions, root locus and frequency response methods. Prereq: 15MATH273, 20AEEM313. BoK: QR. Credit Level: U. Credit Hrs: 3.00

20AEEM430**Matrix Structural Analysis**

Computer oriented methods for solving determinate and indeterminate structures with emphasis on trusses, frames and beams; extensive static analysis using the force-displacement method; dynamic response of bar and beam elements using lumped and consistent mass matrices. Prereq: 20AEEM352, 20ENFD375. BoK: QR. Credit Level: U. Credit Hrs: 3.00

20AEEM438**Solid Mechanics Laboratory**

Experimental stress analysis. Strain gauge rosettes. Static and dynamic measurements. Stability. Photoelasticity. Prereq: 20AEEM329, 20ENFD375. BoK: NA. Credit Level: U. Credit Hrs: 3.00

20AEEM445**Gas Dynamics**

Equations of one- and two-dimensional gas motion. Speed of sound, normal and oblique shock waves, expansion wave theory. Applications are presented for diffusers and nozzles, wind tunnel design, jetexhausts and airfoils. Prereq: 15MATH254, 15MATH276, 20ENFD382, 20ENFD383, 20AEEM342. BoK: NS. Credit Level: U. Credit Hrs: 4.00

20AEEM452**Flight Mechanics**

Equations of motion of aircraft. Longitudinal and lateral dynamics. Automatic control of aircraft. Prereq: 15MATH273, 20AEEM313, 20ENFD103. BoK: NS. Credit Level: U. Credit Hrs: 3.00

20AEEM456**Applied Aerodynamics**

Theory and application of a vortex lattice code, introduction to the concept of a viscous flow, presentation of the Navier-Stokes and boundary layer equations, theory and application of 2D boundary layer code, introduction to turbulence modeling and application for boundary layers. Prereq: 20AEEM342, 20AEEM445, 20AEEM360, 20ENFD383.

Aerospace Engineering & Engineering Mechanics**20AEEM456****Applied Aerodynamics**

BoK: NS. Credit Level: U. Credit Hrs: 3.00

20AEEM460**Numerical Methods for Engineering Design**

Interpolation and approximation, numerical integration, solutions of equations, systems of equations. Solution of ordinary differential equations; computer design problems with application to Aerospace Engineering and Engineering Mechanics. 3 lec., 3 lab. BoK: QR. Credit Level: U. Credit Hrs: 4.00

20AEEM462**Integrated Spacecraft Engineering**

Application of fundamentals learned in previous courses to the design and construction of a simple device or system to meet specified design objectives. Formal documentation/presentation of results. One class hour/wk for introduction, discussion of approaches, problems and progress reports. Two hours/wk design and/or fabrication in lab. Students spend time normally devoted to homework with design and construction. The formation of the groups and definition of projects will consider the senior options students wish to take. Prereq: 15MATH254, 15MATH273, 20ENFD103, 20AEEM111, 20ENFD383. BoK: QR. Credit Level: U. Credit Hrs: 3.00

20AEEM463**Integrated Aerospace Engineering III**

The space environment. Spacecraft mission types. Spacecraft system design considerations. Top-level spacecraft design. BoK: QR. Credit Level: U. Credit Hrs: 3.00

20AEEM472**Integrated Engineering Mechanics II**

This course focuses on the application of engineering analysis techniques learned in other courses to the analysis of engineering systems and the interactions among the components that comprise the system. Prereq: 20AEEM371. BoK: QR. Credit Level: U. Credit Hrs: 3.00

20AEEM474**Airbreathing Propulsion**

Aerothermodynamic data: foundations of propulsion theory. Cycle thermodynamics. Turbomachinery. Aerodynamic design of compressors and turbines. Prereq: 20AEEM445, 20ENFD382, 20ENFD383, 20ENFD385. BoK: QR. Credit Level: U. Credit Hrs: 3.00

20AEEM480**Computational Mechanics**

Applied computational mechanics oriented method for solving structural problems. Stress analysis of structures and finite element modeling guidelines. Prereq: 20ENFD375. BoK: QR. Credit Level: U. Credit Hrs: 3.00

20AEEM481**Thermal Engineering**

Introduction into the mechanisms of thermal energy transfer. Steady and unsteady heat conduction in solids. Fundamentals of both natural and forced convective heat transfer. Heat transfer by thermal radiation. Prereq: 20ENFD382, 20ENFD383. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

20AEEM502**Aircraft Design I**

Integrated vehicle system performance, mission/ constraints. Aircraft design, analysis, trade studies and optimization. Prereq: 20AEEM382, 20AEEM445, 20AEEM452, 20AEEM456. BoK: QR. Credit Level: U. Credit Hrs: 4.00

20AEEM503**Special Topics**

Analysis of a special problem chosen in consultation with a faculty member. Aut. qtr. BoK: NA. Credit Level: U. Credit Hrs: 1.00-6.00

H=University Honors course.

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Aerospace Engineering & Engineering Mechanics**20AEEM504****Special Topics**

See 20AEEM503. Win. qtr. Perm of Department. BoK: NA. Credit Level: U. Credit Hrs: 1.00-6.00

20AEEM505**Special Topics**

See 20AEEM503. Spr. qtr. Perm of Department. BoK: NA. Credit Level: U. Credit Hrs: 1.00-6.00

20AEEM506**Special Topics**

See 20AEEM503. Sum. qtr. Perm of Department. BoK: NA. Credit Level: U. Credit Hrs: 1.00-6.00

20AEEM509**Computational Aerodynamics**

Numerical flow visualization. 2-D panel methods. Axisymmetric panel methods. Vortex lattice method and 3-D panel methods. Basic concepts of finite differences. Finite difference solutions of 2-D potential equation. 3 lec. BoK: QR. Credit Level: U. Credit Hrs: 3.00

20AEEM512**Aircraft Design II**

Continuation of Aircraft Engineering Design I. Integrated vehicle system performance, mission/ constraints. Aircraft design, analysis, trade studies and optimization. Prereq: 20AEEM502. BoK: QR. Credit Level: U. Credit Hrs: 4.00

20AEEM513**Advanced Aerospace Design**

Advanced design primarily for students participating in AIAA Design Competition. Prereq: 20AEEM512, 20AEEM517, 20AEEM523. BoK: NA. Credit Level: U. Credit Hrs: 3.00

20AEEM515**Spacecraft Design I**

Introduction to space mission analysis and the principles of spacecraft design, space mission life cycle, mission constraints and objectives; cost estimation. Prereq: 20AEEM403, 20AEEM462. BoK: QR. Credit Level: U. Credit Hrs: 4.00

20AEEM517**Spacecraft Design II**

Concepts of space subsystem design. Formal design of a space mission and associated spacecraft. Report preparation and formal presentation. Prereq: 20AEEM515. BoK: QR. Credit Level: U. Credit Hrs: 4.00

20AEEM519**Engine Design I**

Integrated propulsion/vehicle system performance, mission/constraints. Trade-off studies: design and off-design cycle analysis and optimization. Prereq: 20AEEM382, 20AEEM445, 20AEEM474. BoK: QR. Credit Level: U. Credit Hrs: 4.00

20AEEM523**Engine Design II**

Engine flow path and sizing. Intake, turbomachinery, combustor, and exhaust system design. Report preparation and formal presentation. Prereq: 20AEEM519. BoK: QR. Credit Level: U. Credit Hrs: 4.00

20AEEM525**Advanced Strength of Materials**

This course builds on the stress analysis and structures courses taken in an undergraduate engineering curriculum. It is mathematically oriented, but less so than a theory of elasticity approach. Theory and problems in failure, spinning disks, torsion and bending will be emphasized. Prereq: 20AEEM333, 20AEEM334. BoK: NS. Credit Level: U. Credit Hrs: 3.00

20AEEM527**Continuum Mechanics**

Concepts of a continuous medium, Cartesian tensor analysis, deformation measures, stress, constitutive equations for solids and

Aerospace Engineering & Engineering Mechanics**20AEEM527****Continuum Mechanics**

fluids, field equations, example problems. BoK: NS. Credit Level: U. Credit Hrs: 3.00

20AEEM529**Nondestructive Testing**

Basic nondestructive materials testing methods; ultrasonic inspection, acoustic emission, eddy-current inspection, radiographic testing, magnetic techniques. BoK: NS. Credit Level: U. Credit Hrs: 3.00

20AEEM530**Computational Fluid Dynamics**

Calculation of 2D and 3D flows using commercial CFD software. BoK: QR. Credit Level: U. Credit Hrs: 3.00

20AEEM535**Undergraduate Research**

Individual research topics under the supervision of department faculty in conjunction with the ACCEND program. Perm of Instructor. BoK: QR. Credit Level: U. Credit Hrs: 1.00-9.00

20AEEM536**Undergraduate Research (Winter)**

Individual research topics under the supervision of department faculty in conjunction with the ACCEND program. Winter quarter. Perm of Instructor. BoK: QR. Credit Level: U. Credit Hrs: 1.00-9.00

20AEEM537**Undergraduate Research (Spring)**

Individual research topics under the supervision of department faculty in conjunction with the ACCEND program. Spring quarter. Perm of Instructor. BoK: QR. Credit Level: U. Credit Hrs: 1.00-9.00

20AEEM538**Undergraduate Research (Summer)**

Individual research topics under the supervision of department faculty in conjunction with the ACCEND program. Summer quarter. Perm of Instructor. BoK: QR. Credit Level: U. Credit Hrs: 1.00-9.00

20AEEM574**Aerodynamic Measurement Laboratory**

Analysis of data, measurement of pressure, velocity, volume flow rate, and drag. Drag and lift evaluations on a lifting airfoil and bluff body experimentation. Experiments. Prereq: 20AEEM329, 20AEEM342, 20AEEM456. BoK: NA. Credit Level: U. Credit Hrs: 2.00

20AEEM575**Propulsion and Gas Dynamics Laboratory**

Measurement of pressure, temperature and velocities in flows, force, torque, rotational speed. Nozzle flow, pipe flows with heat addition, compressor and turbine performance parameters/charts. Elements of uncertainty analysis, reporting of data. Prereq: 20AEEM329, 20AEEM445, 20AEEM474. BoK: NA. Credit Level: U. Credit Hrs: 2.00-3.00

20AEEM576**Rocket Propulsion**

Preliminary design considerations of a rocket engine for a missile or satellite. "Exotic" rocket propulsion systems. Prereq: 20AEEM445, 20AEEM474, 20ENFD382, 20ENFD383, 20ENFD385. BoK: QR. Credit Level: U. Credit Hrs: 3.00

20AEEM581**Engineering Mechanics Design I**

Integrating the fundamental principles of engineering in the design of a variety of engineering components or systems. This course will focus on preliminary designs and the selection of the design that will be pursued in the second quarter. BoK: NA. Credit Level: U. Credit Hrs: 4.00

20AEEM582**Engineering Mechanics Design II**

Integrating the fundamental principles of engineering in the design of a variety of engineering components or systems. This course is a

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Aerospace Engineering & Engineering Mechanics**20AEEM582****Engineering Mechanics Design II**

continuation of Engineering Mechanics Design I and will conclude with a formal design presentation and the submission of a final design report. Prereq: 20AEEM581. BoK: NA. Credit Level: U. Credit Hrs: 4.00

20AEEM593**Control Theory II**

Control system design and compensation. Introduction to modern systems theory. Experiments in systems identification and control. 2 lec., 1 lab. Prereq: 20AEEM403. BoK: NA. Credit Level: U. Credit Hrs: 3.00

20AEEM597**Composite Structures**

Manufacturing processes of composite materials, design, and analysis of composite structures. Concepts of mechanical and hygro-thermal behavior of composite materials. Properties, strength, and stiffness calculation of composite structures. Application to engineering components. Prereq: 20ENFD375, 20ENFD376, 20AEEM430, 20AEEM438. BoK: NS. Credit Level: U. Credit Hrs: 3.00

20AEEM603**Analytical Dynamics I**

Kinematics, particle dynamics, energy methods, constrained dynamical systems, simulations and advanced dynamics techniques. 3 lec. Prereq: 20MATH273. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20AEEM604**Analytical Dynamics II**

Rigid body mechanics, gyro dynamics, energy methods, quaternions, linear system theory, stability of motion, floquet theory and simulations. 3 lec. Prereq: 20AEEM603. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20AEEM605**Ligament and Tendon Biomechanics**

The correlation of mechanical properties and tissue microstructure. Emphasis on the properties of tissue attachments to muscle and bone. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20AEEM607**Viscoelasticity of Biological Materials**

Phenomenological and structural constitutive and failure modeling of biological materials including ligament, tendon, cartilage and bone tissues. 3 lec. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20AEEM609**Current Topics in Bioengineering**

Presentation of research on five bioengineering topics by Medicine/Engineering faculty teams. Student research on the topic of their choice, culminating in a term report. Final exam covering the faculty presentations. 3 lec. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

20AEEM610**Probability and Random Processes for Engineers**

Introduction to fundamentals of probability and random processes with engineering emphasis. 3 lec. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20AEEM614**Fundamentals of Control Theory**

A fundamental look at control system stability, performance and robustness of SISO and MIMO systems. 3 lec. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20AEEM616**Kinematics of Biological Joints**

Analysis of biological joints in terms of degrees of freedom, instant center, screw axis and Euler angles. Compatibility requirements between joint geometry, ligament attachment location, and joint motion. 3 lec. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

Aerospace Engineering & Engineering Mechanics**20AEEM619****Elasticity**

Governing equations of linear elasticity. Solution of plane and three-dimensional boundary value problems. 3 lec. Prereq: 20AEEM683. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20AEEM620**Aeroelasticity Fundamentals**

Static and dynamic response of flexible aircraft to aerodynamic inertia and structure forces: life effectiveness, load distribution divergence, control surface effectiveness, control reversal, flutter, gust response. 3 lec. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20AEEM625**Boundary Layer Methods I**

Boundary layer methods for two-dimensional and axisymmetric compressible steady flows. Current solution methods. Introduction to turbulent flows. 3 lec. Prereq: 20AEEM445. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20AEEM627**Introduction to Biomechanics**

Basic concepts and methods in application of engineering mechanics principles in the medical and life sciences. (Co-listed as 20-263-685). 3 lec. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20AEEM628**Biomechanics Instrumentation**

Development of skills in using testing equipment and data acquisition methods in biomechanics research. Prereq.: Experimental Structures Lab. 2 lec., 3 lab. Prereq: 20AEEM334. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

20AEEM636**Spacecraft Dynamics**

Attitude dynamics of space vehicles, rotational kinetics, Euler parameters, motion equations. Dual-spin vehicles, gravitational and aerodynamic torques, stabilization methods. Design of spin-stabilized spacecraft. 3 lec. Prereq: 20AEEM320. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20AEEM641**Introduction to Compressible Flow**

Integral and differential equations for unsteady, inviscid flow; shocks, expansion waves, acoustic theory, steady linearized flow; method of characteristics. 3 lec. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20AEEM645**Combustion Theory I**

Examination of the fluid mechanics of reacting flows. Thermodynamics of mixtures, chemical kinetics, conservation equations for reacting flows, combustion waves and nozzle flow. 3 lec. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20AEEM646**Combustion Theory II**

See 20-251-645. 3 lec. Prereq: 20AEEM645. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20AEEM655**Chemical and Nuclear Rocket Propulsion**

Fundamentals, thermodynamic relationships and design parameters for liquid- and solid-propellant rocket engines. Physics of nuclear processes and reactions. Application of nuclear energy in rockets and other space vehicles. 3 lec. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20AEEM657**Electrical Propulsion and Energy Conversion Systems**

Electromagnetic theory, performance of electric propulsion systems and energy conversion systems. 3 lec. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

H=University Honors course.

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Aerospace Engineering & Engineering Mechanics**20AEEM659****Hypersonic Flow**

Normal and oblique shock waves; high temperature gas effects; computer simulation of hypersonic flows; introduction to rarefied gas dynamics. Prereq: 20AEEM445. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

20AEEM661**Experimental Methods in Fluid Mechanics**

Review of experimental techniques in single and two-phase flows. Data acquisition methodology and data analysis. Methods used for measurements of pressure, velocity, flow rate, wall shear stress, particle sizes, and flow visualization techniques. Prereq: 20ENFD383. BoK: NS, QR. Credit Level: G, U. Credit Hrs: 3.00

20AEEM670**Introduction to Ideal Fluids**

The governing equations for motion of ideal fluids. The stream function and velocity potential. Vorticity, circulation and lift. Method of singularities. 3 lec. Prereq: 20MATH376. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

20AEEM672**Finite Element Techniques I**

Displacement-based finite element analysis of trusses and Bernoulli-Euler beams. Principles of virtual displacement and minimum total potential energy. Rayleigh-Ritz Methods. 3 lec. Prereq: 20AEEM333. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20AEEM673**Finite Element Techniques II**

Energy principles. Displacement-based finite element analysis of linear elastic planar continua. Linear and quadratic elements, isoparametric coordinates. 3 lec. Prereq: 20AEEM672. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20AEEM674**Finite Element Techniques III**

Further topics in finite element analysis of planar elasticity problems; modal analysis; selected topics in linear F.E.T. 3 lec. Prereq: 20AEEM673. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20AEEM675**Heat Transfer**

Review of basic modes of heat transfer including conduction, convection, and radiation. Multidimensional, transient conduction. Radiation heat exchange and space applications. 3 lec. Prereq: 20ENFD385. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20AEEM676**Heat Transfer for Propulsion System**

Methods for analysis of thermal and velocity boundary layers, convective heat transfer in turbulent flow, heat exchanger analysis and design. 3 lec. Prereq: 20AEEM675, 20ENFD385. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20AEEM677**Heat Transfer and Aerodynamic Heating**

Convective heat transfer in supersonic flow mass transfer cooling, ablation, and re-entry heattransfer. 3 lec. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20AEEM680**Introduction to Random Vibrations**

Analysis of deterministic systems subject to probabilistic excitations. Introduction to fatigue. 3 lec. Prereq: 20AEEM610. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20AEEM681**Mechanics of Structures I**

Principle of virtual displacements. Applications to statically indeterminate structures. Castigliano's theorems. 3 lec. Prereq: 20AEEM452. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

Aerospace Engineering & Engineering Mechanics**20AEEM682****Mechanics of Structures II**

Minimum principles. Applications to statically indeterminate structures and buckling problems. 3 lec. Prereq: 20AEEM681. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20AEEM687**Properties of Structural Materials**

Introduction to mechanical and physical properties of crystals, polycrystalline metals, polymers, composites and ceramics used in aerospace structures. 3 lec. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20AEEM689**Life Prediction Methods**

Stress life and strain life models, fracture, notches, cumulative damage models, multiaxial life models, comparison of approaches. 3 lec. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20AEEM690**Static Optimization**

Analytical and numerical methods for optimization of functions and functionals. Gradient and direct search methods. 3 lec. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20AEEM691**Variational Optimization**

Variational methods for the optimization of constrained functions and functionals. Solution of two-point boundary value problems in controls and mechanics. 3 lec. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20AEEM693**Advanced Flight Mechanics**

Equations of aircraft motion and their simplification. Autopilot and flight control design by classical and modern control methods. 3 lec. Prereq: 20AEEM452. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20AEEM694**Introduction to Nonlinear Vibrations**

Perturbation methods, free and forced response of nonlinear systems, resonance, regular and chaotic motions, numerical simulations and analysis. 3 lec. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20AEEM695**Orbital Mechanics I**

Two- and three-body problems. Orbit transfer and rendezvous. Orbit perturbations and analysis. Artificial satellite theory. 3 lec. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20AEEM696**Turbomachinery and Rocket Engine Design**

Introduction to the analysis and design of compressors, turbines and rocket engines. 3 lec. Prereq: 20AEEM474. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20AEEM697**Composite Structures**

Concepts of mechanical and thermal behavior of composite structures. Effective properties, stiffness, and strength. Applications to engineering components. 3 lec. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20AEEM704**Tissue Biomechanics**

Examination of properties and mechanical behavior of the structures, soft tissue, and organs of biosystems. (Co-listed with 20-263-686. Additional work beyond 686 will be assigned.) 3 lec. Credit Level: G. Credit Hrs: 3.00

20AEEM706**Biosynthetic Composites**

Examination of the mechanical and structural properties of synthetic materials used as replacements for biological structures. 3 lec. Credit Level: G. Credit Hrs: 3.00

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Aerospace Engineering & Engineering Mechanics**20AEEM708****Research Methods in Aerospace Engineering and Engineering Mechanics**

Elements of scientific investigation; problem definition, experiments, use of hypotheses, the roles of chance, imagination, reason and strategy. Credit Level: G. Credit Hrs: 3.00

20AEEM711**Multivariable Control**

Matrix fraction description of multivariable systems. Frequency domain effects of state feedback. Singular values and robustness of controllers. 3 lec. Prereq: 20AEEM615. Credit Level: G. Credit Hrs: 3.00

20AEEM713**Linear Quadratic Control**

The theory and application of linear quadratic optimal control; optimal filtering; the LQG optimization problem. 3 lect. Prereq: 20EGFD615. Credit Level: G. Credit Hrs: 3.00

20AEEM714**Analytical and Structural Vibrations I**

Lagrange's equations. Free and forced vibrations of discrete systems. Exact and approximate methods. Computer applications. 3 lec. Credit Level: G. Credit Hrs: 3.00

20AEEM715**Analytical and Structural Vibrations II**

Free and forced vibrations of continuous systems. Exact and approximate methods. Computer applications. 3 lec. Credit Level: G. Credit Hrs: 3.00

20AEEM718**Dynamics and Controls of Flexible Structures**

Modeling of flexible structures. Controllability and observability versus sensor and actuator location. Model reduction: modal and balanced. State feedback. Dissipative controllers and stability robustness. High-Authority/Low-Authority Control. 3 lec. Credit Level: G. Credit Hrs: 3.00

20AEEM721**Inelasticity I**

Introduction to the concepts of inelastic material behavior. Yield surface methods of analysis and application of classical viscoelasticity. Application to high temperature metals. 3 lec. Prereq: 20AEEM619. Credit Level: G. Credit Hrs: 3.00

20AEEM722**Inelasticity II**

Introduction to the concepts of inelastic modeling using state variable methods of analysis. Application to high temperature metals. 3lec. Prereq: 20AEEM619. Credit Level: G. Credit Hrs: 3.00

20AEEM723**Experimental Stress Analysis I**

Theory, experiments. Strain gages, photoelasticity. Moire technique. Transducers. Brittle lacquers. 2 lec., 3 lab. Credit Level: G. Credit Hrs: 3.00

20AEEM725**Nonlinear Finite Element Methods**

General methods of nonlinear analysis with applications to inelastic material response. Prereq: 20AEEM672. Credit Level: G. Credit Hrs: 3.00

20AEEM727**Nondestructive Testing**

To familiarize the student with the fundamental principles of nondestructive materials characterization and to introduce them to the most important engineering applications of nondestructive testing. This course covers the basics non-destructive testing methods with special emphasis paid to ultrasonic, eddy-current and radiographic inspections. Prereq: 20AEEM601. Credit Level: G. Credit Hrs: 3.00

Aerospace Engineering & Engineering Mechanics**20AEEM728****Introduction to Ultrasonics**

Ultrasonic wave propagation. Basic phenomena: dispersion, attenuation, reflection, transmission, diffraction, scattering. Ultrasonic measurements. Credit Level: G. Credit Hrs: 3.00

20AEEM729**Ultrasonic Nondestructive Evaluation**

This course gives introduction to Ultrasonic Non-destructive Evaluation. Included in this course are fundamentals of elastic wave propagation in solid materials, basic types of wave material interaction with plane boundaries between different materials, scattering from discontinuities, defect detection and characterization, principles and techniques of generation and detection and characterization, principles and techniques of generation and detection of ultrasonic waves, ultrasonic NDE instrumentation and basic ultrasonic measurements for materials characterization. Prereq: 20AEEM728. Credit Level: G. Credit Hrs: 3.00

20AEEM730**Physical Gas Dynamics**

Study of dynamics of gases, atomic and molecular considerations, kinetic theory, Boltzmann equation, rarefied gas flows. 3 lec. Prereq: 20AEEM445. Credit Level: G. Credit Hrs: 3.00

20AEEM731**Body Aerodynamics**

Subsonic lifting surface theory; supersonic wing theory, conical flow phenomena, and slender-body theory. 3 lec. Prereq: 20AEEM445. Credit Level: G. Credit Hrs: 3.00

20AEEM732**Introduction to Numerical Methods in Fluid Mechanics**

Explicit and implicit methods for ordinary differential equations, parabolic and hyperbolic partial differential equations, the method of characteristics, relaxation and alternating direction methods for elliptic equations, application to fluid mechanics. Credit Level: G. Credit Hrs: 3.00

20AEEM735**Boundary Layer Methods II**

Introduction to stability theory. Turbulence models, interacting boundary layer theory. Solution methods. 3 lec. Prereq: 20AEEM625. Credit Level: G. Credit Hrs: 3.00

20AEEM740**Aerothermochemistry**

Review of classical thermodynamics. Chemical thermodynamics, elements of quantum mechanics, statistical mechanics, Fermi-Dirac and Bose-Einstein statistics, reaction kinetics. 3 lec. Credit Level: G. Credit Hrs: 3.00

20AEEM741**High Temperature Gas Dynamics**

Flow equations for chemically reacting gas mixtures. Non-equilibrium shock and nozzle flows. Laminar boundary layer solutions for dissociating gas. Radiation gas dynamics. 3 lec. Prereq: 20AEEM740. Credit Level: G. Credit Hrs: 3.00

20AEEM750**Turbomachinery Flow**

This course emphasizes the fluid dynamics unique to turbomachinery. Computational Fluid Dynamics (CFD) has seen an explosive growth as a design and analysis tool for turbomachinery. This course provides a bridge between the traditional analytical and recent computational solution. Credit Level: G. Credit Hrs: 3.00

20AEEM761**Special Topics -- Graduate**

Newly-offered topics in Aer. Eng. or Eng. Mech. presented in a lecture/recitation format. Aut. qtr. 3 lec. Credit Level: G. Credit Hrs: 3.00

20AEEM762**Special Topics Graduate**

SPEC TOP GRADUATE Credit Level: G. Credit Hrs: 3.00

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Aerospace Engineering & Engineering Mechanics**20AEEM762****Special Topics Graduate**

SPEC TOP GRADUATE Credit Level: G. Credit Hrs: 3.00

20AEEM763**Special Topics -- Graduate**

See 20-251-761. Spr. qtr. 3 lec. Credit Level: G. Credit Hrs: 3.00

20AEEM764**Special Topics -- Graduate**

See 20-251-761. Sum. qtr. 3 lec. Credit Level: G. Credit Hrs: 3.00

20AEEM776**Theory of Structural Stability**

Various stability methods and their applicability. Bifurcational and limit point instability. Applications to models, columns, frames and plates. Initial geometric imperfections. 3 lec. Credit Level: G. Credit Hrs: 3.00

20AEEM792**Stochastic Optimization**

Introduction to stochastic search techniques: genetic algorithms, simulated annealing, neural networks. Applications to engineering problems. 3 lec. Credit Level: G. Credit Hrs: 3.00

20AEEM795**Orbital Mechanics II**

Fundamental and advanced methods for investigating the motion of artificial satellites. Two body problem, physical perturbations, Gauss and Lagrange planetary equations, canonical perturbation methods, numerical methods, resonant orbits. 3 lec. Credit Level: G. Credit Hrs: 3.00

20AEEM796**Introduction to Intelligent Control**

An introduction to theories and applications of control systems having planning, learning, identifying and corrective capabilities. 3 lec. Credit Level: G. Credit Hrs: 3.00

20AEEM811**Fundamentals of Adaptive Control I**

Fundamentals of adaptive control emphasizing stability-based methods. Readings and research in contemporary adaptive literature. 3 lec. Prereq: 20AEEM614. Credit Level: G. Credit Hrs: 3.00

20AEEM812**Fundamentals of Adaptive Control II**

See 20-251-811. 3 lec. Prereq: 20AEEM811. Credit Level: G. Credit Hrs: 3.00

20AEEM813**Fundamentals of Microprocessor Control I**

Frequency domain and state variable methods in design of digital systems. Microprocessor implementation including A/D-D/A conversion, interrupts, processor characteristics. 3 lec. Prereq: 20AEEM614. Credit Level: G. Credit Hrs: 2.00-3.00

20AEEM820**Thermal Stress I**

Steady state and transient conditions. Exact and approximate methods. Thermal shock and applications. 3 lec. Prereq: 20AEEM683. Credit Level: G. Credit Hrs: 3.00

20AEEM831**Viscous Flow**

Review of tensor analysis. Derivation of the Navier-Stokes equations in integral and differential form for a compressible fluid mixture of perfect gases. Vorticity transport and Poisson equations. Exact and approximate methods for the solution of Navier-Stokes equations. 3 lec. Prereq: 20AEEM670. Credit Level: G. Credit Hrs: 3.00

20AEEM835**Dynamics of Compressible Flow I**

Method of Characteristics for rotational flow. Shock expansion method. Introduction to hypersonic flow. Small perturbation theory for transonic

Aerospace Engineering & Engineering Mechanics**20AEEM835****Dynamics of Compressible Flow I**

flow. Hodograph method. 3 lec. Prereq: 20AEEM641. Credit Level: G. Credit Hrs: 3.00

20AEEM846**Theory of Turbulence**

A study of turbulent fluid flows. Transition to turbulence, equations of turbulent flow, statistical theories, and applied results. 3 lec. Prereq: 20AEEM831. Credit Level: G. Credit Hrs: 3.00

20AEEM854**Theory of Plates and Shells I**

Stresses in and deformation of plates and shells of various shapes with different boundary conditions; membrane and bending theory. 3 lec. Prereq: 20AEEM683. Credit Level: G. Credit Hrs: 3.00

20AEEM855**Theory of Plates and Shells II**

See 20-251-854. 3 lec. Prereq: 20AEEM854. Credit Level: G. Credit Hrs: 3.00

20AEEM910**Linear Estimation and Filtering Theory**

Least-squares estimation, equation and output error methods, the Kalman filter, maximum likelihood methods. Parameter identification methods. 3 lec. Prereq: 20AEEM610. Credit Level: G. Credit Hrs: 3.00

20AEEM930**Advanced Propulsion Systems I**

Application of thermoaerodynamics to analysis and design of turbomachinery. Diffusers, compressors, combustion chambers, turbines and nozzles. Supersonic air-breathing engines. Performance analysis of jet propelled aircraft. 3 lec. Credit Level: G. Credit Hrs: 3.00

20AEEM931**Advanced Propulsion Systems II**

See 20-251-930. 3 lec. Prereq: 20AEEM930. Credit Level: G. Credit Hrs: 3.00

20AEEM936**Perturbation Methods I**

Regular and singular perturbation problems: Poincaré-Lighthill-Kuo method, method of strained coordinates; method of matched asymptotic expansions. 3 lec. Prereq: 20MATH273. Credit Level: G. Credit Hrs: 3.00

20AEEM948**Selected Topics in Fluid Mechanics**

Non-Newtonian fluid mechanics, bio-fluid mechanics, pollution fluid mechanics, separated flows, jets, three-dimensional and unsteady boundary layers, tripledeck asymptotic theory. 3 lec. Credit Level: G. Credit Hrs: 3.00

20AEEM950**Cascade Theory**

Basic cascade concepts. Blade elements analysis. Actuator disc theory and interaction between successive rows. 3 lec. Credit Level: G. Credit Hrs: 3.00

20AEEM951**Selected Topics in Annular Cascades**

Loss mechanics. Supersonic cascades. Computer-aided methods in annular cascades applied to the direct and indirect problems. 3 lec. Prereq: 20AEEM950. Credit Level: G. Credit Hrs: 3.00

20AEEM960**Dynamics and Orbital Mechanics Seminar**

Advanced topics of current interest in orbital and celestial mechanics. 1-18 gr. cr. Credit Level: G. Credit Hrs: 1.00-18.00

20AEEM970**Research**

Individual research topics under supervision of departmental faculty. Credit Level: G. Credit Hrs: 1.00-15.00

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Aerospace Engineering & Engineering Mechanics**20AEEM972****Aerospace Engineering and Engineering Mechanics Seminar**

Seminar lectures throughout the year by staff and invited speakers from academic, research and industrial institutions on current aerospace engineering and engineering mechanics problems. Register one qtr. only. Credit Level: G. Credit Hrs: 1.00

20AEEM974**Reading Course**

Directed individual study in aerospace engineering and engineering mechanics. Credit Level: G. Credit Hrs: 1.00-15.00

Biomedical Engineering**20BME101****Introduction to Biomedical Engineering I**

Overview of BME at UC, career opportunities, learning resources, engineering design, creative problem solving, and ethics BoK: NA. Credit Level: U. Credit Hrs: 1.00

20BME102**Introduction to Biomedical Engineering II**

This course provides an overview of biomedical engineering research careers and current BME research at the University of Cincinnati. Prereq: 20BME101. BoK: NA. Credit Level: U. Credit Hrs: 1.00

20BME103**Introduction to Biomedical Engineering III**

Use of technology in clinical settings including patient monitoring, diagnostic laboratories, and surgical suites. Prereq: 20BME102. BoK: NA. Credit Level: U. Credit Hrs: 1.00

20BME110**BME in the Clinical Environment**

Use of technology in clinical settings including patient monitoring, diagnostic laboratories, and surgical suites. Prereq: 20BME101. BoK: NA. Credit Level: U. Credit Hrs: 3.00

20BME150**Medical Device Dissection**

Disassembly and static equilibrium analysis of medical devices. Solid modeling and rapid prototyping of components. Analysis of component function, manufacturing methods, and method of assembly. Report writing. BoK: NA. Credit Level: U. Credit Hrs: 3.00

20BME210**BME in the Clinical Environment**

An overview of the field of biomedical engineering with special emphasis on the use of technology in clinical settings, including patient monitoring, surgical suites, diagnostic laboratories, and imaging structures and activities in the body. BoK: NA. Credit Level: U. Credit Hrs: 3.00

20BME220**Introduction to Human Body Dynamics**

Study of the relationships between forces, moments, mass, and acceleration for human body and body segment motions. Centroids, center of mass, mass moment of inertia, and relative motion. Prereq: 20ENFD101, 20ENFD102. BoK: QR. Credit Level: U. Credit Hrs: 3.00

20BME230**Introduction to Medical Product Design**

Exploration of the health care delivery environment, its unique culture, and the impact this has on medical product design. Course will include field trips to medical sites and medical product manufactures. Perm of Instructor. BoK: DC. Credit Level: U. Credit Hrs: 3.00

20BME250**Medical Device Dissection**

Disassembly and static equilibrium analysis of medical devices. Solid modeling and rapid prototyping of components. Analysis of component function, manufacturing methods, and method of assembly. Report writing. BoK: NA. Credit Level: U. Credit Hrs: 3.00

Biomedical Engineering**20BME305****Modeling and Analysis of Systems**

Modeling and Analysis of electrical, mechanical, fluid and thermal systems using LAPLACE transforms and state space methods. Time response and second order systems. Solution of model equations with MATLAB Prereq: 20ENFD111, 15MATH273. BoK: QR. Credit Level: U. Credit Hrs: 3.00

20BME306**Modeling and Analysis of Systems**

Tools for modeling and analysis of biomedical engineering systems and processes. Fundamentals of signal analysis. Lumped-element models for first and second-order electrical and mechanical systems. System analysis using differential equations, impedance relationships, and transfer functions. Solution of model equations and data analysis using MATLAB programming. Laboratory exercises including fundamentals, time response and frequency response of electrical and mechanical systems. Prereq: 20ENFD112, 15MATH273. BoK: QR. Credit Level: U. Credit Hrs: 4.00

20BME310**Bioinstrumentation**

Introduction to measurement of biological signals using computer data acquisition systems. BoK: QR. Credit Level: U. Credit Hrs: 3.00

20BME320**Biocontrols**

Fundamentals of feedback control system modeling, transfer functions, root locus and frequency response methods as applied to biological systems. Prereq: 20MATH273. BoK: QR. Credit Level: U. Credit Hrs: 3.00

20BME350**Medical Product Design I**

This course is an applied engineering design course covering engineering design process, user-centered design, design decision making, concept generation, creative thinking, competitive analysis and benchmarking, and FDA design control. Students will be asked to create engineering design specifications and generate multiple solutions. Prereq: 20BME250, 20ENFD112. BoK: NA. Credit Level: U. Credit Hrs: 3.00

20BME410**Biomaterials**

Response of the body to implanted materials. Emphasis on polymers and common metals used in orthopaedic and tissue engineering applications. BoK: NS. Credit Level: U. Credit Hrs: 3.00

20BME420**Controls in Biomedical Engineering**

Controls in BME presents control theory and its application to the design of medical devices and the analysis of physiological systems. Topics include electromechanical system transfer functions, state space representation, analysis and design of feedback systems, steady state errors, stability determination, design of compensators, and frequency response techniques. Prereq: 20BME305, 20BME310. BoK: QR. Credit Level: U. Credit Hrs: 3.00

20BME450**Medical Product Design II**

This course is an applied engineering design course covering engineering analysis, detailed design development, and systems thinking. An emphasis is placed on sustainable design considerations for material selection and manufacturing methods. FDA design verification and validation, risk analysis and FMEA are also explored. Prereq: 20ENFD112, 20BME350. BoK: NA. Credit Level: U. Credit Hrs: 3.00

20BME455**Multidisciplinary Medical Device Development**

Exploration of the health care delivery environment, its unique culture, and the impact this has on medical product design. This multidisciplinary teaming experience provides a foundation for

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Biomedical Engineering**20BME455****Multidisciplinary Medical Device Development**

continuation in the Medical Device Innovation and Entrepreneurship Program. Course will include field trips and industry expert presentations from multiple disciplines. Prereq: 20BME250. BoK: SS. Credit Level: U. Credit Hrs: 3.00

20BME501**Medical Device Innovation I**

This is the first course of a capstone design sequence for biomedical engineering students. Students are presented with a clinical problem and are expected to conceive, design, prototype and evaluate devices for innovative solutions. Innovation I emphasizes information gathering, establishing requirements, concept development & evaluation. Students from other disciplines, particularly industrial design and business, are encouraged to enroll Perm of Instructor. BoK: QR, SE. Credit Level: U. Credit Hrs: 3.00-9.00

20BME502**Medical Device Innovation II**

This is the second course in the design capstone sequence for biomedical engineering students. Students are presented with a clinical problem and are expected to conceive, design, prototype and evaluate devices for innovative solutions. Innovation II focuses on the detailed design, prototyping and evaluation of the concept selected in Innovation I. Students from other disciplines, particularly industrial design and business, are encouraged to enroll. Individual assignments that build on the students discipline will be developed Perm of Instructor. BoK: QR, SE. Credit Level: U. Credit Hrs: 3.00-9.00

20BME503**Business Development in Medical Device Innovation**

This course focuses on understanding the translation of technology into business opportunity. Issue and challenges of entrepreneurship will be explored including the topics: the identification, selection, description and communication of an opportunity which has potential to become a successful venture. Students from Biomedical Engineering, Industrial Design and Business are encouraged to participate. BoK: NA. Credit Level: U. Credit Hrs: 3.00-6.00

20BME505**Experimental Research Capstone I**

This course will teach students how to design and conduct a pilot study involving human subjects. The course will include development of a hypothesis, design of the experimental protocol to test the hypothesis, and learning ethical aspects of human research. Prereq: 20BME310. BoK: NA. Credit Level: U. Credit Hrs: 2.00

20BME506**Experimental Research Capstone II**

This course will provide the students with an opportunity to conduct a pilot study involving human subjects, using equipment and environment of a physiology lab. The course will include carrying out a previously developed experimental protocol, data analysis and interpretation, statistical analysis and writing of a manuscript. Prereq: 20BME505. BoK: NA. Credit Level: U. Credit Hrs: 2.00

20BME510**Independent Study in Medical Imaging**

Individual study of a medical imaging topic selected in consultation with a faculty member Perm of Instructor. BoK: NS. Credit Level: U. Credit Hrs: 1.00-6.00

20BME520**Independent Study in Biomechanics**

Individual study of a biomechanics topic selected in consultation with a faculty member Perm of Instructor. BoK: NS. Credit Level: U. Credit Hrs: 1.00-6.00

20BME521**Tissue Mechanics Lab**

Methods of measuring the mechanical properties of biological tissues BoK: NA. Credit Level: U. Credit Hrs: 1.00-2.00

Biomedical Engineering**20BME524****Human Motion Lab**

Methods of measuring human motion including ground reaction forces, body segment motion, and muscle emg. BoK: NA. Credit Level: U. Credit Hrs: 2.00

20BME530**Independent Study in Tissue Engineering**

Individual study of a tissue engineering topic selected in consultation with a faculty member Perm of Instructor. BoK: NS. Credit Level: U. Credit Hrs: 1.00-6.00

20BME540**Independent Study in Bioinformatics**

Individual study of a bioinformatics topic selected in consultation with a faculty member Perm of Instructor. BoK: NS. Credit Level: U. Credit Hrs: 1.00-6.00

20BME550**Independent Study Design and Manufacturing**

Individual study of design and manufacturing in consultation with a faculty member. Perm of Instructor. BoK: NA. Credit Level: U. Credit Hrs: 1.00-3.00

20BME590**Special Projects in Biomedical Engineering**

This course is a special projects course to be arranged between the student and the instructor. BoK: NA. Credit Level: U. Credit Hrs: 1.00-6.00

20BME601**BME Survey**

Survey of biomedical engineering research topics. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20BME602**Bioinstrumentation**

An overview of biomedical instrumentation, design and operation of transducer and measurement systems used in medicine and biology. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20BME610**Imaging with Ionizing Radiation**

The physics and instrumentation of diagnostic radiology with x-rays, computed tomography, and radioisotope imaging Prereq: 15MATH553. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20BME611**Imaging Without Ionizing Radiation**

The physics and instrumentation of diagnostic ultrasound, magnetic resonance imaging (MRI), functional MR and MR spectroscopy Prereq: 20BME610, 15MATH553. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20BME612**Biomedical Signal and Image Processing**

Fundamentals of signal and image processing, Fourier analysis, and stochastic processes, with emphasis on biomedical applications. Filtering transformation and feature extraction for biomedical signals and images. Prereq: 15MATH264. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

20BME620**Introduction to Biomechanics**

Basic concepts and methods in the application of engineering mechanics principles in the medical and life sciences (co-listed as 20MECH685). Prereq: 20ENFD103, 20MATH273. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20BME621**Tissue Biomechanics**

Examination of the properties and mechanical behavior of the structures, soft tissues, and organ systems of biosystems (co-listed as 20MECH686) BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

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Biomedical Engineering**20BME622****Ligament and Tendon Biomechanics**

The correlation of mechanical properties and tissue microstructure. Emphasis on the properties of tissue attachments to muscle and bone
BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20BME623**Bone Biomechanics**

Structure, mechanical properties, failure, and adaptation of long bones to mechanical stresses. Prereq: 20ENFD375, 15BIOL101. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20BME624**Joint Biomechanics**

Mathematical description and analysis of the three dimensional motion of biological joints. Emphasis is on the human knee. Prereq: 20ENFD103, 20MATH276. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20BME625**Cell Mechanics**

Structure and function of the cell cytoskeleton with an emphasis on the role of the actin filaments in cell locomotion and signal transduction
BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20BME626**Biofluid Mechanics**

Biofluid mechanics provides an intellectual framework for understanding the features of flow in organ systems, in health and disease. BoK: QR. Credit Level: U. Credit Hrs: 3.00

20BME629**Special Topics in Biomechanics**

In-depth study of biomechanics. Topics selected by the instructor. Perm of Instructor. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20BME630**Tissue Engineering**

General principles of tissue engineering including aspects of cell isolation and propagation; matrix selection; construct creation, manipulation, and implantation; and evaluation of resulting repairs. BoK: NA. Credit Level: G, U. Credit Hrs: 3.00

20BME631**Functional Tissue Engineering**

Application of principles of tissue engineering for load-bearing tissue structures. Measuring and using in vivo forces and displacements as design criteria and mechanical stimulation signals to stiffen constructs in culture and to improve repair biomechanics and structure after surgery. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

20BME639**Special Topics in Tissue Engineering**

In-depth study of tissue engineering. Topics selected by the instructor. Perm of Instructor. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20BME640**Computational Genomics**

Computational problems and algorithms in genome analysis (co-listed as 20ECES786). Perm of Instructor. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20BME641**Functional Genomics**

This course deals with the experimental design and microarray processing and proteomics Perm of Instructor. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20BME642**Mining and Analyzing Biomedical Free-Text Using Natural Language Processing**

Generally, there are two types of data: transactional and free-text. Transactional data are structured and predominately represent current and past states. They measure some action, i.e. lab results measure a patient's chemical profile. Free-text, is unstructured and is a proxy for

Biomedical Engineering**20BME642****Mining and Analyzing Biomedical Free-Text Using Natural Language Processing**

human thought. Free texts represent current and future states. Most efforts have focused on analysis of transactional data. More methods for analyzing free-text data have emerged. This course focuses on how to apply these methods to biomedical free-text. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

20BME643**Introduction to Bioinformatics**

Modeling aspects, biological motivation, problem formulation and solution as well as reference to bioinformatics tools. BoK: NS. Credit Level: G, U. Credit Hrs: 3.00

20BME649**Special Topics in Bioinformatics**

In-depth study of bioinformatics. Topics selected by the instructor. Perm of Instructor. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20BME660**Mathematical Models in Physiology and Medicine**

This course will introduce students to the use of computers and computer programming in the mathematical description of physiological and biological processes. Processes at all levels will be studied, including models of receptor-ligand binding, population dynamics, neural spike propagation, and infectious diseases. Students will also learn advanced techniques in curve fitting. Each student will have the opportunity to focus on an area of mathematical physiology or medicine of his or her interest. Prereq: 20ENFD112, 15MATH273. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

20BME661**Biostatistics in Research**

In this course a number of statistical methods will be presented to analyze various types of data stemming from research. A rudimentary knowledge of probability and inferential statistics will be assumed. How to evaluate a diagnostic test will be dealt in depth. Analysis of contingency tables and loglinear models will be presented to answer a number of relevant research questions. A detailed presentation of logistic regression and rudiments of Survival Analysis will be presented. Presentation of current research from journals. Prereq: 15MATH361, 15MATH362. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

20BME670**Advanced Topics in Biomaterials**

Deals with advanced topics in current biomaterials research including the cell-material interface, molecular engineering of biomaterials, nanoscale biomaterials, hierarchically assembling materials, tissue engineering, protein peptide design, bioactive polymers, biomacromolecules, and surface science. It will be composed of both didactic and discussion/literature-based activities. Prereq: 20BME410. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

20BME680**Nanotechnology and Nanomedicine**

Course will cover nanotechnology concepts, principles, instrumentation, approaches and applications crossing the disciplines of chemistry, physics, optics, math, computations, molecular biology, biophysics, physical chemistry, materials, biomaterials as well as biochemistry of lipids, peptides, nucleotides, structures of RNA, DNA and proteins including the single molecules studies on nanomaterials. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

20BME650**Biomedical Ultrasound I**

This course will detail the physical properties of sound and the fundamental principles governing the generation, propagation, reflection, transmission, and reception of sound waves in fluids, and introduce some medical applications. Credit Level: G. Credit Hrs: 3.00

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Biomedical Engineering**20BME699****Master's Thesis Research**

Thesis research credit for Biomedical Engineering Master's students
Credit Level: G. Credit Hrs: 3.00-12.00

20BME700**Introduction to IGERT Research**

Graduate students admitted to the NSF IGERT program will participate in a summer laboratory rotation prior to the start of their first academic year in their doctoral program. The IGERT student will spend three weeks in the laboratory of an IGERT faculty member. Credit Level: G. Credit Hrs: 1.00

20BME702**Biomedical Engineering Seminar**

Required of all full time BME students. Seminar lectures by staff and invited speakers from academic, research and industrial institutions on current biomedical engineering problems. Credit Level: G. Credit Hrs: 1.00

20BME703**BME Career Building Blocks**

Required of all full time BME students. Seminar lectures by staff and invited speakers from academic, research and industrial institutions on current biomedical engineering problems. Credit Level: G. Credit Hrs: 1.00

20BME705**BME Research Design**

This course will help students to develop methods and skills necessary to create, develop and execute a successful research career. Methods covered include: formulating and defining ideas, understanding and using appropriate resource management, gathering and assessing data, designing a complete research project and basic writing skills for manuscript preparation and grant writing. Credit Level: G. Credit Hrs: 3.00

20BME712**Advanced Topics in MRI**

This course will detail the quantum mechanical aspects of NMR and the methods by which gradient magnetic fields are used to spatially encode the N MR signal to produce a magnetic resonant image (MR I) Prereq: 20BME610, 20BME611. Credit Level: G. Credit Hrs: 3.00

20BME719**Laboratory Research Survey**

Open to first and second year BME graduate students. The research rotation will expose the student to state-of-the-art biomedical research and will help guide the student in the selection of a dissertation research mentor. Student is expected to consult with BME director and faculty mentor prior to registering for this course. The rotation does not constitute an agreement to accept student in lab for research. If student has an interest in lab for potential thesis research, student should clarify with faculty if funding is available for student's research. Credit Level: G. Credit Hrs: 1.00-6.00

20BME734**Cellular Engineering**

Provides theoretical and practical training in the principles of cell culture and its uses for treatment of diseases Credit Level: G. Credit Hrs: 3.00

20BME741**Advanced Computational Biology**

This course cover in depth selected problems and algorithms arising in computational molecular biology, including genomic sequence and map assembly, sequence analysis, genomic rearrangement and applications of machine learning techniques in bioinformatics. The course will involve seminar style presentations by the students and projects focused on key algorithmic issues behind widely used methods in computational biology and bioinformatics. Prereq: 20BME643. Credit Level: G. Credit Hrs: 3.00

Biomedical Engineering**20BME799****Doctoral Dissertation Research**

Doctoral Dissertation Research for Students who are enrolled in the Department of Biomedical Engineering Credit Level: G. Credit Hrs: 1.00-19.00

20BME810**Independent Study in Medical Imaging**

Individual advanced studies in medical imaging under the supervision of a department faculty member Perm of Instructor. Credit Level: G. Credit Hrs: 1.00-6.00

20BME820**Independent Study in Biomechanics**

Individual advanced studies in biomechanics under the supervision of a department faculty member Perm of Instructor. Credit Level: G. Credit Hrs: 1.00-6.00

20BME830**Independent Study in Tissue Engineering**

Individual advanced studies in tissue engineering under the supervision of a department faculty member Perm of Instructor. Credit Level: G. Credit Hrs: 1.00-6.00

20BME840**Independent Study in Bioinformatics**

Individual advanced studies in bioinformatics under the supervision of a department faculty member Perm of Instructor. Credit Level: G. Credit Hrs: 1.00-6.00

20BME860**Master of Engineering Capstone Project**

Individual projects under supervision of departmental faculty in partial fulfillment of the Master of Engineering degree. Credit Level: G. Credit Hrs: 1.00-6.00

20BME864**Advanced Statistical Methods in Biomedical Research**

New methods of analyzing complex data constantly evolve and the purpose of this course is to expose these methods to graduate students. The methods are culled mostly from research journals and as such no textbook is prescribed for this course. Prereq: 26BE787. Credit Level: G. Credit Hrs: 3.00

20BME881**Introduction to Functional Genomics**

The course will consist of a series of lectures/seminars on the theory and use of methods of functional genomics in biomedical research. Lectures will be presented by some local speakers and invited experts outside the university. The course will include four "lab" sessions offered in an electronic classroom. These sessions will provide hands-on experience application of bioinformatics principles. Prereq: 26GNTD881. Credit Level: G. Credit Hrs: 2.00-4.00

Civil and Environmental Engineering**20CEE100****Introduction to Civil and Environmental Engineering**

Introduction to areas of civil and environmental engineering, basic problem solving skills, ethics, co-op and curriculum. BoK: NA. Credit Level: U. Credit Hrs: 3.00

20CEE101**CEE Freshman Seminar I**

This course provides an overview of environmental engineering issues and practice. BoK: NA. Credit Level: U. Credit Hrs: 1.00

20CEE102**CEE Freshman Seminar II**

This course provides an overview of civil engineering issues and practices. BoK: NA. Credit Level: U. Credit Hrs: 1.00

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Civil and Environmental Engineering**20CEE103****Introduction to CEE Math**

Course covers basic elements of trigonometry, geometry, calculus and differential equations through the solution of Civil Engineering problems. Students are shown how basic mathematical concepts relate to and are used in the solutions to engineering problems. Short projects included. Coreq: 20CEE100. BoK: NA. Credit Level: U. Credit Hrs: 2.00

20CEE204**Introduction to Environmental Assessment and Remediation**

Principles of biochemistry and organic chemistry needed for environmental site assessment and remediation strategies Prereq: 15CHEM103. BoK: NA. Credit Level: U. Credit Hrs: 3.00

20CEE272**Civil Engineering Measurements**

Basics of surveying instruments and their use, engineering field and laboratory measurement techniques, computerized data acquisition and reduction. 3 lec. BoK: QR. Credit Level: U. Credit Hrs: 3.00

20CEE340**Civil & Environmental Systems Analysis**

Introduction to systems analysis of Civil & Environmental Engineering Systems including methodology and applications. Linear & integer programming, critical path method, and engineering economics, with application to structural, water resources, transportation engineering systems. Prereq: 15MATH273. BoK: QR. Credit Level: U. Credit Hrs: 3.00

20CEE345**Environmental Material Balances**

Introduction to techniques of analysis for environmental systems. Application of concepts of material and energy balances to environmental systems as part of the engineering approach to problem solving. Topics include units and dimensions, process variables, reactive system balances, and equations of state for real gases. BoK: QR. Credit Level: U. Credit Hrs: 3.00

20CEE351**Transportation Engineering**

Transportation systems; traffic flow theory; traffic engineering studies and design; highway capacity; traffic operations; signal and timing design; highway engineering overview; standards and criteria; highway geometric design. BoK: QR. Credit Level: U. Credit Hrs: 3.00

20CEE375**Civil and Environmental Engineering Computer Applications**

Introduction to college computing facilities, applications, software, basic concepts of computer programming and application of computer solutions in civil and environmental engineering BoK: QR. Credit Level: U. Credit Hrs: 3.00

20CEE376**Basic Strength of Materials**

Stress-strain curves and properties of materials; direct stress; thermal stress; shear; torsion; flexure; deflections of beams; columns; combined stresses. Dept. of Civil and Environmental Engr. Ea. Qtr. Prereq: 15MATH264, 20AEEM101. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

20CEE381**Structures I**

Applied theory of beams, columns, and other structural elements. Prereq: 20ENFD375. Coreq: 20CEE383. BoK: QR. Credit Level: U. Credit Hrs: 3.00

20CEE382**Structural Analysis**

Loads and modeling of determinate and stable structures; trusses; shear and moment diagrams for beams and frames; deflections of beams, frames, and trusses; influence lines; approximate methods of analysis. Prereq: 20CEE381. BoK: NA. Credit Level: U. Credit Hrs: 4.00

Civil and Environmental Engineering**20CEE397H****Environmental Challenges in Modern India**

The emergence of modern India as an economic superpower, the world's largest democracy, and the second largest Muslim nation defies conventional understanding by Western norms. In the context of tremendous ongoing growth and even stronger positioning for future growth - the challenges of environmental degradation within India are severe. The objective of this course is to focus on environmental concerns while discussing the politics, identity, economy, education, youth culture, and the future of modern India through critical review of selected readings BoK: SS., SE. Credit Level: U. Credit Hrs: 3.00

20CEE398H**Readings in Sustainable Urban Engineering**

By 2050, more than five billion people live in urban agglomerations. Learning how to sustain living conditions in mega cities is critical for human capital, natural capital, and financial capital. The objective of this course is to integrate readings from urban planning, engineering, and public health with an understanding of the social implications and financial opportunities of mega cities and urban lifestyle. BoK: DC., SE. Credit Level: U. Credit Hrs: 3.00

20CEE400**Engineering Project Abroad I: Market Assessment**

The objective of this course is to prepare engineers to plan and execute an assessment of a market need abroad including the identification of the need, quantifying the market opportunity, planning an international assessment trip and evaluating data collection in the field. BoK: SE., DC. Credit Level: U. Credit Hrs: 1.00

20CEE401**Engineering Project Abroad II: Appropriate Design**

The objective of this course is to prepare engineers for appropriate design in a context-dependent manner. An emphasis will be placed on recognizing diversity and culture of the client as well as considering the social and ethical issues of engineering design. BoK: SE., DC. Credit Level: U. Credit Hrs: 1.00

20CEE402**Engineering Project Abroad III: Implementation**

The objective of this course is to facilitate the inherent entrepreneurial spirit of each student to implement an appropriate design. An emphasis will be placed on creativity in recognizing diversity and culture of the client as well as considering the social and ethical issues in a context-dependent manner. BoK: SE., DC. Credit Level: U. Credit Hrs: 1.00

20CEE471**Environmental Engineering I**

Fundamental physical, chemical, and biological mechanisms relevant to understanding and modeling important water and air pollution problems. Introduction to treatment and pollution prevention technologies. Techniques for understanding how these problems impact the environment and the risks they pose. BoK: QR. Credit Level: U. Credit Hrs: 3.00

20CEE472**Practical Aspects of Building Energy Audits**

Global warming represents one of the great problems confronting our civilization today. At the core of this problem is the massive generation of green house gases (GHGs) that result from the burning of fossil fuels. In our country approximately 40% of all our energy consumption is associated with the heating, cooling, and lighting of buildings, so increasing the efficiency of these processes is a prime target for reducing our GHG production. This course uses lecture-discussion and hands-on energy audits as a means of teaching students how to perform a basic assessment of ways to reduce GHG production for non-commercial buildings. The course targets University Honors Scholars Program students and UC GenEd Breath of Knowledge Courses in Social and Ethical Issues and Social Sciences. BoK: SS., SE. Credit Level: U. Credit Hrs: 0.00-3.00

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Civil and Environmental Engineering**20CEE474****Construction Materials/Concrete Laboratory**

Testing of various construction materials with special emphasis on mixing and testing of concrete materials and structures. 3 lab. BoK: NA. Credit Level: U. Credit Hrs: 2.00

20CEE475**Construction Materials**

General characteristics, physical properties, methods of manufacture, and uses/design of concrete, mortar, brick, steel, wood, and asphalt. 3 lec. BoK: NS., QR. Credit Level: U. Credit Hrs: 3.00

20CEE476**Principles of Soil Mechanics**

Soil structure and clay minerals, soil compaction, soil hydraulics, consolidation and settlement, shear strength, lateral earth pressures, bearing capacity and slope stability. 3 lec. BoK: QR. Credit Level: U. Credit Hrs: 3.00

20CEE477**Soil Mechanics Laboratory**

Laboratory exercises involving the engineering properties of soils and their measurement. A lab report is required for all projects unless stated by the instructor. Computer usage is stressed in the analysis and presentation of results. Coreq: 20CEE476. BoK: NA. Credit Level: U. Credit Hrs: 2.00

20CEE480**Structures II**

Loads and modeling of determinate and stable structures; trusses; shear and moment diagrams for frames; deflections by energy methods; influence lines. Coreq: 20CEE381. BoK: QR. Credit Level: U. Credit Hrs: 4.00

20CEE481**Structural Steel**

Design of steel beams, columns, frames, and connections for buildings. 3 lec., 2 lab. Prereq: 20CEE382. BoK: QR. Credit Level: U. Credit Hrs: 4.00

20CEE482**Reinforced Concrete**

Serviceability and strength-limit states. Behavior, analysis, design and detailing of beams, one-way slabs, and columns. Computer-aided design of reinforced concrete elements. Introduction to integrated design of structural systems. 3 lec., 2 lab. Prereq.: 20CEE381 Prereq: 20CEE382. BoK: QR. Credit Level: U. Credit Hrs: 4.00

20CEE493**Hydraulic Systems**

Theory, design, and laboratory experiments. Pipe flow, measuring devices, open channels, pumps, and turbines. Pipe networks. Jets. Unsteady flow. Systems of hydraulic units. 3 lec. BoK: QR. Credit Level: U. Credit Hrs: 3.00

20CEE494**Fluid Mechanics and Hydraulics Laboratory**

Laboratory experiments designed to provide a physical demonstration of hydrostatics, pipe flow, measuring devices, and open channels. Computer-aided analysis of hydraulic systems. 1 lec., 3 lab. BoK: NA. Credit Level: U. Credit Hrs: 2.00

20CEE501**Senior Project**

An original report of a study, design, or investigation which demonstrates the ability of the student to undertake individual responsibility on a comprehensive civil engineering project. BoK: NA. Credit Level: U. Credit Hrs: 1.00-15.00

20CEE502**Senior Project**

See 20-257-501. BoK: NA. Credit Level: U. Credit Hrs: 1.00-15.00

Civil and Environmental Engineering**20CEE503****Senior Project**

See 20-257-501. BoK: NA. Credit Level: U. Credit Hrs: 1.00-15.00

20CEE504**Integrated Design I**

Integrated design is a 3 quarter, team-driven, multi-disciplinary design experience. Students are guided by a panel of UC CEE faculty members and representatives from industry. Each student team will be given a real-world design problem to complete in the 3 quarters allotted. BoK: NA. Credit Level: U. Credit Hrs: 2.00

20CEE505**Integrated Design II**

Integrated design is a 3 quarter, team-driven, multi-disciplinary design experience. Students are guided by a panel of UC CEE faculty members and representatives from industry. Each student team will be given a real-world design problem to complete in the 3 quarters allotted. BoK: NA. Credit Level: U. Credit Hrs: 2.00

20CEE506**Integrated Design III**

Integrated Design is a 3 quarter, team-driven, multi-disciplinary design experience. Students are guided by a panel of UC CEE faculty members and representatives from industry. Each student team will be given a real-world design problem to complete in the 3 quarters allotted. BoK: NA. Credit Level: U. Credit Hrs: 2.00

20CEE543**Hydrology**

Weather and hydrology. Evaporation and transpiration. Infiltration. Streamflow hydrographs. Precipitation and runoff. Storm and sanitary sewer design. Reservoir and streamflow routing. Probabilities. Sediment transport. 3 lec. BoK: QR. Credit Level: U. Credit Hrs: 3.00

20CEE550**CEE Finite Element Applications**

Direct stiffness and ritz approaches; shape functions and isoparametric formulation; numerical solution of linear simultaneous equations. One- and two-dimensional elements for truss, beam, plate, flow and heat transfer problems in CEE. Mesh refinement and convergence. Prereq: 20CEE476, 20CEE480. BoK: QR. Credit Level: U. Credit Hrs: 3.00

20CEE551**RELIABILITY OF CEE SYSTEMS**

Fundamentals of reliability theory applied to systems and components used in CEE. Design of experiments to quantify reliability; evaluation of experimental results; discrete and continuous distributions; multi-variate distributions; uncertainty; regression and correlation. Prereq: 15MATH366. BoK: QR. Credit Level: U. Credit Hrs: 3.00

20CEE561**Senior Seminar**

Discussion of topics important to students nearing graduation; ethics, professional registration, etc. 1 lec. BoK: NA. Credit Level: U. Credit Hrs: 1.00

20CEE583**Structural Loads and Systems**

In-depth discussion of minimum design loads and load combinations. Overview of various steel and concrete structural systems, discussion of practical selection and design issue. Design of joist systems, diaphragms, and lateral bracing. 3 lec., 2 lab. Prereq.: 20CEE481, 20CEE482, 20CEE585. Prereq: 20CEE481, 20CEE482, 20CEE585. BoK: QR. Credit Level: U. Credit Hrs: 3.00

20CEE584**WOOD/MASONRY**

Wood/Masonry BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20CEE585**Advanced Analysis of Structures**

Extension and intensification of structural analysis. Virtual work.

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Civil and Environmental Engineering**20CEE585****Advanced Analysis of Structures**

Flexural, shear, axial and thermal deformations. Approximate analysis. Statically-determinate cables. Determinate and indeterminate arches. Extension of flexibility method and slope-deflection method. Non-prismatic members. Extension of influence line. 3 lec. Prereq: 20CEE480. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20CEE600**Millennium Goal 7: Ensure Environmental Sustainability**

The objective of this course is to demonstrate key concepts in environmental chemistry and microbiology through engaging students in the evaluation of appropriate technology using case studies. Drinking water and sanitary system design in North America, India, and Sub-Saharan East Africa will be used to compare design needs in developed, emerging, and less developed countries. Successful completion of this course should prepare students for further study in appropriate technologies. BoK: SE., QR. Credit Level: U, G. Credit Hrs: 3.00

20CEE600H**Millennium Goal 7: Ensure Environmental Sustainability**

The objective of this course is to demonstrate key concepts in environmental chemistry and microbiology through engaging students in the evaluation of appropriate technology using case studies. Drinking water and sanitary system design in North America, India, and Sub-Saharan East Africa will be used to compare design needs in developed, emerging, and less developed countries. BoK: SE., QR. Credit Level: U, G. Credit Hrs: 3.00

20CEE601**Millennium Goal 7: Ensure Environmental Sustainability Lab**

Introductory laboratory course on the chemical and microbiological measurements used in water and wastewater sampling and analysis. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00

20CEE601H**Millennium Goal 7: Ensure Environmental Sustainability Lab**

Introductory laboratory course on the chemical and microbiological measurements used in water and wastewater sampling and analysis. BoK: SE., QR. Credit Level: U, G. Credit Hrs: 1.00

20CEE603**Managing an Engineering Practice**

Practical aspects of establishing and managing a professional engineering practice; legal, accounting, liability and insurance considerations; registration and professional ethics; human resource management; sales and marketing of projects. 3 lec. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

20CEE604**Highway Engineering**

Overview from programming through design to construction. Coverage of design controls and standards, alignment and grade line, typical sections, geometric design, design with COGO, surveying and mapping intersections and channelization, cross sections and earthwork, drainage and right of way, safety criteria, maintenance of traffic, contract documents, legal and environmental considerations. 3 lec. Prereq: 20CEE451. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20CEE605**Transportation Demand Forecasting I**

Fundamental concepts and theories of travel demand forecasting process; aggregate travel demand models; trip generation, trip distribution, modal split, network assignment. 3 lec. Prereq: 20CEE451. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20CEE606**Traffic Engineering**

Operation of transportation systems; traffic surveys and studies; laws and ordinances; traffic control devices, including signs, pavement markings and traffic signals; signal systems; speed; capacity analysis. 3 lec. Prereq: 20CEE451. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

Civil and Environmental Engineering**20CEE607****Pavement Design**

Stresses and deflections in pavements. Effects of traffic, vehicle loads and climate on design of pavements. Pavement material characterization. Design of flexible and rigid highway pavements. Overlay design. 3 lec. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20CEE608**Transportation Systems Evaluation**

Current transportation legislation and federal policies; methods of alternative analysis of transportation systems; analysis of user costs, travel time and safety improvements; benefit-cost and cost-effectiveness analyses; community concerns and environmental impact analyses; planning, programming and prioritizing; impact studies. 3 lec. Prereq: 20CEE451. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20CEE609**Mass Transit Engineering and Operations**

Introduction to urban mass transportation; transit models; transit performance and design standards; designing transit system components and operations; revenue and cost estimation; rail transit. 3 lec. Prereq: 20CEE451. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20CEE610**Computer Methods in Transportation**

Use of computers to analyze traffic data and interpret models; use of current microcomputer software for capacity analysis and signal timing. 3 lec. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20CEE611**Advanced Strength of Materials**

Review of stress-strain relationships, stress on an inclined plane and Mohr's circle; combined loading, combined stress and strain rosettes, pressure vessels; beam mechanics, shear center, and unsymmetric bending; columns; introduction to fatigue and stress concentrations. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

20CEE612**Transportation Demand Forecasting II**

Introduction to computerized travel demand models; use of computers to forecast travel demand; calibration and application; techniques to refine travel forecasts from computerized models. 3 lec. Prereq: 20CEE605. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20CEE613**Computer Aided Pavement Engineering**

Use of computers for analyses, design and evaluation of flexible and rigid pavements; analysis of NDT pavement data; maintenance management of pavements. 3 lec. Prereq: 20CEE607. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20CEE614**Municipal Solid Waste Management**

Analysis of the characteristics and management options of municipal solid wastes. Management options are compared for their technical feasibility and environmental soundness. Emphasis is placed on energy and resource recovery. 3 lec., 2 lab. BoK: QR. Credit Level: U, G. Credit Hrs: 4.00

20CEE615**Environmental Virology I**

Basic principles of virology, including the nature of viruses, classification, methods for cultivation, determination of infection and assay, structure, chemistry, molecular genetics and mechanism of infection. 2 lec. BoK: NS. Credit Level: U, G. Credit Hrs: 2.00

20CEE616**Environmental Virology II**

Viruses that infect man. Diarrheal viruses, hepatitis viruses, herpes viruses, adenoviruses, common cold viruses, AIDS virus, influenza and parainfluenza viruses, slow viruses, and others. 2 lec. Prereq: 20CEE615. BoK: NS. Credit Level: U, G. Credit Hrs: 2.00

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Civil and Environmental Engineering**20CEE617****Environmental Virology III**

Occurrence, survival, detection, removal and destruction of viruses in the air, food and water environments. 2 lec. Prereq: 20CEE616. BoK: NS. Credit Level: U, G. Credit Hrs: 2.00

20CEE618**ENVIRONMENTAL MOLECULAR MICROBIOLOGY**

This course will develop for the student the basic principles of molecular microbiology, describe the techniques of the discipline and provide a basis for evaluating new molecular methods for indicator and pathogen detection in environmental waters. BoK: NS. Credit Level: U, G. Credit Hrs: 2.00

20CEE619**Molecular Methods in Environmental Engineering and Science**

Introduces molecular methods (recombinant DNA techniques, immunochemistry, and 16S rRNA technology) for the identification, enumeration, and quantitative monitoring of microbial populations in natural and engineered systems. (Lecture and lab) Prereq: 20CEE600, 20CEE646. BoK: NA. Credit Level: G, U. Credit Hrs: 4.00

20CEE620**Steel Bridge Engineering**

Covers basic bridge engineering topics including bridge loading, truss systems, noncomposite and composite beam and plate-girder systems, fatigue, and other limit states according to the AASHTO-LRFD Specification. Prereq: 20CEE381, 20CEE481. BoK: NA. Credit Level: G, U. Credit Hrs: 3.00

20CEE621**Concrete Bridge Engineering**

Covers basic bridge engineering topics including bridge loading, concrete and precast concrete superstructures, slabs, end-zone and anchorages according to the AASHTO-LRFD Specification. Prereq: 20CEE381, 20CEE482. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20CEE622**Traffic Signal Design**

Fundamental concepts and standard practices of traffic signal design. Design process and operational aspects of traffic signals. 3 lec. Prereq: 20CEE451. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20CEE623**Construction Estimating**

Types of estimates; estimating techniques; computer application; bidding strategies; value engineering. Students will use real projects and interact with local contractors. 4 lec. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

20CEE624**Highway Safety**

Overview of highway safety engineering studies methodology; problem identification, countermeasure selection and project development; accident surrogates for use in highway safety analysis; before/after study design. 3 lec. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

20CEE625**Remediation Geotechnics**

Geotechnical practice for remediation of contaminated sites is discussed. Topics covered include site characterization, soil and groundwater monitoring, in situ containment, air-based remediation, and reactive barriers. Prereq: 20CEE476, 20CEE477. BoK: QR. Credit Level: G, U. Credit Hrs: 3.00

20CEE626**ENVIRONMENTAL SYSTEMS ANALYSIS**

Environmental Systems Analysis BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20CEE627**Mathematical Principles of Environmental Systems**

Fundamental mathematical concepts and numerical algorithms that are important for developing and solving mathematical models of

Civil and Environmental Engineering**20CEE627****Mathematical Principles of Environmental Systems**

environmental systems. Use of these fundamental concepts and algorithms as building blocks for simulating and studying environmental processes and systems. Computer use. algebra; ordinary differential equations recommended. 4 lec. BoK: QR. Credit Level: U, G. Credit Hrs: 4.00

20CEE628**Seepage**

Permeability, seepage fundamentals, and flow net construction. Analysis and design methods to control seepage and groundwater in foundations, earth dams, earth slopes, roads, airfields and other civil engineering works. 3 lec. Prereq: 20CEE476. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20CEE629**Lateral Earth Pressures**

Lateral earth pressure theories, anchored bulkheads, cellular cofferdams, braced excavations, tieback walls, reinforced earth. 3 lec. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20CEE630**Earth Dam Design**

Foundation geology, site investigation, foundation treatment and grouting, seepage, slope stability, embankment construction, spillway analysis, and safety in operation and maintenance. 3 lec. Prereq: 20CEE628. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20CEE631**Asphalt Pavement Technology**

Production and uses of bituminous materials; measurement and significance of lab properties of asphalt; asphalt mix design; aggregate for asphalt pavements, bituminous base stabilization; quality control. 3 lec. and lab. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20CEE632**Geotechnics of Waste Containment**

The geotechnical aspects of waste containment and storage. Aspects of design, construction, testing, and performance of waste containment systems and remediation systems for contaminated sites. BoK: QR. Credit Level: G, U. Credit Hrs: 3.00

20CEE633**Mechanistic Principles of Pavement Design**

Pavement structural analysis. Principles of similitude. Numerical procedures. Mechanistic-based design concepts. Recent advances. Mechanistic-based design procedures for flexible and rigid highway pavements. 3 lec. Prereq: 20CEE607. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20CEE635**Ground Control and Improvement**

Techniques for ground support, control and improvement, including vibrocompaction, soil nailing, pin piles, permeation grouting and compaction grouting. Case histories are emphasized. 3 lec. Prereq: 20CEE476. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20CEE636**Geosynthetics: Theory and Applications**

Design techniques and applications for geotextiles, geosynthetics, geogrids, geonets, geomembranes and geocomposites as they are used in environmental, geotechnical, and other construction engineering projects. 3 lec. Prereq: 20CEE476. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20CEE640**ENVIRONMENTAL CHEMISTRY FOR MANAGERS**

Introductory course for the application of environmental chemistry concepts for problems encountered by environmental managers Prereq: 15CHEM103. BoK: QR, SE. Credit Level: U, G. Credit Hrs: 4.00

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Civil and Environmental Engineering**20CEE641****Environmental Engineering Seminar**

Lectures and discussions of topics relating to the control of the environment. Guest lecturers as well as student presentations. 1 lec. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00

20CEE642**Environmental Engineering Seminar**

See 20-257-641. 1 lec. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00

20CEE643**Environmental Engineering Seminar**

See 20-257-641. 1 lec. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00

20CEE644**Environmentally Conscious Engineering**

Introduction to the principles of environmentally conscious engineering. Overview of types of environmental contaminants, pollution prevention concepts, materials selection, design for disassembly, economic analysis, and sustainability concepts. 3 lec. BoK: QR., SE. Credit Level: U, G. Credit Hrs: 3.00

20CEE645**Environmental Policy and Decision Making**

Environmental policy analysis with a focus on engineering and technology issues. Uses and organization of environmental policy studies. Role of science and technology in policy studies. Improving theory and practice of policy analysis and decision making. 3 lec. BoK: QR., SE. Credit Level: U, G. Credit Hrs: 3.00

20CEE646**Biological and Microbiological Principles of Environmental Systems**

Basic principles of biology, biochemistry and microbiology with emphasis on energetics, biogeochemical cycling and interactions among biological populations, and influence of environmental factors on the growth and distribution of biological life in different environments. 4 lec. BoK: NS., QR. Credit Level: U, G. Credit Hrs: 4.00

20CEE647**Chemical Principles of Environmental Systems**

Introduction to the chemical principles which are a part of environmental systems used to treat and maintain the air, land, water and to treat the wastes produced by man and industrial processes. Covers topics important to aquatic chemistry, including acid/base behavior, metal-ligand chemistry, precipitation and dissolution, redox chemistry, and the chemistry of carbon dioxide. 4 lec. BoK: NS., QR. Credit Level: U, G. Credit Hrs: 4.00

20CEE648**Environmental Chemistry Laboratory**

Laboratory course on the chemical and biological measurements of dilute aqueous systems, including sampling and analysis of water and wastewater; computer usage in the laboratory; data quality control and quality assurance. 3 lab. Prereq: 20CEE647. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00

20CEE649**Introduction to Sustainable Urban Engineering**

Provides a trans-discipline introduction to topics in engineering, planning, policy, health and environmental studies related to the unique challenges of developing and maintaining economically and environmentally sustainable urban regions. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

20CEE650**Environmental Biology and Microbiology Laboratory**

Laboratory and field exercises emphasizing the activities of biological and microbiological life and their interactions and effect on man and his environment. Analyses of water, wastewater, solid and hazardous materials, and bioaerosols. 3 lab. Prereq: 20CEE646. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00

Civil and Environmental Engineering**20CEE651****ENVIRONMENTAL LAW AND POLICY**

This course imparts a working knowledge of current environmental regulation and of the processes and institutions which share environmental law and policy and addresses the special needs of environmental managers and professionals. BoK: SE. Credit Level: U, G. Credit Hrs: 3.00

20CEE652**Advanced Topics in Environmental Water Chemistry**

Advanced chemical concepts used in water treatment and environmental protection of water resources. State-of-the-art research is emphasized. 3 lec. Prereq: 20CEE647. BoK: NS, QR. Credit Level: U, G. Credit Hrs: 3.00

20CEE653**Physical Principles of Environmental Systems**

Analysis of the physical principles which form the basis for many unit operations in water and air quality control operations; sedimentation, filtration and flow through porous media, principles of reactor design, and principles of mass transfer. 4 lec. BoK: QR. Credit Level: U, G. Credit Hrs: 4.00

20CEE654**Physical/Chemical Processes for Water Quality Control**

Process design of physical-chemical systems for water and wastewater treatment. Includes mixing, coagulation-flocculation, sedimentation, media-filtration, adsorption, gas transfer, oxidation, disinfection, flotation and membranes. BoK: NS., QR. Credit Level: U, G. Credit Hrs: 4.00

20CEE655**Biological Processes for Water Quality Control**

Theoretical and practical applications of biological principles to the treatment of water and wastewater. Other areas include sludge dewatering and disposal and solids separation. 4 lec. BoK: NS., QR. Credit Level: U, G. Credit Hrs: 4.00

20CEE656**Public Health Practices Related to Environmental Controls**

Basic principles of communicable diseases as applied to water and wastewater disposal and treatment practices, insect and rodent control, solid and hazardous waste disposal, and indoor and outdoor air pollution. BoK: SE. Credit Level: U, G. Credit Hrs: 4.00

20CEE657**Basic Principles of Environmental Law**

Emphasis on toxics and hazardous materials laws, as well as other aspects of environmental laws. Recent examples of environmental litigation to emphasize legal points. 3 lec. BoK: SE. Credit Level: U, G. Credit Hrs: 3.00

20CEE658**Environmental Instrumentation**

Lecture/laboratory course on the theory and practical use of instruments used to analyze environmental samples. Instruments include GC, GC/MS, HPLC, IC, AA, UC-VIS SPEC. 2 lec., 3 lab. Prereq: 20CEE647, 20CEE648. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

20CEE659**Unit Operations Laboratory and Process Monitoring**

Lecture/laboratory course on the theory and practical applications of experimental treatment processes. The class will evaluate both short term and long term processes, such as settling, carbon adsorption, oxidation, activated sludge, and anaerobic digestion. 1.5 lec., 4-5 lab. Prereq: 20CEE646, 20CEE647, 20CEE648. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

20CEE660**Environmental Engineering Management Ethics**

This course addresses the ethical questions that arise when an engineer is faced with environmental concerns resulting from the creation or application of technology. Several major environmental events will be reviewed. 1 lec. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00

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Civil and Environmental Engineering**20CEE660****Environmental Engineering Management Ethics**

This course addresses the ethical questions that arise when an engineer is faced with environmental concerns resulting from the creation or application of technology. Several major environmental events will be reviewed. 1 lec. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00

20CEE661**Pollution Prevention and Economics**

This course includes the fundamental concepts of pollution prevention (P-2), P-2 law and hierarchy, P-2 audit systems and concepts of P-2 economics. 3 lec. BoK: QR., SE. Credit Level: U, G. Credit Hrs: 3.00

20CEE662**Atmospheric Chemistry and Monitoring**

A review of organic chemistry. Atmospheric chemistry: both photochemical smog formation and atmospheric aqueous chemistry. Air pollution monitoring and quality assurance, including data quality objectives. 3 lec. BoK: NS., QR. Credit Level: U, G. Credit Hrs: 3.00

20CEE664**Air Resources Management**

A survey of the concepts of managing the air as a natural resource including sources, effects measurement and monitoring, transport and fate, and laws and regulations of air pollution and the application of these concepts to the development of environmental protection policy and programs and their implementation. 3 lec. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20CEE665**Principles of Combustion**

Chemical and physical fundamentals of combustion processes. Formation and control of primary and secondary gaseous pollutants. Solids, liquids, and gaseous fuel combustion. Hazardous waste incinerators. 3 lec. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20CEE666**Environmental Risk Analysis and Assessment**

The course introduces the process of risk analysis including risk assessment and its translation into risk management and engineering decisions for environmental improvements. 3 lec. BoK: QR., SE. Credit Level: U, G. Credit Hrs: 3.00

20CEE667**Environmental Impact Analysis**

Environmental impact analysis methodologies, National Environmental Policy Act and related regulations, international perspectives, contemporary issues in environmental assessment. 3 lec. BoK: QR., SE. Credit Level: U, G. Credit Hrs: 3.00

20CEE669**Industrial Sources of Air Pollution**

Analysis of industrial processes, estimation of air pollutant emissions, maintenance and operation of air pollution control facilities. Field trips to representative plants. 3 lec. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00-4.00

20CEE670**Construction Equipment and Planning**

Construction equipment selection, planning and management; engineering fundamentals. Course is project oriented, case studies used extensively. 3 lec. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20CEE671**Aerosol Science and Engineering**

Physics of aerosols: size and size distributions, mechanics of motion, agglomeration, diffusion, electrical effects and light scattering. Applications to sampling, deposition, visibility. Condensation and nucleation of aerosols. 3 lec. BoK: NS., QR. Credit Level: U, G. Credit Hrs: 3.00

Civil and Environmental Engineering**20CEE672****Design of Particulate Control Systems**

Mechanical collectors, filters, scrubbers, electrostatic precipitators, and advanced concepts. 3 lec. Prereq: 20CEE671. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20CEE673**Diffusion and Mass Transfer in Environmental Systems**

Design principles for control of gaseous pollutants and air handling systems. Theory of diffusion and mass transfer for application to absorption, adsorption, and incineration systems. 3 lec. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20CEE674**Design of Gaseous Pollution Control Systems**

Analysis and design principles of various gaseous control equipment including flue-gas desulfurization systems, NO_x control, volatile organic vapors and odors 3 lec. Prereq: 20CEE673. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20CEE675**Sustainable Infrastructure and Green Construction**

The course will focus on the built and civil infrastructure environment by considering total life cycle assessment of engineering designs and construction alternatives in the context of sustainable development. Additionally, the course will educate students about green building procedures and strategies, the LEED rating system and the requirements that need to be met on the construction site and in the office to achieve a certified structure. This will include Energy and Atmosphere, Indoor Environmental Qualities, Sustainable Sites, Materials and Resources and Water Efficiency. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

20CEE676**Advanced Seminar in Environmental Engineering**

Presentations and discussion of recent developments and research work in Environmental Engineering. 1 lec. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00

20CEE677**CE Engineering Economics**

The impact of economic decisions on engineering projects and the associated decision making process. 3 lec. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20CEE678**Case Studies Construction**

Examination of the difference between lean construction and traditional project management. assignments, choice of topics and speakers. 3 lec. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

20CEE679**Construction Project Management**

Principles of management, labor motivation, theories of bidding, analysis of risk, valuation, cost control, budgetary control. 3 lec. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20CEE680**Construction Planning and Estimating**

Types and preparation of bids, conceptual estimating, operation analysis, theory of queuing, CPM, PERT, planning with limited resources, resource leveling. 3 lec. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20CEE681**Foundation Engineering I**

Subsurface exploration for foundations. Analysis of shallow footings, mats, retaining wall foundations, pile and pier foundations. 3 lec. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20CEE682**Foundation Engineering II**

Structural analysis and design of footings using ACI Code; pedestals, bearing plates, anchor bolts; square, rectangular, combined and mat

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Civil and Environmental Engineering**20CEE682****Foundation Engineering II**

foundations; pile caps; case histories. 3 lec. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20CEE683**Prestressed Concrete**

Design of pretensioned and post-tensioned units, including loss of pre-stress, flexure, shear, and bond. Design of pre-stressed structures using the ACI code and bridge design using the AASHTO code. Use computer-aided design. 3 lec. Prereq: 20CEE482. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20CEE686**Introduction to Digital Prototyping for AEC Projects**

Introduction to Digital Prototyping for AEC Projects. Use of object-oriented, 3-D parameter modeling to assist with project management tasks such as quantity estimating, clash detection, and installation sequencing. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

20CEE687**Law for Engineers**

Legal principles, including construction contracts and liability issues affecting engineers and contractors. Minimizing loss due to liability. Alternative methods of dispute resolution. 3 lec. BoK: SE. Credit Level: U, G. Credit Hrs: 3.00

20CEE688**Matrix Analysis of Structures**

Matrix theory and digital computer techniques for the solution of structural problems. 3 lec. Prereq: 20CEE585. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20CEE689**Hydrologic Processes**

A close look at the pathways of rainwater at the earth's surface and at the meteorological, soil physical, and topographic parameters that control these pathways. Perm of Instructor. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20CEE690**Modeling Hydrologic-Hydraulic Systems**

Practical applications of state-of-the-art computer models to solve problems in prediction and control of water quality and quantity. Models may include SWMM, STORM, KYPipe, HEC-1 and HEC-2. 3 lec. Prereq: 20CEE493, 20CEE543. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20CEE691**Climate Change and Environmental Impact**

Properties of climate systems. Physics and dynamics of climatic fluctuations. Causes and effects of climate change. Reviews of evidence of global warming. Environmental impact of climate change. 3 lec. BoK: QR., SE. Credit Level: U, G. Credit Hrs: 3.00

20CEE692**Watershed Field Course**

Field description of soils & their interpretation in a landscape context. Field determination of soil properties relevant for hydrological and biogeochemical processes. Perm of Instructor. BoK: NS, SE. Credit Level: U, G. Credit Hrs: 5.00

20CEE693**Environmental Hydraulics**

Particle and contaminant transport in pipes, unsteady gradually varied open channel flow, residence times and mixing in reactors. 3 lec. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20CEE694**Statistical Principles for Environmental Systems**

Elements of probability theory; common probabilistic models; statistical hypothesis testing and confidence intervals, correlation and regression analysis; introduction to multi-variate systems; non-parametric methods. Examples and illustrations emphasize environmental problems. 3 lec.

Civil and Environmental Engineering**20CEE694****Statistical Principles for Environmental Systems**

Prereq: 20CEE493. BoK: QR. Credit Level: U, G. Credit Hrs: 4.00

20CEE696**Watersheds: Theory and Management**

The abiotic and biotic processes that underlie the structure and function of streams and their watersheds. Social, economic, political, and legal challenges that affect watershed management. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20CEE697**Surface Water Hydrology**

Physics of atmospheric water; evaporation, precipitation, infiltration; linear reservoir theory; unit hydrograph theory; dynamic flow models; hydrologic risk. 3 lec. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20CEE698**Construction Safety and Health**

This course covers OSHA rules and policies for construction projects, assessment of construction safety and health risk exposures, engineering interventions and ergonomics, and human factors in construction. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

20CEE699**Design of Natural Treatment Systems**

Application of hydrodynamic principles, nutrient cycling and monte carlo simulation to reliability-based design of constructed wetlands for wastewater treatment. 3 lec. Prereq: 20CEE543. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20CEE703**Expert Systems Seminar**

Introduction of knowledge-based expert systems for applications in civil and environmental engineering; components of expert systems -- knowledge base, inference engine, user interface; knowledge acquisition; development of a prototype expert system using a PC-based tool or shell. 1 lec. Credit Level: G. Credit Hrs: 1.00

20CEE705**Seminar**

For all graduate students. Overview of facilities and resources available for instruction and research at the University of Cincinnati. 1 lec. Credit Level: G. Credit Hrs: 1.00

20CEE706**Seminar**

1 cr. Credit Level: G. Credit Hrs: 1.00

20CEE707**Seminar**

1 cr. Credit Level: G. Credit Hrs: 1.00

20CEE708**Limit Analysis of Structures**

Application of lower and upper bound theorems to framed and gabled structures; computer methods; displacements at point of "incipient" collapse; yield-line theory. 3 lec. Prereq: 20CEE781. Credit Level: G. Credit Hrs: 3.00

20CEE710**RISK AND RELIABILITY FOR CIVIL ENGINEERING SYSTEMS**

The fundamental concepts of risk, reliability, safety and probability of failure are examined. Numerical methods of quantifying reliability with application to the various types of civil engineering systems. Relationship to testing and design of experimental programs. Credit Level: G. Credit Hrs: 3.00

20CEE711**Theory of Structures I**

Two and three dimensional stress and strain transformations, principles stresses and strains, and generalized stress-strain relationships. Concept of yield criterion, and classical yield theories. Flexural stresses for unsymmetrical sections, and thin webbed sections. Theory of

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Civil and Environmental Engineering**20CEE711****Theory of Structures I**

torsion, generalization to non-circular cross-sections, St. Venant torsional theory and Prandtl stress function, and membrane analogy and application to cross-sections consisting of a system of rectangles. Prereq: 20CEE585. Credit Level: G. Credit Hrs: 3.00

20CEE712**Theory of Structures II**

Finite element analysis methods applied to structures and structural components. Plane stress and plane strain elements, axisymmetric and solid elements, plate bending elements. 3 lec. Prereq: 20CEE711. Credit Level: G. Credit Hrs: 3.00

20CEE713**Theory of Structures III**

Advanced finite element applications to complex structural behavior. Thin shells, material and geometric non-linearities, fracture problems, dynamic and buckling problems. 3 lec. Prereq: 20CEE712. Credit Level: G. Credit Hrs: 3.00

20CEE714**Nonlinear Structural Analysis**

Fundamentals of mechanics of nonlinear systems and material models for non-Hookean materials. Solution strategies and numerical methods for analysis of structures with geometric and material nonlinearity, with computer applications. 3 lec. Credit Level: G. Credit Hrs: 3.00

20CEE719**Management of Professionals**

This course examines the essential functions of management particularly as related to technical professionals. Topics: managing people, projects & teams; communication; development of organizations; and conflict resolution. Materials presented through readings, case studies and interactive exercises. Credit Level: G. Credit Hrs: 3.00

20CEE720**Management of Science, Technology and Innovation**

Unique characteristics of managing science, technology and innovation based organizations; strategic planning; motivation; conflict management; technology transfer; and science and technology policy. Credit Level: G. Credit Hrs: 3.00

20CEE721**Hazardous Waste Management**

Theory and practice of hazardous waste management are presented from the viewpoint of maximum human and environmental protection with realistic technical expectations for chemical, biological and combined technologies. Risk reduction and safety are integrated into the management concepts. 3 lec. Prereq: 20CEE614. Credit Level: G. Credit Hrs: 3.00

20CEE722**Industrial Wastewater Treatment**

Principles of modern industrial wastewater treatment. Analysis of specific pilot and full-scale treatment plants which are treating complex industrial wastes and meeting discharge requirements. 3 lec. Prereq: 20CEE651. Credit Level: G. Credit Hrs: 3.00

20CEE723**Data Analysis for Environmental Sciences**

An introduction to the analysis of messy data with an emphasis on exploratory and robust methods, and to experimental design. Credit Level: G. Credit Hrs: 2.00

20CEE724**Advanced Unit Operations for Water and Wastewater Treatment**

Fundamentals and applications of advanced unit operations for the purification of drinking water and wastewater. Those include organic and inorganic membranes, ion exchange, adsorption, ultra-filtration, chemical oxidation, and reverse osmosis. Credit Level: G. Credit Hrs: 3.00

Civil and Environmental Engineering**20CEE740****Construction Innovation Seminar**

Introduction to research needs and state of the art research and development (innovation) in the Construction industry. Offered through a series of presentations made by people from the industry as well as students and faculty working in construction related research and development. Credit Level: G. Credit Hrs: 3.00

20CEE742**Computer Applications in Construction**

An overview of information systems in project management, specifically construction engineering, management and administration applications. Overview of computer technology, application planning, development, and management issues, and selected application development tools. Credit Level: G. Credit Hrs: 3.00

20CEE743**Strategic Planning**

Integrated project management, business planning and organization, financial control, project cost control, bid evaluations, bidding strategies, risk analysis, constructability, and lean construction. Credit Level: G. Credit Hrs: 3.00

20CEE761**Soil Mechanics I**

In situ soil stresses, elastic properties of soils, induced stresses, immediate and consolidation settlements, secondary compression, stress path analysis, predicting settlement, difficult soils and site improvement. 3 lec. Prereq: 20CEE476. Credit Level: G. Credit Hrs: 3.00

20CEE762**Soil Mechanics II**

The shear strength parameters of cohesionless and cohesive soils; their proper measurement and uses. Effect of pore pressure. Effect of soil strength on foundation design, slope stability analysis and lateral earth pressure. 3 lec. Credit Level: G. Credit Hrs: 3.00

20CEE763**Advanced Foundation Engineering**

Study of piles, piers and drilled shafts. Foundations on difficult sites. Case studies. 3 lec. Prereq: 20CEE681. Credit Level: G. Credit Hrs: 3.00

20CEE764**Rock Mechanics**

Classification and index properties of rocks; rock strength and failure criteria; initial stresses in rock and their measurement; planes of weakness in rocks; deformability of rocks; applications - underground openings, rock slopes, and foundations Prereq: 20CEE476, 20CEE477, 15GEOL374. Credit Level: G. Credit Hrs: 3.00

20CEE774**Traffic Flow Theory**

Statistical distribution of traffic characteristics: traffic stream models; car following models; hydrodynamic models of traffic; queuing models. 3 lec. Credit Level: G. Credit Hrs: 3.00

20CEE775**Artificial Intelligence Techniques in CEE**

Introduction to expert systems and neural networks with applications in civil and environmental engineering. 3 lec. Credit Level: G. Credit Hrs: 3.00

20CEE776**INTELLIGENT TRAFFIC MANAGEMENT SYSTEMS**

Overview of the national intelligent transportation systems program; freeway surveillance and control systems; driver information and route guidance; incident detection; automated traffic signal system. Credit Level: G. Credit Hrs: 3.00

20CEE781**Reinforced Concrete Theory**

Advanced material properties of concrete including failure criteria, creep

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Civil and Environmental Engineering**20CEE781****Reinforced Concrete Theory**

and shrinkage. Mathematical and numerical modeling of concrete under uni-axial compression, bi-axial and confined loading. Theoretical treatment of column behavior. Examination and modeling of tensile behavior, tension stiffening, bond and anchorage. 3 lec. Credit Level: G. Credit Hrs: 3.00

20CEE782**Reinforced Concrete Design I**

Flexural, shear and torsional behavior and design of reinforced concrete beams and columns. Strut and tie models. Long-term and short-term deflection of reinforced concrete flexural members. Computer methods for section analysis. 3 lec. Prereq: 20CEE781. Credit Level: G. Credit Hrs: 3.00

20CEE783**Reinforced Concrete Design II**

Behavior and design of two-way slab systems and frame systems, including slab column connections and beam column connections. Behavior and design of reinforced concrete structural walls and frame-wall intersection. Computer modeling of reinforced concrete structures, with an emphasis on flat slab systems and structural walls. 3 lec. Prereq: 20CEE782. Credit Level: G. Credit Hrs: 3.00

20CEE785**Theory of Metal Structures I**

Design of steel tension members, columns, and beams by allowable stress and LRFD methods. Elastic and inelastic behavior, torsion, buckling. 3 lec. Credit Level: G. Credit Hrs: 3.00

20CEE786**Theory of Metal Structures II**

Design of steel plate girders, beam-columns, and frames. Allowable stress and LRFD design methods. 3 lec. Prereq: 20CEE785. Credit Level: G. Credit Hrs: 3.00

20CEE787**Theory of Metal Structures III**

Design of connections for steel members, design of bracing for stability, and comprehensive steel frame design. 3 lec. Prereq: 20CEE786. Credit Level: G. Credit Hrs: 3.00

20CEE788**Structural Dynamics I**

The vibration analysis of building elements and structures under dynamic loadings. Single and multiple degree-of-freedom discrete systems, with exposure to continuous systems. 3 lec. Credit Level: G. Credit Hrs: 3.00

20CEE789**Structural Dynamics II**

Analysis, including modeling and assumptions, of building structures for seismic ground motions. Response spectrum, seismic design codes, blast loadings, floor vibrations. Computer applications. 3 lec. Credit Level: G. Credit Hrs: 3.00

20CEE793**Modeling Surface Water Quality**

Advective and dispersive transport of pollutants in overland and channel flow; kinematic non-point source model; first-order kinetics; mixing in rivers. 3 lec. Prereq: 20CEE697. Credit Level: G. Credit Hrs: 3.00

20CEE794**Hydrologic Signal Processing**

Quantitative treatment of spatial and temporal variability in hydrologic processes with an emphasis on earth system science perspective. Correlation and spectral analysis of periodic and aperiodic signals. Estimation of static and dynamic systems including kriging and Kalman filtering. Issues of scale disparity in geophysical processes. or perm. of instr. 4 lec. Credit Level: G. Credit Hrs: 4.00

Civil and Environmental Engineering**20CEE823****Advanced Processes for Water Treatment**

Physicochemical and biological processes as applied to drinking water treatment. 3 lec. Prereq: 20CEE654. Credit Level: G. Credit Hrs: 3.00

20CEE824**Advanced Hazardous Waste Treatment**

The design and application of emergency technologies in the area of hazardous waste treatment, destruction, and recovery. Selection of treatment processes of specific waste streams will be emphasized. 3 lec. Prereq: 20CEE721. Credit Level: G. Credit Hrs: 3.00

20CEE860**Master of Engineering Capstone Project**

Individual projects under supervision of departmental faculty in partial fulfillment of the Master of Engineering degree. Credit Level: G. Credit Hrs: 1.00-6.00

20CEE872**Research**

Projects or research to be done by independent study, not for the MS thesis or PhD dissertation. Credits to be arranged. Offered ea. Qtr. Credit Level: G. Credit Hrs: 1.00-15.00

20CEE899**MS/PHD Research**

Research for the MS thesis or PhD dissertation as required Credit Level: G. Credit Hrs: 1.00-15.00

20CEE904**Fundamentals and Applications of Advanced Oxidation Technologies**

The emphasis of this course is to teach the fundamental mechanisms of AOTs and their application to water treatment. These AOTs include H₂O₂/UV/03, Fenton's and photo-Fenton's reagent, TiO₂ photocatalysis, and sonolysis. The course covers the mechanisms of the degradation reactions, reactor design and process development. The course also includes case studies for the application of these technologies in pilot and full-scale projects for water treatment and in some cases for air treatment and disinfection. Credit Level: G. Credit Hrs: 3.00

20CEE905**Readings**

Tutorial study of problems selected for independent study. Credits to be arranged. Credit Level: G. Credit Hrs: 1.00-15.00

20CEE906**Readings**

See 20-257-905. Credit Level: G. Credit Hrs: 1.00-15.00

20CEE907**Readings**

See 20-257-905. Credit Level: G. Credit Hrs: 1.00-15.00

Chemical Engineering**20CHE100****Introduction to Chemical Engineering**

Introduction to the field of Chemical Engineering and what areas it encompasses including future opportunities in the field. Also, covers ethics, the co-op program, and a team project in creative problem solving. BoK: NA. Credit Level: U. Credit Hrs: 1.00

20CHE362**Chemical Engineering Thermodynamics**

Applications of thermodynamic principles to chemical reaction equilibria, phase equilibria, and various physical and chemical processes. BoK: NS. Credit Level: U. Credit Hrs: 4.00

20CHE364**Material and Energy Balances**

Introduction to chemical engineering; material and energy balance calculations for industrial chemical processes. 3 lec., 3 lab. Prereq: 20ENFD382. BoK: NS. Credit Level: U. Credit Hrs: 4.00

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Chemical Engineering**20CHE373****Chemical Engineering Computational Methods**

Computational methods and practices in solving complex chemical engineering problems. BoK: NS. Credit Level: U. Credit Hrs: 3.00

20CHE421**Principles of Momentum Transport**

Applications of fluid mechanics in engineering systems. BoK: NS. Credit Level: U. Credit Hrs: 4.00

20CHE422**Principles of Heat Transfer**

Conduction, convection, and radiation, emphasizing applications of the convective mode. Prereq: 20CHE421. BoK: NS. Credit Level: U. Credit Hrs: 4.00

20CHE423**Principles of Mass Transfer**

Emphasizing the principles of operation and design of differential contacting equipment. BoK: NS. Credit Level: U. Credit Hrs: 4.00

20CHE436**Chemical Engineering Laboratory IV**

Laboratory studies to illustrate chemical engineering principles and operations. 6 lab. BoK: NA. Credit Level: U. Credit Hrs: 2.00

20CHE437**Chemical Engineering Laboratory V**

See 20CHE436. 9 lab. BoK: NA. Credit Level: U. Credit Hrs: 3.00

20CHE461**Equilibrium Processes-Stage-wise Operations**

Fundamentals of stagewise operations and applications in distillation, gas absorption, and extraction. Prereq: 20CHE362. BoK: NS. Credit Level: U. Credit Hrs: 4.00

20CHE462**Chemical Reaction Engineering**

The principles of energy and mass transport and of chemical rate processes applied to the design of process equipment. BoK: NS. Credit Level: U. Credit Hrs: 4.00

20CHE475**Special Projects**

Study or experimental research in areas not covered in other courses. Offered each qtr. Faculty supervision required. BoK: NA. Credit Level: U. Credit Hrs: 1.00-5.00

20CHE545**Process Design Project I**

Application of fundamental theory and economic factors in the design of chemical processes and equipment. Prereq: 20CHE581. BoK: NA. Credit Level: U. Credit Hrs: 2.00-3.00

20CHE546**Process Design Project II**

See 20-CHE-545. Prereq: 20CHE545. BoK: NA. Credit Level: U. Credit Hrs: 3.00-4.00

20CHE571**Process Dynamics and Control**

Principles of automatic control and process dynamics applied to the chemical process industries; examples of measurement and control. Prereq: 20MATH273. BoK: NS. Credit Level: U. Credit Hrs: 4.00

20CHE581**Chemical Engineering Systems**

Analysis and design of chemical processes with emphasis on economics and optimization. BoK: NS. Credit Level: U. Credit Hrs: 4.00

20CHE591**Plastics Technology**

Preparation, properties, and applications of polymers as engineering materials. Includes polymer processing technology, polymer blending and modification, and material selection for specific applications. BoK:

Chemical Engineering**20CHE591****Plastics Technology**

NS. Credit Level: U. Credit Hrs: 3.00

20CHE599**Undergraduate Seminar**

Attendance required. Seminars, workshops, and other events pertaining to professional development will be scheduled throughout the academic year. BoK: NA. Credit Level: U. Credit Hrs: 0.00-1.00

20CHE600**Process Development and Commercialization**

In this course, students will explore the methods by which new processes are developed, evaluated, and commercialized. The course will address: how new processes are developed; the use of simplified process and economic models and approximate optimization to evaluate process concepts for technical and economic feasibility; the impact of safety, environmental and quality requirements; the interface between chemical engineering, laboratory, and market development efforts; transferring a new process from the laboratory to pilot plant to commercialization. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

20CHE607**Advanced Particle Technology**

The latest developments of particle science and technology in industrial and environmental systems are presented. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00

20CHE608**Advanced Particle Technology**

See 20-CHE-607. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00

20CHE609**Advanced Particle Technology**

See 20-CHE-607. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00

20CHE610**Process Optimization**

Optimization methods in chemical. 3 lec. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20CHE611**Engineering Economics for Chemical Engineers**

The engineer's role is to solve business problems with technology. Since businesses exist to make profit, this role requires engineers to be able to optimize their designs on an economic basis. This course will provide a foundation in economic analysis, installed cost and product cost estimating plus option analysis and evaluation. Prereq: 20CHE610. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20CHE612**Experimental Design in the Chemical Industry**

Covers the analysis of experimental designs with special emphasis on the chemical industry. Topics include completely randomized designs, blocking, full and partial factorial, etc. Prereq: 15MATH148. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20CHE613**Chemical Engineering Analysis**

This course provides a topical review of the analysis techniques used in chemical engineering modeling and research. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20CHE620**Distillation**

Advanced distillation topics; multi-component operations, azeotropic and extractive distillation, computer applications, practical aspects of tower design. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20CHE623**Biochemical Engineering**

Study of the microorganisms, chemistry and processes in the biochemical industries. 3 lec. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

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Chemical Engineering**20CHE623****Biochemical Engineering**

Study of the microorganisms, chemistry and processes in the biochemical industries. 3 lec. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20CHE624**Biotransformation and Biocatalysis**

Will focus on biochemistry of microbial and in vitro systems that lead to organic synthesis from renewable feedstocks. It will describe major metabolic pathways of the microbial biotransformation of key classes of "xenobiotic" compounds and other types of biocatalytic processes. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

20CHE626**Liquid Mixing Technology**

The majority of the processes in industry involve batch or continuous production units which utilize some form of mixing system. This training will provide fundamental knowledge on liquid mixing processes and design of liquid mixing equipment and will focus on problem solving. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20CHE630**Waste Treatment**

Fundamentals of fate modeling and systematic development of waste treatment processes. Covers the modeling and design equations for unit operations for treatment of contaminated air, water, and soil. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20CHE635**Fuels and Air Pollution**

Properties of primary chemical fuels; fuel combustion processes; mechanisms of production of air pollutants; strategies for reducing air pollution. Prereq.: Sr. standing in engineering. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20CHE637**Homogeneous Catalysis**

Description of homogeneous catalytic systems and reactors. Reactor design and stability. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20CHE641**Non-Equilibrium Thermodynamics**

Principles of non-equilibrium thermodynamics and application to the analysis of irreversible processes. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20CHE643**Transport Phenomena I**

An advanced treatment of transport processes. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20CHE650**Bioseparations**

Downstream processing for biotechnology. Introduction to large-scale separation and purification of the products of biochemical engineering. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20CHE655**Adsorption Processes**

Equilibrium and kinetic phenomena in adsorption processes for gas and liquid separations. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20CHE657**Fuel Cells I: Fundamentals**

This course discusses principles and operation mechanisms of fuel cell systems and the underlying thermodynamics and physical factors that determine cell performance. The course covers the concept and classification of fuel cells, thermodynamics, electrochemical efficiency, basics of fuel cells. Prereq: 20CHE362. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

Chemical Engineering**20CHE658****Fuel Cells (II): Technology and Applications**

Course will begin with an overview of sustainable energy supplies for fuel cell development. Issues regarding hydrogen fuel generation and storage are considered. There will be detailed discussions on most important types of fuel cells and their applications. Prereq: 20CHE657. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

20CHE659**Inorganic Membranes**

Covers synthesis methods in chemical, structural and transport properties of advanced inorganic membranes. Methods used for inorganic preparation include chemical vapor deposition, physical vapor deposition, sol-gel, co-precipitation and liquid phase deposition. Chemical, structural, surface and transport properties of inorganic membranes will be discussed in this course. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20CHE660**Membrane Separations**

Membrane transport, nonequilibrium thermodynamic formalism, membrane preparation and characterization, separation devices, cascade, computer simulation, industrial applications. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20CHE661**Aging, Evolving Systems: Re-engineering the Corporate System**

How the shape of the table of organization, power distribution and redundancies of duties affect the function of a corporation. Six parameters will be identified, involving overlapping activities, structural geometry, center of gravity and symmetry of power distribution, and informational entropy. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20CHE663**Thermodynamics and Transport in Living Systems**

A review of the thermodynamics of irreversible processes to study aging, open systems. Entropy analysis of living systems. Transport processes in living systems. A primer on energy generation and oxygen consumption in bariatric medicine. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20CHE670**Process Synthesis**

Optimization methods for flowsheet synthesis, including reactor systems, materials allocations and heat and separation system design. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20CHE671**Aerosol Science and Engineering**

Physics of aerosols: size and size distribution, mechanics of motion, agglomeration, diffusion, electrical effects and light scattering. Applications to sampling, deposition, and visibility. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20CHE672**Design of Particulate Pollution Control System**

Mechanical collectors, filters, scrubbers, electrostatic precipitators, and advanced concepts. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20CHE673**Computers in Chemical Engineering Design**

To train chemical engineers to solve complex chemical engineering problems using various software programming tools BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20CHE675**Particulate Processes**

The fundamentals of aerosol behavior are outlined, and engineering applications and environmental impact of aerosols are presented. Prereq.: Transport Phenomena, mathematics and physical chemistry. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

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Chemical Engineering**20CHE676****Colloid Science and Engineering**

This course will introduce colloid science and the surface phenomena that are key to understanding the physics and chemistry of colloids.

BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

20CHE680**Process Simulation**

The description and analysis of chemical and physical processes by the development and manipulation of appropriate mathematical models.

BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20CHE683**Digital Control of Engineering Processes**

Supervisory and direct digital control, theory of sampled-data system, Z-transforms analysis, design of digital algorithm. BoK: NS. Credit Level:

U, G. Credit Hrs: 3.00

20CHE686**Characterization of Powdered and Porous Materials**

Characterization of particulate solid materials in terms of size, distribution and shape. Special emphasis on characterization of internal structure of porous solids. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20CHE687**FRACTALS IN CHE**

FRACTALS IN CHE BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20CHE688**Powder Technology**

A number of industrial processes and products involve materials in the form of particles or powders. This course introduces the fundamentals of particle science and illuminates its industrial applications. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20CHE689**Zeolites: Synthesis, Characterization and Applications**

Focuses on the fundamentals of zeolites/molecular sieves science. The methods for the preparation and characterization of zeolites will be presented. Applications of zeolites on catalysis, separations and environmental science/engineering will be presented as well. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20CHE690**Applied Separations**

This course is a survey of important technologies including filtration, centrifugation, crossflow membrane microfiltration, evaporation, membrane contractor operations, extraction, distillation, adsorption, and crystallization. General principles, types of equipment available, scale-up methods and process economics are discussed. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

20CHE691**Fundamental and Applications of CVD**

Fundamental principles of CVD processes: CVD thermodynamics precursor transport, CVD kinetics, etc., and applications of CVD for advanced materials fabrication. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20CHE692**Sol-Gel Science and Engineering**

To present the fundamental physical and chemical principles of the sol-gel process with emphasis on applications of chemical engineering principles to study the various steps of the sol-gel process. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20CHE693**Polymer Engineering Lab**

Measurements of viscoelastic properties. Mechanical and rheological testing. Polymeric processing techniques. Prereq: 20CHE591. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

Chemical Engineering**20CHE694****Computational Chemistry for Engineers**

Fundamentals of ab initio and semi-empirical molecular orbital theory. Molecular mechanics and dynamics. Monte Carlo methods. Commercial and public domain programs in computational chemistry and simulation methods. Applications in materials science. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20CHE695**Properties and Applications of Hydrogels**

Properties of polymeric hydrogels and their uses for chemical separations and biomedical, pharmaceutical applications are examined including synthesis, swelling, solute transport, phase transitions, network structure. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20CHE696**Environmental Catalysis and Reaction Engineering**

This class will highlight some of the most important problems and solutions that catalysis and reaction engineering can offer. BoK: NA. Credit Level: G, U. Credit Hrs: 3.00

20CHE697**Biotechnology**

The goal of this course is to introduce biology with an emphasis on the biomolecular interactions between DNA, RNA and proteins. This course will cover modern biotechnology and recent advances in bioprocessing through in-depth discussions of current methods for purification, high-throughput screening and nanotechnology used to study biology BoK: NA. Credit Level: G, U. Credit Hrs: 3.00

20CHE698**Molecular Engineering of Functional Nanomaterials**

The goal of this course is to introduce advanced undergraduate and graduate students to modern methods of rational design of functional materials from different sub-disciplines of chemistry and engineering. BoK: NA. Credit Level: G, U. Credit Hrs: 3.00

20CHE699**Surfactant Science and Engineering**

This course will introduce key concepts in surfactant science and help develop a molecular level understanding of a rich variety of interfacial phenomena that is the key to the rationale design and formulation of many surfactant-based products and processes. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

20CHE741**Advanced Thermodynamics**

Fundamentals of thermodynamics, together with more advanced treatment and applications to chemical engineering problems. Credit Level: G. Credit Hrs: 3.00

20CHE743**Transport Phenomena II**

See 20CHE643. Credit Level: G. Credit Hrs: 3.00

20CHE777**Chemical Reactor Design**

Principles of chemical kinetics, heat and mass transfer applied to the design of homogeneous and heterogeneous chemical reactors. Credit Level: G. Credit Hrs: 3.00

20CHE778**Fundamentals of Gas-Solid Reaction**

Kinetics of gas-solid reactions. Shrinking core model. Grainy pellet model. Changing voidage model. Thermal decomposition model. Shrinking and growing particles. Fluidized bed applications. Attrition and elutriation. Calcination and desulfurization applications. Credit Level: G. Credit Hrs: 3.00

20CHE796**Polymer Engineering**

Fundamentals of polymer processing. Rheological behavior of polymeric materials. Prereq: 20MTSC794. Credit Level: G. Credit Hrs: 3.00

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Chemical Engineering**20CHE796****Polymer Engineering**

Fundamentals of polymer processing. Rheological behavior of polymeric materials. Prereq: 20MTSC794. Credit Level: G. Credit Hrs: 3.00

20CHE797**Polymer Viscoelasticity**

The nature of linear viscoelasticity. Dynamic testing techniques. Modeling and phenomenology of viscoelastic response. Prereq: 20MTSC794. Credit Level: G. Credit Hrs: 3.00

20CHE800**MS Research in Chemical Engineering**

1-15 GR.CR. Credit Level: G. Credit Hrs: 1.00-15.00

20CHE824**ADVANCED HAZARD WASTE TREATMENT**

3-4 gr.cr. Credit Level: G. Credit Hrs: 3.00-4.00

20CHE853**Biotechnology**

The goal of this course is to introduce biology with an emphasis on the biomolecular interactions between DNA, RNA, and proteins. The course will cover modern biotechnology and recent advances in bioprocessing through in-depth discussions of current methods for purification, high-throughput screening, and nanotechnology used to study biology. Credit Level: G. Credit Hrs: 3.00

20CHE860**Master of Engineering Capstone Project**

Individual projects under supervision of departmental faculty in partial fulfillment of the Master of Engineering degree. Credit Level: G. Credit Hrs: 1.00-6.00

20CHE870**Seminar**

1 gr.cr. Credit Level: G. Credit Hrs: 1.00

20CHE871**Thesis**

Research for the Master of Science thesis. Offered each qtr. Cr. to be arranged. Credit Level: G. Credit Hrs: 1.00-15.00

20CHE881**Selected Topics in Chemical Engineering**

Advanced material not covered elsewhere, including equilibria, rate processes, and separations. Credit Level: G. Credit Hrs: 3.00

20CHE882**Selected Topics in Chemical Engineering**

See 20-CHE-881. 3 lec. Credit Level: G. Credit Hrs: 3.00

20CHE883**Selected Topics in Chemical Engineering**

See 20-CHE-881. 3 lec. Credit Level: G. Credit Hrs: 3.00

20CHE900**PhD Research in Chemical Engineering**

Offered each qtr. Credit Level: G. Credit Hrs: 1.00-15.00

20CHE921**Teaching Methodology in Chemical Engineering**

To enhance students ability in teaching and communication applicable to the chemical engineering profession. Credit Level: G. Credit Hrs: 1.00

20CHE971**Dissertation**

Research for the PhD dissertation. Offered each qtr. Cr. to be arranged. Credit Level: G. Credit Hrs: 1.00-15.00

Chemical Engineering**20CHE972****Special Projects in Chemical Engineering**

Investigations of special problems other than theses. Credit Level: G. Credit Hrs: 1.00-15.00

20CHE973**Readings**

Directed individual study of specialized topics not covered in other courses. Credit Level: G. Credit Hrs: 1.00-15.00

Chemical and Materials Engineering**20CME100****Introduction to CME**

An introduction to the CME Department faculty, staff, organizations and an introduction to the field of chemical and materials engineering. Lectures include ethics topics, team projects in creative problem solving, and introduction to the Co-op Program. BoK: NA. Credit Level: U. Credit Hrs: 2.00

20CME101**Introduction to CME II**

Introduction to CME II will focus on specific and detailed examples of Chemical and Materials Engineering fields of study. Students will have individual technical contact with faculty and industrial personnel. Voluntary plant tours will be offered throughout the quarter BoK: NA. Credit Level: U. Credit Hrs: 1.00

20CME110**Technical Laboratory I**

An introduction to laboratory techniques and equipment, necessary for characterization, development and design of chemical and materials processes. BoK: NA. Credit Level: U. Credit Hrs: 1.00

20CME200**Biology for Engineers**

Fundamentals of biology with the emphasis on applications for engineering including energy production and transport processes in living systems, nanobiology, controlled drug delivery, artificial organs, tissue engineering, genomics, proteomics and bioinformatics BoK: NA. Credit Level: U. Credit Hrs: 3.00

20CME210**Undergraduate Seminar**

Seminars given by faculty, industry, and co-op employers to make students more knowledgeable in their field of study, and to enlighten them as to work opportunities and responsibilities BoK: NA. Credit Level: U. Credit Hrs: 1.00

20CME279**Experimental Nanoscale Science and Technology**

To introduce students to experimental nanoscale science and technology, including carbon nanotube synthesis, nanotube sensor fabrication and characterization, quantum dot characterization, and gold nanoparticle fabrication and characterization. The experimental techniques learned in this course can be applied to industrial problems and also used as a foundation for performing research in the area of nanoscale science and technology. BoK: NS., SE. Credit Level: U. Credit Hrs: 3.00

20CME300**Properties of Materials I**

Structure and property relationships of engineering materials will be explored. Polymer and colloidal systems and their associated properties and structure will also be emphasized. BoK: NA. Credit Level: U. Credit Hrs: 3.00

20CME376**Nature and Properties of Materials**

Properties of engineering materials; atomic bonding; crystal systems; electron transport in solids; metal alloys; deformation of metals; cold working and annealing; polymers; ceramic materials. Ea. Qtr. 3 lec. Prereq: 15CHEM103. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

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Chemical and Materials Engineering**20CME382****Basic Thermodynamics**

Fundamental laws and concepts of classical thermodynamics; thermodynamic functions; properties of pure substance. Ea. Qtr. Prereq: 15MATH264. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

20CME385**Basic Heat Transfer**

Fundamental concepts of heat transfer including conduction, convection, and radiation. Ea. Qtr. Prereq: 15MATH273. BoK: NS. Credit Level: U. Credit Hrs: 3.00

20CME600**Introduction to Biomembranes**

An introduction to the study of biological cell membranes including a discussion of the organization and function of lipid bilayers and membrane channels in living systems and the nature of diffusional processes across cell walls. Topics will include differences between animal and bacterial cells, structure of membrane proteins and carbohydrates, carrier-mediated diffusion, chemical and electrical gradients for transport, G-protein coupled receptors and drug targeting, and experimental and simulation methods of study. Suitable for senior undergraduate and graduate students in engineering, materials science, chemistry, life sciences, pharmacy, and medicine. Required course for new graduate students enrolled in the NSF IGERT program on Bio-Applications of Membrane Science and Technology. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

20CME700**Introduction to IGERT Research**

Graduate students admitted to the NSF IGERT program will participate in a summer laboratory rotation prior to the start of their first academic year in their doctoral program. The IGERT student will spend three weeks in the laboratory of an IGERT faculty member on an approved research area prior to selecting an IGERT dissertation advisor. During that time, the IGERT student will have an opportunity to learn about the research area and have experience working on the project under the direction of the IGERT faculty member and under guidance of other graduate students and postdoctoral student assigned to the laboratory. Prereq.: Permission of the Instructor. Perm of Instructor. Credit Level: G. Credit Hrs: 1.00

20CME701**Introduction to IGERT**

Introduction to the IGERT program on Bioapplications of Membrane Science and Technology Discussion of laboratory skills, safety, lab notebooks, critical thinking, problem-solving techniques and laboratory trouble-shooting, technology transfer, and presentation methods. Required course for new graduate students enrolled in the NSF IGERT program on Bio-Applications of Membrane Science and Technology. Credit Level: G. Credit Hrs: 1.00

20CME702**IGERT Seminar**

1 gr. credit Aut, Win, Spr. (credit received at the end of the Spring Quarter) Research presentations by students enrolled in IGERT program and faculty advisors. Invited speakers on IGERT related topics. Required course for new graduate students enrolled in the NSF IGERT program on Bio-Applications of Membrane Science and Technology Credit Level: G. Credit Hrs: 1.00

Computer Science**20CS110****Introduction to Computer Science**

Introduction to various aspects of the computing discipline including: critical analytical skills and underlying ideas; survey of some core areas of CS; introduction to the computing environment using MATLAB; and information about the profession, prospects, and general academic skills. Enrollment limited to CS majors. BoK: NA. Credit Level: U. Credit Hrs: 3.00

Computer Science**20CS112****Fundamentals of Programming**

Top-down program design; break problems into functions and identify needed control structures; declare and employ basic MATLAB data types particularly numbers, strings, 1-dimensional arrays and symbolic variables; create and use functions. BoK: QR. Credit Level: U. Credit Hrs: 3.00

20CS121**Computer Science I**

Introduction to computer science with emphasis upon structured and object-oriented programming, algorithm design, and problem-solving. Currently C++ is used as the computer language. Prereq: 20ECES150, 20ECES151. BoK: QR. Credit Level: U. Credit Hrs: 4.00

20CS122**Computer Science II**

Introduction to classes and objects, multi-dimensional arrays, stacks and queues, and abstract data types. Students completing the course successfully should be able to program in the language studied (C++) using general programming principles taught in the course. Prereq: 20ECES121. BoK: QR. Credit Level: U. Credit Hrs: 3.00

20CS124**Accelerated Computer Science I and II**

Accelerated coverage of material in Computer Science I - II for students with significant programming experience. Course will cover language (currently C++), problem solving, top-down design, abstract data types, stacks and queues. Requires satisfactory score on dept's placement exam to enroll. BoK: QR. Credit Level: U. Credit Hrs: 4.00

20CS127**Cooperative Learning for Computer Science 1**

Students will participate in guided group work which complements the Computer Science 1 curriculum. BoK: NA. Credit Level: U. Credit Hrs: 1.00

20CS128**Cooperative Learning for Computer Science 2**

Students will participate in guided group work which complements the Computer Science 2 curriculum. BoK: NA. Credit Level: U. Credit Hrs: 1.00

20CS130**Introduction to Formal Logic**

Propositional logic, including definitions and relations to circuits. Formal proofs in propositional logic, soundness, and completeness. Introduction to first order logic, with emphasis upon describing knowledge and requirements. BoK: QR. Credit Level: U. Credit Hrs: 3.00

20CS228**Data Structures**

Data structures, such as stacks, queues, trees, and graphs. Introduction to hashing, sorting, searching, and complexity of algorithms. Practice implementation of the concepts of the data structures and encapsulation of structure and behavior of data types. Prereq: 20ECES122. BoK: QR. Credit Level: U. Credit Hrs: 3.00

20CS229**Software Development**

Techniques of program design and software engineering, particularly, object-oriented design. Prereq: 20ECES228. BoK: QR. Credit Level: U. Credit Hrs: 4.00

20CS271**Discrete Computational Structures I**

Discrete Computational Structures I introduces discrete mathematical topics in the context of CS; mathematical induction, sets, propositional logic, relations and functions, algorithm analysis, graph theory & combinatorics, and discrete probability. First of 2-course sequence. Prereq: 20CS122, 15MATH252. BoK: QR. Credit Level: U. Credit Hrs: 3.00

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Computer Science**20CS272****Discrete Computational Structures II**

Discrete Computational Structures II; the second in series; continues to introduce discrete mathematical topics in CS, including mathematical induction, sets, propositional logic, relations & functions, algorithm analysis, graph theory & combinatorics and discrete probability. Prereq: 20CS271, 20CS228. BoK: QR. Credit Level: U. Credit Hrs: 3.00

20CS311**Introduction to Computer Systems**

Students will gain an understanding of the hardware organization and instruction set of a computer; the internal data representation, addressing modes, I/O. Students will write programs at the assembly language level. Prereq: 20CS228. BoK: QR. Credit Level: U. Credit Hrs: 3.00

20CS317**Assembler I**

Assembler language programming on a PC. Organization of the hardware, including registers, memory, and microprocessors and I/O ports. Binary and hexadecimal arithmetic, assembler instructions processor status (flags), program control, the program stack, integer multiplication and division arrays and addressing modes. Prereq: 20ECES229. BoK: QR. Credit Level: U. Credit Hrs: 3.00

20CS323**Functional & Logic Programming**

Examination of one or more modern programming methodologies, such as functional programming and logic programming, plus languages to support these methodologies. Prereq: 20ECES229. BoK: NA. Credit Level: U. Credit Hrs: 3.00

20CS332**Design and Analysis of Algorithms**

Algorithm complexity analysis, algorithm design techniques, advanced data structures, and sorting techniques, polynomial and non-polynomial classes of problems. 3 lec. Prereq: 20ECES228. BoK: QR. Credit Level: U. Credit Hrs: 3.00

20CS362**Pre-Junior Seminar in Computer Science**

Assessment of student's professional development and planning for CS specialization. Review of careers in computer science. Duties and responsibilities of a computer professional. BoK: NA. Credit Level: U. Credit Hrs: 2.00

20CS403**Organization of Programming Languages**

Examination of organization of programming languages, particularly of their run time behavior. Comparison and formal study of various programming languages. Examples will be drawn both from traditional languages and from modern languages. Prereq: 20ECES323. Coreq: 20ECES317. BoK: QR. Credit Level: U. Credit Hrs: 3.00

20CS454**Network Systems Programming**

Principles, standards and programming environment for operating systems and inter-computer communications. BoK: QR. Credit Level: U. Credit Hrs: 3.00

20CS471**Design and Analysis of Algorithms I**

Introduction to the study of algorithms, emphasizing general design strategy and both theoretical and practical analysis of their efficiency. Prereq: 20ECES323. BoK: QR. Credit Level: U. Credit Hrs: 3.00

20CS472**Design and Analysis of Algorithms II**

See 20ECES471. Prereq: 20ECES471. BoK: QR. Credit Level: U. Credit Hrs: 3.00

20CS505**Special Studies**

Requirements individually arranged including 700-level courses for

Computer Science**20CS505****Special Studies**

graduate school preparation. Available only to seniors with high academic rank and upon approval of petition to faculty. Offered ea. qtr. Cr. arranged. BoK: NA. Credit Level: U. Credit Hrs: 1.00-6.00

20CS507**Research Experience I**

Research Experience I : Participation in a professor's research project. The student must obtain the consent of the instructor prior to registration. Perm of Instructor. BoK: NA. Credit Level: U. Credit Hrs: 3.00

20CS508**Research Experience II**

Research Experience I : Participation in a professor's research project. The student must obtain the consent of the instructor prior to registration. Perm of Instructor. BoK: NA. Credit Level: U. Credit Hrs: 3.00

20CS541**Computational Biology**

Computational problems and tools in biological data analysis. Covers areas in genomics, proteins, genetic variations, systems biology, literature search. Students get insights and experience in solving computational biology problems. BoK: NS., QR. Credit Level: U. Credit Hrs: 3.00

20CS561**Computer Science Senior Design Project**

Each student creates with his/her advisor a significant project capitalizing on the prior four years of Computer Science education. The scope includes problem selection, requirement specification, design and implementation of the solution. BoK: NA. Credit Level: U. Credit Hrs: 3.00

20CS562**Computer Science Senior Design Project**

Each student creates with his/her advisor a significant project capitalizing on the prior four years of Computer Science education. The scope includes problem selection, requirement specification, design and implementation of the solution. Prereq: 20ECES561. BoK: NA. Credit Level: U. Credit Hrs: 3.00

20CS563**Computer Science Senior Design Project**

Each student creates with his/her advisor a significant project capitalizing on the prior four years of Computer Science education. The scope includes problem selection, requirement specification, design and implementation of the solution. Prereq: 20ECES562. BoK: NA. Credit Level: U. Credit Hrs: 3.00

20CS581**Honors Research Experience in Robotics**

Participation in research with a CS faculty. Includes problem design, solution strategy, computational thinking, comparison with related work, discussion of potential impact of work, reporting & presentation. Student must take course twice to receive credit. Cannot take with 581/582. BoK: QR. Credit Level: U. Credit Hrs: 2.00-3.00

20CS582**Honors Research Experience in Bioinformatics**

Participation in research with a CS faculty. Includes problem design, solution strategy, computational thinking, comparison with related work, discussion of potential impact of work, reporting & presentation. Student must take course twice to receive credit. Cannot take with 581/583. BoK: QR. Credit Level: U. Credit Hrs: 2.00-3.00

20CS583**Honors Research Experience in Virtual Reality**

Participation in research with a CS faculty. Includes problem design, solution strategy, computational thinking, comparison with related work, discussion of potential impact of work, reporting & presentation. Student must take course twice to receive credit. Cannot take with

H=University Honors course.

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Computer Science**20CS583****Honors Research Experience in Virtual Reality**

BoK: QR. Credit Level: U. Credit Hrs: 2.00-3.00

20CS595**Special Topics in Computer Science**

In-depth study of designated area of Computer Science. Topics to be decided by instructor. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20CS597**Wireless and Mobile Networking**

Basic concepts for wireless communication of both voice and data information. Many underlying system issues related to mobility support and channel allocation will be covered. Wireless communication using satellites will also be described. Discussions on Ad Hoc and sensor networks will also help understand why they are useful. BoK: NS. Credit Level: U. Credit Hrs: 3.00

20CS599**Readings in Computer Science**

Readings in Computer Science BoK: NA. Credit Level: U. Credit Hrs: 1.00-9.00

20CS602**Programming for Artificial Intelligence**

Introduction to programming in languages such as LISP and Prolog which are important in the construction of expert systems, in dealing with "fuzzy" measures of uncertainty, and in other applications of artificial intelligence. Experience in writing programs in these languages. NOTE: This course is intended primarily for graduate students who did not study functional and logic programming as undergraduates. It should normally not be taken by students who have taken 20ECES323 Programming Languages and Methodologies. It does not fulfill any computer science requirements for the BS degree. BoK: NA. Credit Level: U, G. Credit Hrs: 2.00

20CS615**Computer Arithmetic**

Examination of both the physical and the algorithmic implementations of arithmetic by digital computers: digital logic and technologies data representation, memory organization and hierarchies, and design and implementation of CPU operations. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20CS620**The UNIX Operating System**

The UNIX operating system as a multi-user, multiprocessing system; shell programming; utilities and tools of UNIX. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20CS621**Mathematical Logic I**

Propositional and first order logic. Proof systems, such as Hilbert-style proofs, natural deduction systems, or resolution proofs. Compactness, completeness, and model theoretic techniques. Prereq.: Some 600-level theoretical math or computer science course. 3 lec. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20CS624**Mathematical Logic II**

Continuation of Mathematical Logic I. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20CS625**Data Encoding**

Theory and implementation of encryption, authentication, data integrity and compression algorithms. Prereq: 15MATH410. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20CS626**Formal Software Verification**

An introduction to formal hardware and software verification. The course will be applied emphasizing verification using a particular system. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

Computer Science**20CS626****Formal Software Verification**

An introduction to formal hardware and software verification. The course will be applied emphasizing verification using a particular system. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20CS633**Artificial Intelligence I**

Knowledge representation, related data structures and major reasoning schemes and their implementation. A major goal of the course is developing a working knowledge of AI programming. Subjects covered may include unification and resolution in first order logic, graph search algorithms, planning, game playing, heuristic classifiers, knowledge engineering and uncertainty management. Prereq: 15MATH410, 20ECES323. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20CS634**Artificial Intelligence II**

Knowledge representation, related data structures and major reasoning schemes and their implementation. A major goal of the course is developing a working knowledge of AI programming. Subjects covered may include unification and resolution in first order logic, graph search algorithms, planning, game playing, heuristic classifiers, knowledge engineering and uncertainty management. Prereq: 20ECES633. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20CS635**Math Logic III**

Nonstandard logics of interest in computer science. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20CS636**Introduction to Robotics**

Introduction to industrial robots, components, programming, and application. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20CS637**Machine Learning**

Algorithms for training and improving programs that perform knowledge organization and retrieval, classification, and prediction. 3 lec. Prereq: 20ECES672. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20CS638**Robot Design**

Mechanics of robots. Robot design process starting from specifications BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20CS639**Robot Control**

Introduction to industrial robot control. Robot servo system analysis and design. Emphasis on electric and hydraulic drive robots. Frequency domain stability analysis. Automated factory concepts. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20CS640**Robot Vision**

Introduction to intelligent robotics, mathematics, programming and control. Machine intelligence, expert industrial systems, sensors and vision, application to flexible manufacturing system design. 3 lec. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20CS650**Intelligent Systems Theory**

Introduction to intelligent systems theory including expert systems, fuzzy logic, neural networks, and applications to manufacturing and materials handling. 3 lec. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20CS651**Database Theory**

Discussion of databases, with emphasis upon theory. Formal models for database system architectures: relational, hierarchical, object, and network; data dependencies, normalization, concurrency, heterogeneous systems. Methodologies for manipulating these models. 3 lec. Prereq: 20ECES229, 20ECES323. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

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Computer Science**20CS651****Database Theory**

3.00

20CS652**Intelligent Data Analysis**

This course is focused on techniques for extracting useful information from vast amounts of data. Traditional, non-traditional data types, algorithms and recent data mining techniques are discussed and analyzed. Algorithms for classification, clustering, association analysis, etc. are studied. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20CS653**Network Security**

Current concerns, trends and techniques to insure security and safety of data on computers and over networks. Topics include PGP, RSA, Diffie-Hellman, authentication, integrity, confidentiality, denial of service, security policy enforcement and management techniques. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20CS660**Computer Graphics**

Introduction to the basic elements of computer graphics. Representation, manipulation, and display of geometric information. Two-dimensional display of three-dimensional objects: perspective hidden surfaces, shading, and animation. Display and input devices. Issues in designing interactive graphics systems. Prereq: 20ECES229, 20ECES323. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20CS661**Digital Libraries**

Compression and indexing of documents and data: algorithms, formats, and applications. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20CS662**Virtual Reality and Visualization**

Scientific visualization and virtual reality. Explore the fundamentals of virtual reality (VR) technology to support scientific visualization and engineering design. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20CS665**Computer Communications and Networks I**

Architecture and protocols in computer networks. TCP/IP programming. Local area networks and ATM. 3 lec. Prereq: 20ECES326. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20CS666**Computer Communications and Networks II**

Secure protocols in computer networks and distributed computing. 3 lec. Prereq: 20ECES665. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20CS667**User Interface I**

Examination of human factors of interactive software (psychology vs. machinery). Introduction to graphical user interface (GUI), window systems and programming. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20CS668**Parallel Computing**

This course is designed to cover programming and algorithmic design issues arising in parallel computing. Fundamental concepts of modern parallel programming, including MPI programming, parallel libraries, and analysis of parallel programs are also covered in this course. Perm of Department. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20CS669**Collaborative Computing**

Languages, toolkits, technology and human-computer interaction issues related to collaborative computing (C/S groupware, Internet, and/or intranet). BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

Computer Science**20CS670****Theory of Automata and Formal Languages I**

An overview of automata theory and the theory of computation. Regular languages and finite state machines; deterministic and non-deterministic automata. Context free languages. Turing machines and the halting problem; Godel numbering and universal Turing machines. The classes P and NP. Prereq: 20ECES228, 15MATH410. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20CS671**Design and Analysis of Algorithms I**

An introduction to the study of algorithms. Analysis of computing time, asymptotic notation and generating functions. Strategies for designing algorithms: Divide-and-conquer, Greedy method, Backtracking, etc. Further topics such as techniques for algebraic manipulations, lower bound theory, NP-Complete problems, and parallel algorithms. Prereq: 20ECES228, 20ECES229. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20CS672**Design and Analysis of Algorithms II**

An introduction to the study of algorithms. Analysis of computing time, asymptotic notation and generating functions. Strategies for designing algorithms: Divide-and-conquer, Greedy method, Backtracking, etc. Further topics such as techniques for algebraic manipulations, lower bound theory, NP-Complete problems, and parallel algorithms. Prereq: 20ECES671. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20CS675**Parallel and Distributed Systems**

Design and construction of software for parallel and distributed environments. Communication protocols, security and integrity, and fault-tolerance. Emphasis on language constructs and operating systems for parallel and distributed processing. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20CS679**Network Programming Lab**

Computer network systems and Web server administration. BoK: NA. Credit Level: U, G. Credit Hrs: 2.00

20CS688**Introduction to Wireless and Mobile Networks**

Basics of wireless and mobile networks, US wireless and mobile systems infrastructure; fundamentals of cellular systems; channel utilization schemes; Advanced Mobile Phone System; Global System for Mobile Communications, Personal Communication Services; satellite-based systems BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20CS690**Special Topics in Computer Science**

Topics of current interest to faculty and students. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20CS694**Advanced Programming Concepts**

Treats programming concepts, especially those needed for upcoming internet, security, graphics, and stream applications. Topics include: exception handlers, control abstractions and applications to streams, co-routines, demand-driven computation, interfaces substitution for multiple inheritance, content handlers, protocol handlers, applications of public key cryptosystem, clients and servers, remote method invocation, uniform data base interfaces, and reflection. Prereq: 20ECES403, 20ECES429. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20CS701**Computer Science Seminar**

Required of all full-time graduate students. Offered in Fall Quarter. Organization; local and visiting speakers. 1 lec. Credit Level: G. Credit Hrs: 1.00

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Computer Science**20CS702****Computer Science Seminar**

Required of all full-time graduate students. Organization, local, and visiting speakers. Offered in Winter Quarter. 1 lec. Prereq: 20ECES701. Credit Level: G. Credit Hrs: 1.00

20CS703**Computer Science Seminar**

Required of all full-time graduate students. Organization; local, and visiting speakers. Offered in Spring Quarter. 1 lec. Prereq: 20ECES702. Credit Level: G. Credit Hrs: 1.00

20CS710**Practical Experience**

This course is designed to provide the CS graduate student research experience either on campus or off campus in industry. The advising professor approves the suitability of the work experience and employment period, and can suggest alternate ways of meeting this requirement. Credit Level: G. Credit Hrs: 1.00

20CS717**Type Systems for Programming Languages**

Fundamental type disciplines in programming language design and implementation, emphasizing the use of rigorous mathematical methods in programming language studies. Subtyping, polymorphism and effects. Prereq: 20ECES403, 20ECES670. Credit Level: G. Credit Hrs: 3.00

20CS723**Topics in Artificial Intelligence**

Introduction to varying topics in artificial intelligence. 3 lec. Credit Level: G. Credit Hrs: 3.00

20CS724**Logic in Artificial Intelligence**

Connections between formal logic and artificial intelligence. 3 lec. Credit Level: G. Credit Hrs: 3.00

20CS727**Uncertainty in Artificial Intelligence**

Computational models for management of uncertainty. 3 lec. Prereq: 20ECES634, 15MATH361. Credit Level: G. Credit Hrs: 3.00

20CS728**Internet Studies and Web Algorithms**

Design issues and algorithmic questions arising from internet related technologies and emerging world-wide-web applications. New technologies such as web indexing and search engines, distributed internet caches, streaming technologies, and peer-to-peer application-level networking. Prereq: 20ECES743, 20ECES781. Credit Level: G. Credit Hrs: 3.00

20CS730**Principles of Programming Languages**

Fundamental principles and results in programming language design and implementation. In particular we present a type system for a functional programming language and rigorously establish the soundness theorem for this type system. We also study type inference and program compilation, emphasizing the use of mathematical formalism in such studies. Credit Level: G. Credit Hrs: 3.00

20CS731**Distributed AI**

Introduction to the latest topics and research activities in the area of distributed artificial intelligence. Philosophical foundations of distributed AI, algorithms for achieving different AI goals in distributed knowledge systems, and implemented systems that employ distributed AI. Prereq: 20ECES633. Credit Level: G. Credit Hrs: 3.00

20CS735**Computer Security I**

Protecting software and datafiles against theft, duplication, alteration, and falsification. One-key cryptosystems. Cryptosystems based upon computationally hard problems. Authenticity verification and zero-

Computer Science**20CS735****Computer Security I**

knowledge proofs. 3 lec. Prereq: 15MATH263. Credit Level: G. Credit Hrs: 3.00

20CS736**Computer Security II**

Continued study of computer security issues. Prereq: 20ECES735. Credit Level: G. Credit Hrs: 3.00

20CS742**Parallel and Distributed Computing**

Theoretical and practical aspects of parallel computing, PRAM, network, and VLSI models. Capabilities and limitations of specific communication graphs, including arrays, hypercubes, butterflies and cube-connected cycles. Design and analysis of parallel algorithms. 3 lec. Prereq: 20ECES471. Credit Level: G. Credit Hrs: 3.00

20CS743**Computer Networking**

First graduate level course in computer network protocols. Protocol layering. Fundamentals of link layer design, multiple access, packet switching, addressing, routing and flow/ congestion control. Emphasis on internet working protocols. Credit Level: G. Credit Hrs: 3.00

20CS746**Automata and Formal Languages 2**

Regular and context free grammars and associated automata. The Chomsky hierarchy. Algorithms and unsolvable problems in language theory. 3 lec. Credit Level: G. Credit Hrs: 3.00

20CS747**Complexity Theory**

Polynomial-time complexity. Cook's theorem and NP-complete problems, the polynomial-time hierarchy, and other complexity classes. 3 lec. Credit Level: G. Credit Hrs: 3.00

20CS749**Computability Theory**

Recursive function theory and Turing machines, unsolvable problems, recursively innumerable sets, and the arithmetic hierarchy. 3 lec. Credit Level: G. Credit Hrs: 3.00

20CS752**Advanced Databases**

Selected topics in database theory. Sample topics include knowledge-base systems, physical database architectures, query optimization, distributed databases, security and integrity in databases, and non-DML interfaces. Course may be repeated if different topics are studied. 3 lec. Credit Level: G. Credit Hrs: 3.00

20CS763**Kernel Methods for Learning**

This course provides the mathematical and algorithmic background needed for a basic understanding of the kernel methods. Students will be able to apply them in creative ways to solve a wide range of problems in science and engineering. Prereq: 20ECES634, 20ECES637. Credit Level: G. Credit Hrs: 3.00

20CS765**Computer Graphics 2**

Advanced topics in computer graphics, such as algorithms for scan-line generation, hidden surface removal, shading and texturing, and anti-aliasing. 3 lec. Credit Level: G. Credit Hrs: 3.00

20CS766**User Interface II**

Advanced topics in user interface, including multimedia languages for developing user interface, toolkits, and user interface management systems (UIMS). 3 lec. Credit Level: G. Credit Hrs: 3.00

20CS769**Computational Geometry**

Selected topics in computer-aided geometric design (CAGD). Sample topics include differential and combinatorial geometry, algorithms for

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Computer Science**20CS769****Computational Geometry**

free-form curves and surfaces, and feature-based surface design. 3 lec. Credit Level: G. Credit Hrs: 3.00

20CS780**Self-Study Research**

Research study not directly related to the thesis or dissertation. Self-study to determine the research area and topic. Credits may not be counted towards MS/PhD program. Credits arranged each quarter. Credit Level: G. Credit Hrs: 1.00-9.00

20CS781**Advanced Algorithms I**

Formal treatment of algorithms and algorithms design methodologies; both sequential and parallel paradigms will be covered. Measures of parallel complexity. Program complexity and correctness proofs. Credit Level: G. Credit Hrs: 3.00

20CS782**Advanced Algorithms II**

Continuation of Advanced Algorithms 1. Also selected topics from randomized algorithms, approximation algorithms, distributed algorithms, heuristic search and other modern design strategies. Credit Level: G. Credit Hrs: 3.00

20CS785**Advanced Topics in Computer Science**

Advanced study in varying research topic areas. 3 lec. Credit Level: G. Credit Hrs: 3.00

20CS786**Computational Genomics**

Computational analysis of biological sequences. Credit Level: G. Credit Hrs: 3.00

20CS792**Algebraic Cryptosystems**

Current status of developing and defeating multivariate cryptosystems for transmitting data securely over the Internet with the help of a public key. Tame Transformation systems (TTM), Hidden Field Equations (HFE), SFlash, Vinegar and Oil systems, Matsumoto Imai Plus-Minus systems. Prereq: 15MATH597. Credit Level: G. Credit Hrs: 3.00

20CS794**Research Seminar in Computer Science**

3 lec. Credit Level: G. Credit Hrs: 3.00

20CS796**Solid Modeling**

Introduction to the field of solid modeling. Examination of the basic elements and structures that support solid modeling systems. Mixture of industrial experience, academic ideas, and current research. Study of modeling algorithms, nonmanifold operations, and geometric representation is the focus. 3 lec. Credit Level: G. Credit Hrs: 3.00

20CS797**Wireless and Mobile Networking**

Basic concepts for wireless communication of both voice and data information. Many underlying system issues related to mobility support and channel allocation will be covered. Wireless communication using satellites will also be described. Discussions on Ad Hoc and sensor networks will also help understand why they are useful. This course requires a survey of recent information on one specific topic. A group simulation project will require implementation of a concept in wireless technology Credit Level: G. Credit Hrs: 3.00

20CS798**Performance Evaluation**

Performance evaluation of computer systems and computer networks, including three major analytical techniques such as queuing theory, simulation modeling, and experimental methods. Prereq: 20ECES619. Credit Level: G. Credit Hrs: 3.00

Computer Science**20CS821****Pattern Recognition**

Fundamental techniques for classifying patterns from their measurements; feature selection and extraction Credit Level: G. Credit Hrs: 3.00

20CS829**Queuing Systems and Applications**

Basic theoretical modeling and applications of queuing systems. Topics include review of probability theory, statistics, and random processes, generating functions, Laplace and z-transforms; M/M/1, M/M/m, M/G/m, G/G/1, and G/G/m queues, queuing networks; priority priority queuing, and computer simulation techniques. Prereq: 20ECES619, 20ECES798. Credit Level: G. Credit Hrs: 3.00

20CS831**Ad Hoc and Sensor Networks**

Ad hoc networks, sensor networks, potential applications, broadcasting, multicasting, geo- casting, Wireless LANs and PANs. Impact of directional antennas, security and heterogeneous networks. Prereq: 20ECES797. Credit Level: G. Credit Hrs: 3.00

20CS842**Graph and Network Algorithms**

Graph and network algorithms, both classical ones and ones from current research. Generalizations to matroids. Prereq: 20ECES543. Credit Level: G. Credit Hrs: 3.00

20CS846**Advanced Mobile Computing and Networking**

Base station subsystem; routing; media access control; power and error control; handoff policies; channel allocation; wireless LAN; mobile computing; applications; future directions in mobile networks. Credit Level: G. Credit Hrs: 3.00

20CS860**Master of Engineering Capstone Project**

Individual projects under supervision of departmental faculty in partial fulfillment of the Master of Engineering degree. Credit Level: G. Credit Hrs: 1.00-6.00

20CS865**Advanced Computer Networks**

This course will introduce several advanced topics related to computer networks. Topics will be related to various random access protocols, routing and transport protocols, and quality of service issues. Performance issues will be emphasized. Issues related to Internet and mobile and wireless networks will be discussed. Credit Level: G. Credit Hrs: 3.00

20CS880**Doctoral Dissertation Proposal**

Opened to doctoral students only who have passed the qualifying examination. Only 9 credits of 20ECES880 will be counted toward course work requirements. Prereq.: Perm. of student's adviser. Credit Level: G. Credit Hrs: 1.00-9.00

20CS888**MS Project**

Part-time master's degree students who are pursuing the project option. The project option is not available to full time students. Cr. arranged ea. qtr. Credit Level: G. Credit Hrs: 1.00-6.00

20CS889**Thesis or Dissertation Research**

Full time master's and all doctoral students. Credit Level: G. Credit Hrs: 1.00-19.00

20CS892**Independent Study**

Individual advanced study not directly connected with thesis or dissertation. Cr. arranged ea. qtr. Limits of 3 cr. for MS, 6 cr. for Ph.D. Credit Level: G. Credit Hrs: 1.00-6.00

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LT: Literature. NS: Natural Sciences. QR: Quantitative Reasoning. SE: Social & Ethical Issues. SS: Social Sciences.

Dayton Area Graduate Studies Institute (DAGSI)**20DAG700****INTRODUCTION TO MECHANICS OF COMPOSITE STRUCTURES**

Intro to the macromechanical analysis of anisotropic composite structures, governing equations, strength and stiffness and failure envelopes. Analysis of builtup composite structures. Credit Level: G. Credit Hrs: 4.00

20DAG720**DESIGN OF ROBUST MULTIVARIABLE CONTROL SYSTEMS**

Basic course in robust multivariable control design and analysis, realistic design applications Transfer functions, uncertainty formulation, optimal control and model order reduction techniques. Credit Level: G. Credit Hrs: 4.00

20DAG740**ADVANCED TOPICS IN RELIABILITY**

Advanced topics in systems design in areas of reliability maintainability applied to systems design. Optimal probabilistic design, complex system analysis and design, software and human reliability. Credit Level: G. Credit Hrs: 4.00

20DAG760**ELECTROMAGNETIC COMPATABILITY (EMC)**

Legal and market driven requirements for achieving electromagnetic compatibility, modeling and predicting EMC, compliance with regulations and system design methodologies. Basic EMC design in components, signal spectra and transmission lines. Credit Level: G. Credit Hrs: 4.00

20DAG770**DAGSI AEROSPACE SEMINAR**

A weekly series of seminars in Aerospace Engineering, control theory, aerodynamics, propulsion, structures, composite materials and sensors. Credit Level: G. Credit Hrs: 1.00

Electrical and Computer Engineering**20EECE150****Introduction to Electrical and Computer Engineering**

An introduction to the fundamental engineering principles of digital systems and to ethical, social, economic & safety issues in science and engineering. Students are introduced to faculty and facilities and helped to identify careers in ECE, and to strengthen problem solving skills. Coreq: NA. Credit Level: U. Credit Hrs: 1.00

20EECE151**Introduction to Electrical and Computer Engineering Lab**

An introduction to fundamental engineering principles including digital systems, optics, digital signal processing/communications and robotics through hands-on experimental activities. Coreq: 20EECE150. BoK: NA. Credit Level: U. Credit Hrs: 2.00

20EECE175**Introduction to Digital Design**

Theory and practice of digital system design; combinational logic, synchronous sequential circuits, components & technologies, digital design processes including requirements generation, design & verification using HDL modeling & simulation, hardware synthesis, digital test design. BoK: QR. Credit Level: U. Credit Hrs: 4.00

20EECE180**Software Methods I**

Introduction to software methods for solving engineering problems. Emphasis is on the software development process including creating problem requirements, systematic software design, correct and maintainable C++ coding, and efficient software testing methods. BoK: QR. Credit Level: U. Credit Hrs: 4.00

20EECE235**Digital System Design**

Theory and practice in digital system design; combinational logic, synchronous sequential circuits, components and technologies, simple computers, ALUs, memories, controllers, and I/O interfaces. 3 lec. BoK: QR. Credit Level: U. Credit Hrs: 3.00

Electrical and Computer Engineering**20EECE237****Digital System Design Laboratory**

Implementation of digital systems including combinational logic, synchronous sequential circuits, simple computers, ALUs, memories, controllers and I/O interfaces. 2 lec., 4 lab. BoK: NA. Credit Level: U. Credit Hrs: 2.00

20EECE238**Digital System Design Laboratory for Computer Science Majors**

Implementation of digital systems including combinational logic, synchronous sequential circuits, simple computers, ALUs, memories, controllers and I/O interfaces. 2 lec., 4 lab. NOTE: Should be taken by CS major only. Coreq: 20ECES235. BoK: NA. Credit Level: U. Credit Hrs: 2.00

20EECE240**Software Methods II**

Introduction to intermediate and advanced software methods for solving engineering problems. Emphasis is on the software development process, exploitation of abstraction in the software development process, and data structures to produce maintainable software programs. Prereq: 20EECE180. BoK: QR. Credit Level: U. Credit Hrs: 4.00

20EECE250**Network Analysis I**

Voltage, current, and power in electrical networks. Solutions of linear resistive networks and network theorems. Solutions of linear electrical networks containing inductors and capacitors. Transient solutions and steady state solutions for constant forcing functions. BoK: QR. Credit Level: U. Credit Hrs: 4.00

20EECE251**Network Analysis II**

Transient solutions and steady-state solutions for time-varying forcing functions. Use of phasors to analyze networks and sinusoidal forcing functions. Impedance; power; two-ports networks. 4 lec. Prereq: 20ECES250. BoK: QR. Credit Level: U. Credit Hrs: 4.00

20EECE326**Introduction to Computer Organization**

Fundamentals of computers. The stored program concept. Addressing modes, instruction formats, and instruction sets. Data path and control unit design. Hardwired and microprogrammed control. Memory components and the memory hierarchy. 3 lec. Prereq: 20ECES235. BoK: QR. Credit Level: U. Credit Hrs: 3.00

20EECE337**Microsystem Design Laboratory**

Introduction to microprocessors and their uses. The special features of microprocessors: the stack, interrupts, input ports, output ports, and displays. The usage of microprocessors: data manipulation and interfacing. 2 lec, 4 lab. BoK: QR. Credit Level: U. Credit Hrs: 3.00

20EECE338**Microsystem Design and Interfacing**

Introduction to microprocessors and their uses. Review of gate level digital fundamentals. Architecture and register set of CPU, types of memory, interfacing using FPGA technology. Use of Assembly Language to create binary machine code. Link to high level languages. Prereq: 20ECES235, 20ECES237. BoK: QR. Credit Level: U. Credit Hrs: 4.00

20EECE339**Microsystem Design and Interface**

Microsystems, memory systems, assembly language programming, microcomputer architecture, I/O design, and interfacing related issues. 3 lec. BoK: QR. Credit Level: U. Credit Hrs: 3.00

20EECE343**Signals and Systems I**

An introduction to the fundamentals of signals and systems and the computational methods for computer-aided system analysis and design. 4 lec. Prereq: 20ECES251. BoK: QR. Credit Level: U. Credit Hrs: 4.00

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LT: Literature. NS: Natural Sciences. QR: Quantitative Reasoning. SE: Social & Ethical Issues. SS: Social Sciences.

Electrical and Computer Engineering**20EECE343****Signals and Systems I**

An introduction to the fundamentals of signals and systems and the computational methods for computer-aided system analysis and design. 4 lec. Prereq: 20ECES251. BoK: QR. Credit Level: U. Credit Hrs: 4.00

20EECE344**Signals and Systems II**

Representation and analysis of signals and systems parameterized by continuous-time. 4 lec. Prereq: 20ECES343. BoK: QR. Credit Level: U. Credit Hrs: 4.00

20EECE349**Measurement Laboratory**

Computer controlled use of oscilloscope and spectrum analyzer. 2 lec., 4 lab. BoK: QR. Credit Level: U. Credit Hrs: 3.00

20EECE351**Electronics I**

OP amp. systems, nonlinear circuits, linear amplifiers, bipolar and FET stages, differential and multistage amplifiers. 4 lec. Prereq: 20ECES251. BoK: QR. Credit Level: U. Credit Hrs: 4.00

20EECE352**Electronics II**

Feedback systems, filters, oscillators, tuned amplifiers, MOS and bipolar digital circuits. 4 lec. Prereq: 20ECES351. BoK: QR. Credit Level: U. Credit Hrs: 4.00

20EECE371**Basic Electric Circuit Analysis**

Analysis and problem solution with direct and alternating currents. Series and parallel circuits with resistance, inductance and capacitance. Circuit laws, power and sinusoidal waveforms. Dept. of Electrical & Computer Engr. BoK: NS., QR. Credit Level: U. Credit Hrs: 3.00

20EECE429**Introduction to Operating Systems**

Function, design, and integration of the parts of an operating system. Policies for scheduling and page-replacement. Non-preemptable resource allocation, deadlock, starvation, livelock, access control, and mutual exclusion and concurrency. 3 lec. Prereq: 20ECES326, 20ECES228. BoK: QR. Credit Level: U. Credit Hrs: 3.00

20EECE436**Computer Systems Modeling and Analysis**

Principles and methods for modeling and simulation of networked computing systems and analyzing their performance. Prereq: 20ECES326. BoK: QR. Credit Level: U. Credit Hrs: 3.00

20EECE465**Electronics Laboratory**

Measurement techniques and characterization of transistors and various ICs. 2 lec., 4 lab. Prereq: 20ECES349. BoK: QR. Credit Level: U. Credit Hrs: 3.00

20EECE466**Electronics Design Laboratory**

Analog and digital circuit design projects with theoretical and experimental work to meet design specifications. 2 lec., 4 lab. Prereq: 20EECE352, 20EECE465. BoK: QR. Credit Level: U. Credit Hrs: 3.00

20EECE472**Practical Aspects of Building Energy Audits**

Global warming represents one of the great problems confronting our civilization today. At the core of this problem is the massive generation of green house gases (GHGs) that result from the burning of fossil fuels. In our country approximately 40% of all our energy consumption is associated with the heating, cooling, and lighting of buildings, so increasing the efficiency of these processes is a prime target for reducing our GHG production. This course uses lecture-discussion and hands-on energy audits as a means of teaching students how to perform a basic assessment of ways to reduce GHG production for non-

Electrical and Computer Engineering**20EECE472****Practical Aspects of Building Energy Audits**

commercial buildings. The course targets University Honors Scholars Program students and UC GenEd Breath of Knowledge Courses in Social and Ethical Issues and Social Sciences. BoK: SS., SE. Credit Level: U. Credit Hrs: 0.00-3.00

20EECE473**Electromagnetic Fields I**

Applications of Maxwell's equations to uniform plane waves. Attenuation of plane waves in conductors. Reflection and refraction of plane waves at interfaces. Wave propagation in waveguides and optic fibers. Prereq: 20ECES250. BoK: QR. Credit Level: U. Credit Hrs: 4.00

20EECE474**Electromagnetic Fields II**

Introduces students to concepts of distributed parameter systems, development of networks and analysis techniques for uniform transmission lines. Development of understanding of basic electrical and magnetic phenomena, definition of field vectors. Prereq: 20ECES473. BoK: QR. Credit Level: U. Credit Hrs: 3.00

20EECE481**Solid State Electronics I**

Crystal structures, energy bands, and material properties. Charge carriers in semi-conductors. Carrier drift, diffusion, generation and recombination. P-N junction operation. 3 lec. Prereq: 15MATH276, 15MATH273, 20MATH273, 20EECE349. BoK: QR. Credit Level: U. Credit Hrs: 3.00

20EECE482**Solid State Electronics II**

Fundamental device operation of MOS capacitor, bipolar, field effect and junction FET transistors. Biasing, carrier flow and control, static characteristics, secondary effects, switching, small signal models. 3 lec. Prereq: 20ECES481. BoK: QR. Credit Level: U. Credit Hrs: 3.00

20EECE490**Introduction to Automatic Controls**

Modeling, transfer functions, transients, stability, and error characteristics. Use of Nyquist, Bode and Root Locus diagrams and state variables. 3 lec. Prereq: 20ECES344. BoK: QR. Credit Level: U. Credit Hrs: 3.00

20EECE493**Software Engineering**

Introduction to software engineering and formal methods. General course topics include software lifecycle models, requirements analysis, specification, design, testing and maintenance. The course introduces students to formal methods and applies those techniques throughout the software cycle. Coreq: 20EECE495. BoK: QR. Credit Level: U. Credit Hrs: 3.00

20EECE495**Software Engineering Laboratory**

Lab to accompany ECES 493 Software Engineering. Students learn the basics of object-oriented analysis and design, apply concepts taught in Software Engineering lecture, and develop a large, group project. 4 lab. Coreq: 20EECE493. BoK: NA. Credit Level: U. Credit Hrs: 2.00

20EECE501**Electrical Engineering Senior Design Project**

Independent or team investigations arranged to develop experimental and design abilities. 3 lec., 6 lab. BoK: NA. Credit Level: U. Credit Hrs: 3.00

20EECE502**Electrical Engineering Senior Design Project**

Independent or team investigations arranged to develop experimental and design abilities. 9 lab. BoK: NA. Credit Level: U. Credit Hrs: 3.00

20EECE503**Electrical Engineering Senior Design Project**

Independent or team investigations arranged to develop experimental

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Electrical and Computer Engineering**20EECE503****Electrical Engineering Senior Design Project**

and design abilities. 9 lab. BoK: NA. Credit Level: U. Credit Hrs: 3.00

20EECE505**Special Studies**

Requirements individually arranged including 700-level courses for graduate school preparation. Available only to seniors with high academic rank and upon approval of petition to faculty. Offered ea. qtr. Cr. arranged. BoK: NA. Credit Level: U. Credit Hrs: 1.00-6.00

20EECE531**Computer Engineering Senior Design Project**

First of three quarter laboratory series in which students create a significant product capitalizing on their prior four years of Computer Engineering education. Each student selects a project adviser, and works with him/her to select a design problem, identify the requirements and specifications of the product, and design the product. Prereq.: Senior standing in computer engineering. 9 lab. BoK: NA. Credit Level: U. Credit Hrs: 3.00

20EECE532**Computer Engineering Senior Design Project**

Continuation of 20ECES531. Completion of detailed design and implementation of project. 9 lab. Prereq: 20EECE531. BoK: NA. Credit Level: U. Credit Hrs: 3.00

20EECE533**Computer Engineering Senior Design Project**

Continuation of 20ECES532. Complete the assembly and carry out testing and integration of the project. 9 lab. Prereq: 20EECE532. BoK: NA. Credit Level: U. Credit Hrs: 3.00

20EECE592**Database Design and Development**

Database design with the Entity Relationship model. Relational data model and database design. Physical storage techniques. Reliability and recovery. Concurrency. 3 lec. Prereq: 20ECES228. BoK: QR. Credit Level: U. Credit Hrs: 3.00

20EECE593**Advanced Database Design**

Database design with the Extended Entity Relationship Model and Unified Modeling Language. Mapping conceptual schemas to relational, object-oriented, and object-relational logical schemas. Prereq: 20ECES592. BoK: QR. Credit Level: U. Credit Hrs: 3.00

20EECE607**Introduction to Biomedical Microsystems**

Introduction to biomedical microsystems, including micro total analysis systems, biochips, cell engineering applications, and microfluidics. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20EECE608**Fundamentals of MEMS**

Introduction to MEMS, driving principles for MEMS, new MEMS materials, fundamental MEMS microstructures, microtransducers and microactuators, MEMS-based sensors, microsystems and control, circuit integration and system partitioning, packing, assembly and testing Prereq: 20EECE482. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20EECE610**Database Management Theory**

Database formal architectures emphasizing modeling and theory. Formal methods for database architectures; relational, hierarchical, object, object-relational and network; data dependencies, normalization, integrity constraints, concurrency, heterogeneous systems. Prereq: 20ECES323, 15MATH352. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

Electrical and Computer Engineering**20EECE611****Microwave Communications**

A study of microwave communication systems, passive microwave components and circuits, amplifiers, and oscillators. 3 lec. Prereq: 20EECE473, 20EECE474. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20EECE612**Microwave Communications Laboratory**

An experimental study of microwave components, circuits, amplifiers and oscillators. 2 lec., 4 lab. Prereq: 20ECES611. BoK: QR. Credit Level: U, G. Credit Hrs: 4.00

20EECE614**Photonic Information Processing Laboratory**

Explore the fundamentals of photonic systems through the analysis and characterization of optical and optoelectronic components. Free space (standard bulk) optics and development of a simple image processing system. Fiber optic systems and development of 2-channel wavelength division multiplexed fiber optic communication link. 2 lec. 4 lab. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20EECE616**Computer Systems Design**

Design and analysis of computer systems and networks of computers. Analytical and simulation methods used to determine design requirements, specifications, and architectures. A simple computer is designed and evaluated. 3 lec. Prereq: 20ECES326, 20ECES338. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20EECE617**Embedded Systems**

Embedded system design and development. High-level design tools, system-level design, and designing for testability will be emphasized. Pre-req: 20EECE326 and 20EECE429 OR permission of instructor. Prereq: 20CS228. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20EECE618**Microfabrication of Semiconductor Devices**

Microfabrication principles and elements, epitaxial growth, oxidation, thin film deposition, lithography, etching, doping, and process integration. 3 lec. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20EECE619**Introduction to Random Processes**

This course will provide an introduction to random variables, stochastic processes and stochastic modeling techniques. The first part of the course will cover the fundamentals of random variables. The second part will introduce stochastic processes and methods for their analysis and estimation, leading into issues of modeling in the context of linear systems. Markov processes and queueing theory. Prereq: 15MATH361. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20EECE622**Introduction to Quantum Computing**

Introduction to the rapidly growing field of quantum computing. Brief overview including historical perspective, intro to qubit and tensor product, examples of superdense coding and teleportation. Quantum mechanics, computer science, intro to quantum gates and circuits, quantum computers and their physical realizations. Prereq: 15MATH356, 15PHYS276. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20EECE626**Communication Systems**

Analog and digital modulation systems; noise, frequency, and time-division multiplexing. Prereq: 20EECE619. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20EECE628**Introduction to Nanoelectronics**

Emerging technologies in nanofabrication and nanoscale electronic devices. Nanolithography, nanometer 3D MOSFETs, carbon nanotubes, spintronics, nanoscale and single electron transistors,

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Electrical and Computer Engineering**20EECE628****Introduction to Nanoelectronics**

quantum dots and computing, molecular electronics. BoK: NS. Credit Level: G, U. Credit Hrs: 3.00

20EECE629**Introduction to Operating Systems**

Function, design, and integration of the parts of an operating system. Policies for scheduling and page-replacement. Non-preemptable resource allocation, deadlock, starvation, livelock, access control, and mutual exclusion and concurrency. 3 lec. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20EECE630**Advanced Sensors Instrumentation and Computer I/O Design**

Model-based system accountability and error analysis methods for computer systems for data acquisition, processing, and output distribution. 3 lec. Prereq: 20EECE351, 20EECE352. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20EECE632**Digital Communications**

Digital passband communication theory and design. Passband digital modulation techniques. Performance analysis and tradeoffs. Coding techniques. Trellis-coded modulations. Spread spectrum communications including DS/CDMA and FH/CDMA. Communication theory. Prereq: 20EECE626. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20EECE636**Intelligent Systems**

Intelligent systems can be characterized by the ability to (i) extract pertinent information from irrelevant details, (ii) to learn from examples and generalize this knowledge, and (iii) draw inferences from incomplete information. This course focuses on the underlying theory of Intelligent Systems. 3 lec. Prereq: 20EECE343. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20EECE638**Nonlinear Dynamics and Intelligent Systems**

Intelligent systems and their connection to nonlinear dynamics will be explored in this course. Concepts such as fuzzy logic and fuzzy controllers, recurrent neural networks will be introduced and their different applications will be considered. 3 lec. Prereq: 20ECES344. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20EECE641**Silicon Semiconductor Microfabrication**

Instruction and hands-on semiconductor processing in clean-room environment, including two sided wet and dry lithography for microelectronics, microensors and MEMS (microelectromechanical systems), using surface and bulk "micromachining" for systems "on a chip." 2 lec., 4 lab. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20EECE642**Digital Image Processing**

Digital image characterization, discrete transforms, image enhancement, encoding, restoration, and reconstruction. 3 lec. Prereq: 20ECES645, 20ECES343. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20EECE643**Electrical Machines Laboratory**

Experimental evaluation and application of 1-phase and 3-phase induction, synchronous, and universal electric motors and their speed-torque load curves employing dynamometer measurements. Coreq: 20ECES654. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00

20EECE644**Digital Signal Processing Laboratory**

Introduction to real-time digital signal processing. Designed to enhance the theoretical background learned in signal processing and communications courses by implementing algorithms in real-time and observing the results with the laboratory instruments. Student will gain

Electrical and Computer Engineering**20EECE644****Digital Signal Processing Laboratory**

an understanding of the DSP hardware and gather experience in system design and algorithm implementation. Prereq: 20ECES645. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20EECE645**Introduction to Digital Signal Processing**

Representation and processing of signals using digital techniques, A/D and D/A, fast Fourier transform, design of digital filters. 3 lec. Prereq: 20ECES343. BoK: QR. Credit Level: U, G. Credit Hrs: 4.00

20EECE647**Semiconductor Device Modeling for VLSI**

Operation and characteristics of high speed devices: submicron silicon MOSFETS and bipolar transistors for high frequency and VLSI applications. Basics of MESFETS and some high speed devices using compound semiconductors. Introduction to the AIM-SPICE simulation package. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20EECE648**Fundamentals of Optoelectronics**

Lightwave technology including fiber optics, semiconductor lasers, photodetectors and modulation and switching devices are considered. The concepts of optical signal processing and optical computing are introduced. 3 lec. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20EECE650**Multidisciplinary and Collaborative Design for Systems on a Chip**

Understanding of micro/macro collaboration and ability to apply and use multidisciplinary skills for the design of a system on a chip. Peripheral sensors, multiplatform integration, embedded real-time processors and design issues, adaptive data reduction and analysis, wireless communication. BoK: QR. Credit Level: U, G. Credit Hrs: 4.00

20EECE652**Optical Communications**

An introduction to the theory and design of optical communication systems. Covers the design of optical communications systems at both the component and system levels. Components discussed: fibers, semiconductor lasers, photodetectors, modulators and couplers, design of transmitters and receivers. 3 lec. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20EECE654**Electric Machines and Power Systems**

Development of models of induction machines, synchronous machines and other power system components, balanced and unbalanced 3 phase power system analysis. 3 lec. Prereq: 20ECES250, 20ECES474. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20EECE655**Power System Analysis and Computer Methods**

Study computer simulation methods for power flow, short circuit and transient stability analysis and to employ these methods for analysis of large scale systems. 3 lec. Prereq: 20ECES654. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20EECE656**Modern Sensors and Instrumentation I**

Theory, design and implementation of sensors for industrial, medical and biological processes; transducer interfacing and signal conditioning; "smart" sensors, multi-sensory systems, sensor control and implementation structures. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20EECE658**Introduction to Logic and High Level VLSI Synthesis**

Introduces students to the concepts of logic and high level VLSI synthesis. Synthesis at logic, state-machine, register transfer and behavior levels will be covered. Prereq: 20ECES680. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

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Electrical and Computer Engineering**20EECE662****Computer Control of Manufacturing Systems**

An introduction to computer algorithms, architectures, and systems engineering for automatic factory control. Scheduling algorithms, dispatching algorithms. Re-order point (sic. kanban and JIT) algorithms. Manufacturing system classification for control algorithm selection. 3 lec. Prereq: 20ECES490. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20EECE663**Industrial Control Laboratory**

A computer-based laboratory emphasizing different control techniques used in industry including PIC and PLC control. This course is meant to bridge the student's theoretical knowledge with current industrial practice. Implementation of PID and PLC control algorithms on industrial controllers, PCs, and with specialized digital circuits. 2 lec., 4 lab. BoK: QR. Credit Level: U, G. Credit Hrs: 4.00

20EECE664**Analog Electronic Systems**

Analog circuit fundamentals for signal conditioning and interfacing to microprocessors; emphasis on circuit techniques useful in general analog design; op amps, comparators, noise, and nonlinear circuits. 3 lec. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20EECE668**Microsensing for Instrumentation**

Microsensing for instrumentation in space, industrial and medical applications. 3 lec. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20EECE673**Antennas for Wireless Communication**

A study of the theory and properties of various communication antennas covering the range from RF frequencies to millimeter wavelengths. Prereq: 20ECES473, 20ECES474, 20ECES611. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20EECE674**Photonic Circuits and Systems**

Circuits and systems incorporating high speed electronic devices, such as HEMTs and HBTs, with optical devices such as semiconductors, lasers, modulators, and photodetectors. Optical receivers and transmitters, digital and microwave applications, configurations, tradeoffs, gain, bandwidth, noise, device structure, system integration. 3 lec. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20EECE676**VLSI Design Automation**

VLSI design automation, layout synthesis and logic synthesis, partitioning, placement and routing algorithms, combinational and sequential circuit synthesis. Course includes laboratory session and software development. Prereq: 20ECES680. BoK: QR. Credit Level: U, G. Credit Hrs: 4.00

20EECE678**Micro/Nano Fluidic Biochip Laboratory**

An introduction to design, fabrication, and characterization of micro/nano fluidic lab-on-a-chip (LOC) devices and biochips. Laboratory topics include device design and modeling, mask layout and design, thick resist lithography, polymer fabrication and fluorescence characterization. Perm of Instructor. BoK: NS. Credit Level: G, U. Credit Hrs: 4.00

20EECE680**Physical VLSI Design**

Introduces techniques and tools for scaleable VLSI design and analysis. Emphasis is on physical design (layout, placement, and routing) and on performance analysis (area, speed, and power). Includes extensive lab experiments and hands-on usage of CAD tools. 3 lec., 4 lab. Prereq: 20ECES338. BoK: QR. Credit Level: U, G. Credit Hrs: 4.00

20EECE681**VLSI System Design**

Systems-level design of VLSI circuits, from high-level specifications through physical design and layout. Emphasis on requirements

Electrical and Computer Engineering**20EECE681****VLSI System Design**

analysis, systems partitioning, and performance-driven design methods. Includes extensive lab experiments and hands-on usage of CAD tools. 3 lec., 4 lab. Prereq: 20ECES680. BoK: QR. Credit Level: U, G. Credit Hrs: 4.00

20EECE682**VLSI Testing and Validation**

Introduces students to the concepts of VLSI testing and validation at the chip and PCB levels. Includes combinational and sequential testing, test strategies and design for testability. Involves lab sessions and use of VLSI test equipment and software. 3 lec., 4 lab. Prereq: 20ECES680. BoK: QR. Credit Level: U, G. Credit Hrs: 4.00

20EECE683**Compiler Theory**

Scanning. Parsing. Semantic analysis. Code generation. 3 lec. Prereq: 20ECES228, 20ECES332, 20ECES670. Coreq: 20ECES685. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20EECE684**Silicon Millimeter Wave Devices and Circuits**

Introduction to new, high speed silicon transistors, especially HEMTs and HBTs incorporating SiGe, and their operation at microwave and millimeter wave frequencies for applications such as communications and sensors. Overview of device structure and operation, recent demonstrations, future potential, and monolithic integration in MMICs. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20EECE685**Compiler Laboratory**

Implementation of a compiler, including parts of the scanner, parser, semantic analyzer, and code generator. 2 lab. Prereq: 20ECES228, 20ECES338. Coreq: 20ECES683. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00

20EECE695**Modern Control Engineering**

Frequency response and state-space methods for designing feedback control systems. Other practical control design issues including digital control systems, robust control and adaptive control systems. Case studies for control systems design will be investigated. Prereq: 20ECES490. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20EECE696**Process Control and Manufacturing Systems**

Process control and manufacturing automation for computer integrated systems with the new quality technologies. Sensor/computer/control structures employing contemporary analytical design methods. BoK: QR. Credit Level: G, U. Credit Hrs: 3.00

20EECE697**Compound Semiconductor Fabrication Laboratory**

Compound semiconductor fabrication, ion implantation, PACVD, rapid thermal annealing, photolithography, metallization and lift-off, ohmic and Schottky contacts, process characterization techniques, MESFET measurements. 3 lec. Prereq: 20ECES481, 20ECES482. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20EECE698**Biosensors and BioMEMS**

Introduction to Biomedical MicroElectroMechanical Systems (BioMEMS), including microfluidics, biosensors, bioelectronics, material biocompatibility, and packaging. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20EECE701**Electrical and Computer Engineering Seminar**

Required of all full-time graduate students. Offered in Fall Quarter. Organization; local and visiting speakers. 1 lec. Credit Level: G. Credit Hrs: 1.00

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Electrical and Computer Engineering**20EECE702****Electrical and Computer Engineering Seminar**

Required of all full-time graduate students. Organization, local, and visiting speakers. Offered in Winter Quarter. 1 lec. Prereq: 20ECES701. Credit Level: G. Credit Hrs: 1.00

20EECE703**Electrical and Computer Engineering Seminar**

Required of all full-time graduate students. Organization; local, and visiting speakers. Offered in Spring Quarter. 1 lec. Prereq: 20ECES702. Credit Level: G. Credit Hrs: 1.00

20EECE707**Biomedical MEMS**

Applications of Microelectromechanical Systems (MEMS) to medicine and biology, including microfluidic biochips and their fabrication, biosensors, cell handling, material biocompatibility, and packaging. Credit Level: G. Credit Hrs: 3.00

20EECE708**Optimization by Vector Space Methods I**

This course will introduce students to functional analysis and infinite dimensional optimization with applications to least squares estimation, optimal control and differential games. Prereq: 20ECES733, 15MATH506. Credit Level: G. Credit Hrs: 3.00

20EECE709**Optimization by Vector Space Methods II**

Continuation of 20ECES708. Prereq: 20ECES708. Credit Level: G. Credit Hrs: 3.00

20EECE710**Practical Experience**

This course is designed to provide the ECE graduate student research experience either on campus or off-campus in industry. This is required of all MS and PhD students. The advising professor approves the suitability of the work experience and employment period, and may also waive this requirement. Credit Level: G. Credit Hrs: 1.00

20EECE711**Millimeter Wave Electronics**

A study of passive microwave components and circuits, resonators, power dividers, filters, theory and design of ferrimagnetic components, active microwave circuits. 3 lec. Prereq: 20ECES611. Credit Level: G. Credit Hrs: 3.00

20EECE712**Introduction to Optical Computing**

Fundamentals of optical computing. Basic principles of optics; analog and digital optical computing. Potential role of optics in implementation of computing systems. Credit Level: G. Credit Hrs: 3.00

20EECE714**Advanced Microfabrication of Compound Semiconductor Devices**

Advanced topics in device microfabrication, in particular dealing with compound semiconductors. 3 lec. Prereq: 20ECES618. Credit Level: G. Credit Hrs: 3.00

20EECE715**Random Processes and Stochastic Models**

Introduction to random variables, stochastic processes and stochastic modeling techniques. The course covers fundamentals of random variables, an introduction to stochastic processes and methods for their analysis and estimation, leading into issues of modeling in the context of linear systems, queueing theory and Markov processes. 3 lec. Credit Level: G. Credit Hrs: 3.00

20EECE716**Semantic Web**

Managing data and knowledge embedded in the Semantic Web. Topics: World Wide Web and how Semantic Web may store semantically identified data. Loosely structured data is given well-defined meaning, better enabling computers and people to work in cooperation. Prereq: 20ECES651. Credit Level: G. Credit Hrs: 3.00

Electrical and Computer Engineering**20EECE717****Intelligent Knowledge Representation**

Intelligent knowledge representation use. May contain facts, relationships, and/or actions. Representation constrains how things are stored, solved. Highly & loosely structured data, semantic networks, frames, ontologies, heuristics, approximate representations and reasoning. Prereq: 20CS323, 15MATH352. Credit Level: G. Credit Hrs: 3.00

20EECE718**Video Processing and Communications**

Fundamental theory and techniques for digital video processing and communication including video formation and representation, Fourier analysis, sampling, modeling and video compression standards. Prereq: 20ECES642. Credit Level: G. Credit Hrs: 3.00

20EECE719**Wireless Communications**

Mobile radio propagation. Fading and multipath. Modulation techniques for wireless channels. Equalization, diversity and channel coding. Wireless networking. Wireless system design and standards. Emphasis will be on fundamental concepts and theory and their use in designs. Credit Level: G. Credit Hrs: 3.00

20EECE720**Detection and Estimation**

Introduction to detection of signals and estimation of signal parameters, with applications in communications and statistical signal processing. Prereq: 20ECES619. Credit Level: G. Credit Hrs: 3.00

20EECE721**Plasma Processing of Materials**

Introduction to the basic concepts of plasma and laser assisted methods and technology for microelectronic fabrication. Plasma background, plasma assisted etching, plasma enhanced deposition, laser-assisted processing. 3 lec. Credit Level: G. Credit Hrs: 3.00

20EECE722**Fabrication Process Modeling**

A detailed knowledge of the operation of a semiconductor requires a detailed knowledge of its structure. Since features sizes in semiconductor devices today are of the order of or even smaller than the resolution limit of classical inspection tools, the detailed knowledge of a device structure must be assembled from analytical models or through computer simulation of the physical and chemical processes used in its fabrication. This course covers analytical methods and numerical simulation techniques for a select number of fabrication processes. Prereq: 20ECES618, 20ECES714. Credit Level: G. Credit Hrs: 3.00

20EECE725**Fourier Optics**

Theory and applications of scalar diffraction to two-dimensional signal and systems analysis, especially coherent and incoherent imaging, 3-D displays, wavefront modulation, optical information processing and holography. Perm of Department. Credit Level: G. Credit Hrs: 3.00

20EECE726**Biochips and Lab-on-a-Chips**

Fundamentals of micro and nano fabrication of biochips and lab-on-a-chips, on-chip biochemical detection methods, micro/nano fluidics, basic components of lab-on-a-chips, integration of lab-on-a-chips, and micro total analysis systems (uTAS). Prereq: 20ECES607, 20ECES608. Credit Level: G. Credit Hrs: 3.00

20EECE729**Physical Basis for Electronic and MEMS Devices**

Introduction to the physical and engineering principles which serve as the basis of electronic devices, semiconductor sensors and microelectromechanical systems. Microthermal, micromechanical, magnetic, piezoelectric, crystallographic and electrical properties originating from solid state physics. 3 lec. Credit Level: G. Credit Hrs: 3.00

H=University Honors course.

BoK (Breadth of Knowledge) Coding. DC: Diversity & Culture. EC: English composition. FA: Fine Arts. HP: Historical Perspectives. HU: Humanities. LT: Literature. NS: Natural Sciences. QR: Quantitative Reasoning. SE: Social & Ethical Issues. SS: Social Sciences.

Electrical and Computer Engineering**20EECE732****Biosensors and Bioelectronics**

Fundamentals of biosensors, bioelectronics, physicochemical transduction mechanisms for biotransduction, molecular recognition and bio-immobilization principles and procedures, coupled mass transport kinetics of enzyme-catalyzed and molecular binding reactions, fundamentals of electrochemistry Prereq: 20ECES607, 20ECES608. Credit Level: G. Credit Hrs: 3.00

20EECE733**Foundations of Applied Systems**

Introduction to basic theoretical concepts and computing tools required for the study of Applied Systems. Mathematical characterizations of applied systems are used for understanding and predicting the behavior of the system and for designing mechanisms able to effectively control the system behavior. 3 lec. Credit Level: G. Credit Hrs: 3.00

20EECE734**Applied Systems Theory**

The manipulation of mathematical models is an integral part of the systems engineering methodology. This course develops and examines the basic structural characteristics of models frequently used in the study of Applied Systems. 3 lec. Credit Level: G. Credit Hrs: 3.00

20EECE738**Parallel and Distributed Numerical Methods**

Methods (algorithms, data structures, performance analysis) for parallel and distributed computational solutions of mathematical methods used in engineering and science. Includes recent developments in parallel and distributed numerical computation methods, perturbation methods, and methods for sparse linear and nonlinear systems. Credit Level: G. Credit Hrs: 3.00

20EECE741**Stochastic Decision & Control Processes**

Fundamental concepts and modeling techniques of decision and control problems for discrete-time Stochastic Systems, and the use of Dynamic Programming. Credit Level: G. Credit Hrs: 3.00

20EECE748**Advanced Image Processing**

Image segmentation, representation and description, recognition and interpretation, reconstruction from projection, mathematical morphology, facet model, and texture. 3 lec. Prereq: 20ECES642. Credit Level: G. Credit Hrs: 3.00

20EECE750**Semiconductors and Heterojunctions**

Physics of elementary and compound semiconductors and their epitaxial growth on one another. Energy band structure and charge transport across heterojunctions. 3 lec. Credit Level: G. Credit Hrs: 3.00

20EECE753**Special Topics in Quantum Computing**

Advanced topics in quantum computing: quantum search algorithms; quantum fourier transform and its applications; quantum noise; quantum error-correction; quantum information theory. Quantum computers and their physical realizations. Prereq: 20ECES622. Credit Level: G. Credit Hrs: 3.00

20EECE754**Semiconductor Devices I**

Semiconductor properties, carrier processes and transport, p-n junctions, and heterojunctions, Schottky barriers and ohmic contacts. Prereq.: Introductory courses in semiconductor devices or solid state physics and electromagnetism. 3 lec. Credit Level: G. Credit Hrs: 3.00

20EECE755**Semiconductor Devices II**

Processes and operation of metal-insulator-semiconductor (MIS) structures, MOSFETs and MISFET transistors and bipolar transistors. 3 lec. Prereq: 20ECES754. Credit Level: G. Credit Hrs: 3.00

Electrical and Computer Engineering**20EECE757****Semiconductor Physics**

Classification of solids, types of bonding, bonding in semiconductors, impurity bonding, electrons in solids, free electron theory, nearly free electron theory, semiconductor band structure, density of states, effective mass holes. 3 lec. Prereq: 20ECES758. Credit Level: G. Credit Hrs: 3.00

20EECE758**Quantum Mechanics**

Fundamentals of quantum mechanics, wave functions, Schrodinger equations, energy level quantization, energy band structure and their applications to microelectronics. Prereq.: An undergraduate course in modern physics. 3 lec. Prereq: 15PHYS276. Credit Level: G. Credit Hrs: 3.00

20EECE761**High Speed Electronic Devices**

An introduction to compound semiconductor heterojunction devices and their characteristics. Energy band structure design and operational characteristics of heterojunction bipolar and field effect transistors (HEMT, HFET). 3 lec. Prereq: 20ECES750. Credit Level: G. Credit Hrs: 3.00

20EECE762**Low-Power VLSI Circuit Design**

Students will learn to design low-power VLSI circuits for portable electronics and high performance chips exceeding power dissipation limits. Prereq: 20ECES680. Credit Level: G. Credit Hrs: 3.00

20EECE767**Multi-user Communication Theory**

The objective of this course is to study the physical-layer theory of multi-user communications. Emphasis is placed in multi-user detection, both optimal and suboptimal, for direct-sequence code-division multiple-access communications. Credit Level: G. Credit Hrs: 3.00

20EECE771**Applications of Microelectromechanical Systems**

Applications of MicroElectroMechanical Systems (MEMS), including mechanical, electromagnetic, thermal, optical, chemical and biological. Prereq: 20ECES608. Credit Level: G. Credit Hrs: 3.00

20EECE773**Photonic Devices**

Theory and design of devices and components for photonic circuits; introduction to the better-known applications. Photonic design concepts; using these concepts in system design where previously only electron devices might have been considered. 3 lec. Credit Level: G. Credit Hrs: 3.00

20EECE774**Communication Networks**

Fundamental concepts and key architectures in modern communication networks: overview of layered network structure, review of digital transmission fundamentals, typical transmission systems, telephone networks, peer-to-peer transmission controls, packet switching networks, resource sharing, ATM networks, TCP/IP and beyond. Prereq: 20ECES626, 20ECES632. Credit Level: G. Credit Hrs: 3.00

20EECE775**Millimeter Wave and Photonics Materials**

Non-linear optics and materials, optical fiber waveguides, infrared-transmitting materials, oxide glasses, fluoride glasses, chalcogenide glasses. 3 lec. Credit Level: G. Credit Hrs: 3.00

20EECE776**VLSI For Multi-Technology Systems**

Introduction to VLSI design for electronic materials and device students. Basic principles of CMOS circuits, VLSI layout for standard CMOS and mix-technology systems. Simple digital and analog circuit design based on standard CMOS VLSI. Incorporation of MEMS and photonic device structures that can be monolithically integrated with CMOS circuitry. Prereq: 20ECES481, 20ECES482. Credit Level: G. Credit Hrs: 4.00

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Electrical and Computer Engineering**20EECE776****VLSI For Multi-Technology Systems**

Introduction to VLSI design for electronic materials and device students. Basic principles of CMOS circuits, VLSI layout for standard CMOS and mix-technology systems. Simple digital and analog circuit design based on standard CMOS VLSI. Incorporation of MEMS and photonic device structures that can be monolithically integrated with CMOS circuitry. Prereq: 20ECES481, 20ECES482. Credit Level: G. Credit Hrs: 4.00

20EECE780**Self-Study Research**

Research study not directly related to the thesis or dissertation. Self-study to determine the research area and topic. Credits may not be counted towards MS/PhD program. Credits arranged each quarter. Credit Level: G. Credit Hrs: 1.00-9.00

20EECE783**Introduction to Information Theory**

Information theory and statistics: data compression, channel capacity, Shannon entropy, rate distortion theory, Huffman and random coding. Prereq: 20ECES619. Credit Level: G. Credit Hrs: 3.00

20EECE784**Advanced Semiconductor Lasers**

Physics of semiconductor lasers and their theory of operation. Device engineering, structure and performance characteristics of standard semiconductor laser structures, including advanced and tunable optoelectronic transmitters. Prereq: 20ECES648. Credit Level: G. Credit Hrs: 3.00

20EECE788**High Performance Computing**

The study of high performance computing (HPC) and the techniques used in designing and implementing computationally intensive applications on HPC systems. High performance systems including traditional parallel supercomputers, Beowulf clusters, and FPGA based hardware accelerators will be discussed. The course will focus on parallelization and locality enhancement for computationally intensive applications in scientific simulation and image processing. Credit Level: G. Credit Hrs: 3.00

20EECE791**Nonlinear Systems**

Phase plot, fundamental theory for ODE, Lyapunov theory, advanced Lyapunov theory, singular perturbation, and integrator backstepping. Credit Level: G. Credit Hrs: 3.00

20EECE793**Advanced Software Engineering**

Introduces students to algebraic specification using PVS. Students learn advanced specification techniques and how to automate tools for verification. 3 lec. Prereq: 20ECES328. Credit Level: G. Credit Hrs: 3.00

20EECE795**Introduction to Computer Architecture**

Processor design concepts. Instruction set design: general register machines, stack machines, RISC machines. The memory hierarchy: virtual memory management, cache memories. Pipelining: instruction pipelining, functional unit pipelining, multiple functional units, vector processing. The control unit: hardwired control, microprogrammed control. Input/output processing. Parallel processing architectures: microprocessors, multicomputers, dataflow. 3 lec. Prereq: 20ECES326. Credit Level: G. Credit Hrs: 3.00

20EECE809**Materials Characterization -- Structural**

Techniques for structural characterization of semiconductor materials, ceramics, and their surfaces, X-ray scattering, low energy electron diffraction (LEED), Rutherford Back Scattering (RBS), and electron microscopy. 3 lec. Credit Level: G. Credit Hrs: 3.00

Electrical and Computer Engineering**20EECE810****Materials Characterization -- Optical**

Techniques for optical and other characterization of semiconductor materials, ceramics, and their surfaces, Ellipsometry, Raman photoluminescence, XPS, AES, SIMS, and Mossbauer absorption techniques. 3 lec. Credit Level: G. Credit Hrs: 3.00

20EECE814**Introduction to Multi-Agent Systems**

Current concepts in multi-agent systems including communications paradigms, multi-agent architectures, algorithms for multi-agent coordination, agent building tools, speech-acts, body-head structures, mobility and example applications. Credit Level: G. Credit Hrs: 3.00

20EECE816**High-Level VLSI Synthesis**

Introduces the students to the concepts of high level VLSI synthesis. Synthesis at behavioral and register transfer levels will be covered. Includes topics in scheduling, register optimization, controller models, VHDL interpretation and linking with logic and physical VLSI design tools. Credit Level: G. Credit Hrs: 3.00

20EECE817**Advanced VLSI Testing and Low-Power Design**

Important issues of VLSI testing and low-power design, especially for deep sub-micron, high clock rate, and high transistor count circuits are studied in this course. Students will learn research skills and establish a concrete, broad technical background for research. Prereq: 20EECE682, 20EECE762. Credit Level: G. Credit Hrs: 3.00

20EECE818**Reconfigurable and Adaptive Computing**

Programmable logic - PLDs, CPLDs and FPGAs. Design of reconfigurable systems - architectural issues. Static and dynamic reconfiguration. Software environments and applications. Credit Level: G. Credit Hrs: 3.00

20EECE819**Topics in VLSI Design**

Examination of the interaction between integrated circuit design and theoretical computer science. Algorithms for VLSI implementation. Silicon compilers. 3 lec. Credit Level: G. Credit Hrs: 3.00

20EECE824**Advanced VLSI/ULSI Architectures**

Advanced concepts in VLSI architecture design; CAD interactions; hardware fault tolerance; design for high performance. 3 lec. Credit Level: G. Credit Hrs: 3.00

20EECE825**Adaptive Signal Processing**

Introduction to adaptive filtering and its applications, and its relationship with linear prediction and Kalman filtering. Emphasis on adaptive FIR filtering algorithms and convergence aspect. 3 lec. Credit Level: G. Credit Hrs: 3.00

20EECE826**Recurrent Neural Networks**

Recurrent neural networks, unlike feed-forward networks, allow connections both ways between a pair of units. This advanced course focuses on the complementary points of view that have arisen to describe the properties of such networks. 3 lec. Credit Level: G. Credit Hrs: 3.00

20EECE827**Feedforward Neural Networks**

Rigorous analysis of the training and generalization performance of networks as a function of their architecture and nature and size of the training data. Emerging paradigms which exploit existing domain knowledge and train incrementally are also examined. Credit Level: G. Credit Hrs: 3.00

Electrical and Computer Engineering**20EECE832****Advanced Physical Design Automation**

Combinatorial optimization, circuit partitioning techniques, floor planning and placement for ASICs and DSM, routing algorithms, interconnection analysis and prediction. Prereq: 20ECES676, 20ECES332. Credit Level: G. Credit Hrs: 3.00

20EECE834**Digital Design Environments**

Examines the issues in developing CAD tools for digital hardware design, and in integrating the tools into unified design environments. Topics include: design teams, hierarchy and abstraction, hardware description languages, compilation and translation techniques, design data bases and knowledge bases. 3 lec. Credit Level: G. Credit Hrs: 3.00

20EECE837**Intelligent Control Systems**

Introduction to intelligent control methods and their application to the monitoring and control of uncertain, complex dynamical systems. Neural control systems, fuzzy control systems, fault diagnosis. 3 lec. Credit Level: G. Credit Hrs: 3.00

20EECE841**Advanced Decision Processes**

Application of principles of probability and statistics to the design and control of engineering, economic and logistic systems in a random or uncertain environment. Emphasis is placed on Bayesian decision analysis. Credit Level: G. Credit Hrs: 3.00

20EECE843**Gallium Arsenide Integrated Circuits**

Develops a theory of design, analysis and simulation of integrated circuits in gallium arsenide. Analytical and equivalent circuit models of active and passive devices are developed and used in circuit design. Three categories of monolithic integrated circuits are covered: digital, analog and microwave. 3 lec. Credit Level: G. Credit Hrs: 3.00

20EECE847**Advanced Operating Systems**

Analytical models. Benchmarking and performance evaluation. Distributed operating systems. Multiprocessor operating systems. Real-time operating systems and schedulability analysis. Advanced file systems and I/O management. Micro-kernal. Modern virtual memory architecture. Specialized operating systems. Credit Level: G. Credit Hrs: 3.00

20EECE848**Microelectromechanical Systems for Actuation and Control**

Theory and practice for research, design, development and analysis of MEMS, e.g., "on a chip," including integrated optics, surface micromachining and polysilicon for mechanical actuation, LIGA micromechanics, mathematical descriptions for micro-systems control. 3 lec. Credit Level: G. Credit Hrs: 3.00

20EECE850**Biological Neural Systems**

Introduction to the biological neural systems, biological vision systems with neural information processing models, models of complex neurons, reconstruction of neural networks, simulation of neural networks for spatial and temporal processing in applications such as vision. 3 lec. Credit Level: G. Credit Hrs: 3.00

20EECE854**Complex Systems**

Introduction to complex systems concepts with an emphasis on building geometric intuition. Specific applications, such as time-series prediction, iterated function systems for image compression, etc. will be emphasized. 3 lec. Prereq: 20ECES733. Credit Level: G. Credit Hrs: 3.00

Electrical and Computer Engineering**20EECE856****Multivariable Control**

An advanced course in multivariable control theory, emphasizing state space and input/output approaches. Covers system identification, state/observer and output feedback design, optimal and robust control theory. 3 lec. Credit Level: G. Credit Hrs: 3.00

20EECE857**Adaptive Control Systems**

An introduction to adaptive control methods and their application to the identification and control of dynamical systems with parametric uncertainty. Several topics such as on-line parameter estimation, model reference adaptive robust adaptive control and implementation issues will be covered. 3 lec. Credit Level: G. Credit Hrs: 3.00

20EECE858**Data Mining**

Knowledge discovery in databases. Credit Level: G. Credit Hrs: 3.00

20EECE860**Master of Engineering Capstone Project**

Individual projects under supervision of departmental faculty in partial fulfillment of the Master of Engineering degree. Credit Level: G. Credit Hrs: 1.00-6.00

20EECE864**Advanced Computer Architectures**

Benchmarking and performance evaluation. Advanced instruction level parallelism. Advanced memory hierarchy. High-performance I/O architectures. Parallel architectures. Interaction between OS and architecture. Specialized computer architecture. Prereq: 20ECES629, 20ECES795. Credit Level: G. Credit Hrs: 3.00

20EECE867**Biomorphic Systems**

This course aims to provide an introduction to recent developments in biomorphic engineering. The use of biologically inspired methods for engineering tasks such as computation, design, optimization, search, and assembly. Applications from computing, communications, robotics, controls, pattern recognition, and intelligent systems will be discussed. Credit Level: G. Credit Hrs: 3.00

20EECE868**Advanced Compiler Optimizations**

Rigorous theory and practice behind advanced compiler optimization for emerging languages on emerging architectures. Optimizations that reduce the execution time and/or memory requirements of a program. Architecture independent and customized architecture dependent optimizations will be discussed. 3 lec. Prereq: 20ECES683, 20ECES685. Credit Level: G. Credit Hrs: 3.00

20EECE875**Robust Adaptive Control**

Introduction to one robust adaptive control design methodology. Introduction to the state space solution to H infinity optimal control problem. This solution is then extended to solve a special class of robust adaptive control problems. Prereq: 20ECES734. Credit Level: G. Credit Hrs: 3.00

20EECE877**Advanced Data Models and Query Optimization**

Relational query processing and optimization techniques. Object-oriented database systems. Current research in object-oriented query processing. 3 lec. Prereq: 20ECES328. Credit Level: G. Credit Hrs: 3.00

20EECE880**Doctoral Dissertation Proposal**

Opened to doctoral students only who have passed the qualifying examination. Only 9 credits of 20EECE880 will be counted toward course work requirements. Prereq.: Perm. of student's adviser. Credit Level: G. Credit Hrs: 1.00-9.00

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Electrical and Computer Engineering**20EECE888****MS Project**

Part-time master's degree students who are pursuing the project option. The project option is not available to full time students. Cr. arranged ea. qtr. Credit Level: G. Credit Hrs: 1.00-6.00

20EECE889**Thesis or Dissertation Research**

Full time master's and all doctoral students. Credit Level: G. Credit Hrs: 1.00-19.00

20EECE890**Modern Displays - Materials, Strategies And Technologies**

Current literature-based review of the frontiers of electronic display research and technology. Electrowetting, organic LED, micromirror, liquid crystal, and plasma technology, etc. Students will choose a group of papers, write a critical review and present a seminar on their study. Credit Level: G. Credit Hrs: 3.00

20EECE892**Independent Study**

Individual advanced study not directly connected with thesis or dissertation. Cr. arranged ea. qtr. Limits of 3 cr. for MS, 6 cr. for Ph.D. Credit Level: G. Credit Hrs: 1.00-6.00

20EECE913**Modeling and Simulation of Biological Systems**

Review of literature in challenging modeling and simulation problems of biological systems such as cell-to-cell communications. Study of behaviors such as quorum sensing in biological systems. Understand the modeling and simulation problems faced in efficiently and accurately representing biological systems. Credit Level: G. Credit Hrs: 3.00

20EECE915**Formal Semantic Models of Computer Languages**

Several techniques for representing the formal semantics of computer languages will be examined. Representation of both static and dynamic semantics will be explored. Examples of semantic models for existing languages such as ML, Haskell, and VHDL will be covered. Prereq: 20ECES795. Credit Level: G. Credit Hrs: 3.00

20EECE918**System Identification**

Introduction to system identification methods, their properties and their application. 3 lec. Credit Level: G. Credit Hrs: 3.00

20EECE923**Novel Sources of Light for Optoelectronic Devices**

Optical properties of porous Si, wide band-gap semiconductors, rare-earth doped materials and light emitting polymers. Device applications of light-emitting materials. 3 lec. Credit Level: G. Credit Hrs: 3.00

20EECE925**Wide Bandgap Semiconductors and Devices**

Review of basic properties of wide bandgap semiconductor materials; bulk growth of wide bandgap semiconductors; epitaxial growth; plasma-assisted etching; optoelectronic device applications; high power/temperature device applications. 3 lec. Credit Level: G. Credit Hrs: 3.00

20EECE935**Biophotonics: Fundamentals and Advanced Devices**

Topics in the use of photonics for biomedical research and biological materials for photonics devices. Perm of Instructor. Credit Level: G. Credit Hrs: 3.00

20EECE936**Photonic Devices Using GaN and Other Wide Bandgap Semiconductors**

Study of GaN and related wide bandgap semiconductors for photonic device application. Perm of Instructor. Credit Level: G. Credit Hrs: 3.00

Electrical and Computer Engineering**20EECE945****High Performance Distributed Computing**

This course is devoted to the study of high performance distributed computing (HPDC) and the techniques used in designing and implementing HPDC systems. The course will cover a broad range of issues in distributed computing, parallel/distributed computing techniques that are applied to the solution of computationally intensive applications across networks of computers. Perm of Instructor. Credit Level: G. Credit Hrs: 3.00

20EECE947**Research in Computer-Aided Design of VLSI Systems**

Ongoing and future research directions in computer-aided design of VLSI systems. Students will be able to critically study and analyze VLSI CAD research. Prereq: 20ECES676. Credit Level: G. Credit Hrs: 3.00

20EECE948**Selected Topics in Computer-Aided Design of VLSI Systems**

Ongoing and future research topics in computer-aided design of VLSI systems. Upon the completion of this course, the students will be able to critically study and analyze VLSI CAD research. Prereq: 20ECES676. Credit Level: G. Credit Hrs: 3.00

20EECE963**Data Warehouse Design**

Data warehouse design with conceptual data models and physical storage techniques. Credit Level: G. Credit Hrs: 3.00

20EECE973**Optimizing Programs Through Online Analysis**

Distributed computing applications often require considerable tweaking to obtain optimal performance on each computing platform that it executes. The optimization of these applications can consume considerable time and efforts and even minor releases of the Operating System can require additional changes for optimal performance. This class will study recent efforts to build self-optimizing applications. In this term, we will focus our studies on optimizing networks and databases. Credit Level: G. Credit Hrs: 3.00

20EECE975**Parallel Discrete Driven Simulation**

Study of PDES and the design problems of their implementation. The course will discuss both conservative and optimistic synchronization strategies. 3 lec. Prereq: 20ECES795. Credit Level: G. Credit Hrs: 3.00

20EECE982**Organic and Inorganic Light Emitters**

Study of organic, inorganic and hybrid inorganic/organic light emitters. Perm of Instructor. Credit Level: G. Credit Hrs: 3.00

20EECE983**Organic Light Emitting Materials and Devices**

Study of light emitting mechanisms, materials and devices in organic materials. Perm of Instructor. Credit Level: G. Credit Hrs: 3.00

20EECE986**Advanced Computer Vision**

Current topics on texture, ranging vision, 3-D vision, change detection, image compression and 3-D reconstruction from projection. 3 lec. Prereq: 20ECES642. Credit Level: G. Credit Hrs: 3.00

20EECE988**Advanced Micro Architectures**

Important issues of advanced computer micro architectures, mainly in the areas of pipelines, Instruction-Level Parallelism (ILP). Establish a concrete and broad technical background for students who will conduct future research on computer architectures and compilers. Includes other research skills such as reviewing, writing and presenting technical papers. Perm of Instructor. Credit Level: G. Credit Hrs: 3.00

Engineering Graduate Fundamentals

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LT: Literature. NS: Natural Sciences. QR: Quantitative Reasoning. SE: Social & Ethical Issues. SS: Social Sciences.

Engineering Graduate Fundamentals**20EGFD601****Advanced Strength of Materials**

Theories of failure. Stress concentrations. Beams on elastic foundation. Stress functions. Thick-walled cylinders and spinning disks. Torsion. Shear flow in open and closed cells. 3 lec. Prereq: 20ENFD375. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20EGFD615**Introduction to Modern Control Theory**

State variable formulation of control problems. Linear systems theory. Observability, controllability and feedback control. 3 lec. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20EGFD617**Introduction to Digital Control Design**

Intended as a hands-on introduction to digital control with the emphasis on implementation of digital controls systems. First half of class is lecture, second half is lab work. 3 lec. Prereq: 20MECH481. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20EGFD618**Intermediate Classical Control Systems Design**

A second course in basic control with an emphasis on design to closed loop stability and performance specifications using frequency response techniques. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20EGFD621**Optimal Engineering Design**

Analytical and numerical methods for optimization of functions and functionals. Gradient and direct search methods. 3 lec. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20EGFD622**Optimal Control**

Variational methods for the optimization of functions and functionals. Solution of two-point boundary value problems in control and mechanics. Prereq: 20EGFD615. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20EGFD631**Introduction to Combustion Theory I**

Chemical thermodynamics, equilibrium chemical kinetics, theories of premixed and diffusion flames. 3 lec. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20EGFD632**Principles of Gas Turbine Combustion**

Examination of the fluid mechanics of reacting flows. Thermodynamics of mixture, chemical kinetics, conservation equations for reacting flows, combustion waves and nozzle flow. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20EGFD637**Computational Fluid Dynamics**

Calculation of 2D and 3D flows using commercial CFD software; significance of CFL and cell Reynolds number limitations; premixed combustive flow; turbulence modeling and chemical kinetics; pre/post-processing of data; interpretation of results. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20EGFD650**Technology Law**

Technology law, issues relating to corporate contracts, product liability, intellectual property, and related topics. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

20EGFD701**Engineering Elasticity I**

Theory of deformation for continuous media; theory of stress for continuous media; stress-strain relations on three dimensional elasticity; review of index notations. 3 lec. Credit Level: G. Credit Hrs: 3.00

Engineering Graduate Fundamentals**20EGFD702****Elasticity II**

This course builds on the theory of continuum mechanics the students learned in Elasticity I and teaches them the most important specific methods of elasticity. The students familiarize themselves with the fundamental equations of elasticity, and learn about the mechanical and thermal properties of solids. This course is essential for those pursuing advanced graduate study in solids mechanics. Prereq: 20AEEM619. Credit Level: G. Credit Hrs: 3.00

20EGFD703**Elasticity III**

This course builds on the theories of continuum mechanics and elasticity the students learned in Elasticity I & II, respectively, and familiarizes them with the specific methods of elasticity through examples of selected problems. This course is recommended for all students pursuing advanced graduate study in solid mechanics. Prereq: 20AEEM619, 20EGFD702. Credit Level: G. Credit Hrs: 3.00

20EGFD705**Finite Element Techniques I**

Introduction to finite element techniques. Stiffness matrices, assembly, applications with trusses and beams; use of ANSYS. Credit Level: G. Credit Hrs: 3.00

20EGFD706**Finite Element Techniques II**

Displacement-based finite element analysis. Higher order elements, isoparametric coordinates. Use of ABAQUS or LSDYNA. Prereq: 20EGFD705. Credit Level: G. Credit Hrs: 3.00

20EGFD707**Advanced Finite Elements III**

Galerkin formulation, Application to Vibrational Analysis, Impact Simulation and Introduction to Nonlinear F.E.T. Prereq: 20EGFD705, 20EGFD706. Credit Level: G. Credit Hrs: 3.00

20EGFD720**Introduction to Multivariable Control**

A fundamental look at control system stability, performance and robustness of SISO and MIMO systems. Prereq: 20EGFD615. Credit Level: G. Credit Hrs: 3.00

20EGFD721**Multivariable Control Theory**

Matrix description of multivariable systems. Frequency domain effects of state feedback. Singular values and robustness of controllers. Prereq: 20EGFD615. Credit Level: G. Credit Hrs: 3.00

20EGFD724**Grid Generation Technique I**

Features of appropriate coordinates in fluid dynamic analysis. Basic techniques of grid generation. Details of boundary-aligned coordinate generation for arbitrary geometry and the resolution of length scales will be emphasized. 3 lec. Credit Level: G. Credit Hrs: 3.00

20EGFD731**Manufacturing Controls**

Course provides a broad basis for understanding modern digital control theory for manufacturing. Provides practical experience with enough detailed examples in understanding stability and tuning of digital motion controllers using modern design tools such as Matlab. Credit Level: G. Credit Hrs: 1.00

20EGFD737**Machine Vision**

Course provides a fundamental understanding of machine vision concepts and applications. Presents two and three dimensional machine vision techniques. Credit Level: G. Credit Hrs: 1.00

20EGFD741**Viscous Laminar Flow**

The emphasis is on the theoretical development of solution techniques

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Engineering Graduate Fundamentals**20EGFD741****Viscous Laminar Flow**

for the incompressible boundary layer equations. The boundary layer equations are derived in general surface coordinates and details of exact and approximate methods of solution are presented. Credit Level: G. Credit Hrs: 3.00

20EGFD742**Turbulent Flows**

Stability of flows, introduction to transition and turbulence. Reynolds average equations, turbulence models. Credit Level: G. Credit Hrs: 3.00

20EGFD745**CFD for Incompressible Flows**

Navier-Stokes Equations and their Non- Dimensionalization for Incompressible Flow; Primitive-Variable and Derived-Variable Formulations; Staggered-Grid and Co-Located-Grid Discretizations; Pressure Poisson Equation and its Numerical Solution. Credit Level: G. Credit Hrs: 3.00

20EGFD746**Numerical Methods for Inviscid Compressible Flow**

Governing equations, methods for solving potential flow equations for subsonic and transonic flow. Recent techniques for the solution of Euler's equations. Prereq: 20AEEM625, 20AEEM685. Credit Level: G. Credit Hrs: 3.00

20EGFD748**Numerical Methods for Viscous Compressible Flow**

Explicit and implicit methods of solution for the parabolized, "thin-layer", and Navier-Stokes equations, and additional topics of current interest. Prereq: 20EGFD746. Credit Level: G. Credit Hrs: 3.00

20EGFD751**Numerical Methods in Transport Phenomena**

Explicit and implicit methods for ordinary differential equations, parabolic and hyperbolic partial differential equations, the method of characteristics, relaxation and alternating direction methods for elliptic equations, application to fluid mechanics. Credit Level: G. Credit Hrs: 3.00

20EGFD752**Knowledge Based Engineering**

Participants will develop a basic understanding of artificial intelligence techniques and their applications in manufacturing. Students will also develop the ability to apply knowledge-based systems, fuzzy logic, and neural network techniques in solving specific manufacturing prob. Credit Level: G. Credit Hrs: 1.00

20EGFD753**Supply Chain Management**

The course describes supply chains, why they are important, and the types of challenges implicit in managing supply chains. The use of decision-support system in supply chain management is also discussed. Credit Level: G. Credit Hrs: 1.00

20EGFD755**Ergonomic Analysis**

Analysis of work and individual factors in organizations with the objective to create and maintain a healthy/safe and productive workplace. Credit Level: G. Credit Hrs: 1.00

20EGFD756**Ergonomic Design**

Discussion of human factors theories on work design to gain a global understanding of how to achieve a balance among the different elements in the work system and balance between work and human abilities and needs to ensure that the health and safety of workers are taken into acct. Credit Level: G. Credit Hrs: 1.00

20EGFD761**Conduction Heat Transfer**

Heat transfer by conduction. Mathematical formulation of physical problems; methods of solution including separation of variables.

Engineering Graduate Fundamentals**20EGFD761****Conduction Heat Transfer**

Laplace transforms, superposition techniques. 3 lec. Credit Level: G. Credit Hrs: 3.00

20EGFD762**Convection Heat Transfer I**

Heat transfer by forced and free convection. Analysis of various problems including external and internal fluid flows, momentum transfer analogies, transpiration cooling, change of phase. 3 lec. Prereq: 20MECH728. Credit Level: G. Credit Hrs: 3.00

20EGFD770**Leadership in Technical Organizations**

This course provides skills and training needed to improve an individuals effectiveness as a leader and manager in technical organizations. Topics covered include effective communication, interpersonal effectiveness, teams, conflict resolution, decision making, and ethics. Concepts are presented through streaming video, presentations and readings. Interaction with the instructor and other students is done through on-line means. Credit Level: G. Credit Hrs: 5.00

20EGFD774**CAD for Manufacturing**

Discussion of advanced manufacturing concepts including feature based modeling, group technology, process planning, numerical control, tolerancing and inspection. Credit Level: G. Credit Hrs: 1.00

20EGFD780**Numerical Methods for Inviscid Flows**

Governing equations, methods for solving potential flow equations for subsonic and transonic flow. Recent techniques for the solution of Euler's equations. 3 lec. Prereq: 20AEEM732. Credit Level: G. Credit Hrs: 3.00

20EGFD781**Numerical Methods for Viscous Flows**

Explicit and implicit methods of solution for the parabolized, "thin-layer" and Navier-Stokes equations. Direct Poisson solvers, topics of current interest. 3 lec. Prereq: 20EGFD780. Credit Level: G. Credit Hrs: 3.00

20EGFD820**Digital Control Systems**

Frequency domains and state variable methods in design of digital systems. Microprocessor implementation including A/D-D/A conversion, interrupts, processor characteristics. Prereq: 20EGFD615, 20EGFD720. Credit Level: G. Credit Hrs: 3.00

Engineering Education**20ENED116****Engineering Concepts I**

This course will provide student support for calculus, chemistry and engineering problem solving. This is also an interactive engineering course designed to inform, mentor, and advise students about engineering programs and disciplines. BoK: NA. Credit Level: U. Credit Hrs: 3.00

20ENED117**Engineering Concepts II**

A continuation of ENED116 in which students are mentored about the various engineering programs and where engineering problem-solving skills are enhanced. BoK: NA. Credit Level: U. Credit Hrs: 1.00

20ENED118**Engineering Concepts III**

A continuation of ENED117 in which students are mentored about the various engineering programs and where engineering problem solving skills are enhanced. BoK: NA. Credit Level: U. Credit Hrs: 1.00

20ENED120**Foundations of Engineering**

Students will be exposed to all fields of engineering in order to make an

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Engineering Education**20ENED120****Foundations of Engineering**

informed choice as to the engineering program to study. BoK: NA.

Credit Level: U. Credit Hrs: 3.00

Engineering Fundamentals**20ENFD101****Mechanics I**

Study of statics. Moments, resultant forces and equilibrium for particles and rigid bodies, friction. Dept. of Aerospace Engr. and Engineering Mechanic. Ea. qtr. 3 lec. Prereq: 15PHYS201. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

20ENFD102**Mechanics II**

Study of motion and the relationship between force, mass and acceleration for particles. Work-energy and impulse-momentum concepts. Dept. of Aerospace Engr. and Engineering Mechanics. Ea. Qtr. 3 lec. Prereq: 20ENFD101, 15PHYS201. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

20ENFD102H**Honors Mechanics II**

Study of motion and the relationships among force, mass and acceleration for particles. Work-energy and impulse-momentum concepts. Dept. of Aerospace Engineering & Engineering Mechanics. Prereq: 15PHYS201, 20ENFD101. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

20ENFD103**Mechanics III**

Centroids, center of gravity. Study of motion and the relationship between force, mass and acceleration for rigid bodies. Dept. of Aerospace Engr. and Engineering Mechanics. Ea. Qtr. Prereq: 20ENFD102. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

20ENFD104**Cooperative Learning for Calculus I**

Techniques for helping students maximize their potential using cooperative learning techniques and collaborative skills. Admission by permission of the Emerging Ethnic Engineers Program office. 4 lab. BoK: NA. Credit Level: U. Credit Hrs: 1.00

20ENFD105**Cooperative Learning for Calculus II**

See 20-031-104. 4 lab. BoK: NA. Credit Level: U. Credit Hrs: 1.00

20ENFD106**Cooperative Learning for Calculus III**

See 20-031-104. 4 lab. BoK: NA. Credit Level: U. Credit Hrs: 1.00

20ENFD107**Cooperative Learning for Calculus IV**

See 20-031-104. 4 lab. BoK: NA. Credit Level: U. Credit Hrs: 1.00

20ENFD108**Introduction to Cooperative Learning for Physics**

See 20-031-104. 4 lab. BoK: NA. Credit Level: U. Credit Hrs: 1.00

20ENFD109**Cooperative Learning for Physics I**

See 20-031-104. 4 lab. BoK: NA. Credit Level: U. Credit Hrs: 1.00

20ENFD110**Cooperative Learning for Physics II**

See 20-031-104. 4 lab. 2 Hrs. per week BoK: NA. Credit Level: U. Credit Hrs: 1.00

20ENFD112**Fundamentals of Programming**

Top-down program design; break problems into functions and identify needed control structures; declare and employ basic MATLAB data

Engineering Fundamentals**20ENFD112****Fundamentals of Programming**

types particularly numbers, strings, 1-dimensional arrays and symbolic variables; create and use functions. BoK: QR. Credit Level: U. Credit Hrs: 3.00

20ENFD113**Engineering Honors Computing II**

ENGR HON COMPT II Prereq: 20ENFD112. BoK: NA. Credit Level: U. Credit Hrs: 1.00

20ENFD114**Cooperative Learning for Differential Equations**

Students work homework problems in groups with help from teaching assistants. A minimum number of hours per week of participation is required for a given grade. BoK: NA. Credit Level: U. Credit Hrs: 1.00

20ENFD115**Cooperative Learning for Physics III**

See 10-031-104. 4 lab. BoK: NA. Credit Level: U. Credit Hrs: 1.00

20ENFD116**Engineering Concepts**

An interactive engineering course designed to inform students about engineering programs and disciplines. This is a "hands-on" project-oriented course where students can experience real engineering projects. BoK: NA. Credit Level: U. Credit Hrs: 3.00

20ENFD119**The Schneider Series**

Seminar series with speakers and topics in a wide range of areas. BoK: NA. Credit Level: U. Credit Hrs: 1.00-3.00

20ENFD120**The Schneider Series**

Seminar series with speakers and topics in a wide range of areas. BoK: NA. Credit Level: U. Credit Hrs: 1.00-3.00

20ENFD121**The Schneider Series**

Seminar series with speakers and topics in a wide range of areas. BoK: NA. Credit Level: U. Credit Hrs: 1.00-3.00

20ENFD122**Mechanics II -- Civil**

Taught in combination with Physics I for Civil Engineers -- continuation of the study of motion, mass and acceleration for particles. 3 lec. BoK: NA. Credit Level: U. Credit Hrs: 3.00

20ENFD250**Graphics Fundamentals**

Survey of graphical techniques, projection theory, engineering drawings and standards, and introduction to CAD. Dept. of Civil and Env. Engr. Ea. Qtr. 2 lec., 2 lab. BoK: NA. Credit Level: U. Credit Hrs: 3.00

20ENFD251**Graphics Fundamentals**

Survey of graphical techniques, projection theory, engineering drawings and standards and introduction to the CAD program Solid Edge. BoK: QR. Credit Level: U. Credit Hrs: 3.00

20ENFD252**Graphics Fundamentals**

Survey of graphical techniques, projection theory, engineering drawings and standards and introduction to the CAD program Solid Works BoK: QR. Credit Level: U. Credit Hrs: 3.00

20ENFD278**Introduction to Nanoscale Science and Technology**

An introduction to nanoscience and nanotechnology for undergraduate engineering and science students: nanoparticles, nanoelectronics, nanophotonics, nanobioscience, and societal and ethical implications. BoK: NS., SE. Credit Level: U. Credit Hrs: 3.00

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Engineering Fundamentals**20ENFD279****Experimental Nanoscale Science and Technology**

To introduce students to experimental nanoscale science and technology, including carbon nanotube synthesis, nanotube sensor fabrication and characterization, quantum dot characterization, and gold nanoparticle fabrication and characterization. The experimental techniques learned in this course can be applied to industrial problems and also used as a foundation for performing research in the area of nanoscale science and technology. Prereq: 20ENFD278. BoK: NS, SE. Credit Level: U. Credit Hrs: 3.00

20ENFD371**Basic Electric Circuit Analysis**

Analysis and problem solution with direct and alternating currents. Series and parallel circuits with resistance, inductance, and capacitance. Circuit laws, power and sinusoidal waveforms. Department of Elec. and Comp. Eng. and Comp. Sci. 3 lec. BoK: NS., QR. Credit Level: U. Credit Hrs: 3.00

20ENFD376**Nature and Properties of Materials**

Properties of engineering materials; atomic bonding; crystal systems; electron transport in solids; metal alloys; deformation of metals; cold working and annealing; polymers; ceramic materials. Dept. of Materials Science and Engineering. Ea. Qtr. 3 lec. Prereq: 15CHEM103. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

20ENFD382**Basic Thermodynamics**

Fundamental laws and concepts of classical thermodynamics; thermodynamic functions; properties of the pure substance. Dept. of Materials Sci. and Engr. Ea. Qtr. Prereq: 15MATH254. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

20ENFD383**Basic Fluid Mechanics**

Physical nature of fluids, statics. Conservation principles and their applications to engineering problems. Dimensional analysis, duct flow of real fluids. Dept. of Aerospace Engr. and Engineering Mechanics. 3 lec. Prereq: 15MATH273, 15MATH254, 20ENFD101. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

20ENFD384**Honors Basic Fluid Mechanics**

Physical nature of fluids, fluid statics, derivation of conservation equations and their application to engineering problems. Similitude, laminar and turbulent flow in pipes and channels. This course fulfills the requirement of Basic Fluid Mechanics 20-031-383 for selected students. Limited to students in the Honors Program or by perm. of instr. 3 lec. Prereq: 15MATH254, 15MATH273, 20ENFD101. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

20ENFD385**Basic Heat Transfer**

Fundamental concepts of heat transfer including conduction, convection, and radiation. Dept. of Chemical Engr. Ea. Qtr. Prereq: 15MATH273. BoK: NS. Credit Level: U. Credit Hrs: 3.00

20ENFD400**Engineering Project Abroad I: Market Assessment**

The objective of this course is to prepare engineers to plan and execute an assessment of a market need abroad including the identification of the need, quantifying the market opportunity, planning an international assessment trip and evaluating data collection in the field. BoK: SE., DC. Credit Level: U. Credit Hrs: 1.00

20ENFD401**Engineering Project Abroad II: Appropriate Design**

The objective of this course is to prepare engineers for appropriate design in a context- dependent manner. An emphasis will be placed on recognizing diversity and culture of the client as well as considering the social and ethical issues of engineering design. BoK: SE., DC. Credit Level: U. Credit Hrs: 1.00

Engineering Fundamentals**20ENFD402****Engineering Project Abroad III: Implementation**

The objective of this course is to facilitate the inherent entrepreneurial spirit of each student to implement an appropriate design. An emphasis will be placed on creativity in recognizing diversity and culture of the client as well as considering the social and ethical issues in a context-dependent manner. BoK: SE., DC. Credit Level: U. Credit Hrs: 1.00

20ENFD501**SPACE SYST DESIGN**

SPACE SYST DESIGN BoK: NA. Credit Level: U. Credit Hrs: 1.00

20ENFD502**SPACE SYS DESIGNII**

SPACE SYS DESIGNII Prereq: 20ENFD501. BoK: NA. Credit Level: U. Credit Hrs: 2.00

20ENFD600**SEMINAR-MATERIALS**

SEMINAR-MATERIALS BoK: NA. Credit Level: U, G. Credit Hrs: 1.00

20ENFD601**SEMINAR-ENVIRONMENT**

SEMINAR-ENVIRONMENT BoK: NA. Credit Level: U, G. Credit Hrs: 1.00

Engineering**20ENGR600****FUNDAMENTALS OF LEADERSHIP**

The goal of this course is to prepare students for leadership roles in the workplace. Topics covered include: leadership qualities and skills, ethical and social values needed in leadership roles, analysis of human behavior, leadership strategies and what is really important in order to be an excellent leader. Case studies will be conducted through group study, concluding with oral and written reports. BoK: SE. Credit Level: U, G. Credit Hrs: 3.00

20ENGR601**Engineering Information Resources**

A web-based course requiring in depth use of engineering literature in support of research for a thesis or project. See WWW.englib.uc.edu/EIR96 BoK: NA. Credit Level: U, G. Credit Hrs:

20ENGR610**Effectiveness in Technical Organization**

Examines the non-technical factors that enable engineers and other technical professionals to maximize their contribution to organizational effectiveness. BoK: SE. Credit Level: U, G. Credit Hrs: 3.00

20ENGR613**Engineering Economic Analysis**

Examines the principles and techniques for making decisions between various engineering alternatives. The techniques of benefit-cost rate-of-return, and net present value will be examined. Also, the topic of taxes and their impact on decision making is explored. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

20ENGR614**Engineering Project Management**

Examines management of projects for engineering endeavors from preparing a project proposal, conducting the project to quality control of project work. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

20ENGR651**Instructional Planning**

The purpose of this course is to provide National Science Foundation Fellows with an introduction to instructional techniques and secondary math and science classrooms. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

20ENGR652**Engineering Education Practicum**

The purpose of these practicum courses is to provide NSF Fellows with

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Engineering**20ENGR652****Engineering Education Practicum**

a continuation of instructional techniques and secondary math and science classroom strategies begun in Instructional Planning. Prereq: 20ENGR651. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00

20ENGR952**Modern Teaching Techniques**

Students discuss basics of creating course content managing a class and interacting effectively with students. Topics covered include learning styles and Bloom's taxonomy. Students create course materials for an undergrad course. Weekly seminars are run by students. Credit Level: G. Credit Hrs: 1.00

20ENGR953**Mentored Teaching Experience**

Students in this class work directly with an assigned faculty mentor to develop teaching skills. Students spend a minimum of 10 hours in the classroom teaching and other appropriate activities supervised by their mentors. Prereq: 20ENGR952. Coreq: 20ENGR954. Credit Level: G. Credit Hrs: 1.00

20ENGR954**Advanced Teaching Techniques**

This seminar continues the examination of issues addressed in 20ENGR952. Additional topics may include: managing student projects/teams, incorporating practical ethics into engineering curriculum, teaching evaluations, ABET, and preparing proposals. Prereq: 20ENGR952. Coreq: 20ENGR953. Credit Level: G. Credit Hrs: 1.00

20ENGR955**The Academic Profession**

Students research opportunities for academic jobs in a variety of institutions, practice presentation skills and prepare application materials, including a Teaching Portfolio. Junior faculty issues are discussed and panel discussions are held. Prereq: 20ENGR954. Credit Level: G. Credit Hrs: 1.00

Industrial Engineering**20INDS691****Nanotechnology Occupational and Environmental Health & Safety**

Topics cover the impact of nanotechnology on occupational and environmental health and safety with respect to the promotion and protection of individual safety and health along the life cycle of nano-based products (i.e., material handling, manufacturing process, etc.) BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

20INDS692**Nanotechnology Occupational and Environmental Health & Safety II**

Topics cover the use of nanohealth technologies for the prevention, detection, and treatment of occupational and environmental diseases (e.g., musculoskeletal disorders, pulmonary and cardiovascular diseases. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

20INDS747**Safety and Health Engineering: Research to Practice**

This course is designed so the student learns advanced research topics related to safety and health engineering as defined by the National Occupational Research Agenda (NORA). Some course topics are: lower back disorders, musculoskeletal disorders, emerging technologies, etc. Credit Level: G. Credit Hrs: 3.00

20INDS748**Safety and Health Engineering II: Research to Practice**

Topics deal with the identification, improvement and maintenance of the safety and health of individuals in the occupational environment. Emphasis is placed on applications in different technology sectors such as manufacturing, health-care, construction, biomedical and enviro. tech. Credit Level: G. Credit Hrs: 3.00

Industrial Engineering**20INDS752****OCC BIOMECHANICS**

OCC BIOMECHANICS Credit Level: G. Credit Hrs: 3.00

20INDS800**Master's Thesis**

Credit hours to be arranged with adviser. Credit Level: G. Credit Hrs: 1.00-15.00

20INDS870**Research**

Individual research topics under supervision of departmental faculty. Credit Level: G. Credit Hrs: 1.00-15.00

20INDS871**Topics in Industrial Engineering**

Special problems on a conference basis. Hours and credits to be arranged. Credit Level: G. Credit Hrs: 1.00-15.00

20INDS950**Industrial Engineering PhD Fundamentals Exam**

Industrial Engineering PhD Fundamentals candidacy exam, part 1. Credit Level: G. Credit Hrs: 0.00

20INDS971**Ph.D. Dissertation**

Credits to be arranged by student and dissertation advisor. Credit Level: G. Credit Hrs: 1.00-18.00

Mathematics**20MATH273****Differential Equations**

DIFFERENTIAL EQUAT BoK: NA. Credit Level: U. Credit Hrs: 5.00

20MATH276**Matrix Methods**

MATRIX METHODS BoK: NA. Credit Level: U. Credit Hrs: 3.00

20MATH376**APPLIED MATH-ENG**

APPLIED MATH-ENG BoK: NA. Credit Level: U. Credit Hrs: 4.00

20MATH566**VECTOR CALC-ENGR I**

VECTOR CALC-ENGR I Prereq: 20MATH273. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

Mechanical Engineering**20MECH100****Introduction to Mechanical Engineering**

An introduction to the Mechanical Engineering discipline intended for first year Mechanical Engineering students. Topics to be covered include Mechanical Engineering as a career, co-op opportunities, College and University Rules. BoK: NA. Credit Level: U. Credit Hrs: 2.00

20MECH101**Introduction to Mechanical Engineering**

An introduction to the engineering profession; specifically to the field of mechanical engineering. BoK: QR. Credit Level: U. Credit Hrs: 3.00

20MECH102**Introduction to Mechanical Engineering Tools I**

An introduction to computers and computer applications used by mechanical engineers to solve typical engineering problems. Students will be introduced to operating systems, Microsoft Office, Matlab and computer aided design applications. BoK: QR. Credit Level: U. Credit Hrs: 3.00

20MECH103**Introduction to Mechanical Engineering Tools II**

A continuation of 20MECH102 with more detail use of computers and their application to engineering problem solving. BoK: QR. Credit Level: U. Credit Hrs: 3.00

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Mechanical Engineering**20MECH103****Introduction to Mechanical Engineering Tools II**

A continuation of 20MECH102 with more detail use of computers and their application to engineering problem solving. BoK: QR. Credit Level: U. Credit Hrs: 3.00

20MECH150**Graphics Fundamentals**

Survey of graphical techniques, projection theory, engineering drawings and standards, and introduction to CAD. BoK: QR. Credit Level: U. Credit Hrs: 3.00

20MECH151**Graphics Fundamentals**

Survey of graphical techniques, projection theory, engineering drawings and standards, and introduction to the CAD program Solid Edge. BoK: QR. Credit Level: U. Credit Hrs: 3.00

20MECH210**Thermodynamics I**

Basic Concepts of thermodynamics, the first and second laws, properties of pure substances, ideal gas behavior. Entropy, availability and applications to engineering problems. BoK: QR. Credit Level: U. Credit Hrs: 3.00

20MECH219**Kinematics of Machines (KOM)**

Fundamental concepts and principles of mechanisms, degree of freedom of mechanisms, four bar linkages with examples such as slider-crank mechanisms and quick return mechanisms, position, velocity and acceleration analysis of mechanisms, cams, gears, and robotic linkages. BoK: NA. Credit Level: U. Credit Hrs: 3.00

20MECH240**Engineering Statistical Methods**

Principles of probability, distributions, sampling statistical inference, applications. BoK: QR. Credit Level: U. Credit Hrs: 3.00

20MECH251**Concurrent Product and Process Development I**

This course will introduce global business trends, technologies and tools in integrated product manufacturing and service systems engineering. A special topic on Dominant Design for innovative products and service systems will be introduced with examples. BoK: NA. Credit Level: U. Credit Hrs: 3.00

20MECH275**Mechanics of Solids**

Introduction of the concepts of displacement, strain, stress and constitutive equations of elastic solids in one, two and three dimensions. Study of material properties and solutions of one-dimensional structure members in tension, bending and torsion. BoK: NA. Credit Level: U. Credit Hrs: 3.00

20MECH311**Fluid Mechanics**

Basic fluid mechanics concepts of continuum, fluid particle, control volume, and fluid kinematics and dynamics. Continuity and momentum balances for laminar and turbulent flow with applications and design problems. Similitude, modeling and boundary layer concepts. Prereq: 15MATH273, 20MECH210, 20ENFD102. BoK: QR. Credit Level: U. Credit Hrs: 4.00

20MECH312**Thermodynamics II**

Thermodynamic analysis of cycles. Property relations and Maxwell's equations. Nonreacting and reacting gas mixtures. Incompressible flow. Prereq: 20MECH210, 20MECH311. BoK: QR. Credit Level: U. Credit Hrs: 4.00

20MECH320**Machinery Dynamics**

Rigid body model, kinematical equation of planar and rolling motions, kinetic principles of rigid body motion, and angular momentum and

Mechanical Engineering**20MECH320****Machinery Dynamics**

inertia will be introduced first. Applications of principle of work and energy, impulse and momentum to rigid body dynamics, kinematics in a moving frame and more. Prereq: 15MATH273, 20AEEM102. BoK: NA. Credit Level: U. Credit Hrs: 4.00

20MECH321**Machine Analysis and Design**

Review of stress/strain and force/deflection relationships. Static and dynamic failure theories. Design of some machine elements. 4 lec. Prereq: 20MECH320, 20ENFD375, 20ENFD103. BoK: QR. Credit Level: U. Credit Hrs: 4.00

20MECH342**Numerical Analysis for Mechanical Engineers**

Fundamentals of solution techniques for mechanical engineering problems. Linear Algebra. Eigenvalues and Eigenvectors. Computer usage. 3 lec. Prereq: 15MATH273, 20ENFD111. BoK: QR. Credit Level: U. Credit Hrs: 3.00

20MECH354**Manufacturing Processes I**

Discussion of materials and properties, heat treatment, principles of metal cutting and machining, energy and economic considerations, welding and joining processes. BoK: QR. Credit Level: U. Credit Hrs: 3.00

20MECH355**Manufacturing Processes II**

Analysis of metal forming and shaping processes, metal casting processes and equipment. BoK: QR. Credit Level: U. Credit Hrs: 3.00

20MECH370**Measurements and Instrumentation Lab**

Introduction to the theory and practice of measuring mechanical engineering phenomena. Concentration on physical laws and calibration. 3 lab. Prereq: 20ENFD371. BoK: QR. Credit Level: U. Credit Hrs: 3.00

20MECH399H**Mechanics of Human Injury**

Provides a comprehensive introduction to injury mechanics including the causes of injury, the physical, emotional and economic cost of injuries recovery and rehabilitation from injury, injury prevention by protective devices and injury prevention through standards and safety rules. BoK: QR. Credit Level: U. Credit Hrs: 3.00

20MECH413**Heat Transfer**

Introduction to concepts and principles of heat transfer. To develop an intuitive and quantitative understanding of conductive, convective, and radiative heat transfer, and design of heat exchangers. 4 lec. Prereq: 20MECH312. BoK: QR. Credit Level: U. Credit Hrs: 4.00

20MECH414**Momentum and Energy Transport**

Boundary layer and law of the wall. Heat transfer in non-stationary media; forced and free convection in pipes and around objects. 4 lec. Prereq: 20MECH413. BoK: QR. Credit Level: U. Credit Hrs: 4.00

20MECH422**Design of Mechanical Components**

Design of mechanical components and subsystems with emphasis on mechanical drives and fluid power components. Design project. 4 lec. Prereq: 20MECH321. BoK: QR. Credit Level: U. Credit Hrs: 4.00

20MECH423**Design of Mechanical Systems**

Design of mechanical engineering systems. Methodology of design. Safety. Cost. Design project. 4 lec. Prereq: 20MECH422. BoK: QR. Credit Level: U. Credit Hrs: 4.00

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Mechanical Engineering**20MECH451****Engineering Economy**

Principles for making decisions among competing engineering alternatives on the basis of their return on investment. BoK: QR. Credit Level: U. Credit Hrs: 3.00

20MECH480**Mechanical Vibrations I**

Fundamental concepts of vibrations analysis of single degree of freedom mechanical systems. Steady-state and transient vibrations. 3 lec. Prereq: 20MECH320, 15MATH273. BoK: QR. Credit Level: U. Credit Hrs: 3.00

20MECH481**Control Theory**

Fundamental concepts of control systems. Open and closed loop systems, control components, time and frequency domain analysis. Transfer function and stability analysis. BoK: NA. Credit Level: U. Credit Hrs: 3.00

20MECH510**Computer Aided Design**

Selected topics in mechanical design, computer aided engineering and computer aided design. Utilization of the digital computer as a design tool. 3 lec. BoK: NA. Credit Level: U. Credit Hrs: 3.00

20MECH525**Introduction to Finite Element Methods I**

Fundamental finite element analysis of trusses and beams with software applications. 3 lec. Prereq: 20MECH321. BoK: QR. Credit Level: U. Credit Hrs: 3.00

20MECH526**Introduction to Finite Element Methods II**

Continuation of 20-MECH-525 in finite element analysis of plates and solids with software applications. 3 lec. Prereq: 20MECH525. BoK: QR. Credit Level: U. Credit Hrs: 3.00

20MECH536**Special Projects**

An opportunity for individual students or small teams to work under the supervision of volunteer faculty on topics of special interest including software development, research, analysis, experimentation, and design. Limited funding available. By prearrangement with individual faculty. BoK: NA. Credit Level: U. Credit Hrs: 1.00-19.00

20MECH537**Automotive Design I**

Advanced design theory for mechanical engineering systems. BoK: NA. Credit Level: U. Credit Hrs: 1.00

20MECH538**Automotive Design II**

Advanced design theory for mechanical engineering systems. Continuation of 20MECH537 Prereq: 20MECH537. BoK: NS. Credit Level: U. Credit Hrs: 4.00

20MECH539**Automotive Design III**

Advanced design theory for mechanical engineering systems. Continuation of 20MECH538. Prereq: 20MECH538. BoK: NS. Credit Level: U. Credit Hrs: 4.00

20MECH540**Safety in Mechanical Design**

Aspects of mechanical design which cause injury, methods of correction and protection and governmental regulations. Liability and its effects on engineering designers and their employers. 3 lec. Prereq: 20MECH321. BoK: QR. Credit Level: U. Credit Hrs: 3.00

20MECH552**Concurrent Product and Process Development II**

This course will introduce computer-aided, concurrent engineering approaches applied to conceive, design and manufacture products, systems and processes that take into account their entire lifecycles.

Mechanical Engineering**20MECH552****Concurrent Product and Process Development II**

Development of personal skills and attributes for the practicing engineer. BoK: NA. Credit Level: U. Credit Hrs: 4.00

20MECH553**Design Clinic I**

Team project internship experience. Students in three-person teams serve as consultants to industrial clients. Emphasis on conducting professional level design study. BoK: NA. Credit Level: U. Credit Hrs: 4.00

20MECH554**Design Clinic II**

Team project internship experience. Students in three-person teams serve as consultants to industrial clients. Emphasis on conducting professional level design study. BoK: NA. Credit Level: U. Credit Hrs: 4.00

20MECH556**Production Planning and Control**

Problem analysis and design of scheduling and control systems with emphasis on time-based (JIT) manufacturing. BoK: NA. Credit Level: U. Credit Hrs: 3.00

20MECH563**Power Machinery**

Turbine types, Rankine and Brayton cycles, energy interchanges in fluid machinery, nozzles, blades. Turbine control and performance, compressors, regenerators. 3 lec. Prereq: 20MECH312, 20MECH414. BoK: QR. Credit Level: U. Credit Hrs: 3.00

20MECH565**Basic Electric Power Engineering**

Review of circuit fundamentals. Study of synchronous generators, transformers, DC machines, induction machines, switchgear design, operation of circuits, generators, motors, and transformers. Prereq: 20ENFD371. BoK: QR. Credit Level: U. Credit Hrs: 4.00

20MECH571**Structure/Motion Lab**

Engineering Experimentation: performance tests, transducer applications, statistical analysis, automated data acquisition, vibration testing. 3 lab. Prereq: 20MECH370, 20MECH321, 20MECH481. BoK: QR. Credit Level: U. Credit Hrs: 3.00

20MECH572**Heat Transfer/Fluids Lab**

Experiments involving measurement of pressure, velocity and temperature in flows, data analysis and evaluation of heat transfer in forced and natural convection. 3 lab. Prereq: 20MECH370, 20MECH413. BoK: QR. Credit Level: U. Credit Hrs: 3.00

20MECH592**Power Generation - Primary and Auxiliary Systems**

The course covers energy management and power generation including energy conversion, production and distribution infrastructure. Variety of methods for using energy efficiency and for measuring the impact on the built environment will be presented. BoK: QR. Credit Level: U. Credit Hrs: 3.00

20MECH611**Computational Design I**

Introduction to optimal design for engineering problems using nonlinear programming methods. This course provides a broad overview of optimal design using formal, analytical and numerical techniques. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

20MECH612**Computational Design II**

Introduction to statistical design of experiments (DOE) with a focus on optimal design for engineering problems using DOE and response surface methods (RSM). Emphasis is placed upon uses of these techniques in design and manufacturing applications. BoK: NA. Credit

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Mechanical Engineering**20MECH612****Computational Design II**

Level: U, G. Credit Hrs: 3.00

20MECH615**Modern Control Theory**

State variable formulation of control problems. Linear systems theory. Observability, controllability and feed back control. 3 lec. Prereq: 20MECH481. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20MECH617**Introduction to Digital Control Design**

Intended as a hands-on introduction to digital control with the emphasis on implementation of digital controls systems. First half of class is lecture, second half is lab work. 3 lec. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20MECH618**Intermediate Classical Control Systems Design**

A second course in basic control with an emphasis on design to closed loop stability and performance specifications using frequency response techniques. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20MECH621**Modeling and Simulation of Solids I**

Focus will be on modeling of various solid materials and simulation using molecular dynamics, FEM/BEM or meshfree methods. Prereq: 20EGFD601, 20MECH525. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

20MECH625**Mechatronics System Design**

Modeling and simulation of physical systems; sensors and transducers, actuative device, hardware components for Mechatronics; signals, systems and controls; real-time interfacing; advanced applications and case studies. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20MECH628**Design for Manufacturability I**

Designing for manufacturability, specifically functionality, usability, assembly, quality, reliability, inspectability, maintainability, and safety. Course focuses on the consumer product design process, its evolution, customer need and market demand assessments, manufacturing planning. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20MECH629**Design for Manufacturability II**

Actual design of a consumer product for manufacturability. Students will forecast market demands, assess user needs, (re)design the product for functionality, usability, manufacturability, etc., do manufacturing planning, and estimate costs, and plan for growth. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20MECH630**Numerical Methods in Transport Phenomena I**

Introduction to transport phenomena. Application of finite difference methods to the solution of fluid/thermal problems. Numerical methods for ordinary differential equations. (Alternate years) 3 lec. Prereq: 20MINE414. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20MECH631**Numerical Methods in Transport Phenomena II**

Continuation of 20-263-630. Numerical methods for partial differential equations of fluid flow and heat transfer. (Alternate years) 3 lec. Prereq: 20MECH630. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20MECH632**Intermediate Fluid Mechanics**

Extension of fundamental fluid mechanics to more detailed study of viscous flow theory and inviscid incompressible and compressible flow. 3 lec. Prereq: 20MECH414. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

Mechanical Engineering**20MECH633****Experimental Techniques in Fluid Mechanics**

Review of experimental methods commonly used in experimental and applied research in fluid mechanics, convective heat transfer and aerodynamics. A discussion of techniques, instrumentation, practical applications and testing facilities. (Alternate years) 3 lec. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20MECH634**Kinematic Synthesis**

Study of kinematic-geometric relations in linkages and mechanical devices; polode properties; Euler-Savary equation; analysis and synthesis of mechanisms. 3 lec. Prereq: 20MECH320. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20MECH635**Biofluid Mechanics**

Biofluid mechanics provides an intellectual framework for understanding the features of flow in organ systems, in health and disease. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20MECH636**Introduction to Robotics**

Introduction to industrial robots, components, programming, and applications. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20MECH637**Robot Control**

Introduction to industrial robot control. Robot servo system analysis and design. Emphasis on electric and hydraulic drive robots. Frequency domain stability analysis. Automated factory concepts. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20MECH638**Robot Design**

Mechanics of robots. Robot design process starting from specifications. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20MECH639**Concurrent Product and Manufacturing Process Development**

Fundamentals concurrent product and manufacturing process development. Product development process that is being used to develop more competitive products with breakthrough productivity (faster design with lower development costs). Key methods will be introduced throughout the major phases. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

20MECH640**Robot Vision**

Introduction to intelligent robotics, mathematics, programming and control. Machine intelligence, expert industrial systems, sensors and vision, applications to flexible manufacturing system design. 3 lec. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20MECH641**Fundamentals of Tribology**

Basics including tribological elements (bearings, clutches, brakes), design issues (friction, lubrication, wear), and modeling/solution techniques. Tribological component design in a student project situation. 3 lec. Prereq: 20MECH321, 20MECH422. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20MECH642**Bio-Heat Transfer**

General heat transfer and thermodynamics review, modes of heat transfer-conduction, convection and radiation; thermal properties of tissues, perfusion in tissues; heat transfer in biological systems; effect of blood flow on heat transfer; hyperthermal therapy; thermal imaging. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

20MECH645**Introduction to Smart Structures**

Introductory course to give students a background in the design of smart structures. Use of MATLAB to design and simulate a simple

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Mechanical Engineering**20MECH645****Introduction to Smart Structures**

smart structure. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20MECH650**Occupational Safety Engineering**

An introduction and overview into the subject of occupational safety and health. The identification of hazards and the effective control of hazards is examined. The establishment of OSHA and Workers Compensation is studied along with the historical development of occupational safety and health. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

20MECH651**Safety Engineering and Product Liability**

An overview into the design and analysis of engineering systems and products from the stand- point of safety and liability. The identification of hazards and the legal consequences of exposure to hazards is examined. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

20MECH652**System Safety Engineering I**

Introduction to fundamental concepts of safety engineering. Inductive methods for analyzing systems to recognize, evaluate and control hazards. Techniques include preliminary hazard analysis, failure mode and effects analysis, management oversight and risk tree (MORT), and job safety. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

20MECH653**System Safety Engineering II**

Application of quantitative deductive methods; including: Boolean logic, fault tree, and sneak circuit analysis; to the rigorous analysis of major systems to identify and rank likely fault states of subsystems and components. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

20MECH655**Intelligent Systems and Controls**

Treatment of uncertainties in probabilistic, stochastic, and fuzzy domains; Bayesian estimation and decision theory; Stochastic control including Markov Decision Process; Graph theoretic modeling of interconnected systems; and Swarm intelligence. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

20MECH660**Fourier Transform Techniques**

Time, frequency, s-domain relationships, Fourier series and transforms. Application to vibration, noise control, heat transfer problems. Recommended for 20MECH633. 2 lec., 1 lab. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20MECH662**Mechanical Vibrations II**

Continuation of Mechanical Vibrations I with emphasis on multi-degree of freedom, lumped parameter, and continuously distributed systems; transient vibrations, relationships between lumped parameter models and measured parameters. 3 lec. Prereq: 20MECH481, 20MECH660. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20MECH663**Mechanical Vibrations III**

Experimental analysis of vibration problems. Vibration analysis techniques, digital signal processing, measurements, excitation techniques and modal parameter estimation applied in a student project situation. Students must register for 20MECH664. 3 lec. Prereq: 20MECH660, 20MECH662, 20MECH664. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20MECH664**Mechanical Vibrations III Lab**

Experimental analysis of vibration problems. Vibration analysis techniques, digital signal processing, measurements, excitation techniques and modal parameter estimation applied in a student project situation. Students must register for 20MECH663. 1 lab. Prereq: 20MECH660, 20MECH662, 20MECH663. BoK: NA. Credit Level: U, G.

Mechanical Engineering**20MECH664****Mechanical Vibrations III Lab**

Credit Hrs: 1.00

20MECH666**Acoustics I**

Elements and general properties of waves and wave motion. 3 lec. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20MECH667**Acoustics II**

Reverberation, speakers, speech and hearing noise study techniques involving analog and digital filtering, correlation, and coherence. 3 lec. Prereq: 20MECH666. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20MECH668**Vehicle Noise, Vibration and Harshness (NVH)**

Understanding mechanisms controlling automotive NVH response. Study of analytical, computational and experimental techniques for analyzing NVH problems including powertrain noise, tire vibration, squeak and rattle, and ride quality. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

20MECH671**Quality Control**

Learn the applied statistics for quality control, 7QC tools, Quality Function Deployment (QFD), and design for six-sigma and to use these tools for term projects. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

20MECH672**Manufacturing Facilities Design**

Problem analysis and design for commercial buildings to produce products and/or services with emphasis on material handling/movement and distribution, product or service flow, and information flow. A project will be completed to determine a final layout for the total system. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

20MECH673**Introduction to E-Manufacturing**

Introduction of IT-enabled emerging technologies and tools in manufacturing including remote monitoring, embedded prognostics, intelligent networks, RFID, wireless communications, and smart machine systems. Prior knowledge of the LabView program is preferred. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

20MECH674**Intelligent Systems Theory**

Introduction to intelligent systems theory including expert systems, fuzzy logic, neural networks, and applications to manufacturing and material handling. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

20MECH675**CAD for Manufacturing**

Discussion of advanced manufacturing concepts including group technology, process planning, numerical control, design for manufacturability and assembly. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

20MECH676**Introduction to Supply Chain Management**

This course discusses what supply chains are, why they are important, and the types of challenges implicit in managing supply chains. The use of decision-support system in supply chain management is also discussed. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

20MECH685**Introduction to Biomechanics**

Basic concepts and methods involved in the applications of mechanical engineering principles in the medical and life sciences. 3 lec. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20MECH686**Tissue Biomechanics**

Examination of properties and mechanical behavior of the structures,

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Mechanical Engineering**20MECH686****Tissue Biomechanics**

soft tissue, and organs of biosystems. 3 lec. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20MECH687**Human Body Dynamics**

Introduction to human body modeling. Bones; soft tissue; internal organs; experimental and analytical results; applications in injury analysis, rehabilitative therapy, and sports mechanics. 3 lec. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20MECH690**Optimal Engineering Design**

Analytical and numerical methods for optimization of functions and functionals. Gradient and direct search methods. 3 lec. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20MECH691**Variational Optimization**

Variational methods for the optimization of constrained functions and functionals. Solution for two-point boundary value problems in controls and mechanics. 3 lec. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20MECH693**Thermal Environmental Engineering**

Human thermal comfort; air conditioning, refrigeration, and ventilating systems. 3 lec. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20MECH694**Industrial Heat Exchange Engineering and Design**

An introduction to industrial heat exchange engineering strategies and management techniques and experience in design of heat exchangers and systems to accommodate fixed heat dissipation. (Alternate years) 3 lec. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20MECH695**Design of HVAC Systems**

To provide an experience in the design of heating, ventilating, and air conditioning systems for commercial, industrial, institutional and / or residential applications. Aimed at providing a systems design supplement to Thermal Environmental Engineering. 3 lec. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20MECH696**Combustion**

Chemical thermodynamics, reaction kinetics, premixed and diffusion flames, ignition, combustion systems, environmental pollution. (Alternate years) 3 lec. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20MECH697**Thermal Energy Storage**

This course covers the fundamentals of thermal energy storage, from the concepts to the hardware, surveying the many different technologies found in current operation. Analysis is geared primarily at the senior-level undergrad students and first year graduate students. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

20MECH698**HVAC Design I**

This course provides an introduction to the design of heating, ventilating and air conditioning (HVAC) systems and their individual units, engineering strategies and management techniques. Topics include HVAC needs and sustainability, refrigeration, cycles, Psychometrics and more. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

20MECH699**HVAC Design II**

This is a second course on the design of heating, ventilating and air conditioning (HVAC) systems, and their individual units, engineering strategies and management techniques. Topics include more in-depth coverage of HVAC needs and sustainability refrigeration cycles, Psychometrics and more. Prereq: 20MECH698. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

Mechanical Engineering**20MECH760****Artificial Intelligence in Manufacturing**

Topics include basic artificial intelligence concepts; algorithms related to rule-based systems, fuzzy logic and artificial neural networks; and the applications of these techniques in solving manufacturing problems such as process modeling and process planning. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

20MECH998**HVAC Design I**

This course provides an introduction to the design of heating, ventilating and air conditioning (HVAC) systems, and their individual units, engineering strategies and management techniques. Topics include HVAC needs and sustainability, refrigeration cycles, Psychometrics, etc. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

20MECH711**CAD / CAM I**

Selected topics in mechanical design, computer aided engineering, computer aided design, computer aided manufacturing and computer integrated manufacturing. Utilization of the digital computer as a design tool. 3 lec. Credit Level: G. Credit Hrs: 3.00

20MECH712**CAD / CAM II**

Selected topics in mechanical design, computer aided engineering, computer aided design, computer aided manufacturing and computer integrated manufacturing. Utilization of the digital computer as a design tool. 3 lec. Credit Level: G. Credit Hrs: 3.00

20MECH715**Advanced Kinematics**

Advanced topics in kinematics and dynamics of machines. . 3 lec. Prereq: 20MECH634. Credit Level: G. Credit Hrs: 3.00

20MECH716**Advanced Kinematics II**

Provide a fundamental understanding of the kinematics theory in design and analysis of mechanisms. The material will expose the student to theory and practice of synthesis of mechanisms and their evaluation for industry needs. 3 lec. Prereq: 20MECH715. Credit Level: G. Credit Hrs: 3.00

20MECH724**Grid Generation Techniques I**

Features of appropriate coordinates in fluid dynamic analysis. Basic techniques of grid generation. Details of boundary-aligned coordinate generation for arbitrary geometry and the resolution of length scales will be emphasized. 3 lec. Credit Level: G. Credit Hrs: 3.00

20MECH725**Grid Generation Techniques II**

Continuation of 20MECH724. Grid generation using partial differential equations. Fixed and adaptive grid clustering. Multi-rectangular computational regions. 3 lec. Prereq: 20MECH724. Credit Level: G. Credit Hrs: 3.00

20MECH727**Ideal Fluid Flow**

Physical aspects of inviscid flow; the equations governing ideal fluid motion; concept of circulation, vorticity, stream function and velocity potential; potential flow. 3 lec. Credit Level: G. Credit Hrs: 3.00

20MECH728**Viscous Fluid Flow-laminar**

The governing equations for viscous-fluid motion; similarity variables; the boundary-layer concept; incompressible boundary layer flow; Falkner-Skan solutions; introduction to compressible boundary-layer flow. 3 lec. Credit Level: G. Credit Hrs: 3.00

20MECH731**Introduction to Parallel Computing**

Introduction to distributed computing, message passing using MPI, and basic domain decomposition strategies. Credit Level: G. Credit Hrs:

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Mechanical Engineering**20MECH731****Introduction to Parallel Computing**

3.00

20MECH736**Continuum Mechanics**

Tensor algebra, kinematics, conservation laws, constitutive equations, hyperelasticity, variational principles. Credit Level: G. Credit Hrs: 3.00

20MECH741**Engineering Elasticity II**

Formulation and "exact" solutions of some linear elasticity problems and application in structural mechanics. 3 lec. Prereq: 20MECH740. Credit Level: G. Credit Hrs: 3.00

20MECH742**Engineering Elasticity III**

Energy principles in mechanics, numerical methods, and other solid mechanics problems. 3 lec. Prereq: 20MECH741. Credit Level: G. Credit Hrs: 3.00

20MECH745**Finite Element Techniques I**

Introduction to finite element techniques. Stiffness matrices, assembly, applications with trusses and beams; use of ANSYS. 3 lec. Credit Level: G. Credit Hrs: 3.00

20MECH746**Finite Element Techniques II**

Beams and frames; joint releases; fixed-end forces and distributed loading; curved beams and vibration problems. 3 lec. Prereq: 20MECH745. Credit Level: G. Credit Hrs: 3.00

20MECH747**Advanced Finite Element Methods**

Boundary value problems; two-dimensional analysis; variational techniques; plane stress and plain strain; isoparametric and solid elements. 3 lec Prereq: 20MECH746. Credit Level: G. Credit Hrs: 3.00

20MECH750**Boundary Element Methods I**

Theory and application of Boundary Elements. Review of BEM applications to elastostatics, acoustics, and heat transfer. 3 lec. Credit Level: G. Credit Hrs: 3.00

20MECH751**Boundary Element Methods II**

Continuation of Boundary Element Methods I. Emphasis on formulation and solution of three-dimensional problems in heat conduction, elastostatics, and acoustics. 3 lec. Prereq: 20MECH750. Credit Level: G. Credit Hrs: 3.00

20MECH755**Fracture Mechanics**

Introduction to linear elastic fracture mechanics (LEFM), elastic stress singularity, small-scale yielding, energy approach, J-integral, crack growth and stability, application to structures, and computational fracture mechanics. Credit Level: G. Credit Hrs: 3.00

20MECH757**Solid Mechanics of Biological and Biomaterials**

Nonlinear solid mechanics of bio-, biological materials; hyperelasticity; hyperviscoelasticity; application to soft tissue and hydrogels using MATLAB. Credit Level: G. Credit Hrs: 3.00

20MECH765**CAD for Manufacturing**

Discussion of advanced manufacturing concepts including group technology, process planning, numerical control, design for manufacturability and assembly. Credit Level: G. Credit Hrs: 3.00

20MECH766**Precision Engineering & Computational Metrology**

Fundamentals of solid modeling and sculptured surfaces; applications in process planning, feature extraction, tolerance representation,

Mechanical Engineering**20MECH766****Precision Engineering & Computational Metrology**

assembly planning, tool path generation, and robotic task planning. Credit Level: G. Credit Hrs: 3.00

20MECH771**Advanced Conduction Heat Transfer**

Heat transfer by conduction. Mathematical formulation of physical problems; methods of solution including separation of variables. Laplace transforms, superposition techniques. 3 lec. Credit Level: G. Credit Hrs: 3.00

20MECH772**Advanced Convection Heat Transfer**

Heat transfer by forced and free convection. Analysis of various problems including external and internal fluid flows, momentum transfer analogies, transpiration cooling, change of phase. 3 lec. Prereq: 20MECH728. Credit Level: G. Credit Hrs: 3.00

20MECH773**Advanced Radiation Heat Transfer**

Heat transfer by electromagnetic radiation. Analysis of the radiative characteristics of surfaces and of participating members. 3 lec. Credit Level: G. Credit Hrs: 3.00

20MECH774**Advanced Convective Heat Transfer II**

To develop the ability and solve complex convection problems associated with turbulent fluid flow with heat transfer, natural convection, and enhancements of heat transfer to single-phase flows. Also, become familiar with new solution techniques, modeling methods, and development and research trends in the field. 3 lec. Prereq: 20MECH772. Credit Level: G. Credit Hrs: 3.00

20MECH775**Advanced Thermodynamics**

Maxwell relations, equations of state for rest gases. Multicomponent systems, phase equilibrium. Kinetic theory of gases. Transport coefficients. Introduction to quantum mechanics, Bose-Einstein quantum statistics. 3 lec. Credit Level: G. Credit Hrs: 3.00

20MECH776**Boiling Heat Transfer and Two-Phase Flow**

The fundamental processes governing boiling heat transfer and two-phase flow will be examined and predictive procedures presented. 3 lec. Credit Level: G. Credit Hrs: 3.00

20MECH777**Advanced Conduction II**

Continuation of graduate heat conduction with emphasis on transient heat conduction problems with time-dependent boundary conditions/internal heat sources in finite and semi-infinite solids and heat conduction of pure substances with freezing/melting phase-change. Credit Level: G. Credit Hrs: 3.00

20MECH780**Vibration of Continuous Systems**

Vibration of continuous systems including shells, plates, beams, arches. Free and forced vibration problems of continuous system. Forced vibration solutions based on the mode superposition model. Vibrations of combined structures and rotating structures. Credit Level: G. Credit Hrs: 3.00

20MECH781**Non-Linear Vibrations**

The study of non-linear vibrations; elements of non-linear vibrations. Applications and Examples. Credit Level: G. Credit Hrs: 3.00

20MECH794**System Dynamic Analysis I**

Advanced analytical experimental methods to determine dynamic performance of complex mechanical systems. Analysis equipment and computer software are used. 3 lec. Credit Level: G. Credit Hrs: 3.00

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Mechanical Engineering**20MECH795****System Dynamic Analysis II**

See 20MECH794. 3 lec. Prereq: 20MECH794. Credit Level: G. Credit Hrs: 3.00

20MECH796**System Dynamic Analysis III**

See 20MECH794. 3 lec. Prereq: 20MECH795. Credit Level: G. Credit Hrs: 3.00

20MECH800**Masters's Thesis Research**

Cr. to be arranged. Credit Level: G. Credit Hrs: 1.00-19.00

20MECH813**Fundamentals of Microprocessor Control**

Frequency domain and state variable methods in design of digital systems. Microprocessor implementation including A/D - D/A conversion, interrupts, processor characteristics. 3 lec. Credit Level: G. Credit Hrs: 3.00

20MECH818**Intelligent Manufacturing Systems I**

Design and simulation of intelligent manufacturing systems with special emphasis on robot integrated mechanized assembly tasks. Fundamentals of artificial intelligence, application of robotics, sensors, vision, and flexible assembly work cells. 3 lec. Credit Level: G. Credit Hrs: 3.00

20MECH819**Intelligent Manufacturing Systems II**

Continuation of 20MECH818 with emphasis on an extensive project. Prereq.: Perm of instr. 3 lec. Credit Level: G. Credit Hrs: 3.00

20MECH820**Intelligent Manufacturing Systems III**

Continuation of 20MECH819. Introduction to CIM. 3 lec. Credit Level: G. Credit Hrs: 3.00

20MECH829**Viscous Fluid Flow-turbulent**

Introduction to turbulence; the governing equations for turbulent flow and the inherent difficulties in their solution; modeling of turbulence; applications. 3 lec. Credit Level: G. Credit Hrs: 3.00

20MECH830**Thermal Process Engineering**

Modeling of convective transport in thermal processing of anomalously viscous process media, droplets, and vapor/gas-liquid interfaces. Theoretical development of underlying fluid flow and heat transfer principles, along with discussion of relevant experimental issues, for applications in material manufacturing and bio-chemical processing, including plasma processing, material deposition, atomization, and production of chemical and bio-chemical media, among others. Credit Level: G. Credit Hrs: 3.00

20MECH837**Multi-Body Dynamics I**

Kinematics and dynamics of particles and rigid bodies; multibody systems; application in biosciences, robotics, mechanisms, and manipulators. (Alternate Years) 3 lec. Credit Level: G. Credit Hrs: 3.00

20MECH838**Multi-Body Dynamics II**

Kinematics and dynamics of particles and rigid bodies; multibody systems; application in biosciences, robotics, mechanisms, and manipulators. (Alternate Years) 3 lec. Prereq: 20MECH837. Credit Level: G. Credit Hrs: 3.00

20MECH839**Multi-Body Dynamics III**

Kinematics and dynamics of particles and rigid bodies; multibody systems; applications in biosciences, robotics, mechanisms, and manipulators. (Alternate Years) 3 lec. Prereq: 20MECH837,

Mechanical Engineering**20MECH839****Multi-Body Dynamics III**

20MECH838. Credit Level: G. Credit Hrs: 3.00

20MECH860**Master of Engineering Capstone Project**

Individual projects under supervision of departmental faculty in partial fulfillment of the Master of Engineering degree. Credit Level: G. Credit Hrs: 1.00-6.00

20MECH870**Research**

Individual research topics under supervision of departmental faculty, not for the MS thesis. Credit Level: G. Credit Hrs: 1.00-18.00

20MECH871**Topics in MIN Engineering**

Special problems on a conference basis. Hrs. and cr. to be arranged. Credit Level: G. Credit Hrs: 1.00-19.00

20MECH872**Graduate Seminar**

The seminar is a one-credit hour course designed for the graduate students in mechanical engineering. The goal is to provide the opportunity to learn the state-of-the-art research work that is being done in the field of mechanical engineering. Credit Level: G. Credit Hrs: 1.00

20MECH880**Analytical Vibrations of Mechanical Systems**

D'Alembert and Hamilton's principles. Lagrange's equation of motion. Approximate methods (Raleigh-Ritz, Galerkin, collocation). Non-linear and time-varying systems. Credit Level: G. Credit Hrs: 3.00

20MECH950**Mechanical Engineering PhD Fundamentals Exam**

Mechanical Engineering PhD Fundamentals candidacy exam, part 1. Credit Level: G. Credit Hrs: 0.00

20MECH971**Doctoral Dissertation Research**

Cr. to be arranged. Credit Level: G. Credit Hrs: 1.00-19.00

Metallurgical Engineering**20METL471****Materials and Energy Balances I**

Principles and calculations involved in the determining of material and energy balances in materials processing. 581 2 lec., 3 lec. Prereq: 20MTEN342. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

20METL536**Special Projects**

Various topics in materials processing and materials characterization on an individual or team basis. All qtr. cr. to be arranged. BoK: NA. Credit Level: U. Credit Hrs: 1.00-7.00

20METL577**Electrometallurgy**

Electrodeposition and metallic corrosion. 3 lec. Prereq: 20MTEN201. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

20METL581**Extractive Metallurgy**

Introduction to the methods used in the winning and refining of metals from their native ores. 3 lec. Prereq: 20MTEN201. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

20METL593**Foundry Engineering**

An elective course designed to introduce engineering students to the fundamentals involved in the production of castings and solidification processes. Structure-property relationships in cast materials. 3 lec. BoK: NS., QR. Credit Level: U. Credit Hrs: 3.00

H=University Honors course.

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LT: Literature. NS: Natural Sciences. QR: Quantitative Reasoning. SE: Social & Ethical Issues. SS: Social Sciences.

Metallurgical Engineering**20METL594****Foundry Engineering Laboratory**

Experiments to evaluate variables related to molding materials, molding operations, and metal casting methods. 3 lab. Prereq: 20METL593. BoK: NA. Credit Level: U. Credit Hrs: 1.00

20METL611**Statistics Policies and Productivity in Manufacturing**

This course deals with statistical methods, corporate and government policies and their effect on productivity issues in medium and large scale manufacturing processes. A few case studies will be discussed. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

20METL661**Materials and Energy Balances II**

Analysis of industrial metallurgical processes, study of computer application in the area of process metallurgy. 2 lec., 3 lab. BoK: NS., QR. Credit Level: U, G. Credit Hrs: 3.00

20METL719**Electron Microscopy**

Basic principles of operation of the Electron Microscope. Kinematic and dynamical theories of image formation including Fresnel calculations and Darwin equations. Defect analysis. 3 lec. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20METL773**Fracture Mechanics**

Consideration of the concepts of fracture mechanics and their application to materials systems. 3 lec. BoK: NS., QR. Credit Level: U, G. Credit Hrs: 3.00

20METL779**Dislocations**

Dislocation stress fields, dislocation interactions, theory and methods of formation. 3 lec. Credit Level: G. Credit Hrs: 3.00

20METL871**Seminars**

Studies, presentations and discussions by faculty, students, and visitors of current topics in the field of metallurgy or materials science. 1 lec. Credit Level: G. Credit Hrs: 1.00

20METL971**Research - Metallurgical Engineering**

1-18 gr.cr. Credit Level: G. Credit Hrs: 1.00-18.00

Mechanical, Industrial and Nuclear Engr**20MINE540****Management of Professionals**

Introduction to the principles and procedures of management for professionals; role of administration in engineering, health care, and other professional areas. BoK: QR. Credit Level: U. Credit Hrs: 3.00

20MINE640**Management of Professionals**

Introduction to the principles and procedures of management for professionals; role of administration in engineering, health care, and other professional areas. 3 lec. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20MINE777**Fire Protection Engineering in Facility and Process Design**

Fire protection engineering concepts in the design of facilities and processes from the standpoint of loss prevention and control. 3 lec. Credit Level: G. Credit Hrs: 3.00

20MINE778**Safety Engineering Design and Management**

Advanced application of an integrated safety engineering design/management approach to risk reduction in business and industry. 3 lec. Credit Level: G. Credit Hrs: 3.00

Materials Engineering**20MTEN100****Introduction to Materials Engineering**

An introduction to the field of materials engineering. What areas it encompasses and future opportunities in the field. 1 lec. BoK: NA. Credit Level: U. Credit Hrs: 1.00

20MTEN101**Introduction to Materials Engineering II**

Advanced introduction to the Materials Engineering discipline emphasizing laboratory and research techniques. Also covers current topics in Materials Engineering. BoK: NA. Credit Level: U. Credit Hrs: 1.00

20MTEN110**Materials Fundamentals**

Properties of engineering materials; atomic bonding; crystal systems; electron transport in solids; metal alloys; deformation of metals; cold working and annealing; polymers, ceramic materials. Dept. of Materials Science and Engineering. BoK: NS. Credit Level: U. Credit Hrs: 3.00

20MTEN201**Introduction to Metallurgy**

An introduction to the basic concepts of metallurgy including a description of crystal structures. Additional topics would include mechanical properties, deformation characteristics of metals, defect structure, phase diagrams and phase transformations 4 lec. BoK: NS. Credit Level: U. Credit Hrs: 4.00

20MTEN202**Introduction to Ceramics**

An introduction to the basic characteristics of ceramic systems including phase equilibria, mechanical behavior and crystal structures. 3 lec. BoK: NS. Credit Level: U. Credit Hrs: 3.00

20MTEN203**Introduction to Polymers**

An introduction to polymer systems and their associated properties and structure. 3 lec. BoK: NS. Credit Level: U. Credit Hrs: 3.00

20MTEN204**Introduction to Ceramic Processing**

This introductory course deals with the synthesis, refinement and consolidation of these materials into a green state body and the changes that occur during heat treatment of the body. Focus will be on the development of desired properties, requiring careful control of all processing variables. Prereq: 20MTEN110, 20MTEN202. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

20MTEN205**Ceramics Laboratory**

This introductory laboratory course in ceramics is designed to complement the corresponding lecture course in Introduction to Ceramic Processing. Coreq: 20MTEN204. BoK: NA. Credit Level: U. Credit Hrs: 1.00

20MTEN211**Materials Techniques**

An introduction to those laboratory techniques necessary for the investigation and characterization of materials. 1 lec., 6 lab. BoK: NA. Credit Level: U. Credit Hrs: 3.00

20MTEN221**Computer Applications in Materials Engineering**

An introduction to the concepts of data analysis using the microcomputer and the development of programming skills as applied to elementary problems in materials. 2 lec. BoK: NS. Credit Level: U. Credit Hrs: 3.00

20MTEN252**Physical Polymers**

This course deals with the fundamentals of the physical structure and properties of polymers. Prereq: 20MTEN110, 20MTEN203. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

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Materials Engineering**20MTEN315****Physical Metallurgy I**

An introduction to the fundamental phenomena which control the structure and properties of metals and alloys. Prereq: 20MTEN110, 20MTEN201. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

20MTEN331**Science of Materials I**

An introduction to the fundamental phenomena which control the properties and structure of materials. Includes nucleation, transformations, diffusion, defect structures and properties. 3 lec. BoK: NS. Credit Level: U. Credit Hrs: 3.00

20MTEN332**Science of Materials II**

A continuation of Science of Materials I. An introduction to the fundamental phenomena which control the properties and structure of materials. Includes nucleation, transformations, diffusion, and defect structures and properties. 3 lec. Prereq: 20MTEN331. BoK: NS. Credit Level: U. Credit Hrs: 3.00

20MTEN333**Materials Laboratory I**

A sequence of experiments designed to give the students hands-on experience in determining materials characteristics. 3 lab. BoK: NA. Credit Level: U. Credit Hrs: 2.00

20MTEN334**Materials Laboratory II**

A continuation of the experiments in Materials Lab. I. 3 lab. Prereq: 20MTEN333. BoK: NA. Credit Level: U. Credit Hrs: 2.00

20MTEN341**Materials Thermodynamics I**

An introduction to the fundamental laws of thermodynamics with applications to gas phase equilibria. Will include computer solutions of complex equilibrium problems. 3 lec. BoK: NS., QR. Credit Level: U. Credit Hrs: 3.00

20MTEN342**Materials Thermodynamics II**

Application of the fundamental laws of thermodynamics to phase equilibria in metallic, polymeric and ceramic systems. Solution models and thermodynamics of electrochemistry. 3 lec. Prereq: 20MTEN341. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

20MTEN352**Introduction to Polymer Processing**

This course will explore the fundamentals of different techniques for polymer processing and the manufacturing of polymer based parts. Prereq: 20MTEN203, 20MTEN252. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

20MTEN354**Polymers Laboratory**

This laboratory course in polymers is designed to compliment the corresponding lecture course in Introduction to Polymer Processing. Coreq: 20MTEN252. BoK: NA. Credit Level: U. Credit Hrs: 1.00

20MTEN376**Materials Selection in Design**

This course is based on the book and interactive CD generated by Prof. Mike Ashby of Cambridge University. The course combines case studies and materials science in an innovative method of teaching selection in design. BoK: NA. Credit Level: U. Credit Hrs: 3.00

20MTEN415**Physical Metallurgy II**

This course deals with more advanced concepts of the phenomena which control the structure and properties of metals and alloys. Prereq: 20MTEN201, 20MTEN315. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

Materials Engineering**20MTEN416****Metallurgy Laboratory**

This laboratory course in metallurgy is designed to compliment the corresponding lecture courses in Physical Metallurgy. Coreq: 20MTEN415. BoK: NA. Credit Level: U. Credit Hrs: 2.00

20MTEN421**Ceramic Fundamentals**

This course will focus on the high temperature chemistry that occurs during ceramic processing. Topics included will be crystallization and recrystallization, phase transformations and the interpretation of phase diagrams that describe high temperature reactions. 3 lec. BoK: NS., QR. Credit Level: U. Credit Hrs: 3.00

20MTEN424**X-Ray Diffraction**

Structure of crystals; the principles and applications of x-ray diffraction techniques; lecture and lab. BoK: NS., QR. Credit Level: U. Credit Hrs: 3.00

20MTEN431**Diffusion and Kinetics**

Will consider the fundamental concepts of kinetics and diffusion processes in materials systems. Special emphasis will be placed on the mathematical analyses of these processes. 3 lec. BoK: NS., QR. Credit Level: U. Credit Hrs: 3.00

20MTEN434**Polymer Chemistry**

This course will cover the fundamental chemical reactions and methods used in the preparation of polymeric materials. The key mechanistic and kinetic features of the methods will be treated in detail. Additional material will include degradation, recycling, and processing of polymeric materials. 3 lec. BoK: NS. Credit Level: U. Credit Hrs: 3.00

20MTEN444**Mechanical Behavior of Materials I**

Review of elasticity and strength of materials concepts; plasticity theory; deformation of crystalline and noncrystalline solids; strengthening methods; fracture mechanisms; mechanical test techniques. 3 lec. BoK: NS., QR. Credit Level: U. Credit Hrs: 3.00

20MTEN490**Senior Project Proposal**

Selecting and developing a proposal for an experimental and/or theoretical investigation by the individual or group of students. BoK: NA. Credit Level: U. Credit Hrs: 1.00

20MTEN501**Senior Projects I**

Independent theoretical and experimental investigation by the individual or group of students. BoK: NA. Credit Level: U. Credit Hrs: 1.00

20MTEN502**Senior Projects II**

See 20MTEN501. BoK: NA. Credit Level: U. Credit Hrs: 2.00

20MTEN503**Senior Projects III**

See 20MTEN501. BoK: NA. Credit Level: U. Credit Hrs: 3.00

20MTEN520**Physical Properties Of Solids**

This course provides background relating to the major physical properties of solids including metals, ceramics and polymers, specifically those of emerging materials that are currently in use. It is also intended to prepare students in the areas of sensors, detectors, transducers, membranes, optical devices and microwave components. BoK: NA. Credit Level: U. Credit Hrs: 3.00

20MTEN524**Materials and Energy Balances**

Principles and calculations involved in the determining of materials and energy balances in materials processing. Prereq: 20MTEN431. BoK:

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Materials Engineering**20MTEN524****Materials and Energy Balances**

NS, QR. Credit Level: U. Credit Hrs: 3.00

20MTEN530**Polymer Engineering**

Thermomechanical properties of engineering resins. Manufacture with polymers. Design and specification of polymer based structures. BoK: NS., QR. Credit Level: U. Credit Hrs: 3.00

20MTEN532**Polymer Characterization**

Experiments with aspects of preparation, characterization of polymers-determination of molecular weight, mechanical properties, crystallinity, transitions BoK: NA. Credit Level: U. Credit Hrs: 3.00

20MTEN544**Mechanical Behavior of Materials I**

Review of elasticity and strength of materials concepts; plasticity theory; deformation of crystalline and noncrystalline solids; strengthening methods; fracture mechanisms; mechanical test techniques. Prereq: 20MTEN415. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

20MTEN551**Corrosion of Metals I**

This course describes the various forms of corrosion of metals, techniques to measure corrosion rates, with emphasis on electrochemistry, and methods to prevent corrosion such as the use of cathodic protection, coatings and inhibitors. 3 lec. BoK: NS. Credit Level: U. Credit Hrs: 3.00

20MTEN562**Phase Analysis in Materials Engineering**

The aim of this course, with associated laboratory is to provide materials engineering students a "capstone" experience in the principles and "hands-on" use of the most applicable and commonly used methods of phase analysis of materials in an integrated way. Students will perform a series of experiments, designed to address a variety of problems in metals, polymers and ceramics, that require the combined use of techniques such as x-ray diffraction, optical microscopy, scanning. BoK: NS., QR. Credit Level: U. Credit Hrs: 3.00

20MTEN570**Advances in Energy Technologies**

The course will cover the advances in materials and systems for energy generation in the 21st century. Power generation, distribution and storage from traditional and "green" or sustainable methods will be described. Discussions of approaches that lead mankind away from an intensive use of fossil fuels will be emphasized. Prereq: 15CHEM102, 15PHYS102. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

20MTEN610**Nanomaterials Science/Biomedical Applications I**

To introduce various basic concepts of current nanomaterials and nanotechnology, such as nano- structures, new nanomaterials (nanotubes and nano- wires), synthesis methods, and physical properties. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

20MTEN611**Nanomaterials Science/Biomedical Applications II**

To introduce applications of nanomaterials and nanotechnologies in biomedical areas including nanodevices, biological probes, hyperthermia, virus detection, cancer diagnosis, and drug delivery. The lectures will focus on their unique properties, current developments in nanoscience. BoK: NA. Credit Level: G, U. Credit Hrs: 3.00

20MTEN612**Nanostructured Materials Engineering**

This course will address important topics concerning nanostructured materials that are closely related to their science and engineering. A breakthrough area of research at UC will be transferred into the classroom and in the teaching labs. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

Materials Engineering**20MTEN625****Polymer Processing**

This course will explore the different techniques for polymer processing and manufacture of polymer based parts. Polymer processing will focus on four major areas including plastics technology, rubber technology, surface coatings/coating technology and composite technology. 3 lec. Prereq: 20MTEN434. BoK: NS, QR. Credit Level: U, G. Credit Hrs: 3.00

20MTEN632**Polymer Analysis**

Instrumental and physical methods for polymer testing. Identification, molecular weight characterization, mechanical properties. 3 lec. BoK: NS., QR. Credit Level: U, G. Credit Hrs: 3.00

20MTEN634**Properties of Polymers**

Structure-property relationships in polymeric materials. Rubber elasticity, glass transition, structure of crystalline polymers, thermodynamics of polymer solutions and compatibility. 3 lec. BoK: NS., QR. Credit Level: U, G. Credit Hrs: 3.00

20MTEN635**Polymer Spectroscopy**

This course will focus on the principles and applications of spectroscopic techniques such as Fourier-transform infrared spectroscopy (FTIR), X-ray photoelectron spectroscopy (XPS), and spectroscopic ellipsometry. Applications of these techniques to all classes of materials, including metals, polymers, ceramics, and composites will be discussed; however, specific attention will be directed toward applications involving polymer surfaces, thin films, and interfaces. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

20MTEN636**Polymer Characterization**

Experiments with aspects of preparation, characterization of polymers-determination of molecular weight, mechanical properties, crystallinity, transitions. 2 lec., 3 lab. BoK: NS., QR. Credit Level: U, G. Credit Hrs: 3.00

20MTEN637**Soft Matter**

Soft matter currently dominates hiring in physical sciences at research universities across the world (Science and Engineering Indicators, 2004). This course examines the science of soft matter, which lies at the boundary of physics, chemistry, and biology. Topics include nanophase self-assembly, functionalization, interfacial phenomena and responsive (smart) behavior. Soft-matter application will be taken from two research journals launched in the last year. Applications include micromachines, antireflective surfaces, tissue scaffolding, drug delivery, self-cleaning surfaces and photovoltaics. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

20MTEN638**Introduction to Adhesion Science**

Theories of adhesion. Surface chemistry of solids. Pretreatment of adhered surfaces. Chemistry of adhesives. Surface characterization of adhesives and adherents. Analysis and testing of adhesive joints. Viscoelastic effects in adhesive joints. Durability of adhesive joints. 3 lec. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20MTEN639**Introduction to Biomaterials**

This course will introduce the uses of materials in biomedical applications. The use of ceramic, metal, polymer and composite materials for biocompatible and biomimetic applications in human musculoskeletal, cardiovascular and blood, endocrine and sensory systems will be emphasized. Senior standing or perm. of instr. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20MTEN640**Advanced Ceramic Phase Equilibria**

The reactions that occur during high temperature ceramic processing often involve several oxide components. This course will cover the

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Materials Engineering**20MTEN640****Advanced Ceramic Phase Equilibria**

interpretation of melting and crystallization behavior in multicomponent phase diagrams and how it influences the design of ceramic formulations. Special emphasis will be given to the non-equilibrium reactions commonly encountered in ceramic processing. 3 lec. BoK: NS., QR. Credit Level: U, G. Credit Hrs: 3.00

20MTEN641**Functional Ceramic Devices**

Ceramic devices such as capacitors, sensors, transducers, actuators, memory devices, infrared detectors, PTC thermistors, energy converters and smart devices will be described. Testing methods, related experimental equipment and properties will be discussed. 3 lec. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20MTEN642**Composite materials**

This course is to introduce fundamental concepts for the design, fabrication and mechanical property evaluation of composites. This includes methods of fabricating fibers, matrices and composites, toughening mechanisms in composites, mechanical properties, role of interfaces. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

20MTEN643**Ceramic Composites**

The objective of this course is to introduce fundamental concepts for the design, fabrication and mechanical property evaluation of ceramic matrix composites. This will include methods of fabricating fibers, matrices and ceramic composites, toughening mechanisms in ceramic and ceramic composites, mechanical properties of ceramic composites, role of interfaces on mechanical properties and micromechanics of ceramic composites. 3 lec. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20MTEN644**Ceramic Processing**

Ceramic processing as an applied science describes the ability to refine, fabricate and characterize ceramic materials and systems for useful applications. This course deals with the synthesis, refinement and consolidation of these materials into a green state body and the changes that occur during heat treatment of that body. Focus will be on the development of desired properties, requiring careful control of all processing variables. 3 lec. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20MTEN645**Glass and Glass/Ceramic Materials**

This course will address the structure, chemistry, and properties of glass and glass ceramics. Topics will include the effect of various network formers and modifiers on the behavior of glass, the crystallization processes by which glass-ceramics are made and non-oxide glasses such as fluoride and tellurite glasses. 3 lec. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20MTEN646**Advanced X-Ray Diffraction**

Wide angle and small angle diffraction theory and techniques for study of crystalline and amorphous solids. 3 lec. BoK: NS., QR. Credit Level: U, G. Credit Hrs: 3.00

20MTEN647**Electrical and Optical Properties of Ceramics**

This course will cover fundamental principles governing the electrical, optical and magnetic properties of ceramic materials. Specific topics to be covered are electronic and ionic conductivity, optical properties of ceramics and glasses and magnetic properties of ceramics. Important applications of ceramics based on these properties will also be discussed. 3 lec. BoK: NS., QR. Credit Level: U, G. Credit Hrs: 3.00

20MTEN649**Magnetic, Dielectric and Sensor Properties of Materials**

Characteristics directly reflect the unique composition, structure, defect

Materials Engineering**20MTEN649****Magnetic, Dielectric and Sensor Properties of Materials**

state and microstructure of ceramic materials. Detailed treatment will be given to the effect of these parameters on specialized electrical behavior, e.g. conduction, dielectric, ferroelectric, piezoelectric and magnetic phenomena in these systems. Basic definitions of these terms and the role of defects in controlling these properties will also be presented. 3 lec. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20MTEN654**ADVANCED CERAMIC PROCESSING**

This course will develop granular mechanics concepts for powder consolidation and the sintering of powder compacts. Recent advances in ceramic manufacturing processing of composite materials and computer aided manufacturing will be considered. Computer control and automation developments enable rapid prototyping, flexible manufacturing and fabrication of materials with unique microstructures tailored to specific application. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20MTEN660**Corrosion of Metal**

3 ug. or gr.cr BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20MTEN671**Phase Transformations in Solids**

Basic concepts of homogeneous and heterogeneous nucleation. Diffusion-controlled and interface-controlled growth, i.e., eutectoid transformations, spinodal decomposition, and order-disorder transformations. 3 lec. BoK: NS., QR. Credit Level: U, G. Credit Hrs: 3.00

20MTEN673**Phase Transformation in Polymer Science**

Crystallization, melting, and glass transition with a concentration on kinetics and time effects from theoretical and experimental view points. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

20MTEN680**Advanced Physical Metallurgy**

Properties of metallic alloy systems with emphasis on the role of processing on the development of microstructures and final properties. 3 lec. BoK: NS., QR. Credit Level: U, G. Credit Hrs: 3.00

20MTEN685**Coatings and Thin Film Processing**

This course covers general practices in industrial coating operations spanning surface preparation and coating methods to characterization. Techniques include electroplating, plasma spraying, conversion coating, carburizing, and vapor deposition. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

20MTEN690**Methods of Molecular Modeling**

To teach the fundamental principles of molecular modeling tools that provide a bridge between macroscopic experimental observations and nanoscale phenomena. Monte Carlo and Molecular Dynamics techniques, basic statistical mechanics, and the use of simulations to derive thermodynamic information from various ensembles will be discussed. BoK: NS., QR. Credit Level: U, G. Credit Hrs: 3.00

20MTEN691**Metal Forming Processes**

This course will include a review of basic mechanics and metallurgical principles involved in deformation and mechanical working processes. Applications to specific metal forming methods such as rolling, forging, extrusion, etc., will be discussed in detail. Prereq: 20MTEN444. BoK: NS, QR. Credit Level: U, G. Credit Hrs: 3.00

20MTEN695**FEM Applications in Materials Processing**

General introduction to FEM. Basic formulation for elastic deformation. Small deformation elastic-plastic analysis. Finite strain formulation.

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Materials Engineering**20MTEN695****FEM Applications in Materials Processing**

Practical applications to: mechanical processing such as forging, extrusion and rolling; coatings and thin-films; thermo-mechanical processing such as hot-pressing and composite fabrication and multi-stage processes. BoK: NS., QR. Credit Level: U, G. Credit Hrs: 3.00

20MTEN696**Smart Materials**

This course deals with recent developments in special materials that can adapt to service requirements. Materials' ability to adapt to changes in shape, physical, mechanical, and electrical responses will be discussed. BoK: NS. Credit Level: G, U. Credit Hrs: 3.00

20MTEN697**Mechanical Behavior of Materials II**

Elasticity, plasticity, and fracture and their application to materials behavior. 3 lec. BoK: NS., QR. Credit Level: U, G. Credit Hrs: 3.00

20MTEN698**Failure Analysis and Life Prediction Methods**

This course deals with various mechanics and materials principles to analyze failures of structures. A few case studies to illustrate the R principles of failure analysis will be presented. Additionally damage and life predictions methods for complex loading conditions will be discussed. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

20MTEN701**PHYS PRIN MAT APP**

3 gr.cr. Credit Level: G. Credit Hrs: 3.00

20MTEN711**Advance Materials Technology**

3 gr.cr. Credit Level: G. Credit Hrs: 3.00

20MTEN720**Advanced Ferroelectric Properties**

Physical effects including dielectric, piezoelectric, electrostrictive, pyroelectric, electro-optic and induced phase transition effects will be introduced. The main parameters which describe the electrical, mechanical and thermal properties and coupling coefficients of ferroelectric ceramics will be covered. 3 lec. Credit Level: G. Credit Hrs: 3.00

20MTEN722**Function Ceramic Devices**

FUNCT CER DEVICES Credit Level: G. Credit Hrs: 3.00

20MTEN730**Corrosion of Metals II**

In this course emphasis will be on electrochemical aspects of corrosion. Various DC polarization techniques and electrochemical impedance spectroscopy are introduced. The students will do some laboratory experiments using these techniques. Credit Level: G. Credit Hrs: 3.00

20MTEN732**Advanced Polymer Characterization**

Experiments with aspects of preparation, characterization of polymers-determination of molecular weight, mechanical properties, crystallinity, transitions. Credit Level: G. Credit Hrs: 3.00

20MTEN735**Advanced Thermodynamics**

Review of the concepts of thermodynamics. Model analysis of binary and ternary metallic, ceramic and polymeric systems. Experimental methods and analysis of experimental data. 3 lec. Credit Level: G. Credit Hrs: 3.00

20MTEN736**Statistical Thermodynamics**

The basic concepts of statistical mechanics are discussed to show how the thermodynamic properties of solid and liquid materials can be related to the properties of individual atoms and molecules which constitute such materials. 3 lec. Credit Level: G. Credit Hrs: 3.00

Materials Engineering**20MTEN736****Statistical Thermodynamics**

The basic concepts of statistical mechanics are discussed to show how the thermodynamic properties of solid and liquid materials can be related to the properties of individual atoms and molecules which constitute such materials. 3 lec. Credit Level: G. Credit Hrs: 3.00

20MTEN745**Scanning Electron Microscopy and Microanalysis**

Scanning electron microscopy and microanalysis describes the basic principles of the instrument and electron-specimen interaction phenomena. Also deals with the operation of instruments together with the sample preparations in metals, ceramics and polymers for materials scientists. Special emphasis is placed on microprobe analysis and interpretation of the data. 3 lec. Credit Level: G. Credit Hrs: 3.00

20MTEN746**TEM Operation**

Transmission electron microscopy describes the basic principles of the instrument and diffraction theory. Also deals with the operation of instruments together with basic techniques using structure analysis for materials scientists. Special emphasis is placed on the relationship between morphology and diffraction pattern and their interpretation. 3 lec. Credit Level: G. Credit Hrs: 3.00

20MTEN748**Diffraction Theory**

The course discusses the basic principles governing the diffraction phenomena of x-rays as well as neutrons, lights and electrons from materials. Diffraction from crystalline materials as well as semi-crystalline and non-crystalline materials will be discussed in the context of the reciprocal lattice. Small-angle scattering as well as x-ray and neutron reflectivity will be treated in sufficient detail that the student analyze laboratory data. Credit Level: G. Credit Hrs: 3.00

20MTEN750**Polymerization, Degradation, and Characterization Techniques**

Will cover recent developments in the preparation of polymeric materials and the degradation of polymeric materials (including thermal degradation, oxidation and photo-degradation). Analytical methods covered will include thermogravimetric analysis, differential scanning calorimetry, mass spectroscopy, nuclear magnetic resonance spectroscopy and various chromatographic techniques. 3 lec. Credit Level: G. Credit Hrs: 3.00

20MTEN753**Polymer Physics**

This course equips students with a knowledge of the terminology and mathematics involved in the physical understanding of polymers, especially topics developed since 1970 involving the statics and dynamics of polymeric materials. Credit Level: G. Credit Hrs: 3.00

20MTEN757**Polymer Morphology**

Structures commonly encountered in polymeric materials are discussed with emphasis on industrially important materials and their morphological details. The approach will involve exploring morphology in terms of level of structure. Topics will include crystalline polymers, structural domains in amorphous polymers, liquid crystalline polymers, block copolymers, phase separated morphologies and the morphology of common filler materials. 3 lec. Credit Level: G. Credit Hrs: 3.00

20MTEN771**Vibrational Spectroscopy of Polymers I**

An introduction to infrared and Raman spectroscopy as applied to polymers. Topics discussed include group theory and symmetry, selection rules, crystallinity, orientation, and degradation. 3 lec. Credit Level: G. Credit Hrs: 3.00

20MTEN780**Mechanical Properties of Polymers**

Mechanical properties of polymers gives an overview of the thermo-mechanical, deformation and fracture behavior of solid polymers. It

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Materials Engineering**20MTEN780****Mechanical Properties of Polymers**

Covers special topics such as rubber elasticity, principles of linear viscoelasticity, non-linear viscoelasticity, yield behavior and fracture of polymers. Credit Level: G. Credit Hrs: 3.00

20MTEN801**Solidification Processing of Materials**

Theory and applications of solidification of solids. Control of nucleation and growth to produce a desired microstructure and how this relates to the final properties. 3 lec. Credit Level: G. Credit Hrs: 3.00

20MTEN860**Master of Engineering Capstone Project**

Individual projects under supervision of departmental faculty in partial fulfillment of the Master of Engineering degree. Credit Level: G. Credit Hrs: 1.00-6.00

Materials Science**20MTSC640****Kinetics of Materials Processing**

Systematic treatment of kinetic theory in materials processing. Diffusion in metals and non-metals including short-term and long-term solutions. Reaction kinetic theory. Surface reaction kinetics. Nucleation and grain growth theory. Application of kinetic theories in materials processing such as solidification, oxidation, evaporation and heat treatment. 3 lec. BoK: NS., QR. Credit Level: U, G. Credit Hrs: 3.00

20MTSC641**NANO-Structured Powders: Synthesis Structure and Applications**

This class is intended to give an overview of the syntheses, industrial production, characterization and applications of nano-structured ceramic, organics and hybrid powders. These materials are used for a wide range of applications including use as catalysis chemical sensors etc. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20MTSC642**Rubber Science and Technology**

This course deals with the chemical and physical principles of making and using rubber & associated products. Both science and technology issues will be addressed. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20MTSC693**Metal Matrix Composite Materials**

Structure, properties, applications, fabrication and interfacial reactions of metal matrix composite materials. 3 lec. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20MTSC695**Introduction to Polymer Composites**

This introductory course on polymer composites will include discussions about matrix resins, reinforcing fibers, micro and macro-mechanics, fabrication techniques and testing procedures. 3 lec. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20MTSC764**THERMO-SOLIDS I**

THERMO-SOLIDS I Credit Level: G. Credit Hrs: 3.00

20MTSC794**Introduction to Polymer Science**

Preparation and characterization of polymers; addition and condensation polymerization, stereoregularity, branching, and copolymerization, molecular weight averages and distributions. 3 lec. Credit Level: G. Credit Hrs: 3.00

20MTSC971**Research - Materials Science**

1-18 cr. Credit Level: G. Credit Hrs: 1.00-18.00

20MTSC972**Special Projects - Materials Science**

1-15 cr. Credit Level: G. Credit Hrs: 1.00-15.00

Materials Science**20MTSC972****Special Projects - Materials Science**

1-15 cr. Credit Level: G. Credit Hrs: 1.00-15.00

Nuclear Engineering**20NUC101****MNE Freshman Seminar I**

Interactive presentations and discussion about the physical basis for nuclear engineering and its relationship to mechanical engineering. Recent developments and awareness of current issues in the nuclear engineering profession. Required of all freshman students in the MNE-ACCEND Program. BoK: NA. Credit Level: U. Credit Hrs: 1.00

20NUC102**MNE Freshman Seminar II**

Spring Quarter continuation of 20-NUC-101. Further interactive presentations and discussion about the physical basis for nuclear engineering. Recent developments and awareness of current issues in the nuclear engineering profession. Required of all freshman students in MNE-ACCEND. BoK: NA. Credit Level: U. Credit Hrs: 1.00

20NUC211**Fundamentals of Nuclear & Radiological Engineering**

Survey of major aspects of modern nuclear and radioactivity, elementary theory of special relativity, interactions of radiation with matter, biological effects of radiation, radioisotope applications, neutron reactions and nuclear fission reactor theory. BoK: NA. Credit Level: U. Credit Hrs: 3.00

20NUC245**Fundamentals of Nuclear Reactor Theory**

Introduction to the fundamentals of nuclear fission reactor theory, delayed neutrons, neutron flux, neutron reaction rates and the neutron current density vector. Fundamentals of neutron diffusion theory in non-multiplying and multiplying regions. BoK: NA. Credit Level: U. Credit Hrs: 3.00

20NUC311**Fundamentals of Nuclear Fuel Cycles**

Concepts associated with the mining, conversion, enrichment, and manufacturing of nuclear fuel for power generation. Fundamentals of nuclear fuel management for light water reactors, spent fuel storage, reprocessing, and waste disposal. BoK: NA. Credit Level: U. Credit Hrs: 3.00

20NUC333**Nuclear Concepts for Engineers**

Elementary quantum theory, atomic and nuclear processes associated with radioactive decay and radiation emission, physical and biological consequences of radiation interactions, technical basis for radiation protection standards and regulations. BoK: NA. Credit Level: U. Credit Hrs: 3.00

20NUC400**Independent Projects in Nuclear Engineering**

To be arranged with nuclear engineering faculty member. Offered ea. qtr. BoK: NA. Credit Level: U. Credit Hrs: 1.00-6.00

20NUC523**Radiation Measurement I**

A theoretical and experimental study of nuclear radiation sources, interactions of radiation with matter, general radiation detector principles & properties. The statistics of counting and error propagation. Principles and operation of gas detectors. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20NUC524**Radiation Measurement II**

The second part of the sequence is spent on scintillation detectors, signal processing of scintillation light pulse, photomultipliers, semiconductor detectors, neutron detectors, background radiation, advanced topics on detector response, and gamma ray spectroscopy. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

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Nuclear Engineering**20NUC524****Radiation Measurement II**

The second part of the sequence is spent on scintillation detectors, signal processing of scintillation light pulse, photomultipliers, semiconductor detectors, neutron detectors, background radiation, advanced topics on detector response, and gamma ray spectroscopy. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20NUC550**Radiation Shielding Design**

Dosimetry definitions, terminology. Methods for calculating neutron and photon attenuation in reactor shields. Shield heating, induced activity, shield design. 3 lec. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20NUC601**Nuclear Reactor Theory & Engineering I**

Neutron diffusion and the neutron fission process. Nuclear reactor kinetics, control and materials. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20NUC602**Nuclear Reactor Theory & Engineering II**

Thermal energy transport in nuclear reactors. Fundamental aspects of reactor fuel management, design and safety BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20NUC603**Nuclear Reactor Theory & Engineering III**

Analysis of heat transfer, temperature distributions, and fluid flow in the nuclear reactor environment, including the circumstances that can lead to fuel rod centerline temperatures. Applied elements of neutron slowing down theory, phenomenological formulas for calculating the resonance escape probability and power distribution control will also be presented. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20NUC604**Reactor Engineering I**

Aspects of nuclear reactor design, heat generation and removal, reactor vessel design, shielding and material consideration. 3 lec. Prereq: 20MECH311, 20MECH414. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20NUC605**Reactor Engineering II**

See 20NUC604. 3 lec. Prereq: 20NUC604. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20NUC606**Power Engineering**

Study of power generation systems in nuclear and conventional plants. 3 lec. Prereq: 20MECH311, 20MECH414. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20NUC608**Nuclear Reactor Systems Dynamics**

Dynamic behavior of nuclear reactors. Theory of reactor control systems and reactor system stability analysis. 3 lec. Prereq: 20NUC501. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20NUC610**Light Water Power Reactor Operation**

Practical aspects of light water power reactor operations under normal and abnormal conditions. Includes fieldwork on full scope reactor simulators. 3 lec. Prereq: 20NUC656. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20NUC611**Radiation Interactions I**

Fundamentals of quantum mechanics and nuclear physics required for nuclear and radiological engineering. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

Nuclear Engineering**20NUC612****Radiation Interactions II**

Nuclear interaction theories and evaluations of cross sections for charged and neutral particles. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20NUC613**Health Physics Lab 1**

Application of health physics theory and concepts using radiation detection instrumentation to measure radioactivity in various sample media. 2 lec., 3 lab. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20NUC615**Radiation Interactions**

This course will include reviews of nuclear model, nuclear decay and radioactivity, and will focus on the fundamentals of interactions of neutral and charged particles with atomic electrons and nuclei and evaluation of cross sections. BoK: NS. Credit Level: U, G. Credit Hrs: 4.00

20NUC620**In-Core Reactor Fuel Management**

Fundamental aspects of the nuclear fuel cycle, basics of nuclear reactor fuel elements, in-core fuel management, spent fuel management, and fuel cycle economics. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20NUC621**Health Phys Lab I**

HEALTH PHYS LAB I BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20NUC622**Health Phys Lab II**

HEALTH PHYS LAB II BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20NUC630**The Monte Carlo Method**

This course provides an introduction to the basic concepts, sampling techniques, error estimates, variance reducing devices of the Monte Carlo method and its application in particle transport calculations. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20NUC640**Introduction to Nuclear Engineering & Health Physics**

Introduction to health physics: fundamental particles, radioactivity, biological effects, radiation standards, basic dosimetry calculations. 3 lec. Prereq: 15MATH273. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20NUC641**Radiological Engineering**

Sources. atmospheric transport, groundwater modeling, environmental pathways, internal dosimetry, external dosimetry, and health effects. 3 lec. Prereq: 20NUC640, 15MATH273. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20NUC642**Health Physics Laboratory**

Analysis of radioactivity in environmental samples, principles of Health Physics Lab work, worker protection fundamentals, radiation monitoring of workers and environment. 2 lec., 3 lab. Prereq: 20NUC641. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20NUC643**Introduction to Nuclear Criticality Safety**

Fundamental aspects of criticality safety, analysis methods, experimental methods, accidents, standards and regulations for criticality safety. 3 lec. Prereq: 20NUC502. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20NUC644**Radiation Effects of Materials**

Mechanisms for radiation-induced changes in materials properties. Selection of materials and design techniques to minimize radiation effects. 3 lec. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

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Nuclear Engineering**20NUC645****Monte Carlo Criticality Analysis**

Individual and team project analysis of criticality safety problems using KENO and MCNP Monte Carlo codes. Double contingency analysis of nuclear engineering processes. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20NUC646**Fundamentals of Neutron Activation Analysis**

The objective of the course is to provide the student with a broad-base background on the engineering aspects of neutron activation analysis (NAA). This class will involve both lectures and labs to provide the student with experience in the aspects of NAA. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

20NUC648**Radiological Pathway Analysis**

Source term analysis, activity scenario development, radiological transport mechanisms, dose calculations, risk and health assessment, computer program applications. 3 lec. Prereq: 20NUC641. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20NUC650**Nuclear Reactor Computations**

Computational techniques and approximations associated with multigroup diffusion calculations. Analyses of reactor performance. 3 lec. Prereq: 20NUC502. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20NUC656**Light Water Power Reactor Systems**

Examination of physical basis for common functional requirements of principal systems required for safe and efficient operation of power reactors. Study of how requirements are implemented for principal types of currently operating light water reactors. 3 lec. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20NUC660**Health Physics II**

Internal dosimetry: ICRP models and analysis, MIRD method, radiation protection, external dosimetry, use of computer analysis to calculate dose, trends in health physics research. 3 lec. Prereq: 20NUC640. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20NUC680**Probabilistic Risk Assessment**

Use of stochastic techniques to assess nuclear power station risks. Application of fault and event tree analyses to evaluate accident sequences and probability. Probabilities coupled with evaluated consequences to establish risk. 3 lec. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20NUC681**Boiling Heat Transfer and Two-Phase Flow**

The fundamental processes governing boiling heat transfer and two-phase flow will be examined and predictive procedures presented. 3 lec. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20NUC683**Environmental Radioactivity**

Study of origin, concentration, and distribution of naturally occurring and technically enhanced radioactive material in the environment and biological effects of those materials. 3 lec. Prereq: 20NUC640. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20NUC683H**Environmental Radioactivity**

Study of origin, concentration, and distribution of naturally occurring and technically enhanced radioactive material in the environment and biological effects of those materials. 3 lec. Prereq: 20NUC640. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20NUC690**Nuclear Engineering Seminar**

Selected topics in Nuclear Engineering. BoK: NA. Credit Level: U, G.

Nuclear Engineering**20NUC690****Nuclear Engineering Seminar**

Credit Hrs: 1.00

20NUC691**NRE Research Seminar**

Seminars on research topics and/or current events delivered by NRE students to aid in developing skills necessary for effective written and verbal technical communication. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00

20NUC711**Nuclear Physics for Engineers**

NUCLEAR PHYS-ENGR BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20NUC712**Nuclear Physics for Engineers**

See 20NUC711. 3 lec. Prereq: 20NUC711. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20NUC700**Research In Health Physics**

Research projects in health physics and radiological engineering. Credit Level: G. Credit Hrs: 1.00-15.00

20NUC800**Master's Thesis Research**

For graduate students working on a Masters Thesis. Credit hours to be arranged. Credit Level: G. Credit Hrs: 1.00-15.00

20NUC811**Neutron Transport I**

Methods for solving neutron transport equation; spherical harmonics, discrete ordinates, Monte Carlo and perturbation variational techniques. 3 lec. Prereq: 20NUC503. Credit Level: G. Credit Hrs: 3.00

20NUC812**Neutron Transport II**

See 20NUC811. 3 lec. Prereq: 20NUC811. Credit Level: G. Credit Hrs: 3.00

20NUC821**Special Topics in Nuclear Engineering**

Specialized and developing topics such as fast reactors, nuclear safety analyses, isotope power sources, and pulsed neutron techniques. Credit Level: G. Credit Hrs: 2.00-6.00

20NUC822**Special Topics in Nuclear Engineering**

See 20NUC821. 3 lec. Credit Level: G. Credit Hrs: 3.00

20NUC823**Special Topics in Nuclear Engineering**

See 20NUC821. 3 lec. Credit Level: G. Credit Hrs: 3.00

20NUC870**MS Research**

Individual research topics under supervision of departmental faculty, not for the MS thesis. Credit Level: G. Credit Hrs: 1.00-15.00

20NUC871**Topics in Nuclear Engineering**

Special problems on a conference basis. Hours and credit to be arranged. Credit Level: G. Credit Hrs: 1.00-15.00

20NUC872**Projects, Master of Science**

Special projects directed by individual faculty. Credit Level: G. Credit Hrs: 1.00-6.00

20NUC901**Readings**

Directed study of problems selected for independent study. Offered each Quarter. Credit Level: G. Credit Hrs: 1.00-15.00

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Nuclear Engineering**20NUC902****Readings In Health Physics**

Supervised readings course in Health Physics for the purpose of identifying research topics. Credit Level: G. Credit Hrs: 1.00-6.00

20NUC903**Research in Nuclear Engineering**

Research projects related to the field of nuclear science and nuclear engineering. Credit Level: G. Credit Hrs: 1.00-15.00

20NUC950**Nuclear Engineering PhD Fundamentals Exam**

Nuclear Engineering PhD Fundamentals candidacy exam, part 1. Credit Level: G. Credit Hrs: 0.00

20NUC971**Dissertation**

Research for the PhD dissertation. Cr. to be arranged. Credit Level: G. Credit Hrs: 1.00-15.00

Professional Development**20PD502****Professional Dev II**

Professional Dev II BoK: NA. Credit Level: U. Credit Hrs: 1.00

COLLEGE OF LAW

COURSE DESCRIPTIONS

(24) College of Law

2008 - 2009

College of Law 1

Business, Commercial and Labor

24BCL501

Contracts

This course covers basic concepts and doctrines in contract law, including the legal grounds for enforcement of promises, the role of consent in contract formation, contract remedies, and interpretation. Attention is given to both the common law of contracts and to Article 2 of the Uniform Commercial Code, which governs transactions in goods. Credit Level: P. Credit Hrs: 4.00-6.00

24BCL502

Torts

Torts examines the three basic theories of civil (non-criminal) liability for injuries to persons and property: intentional torts, negligence and strict liability. These subjects are considered together with causation problems, defenses to liability (such as consent, self-defense, comparative negligence and assumption of risk), and affirmative duties. Credit Level: P. Credit Hrs: 4.00-6.00

24BCL701

Agency-Partnership Law

The legal principles governing agency and partnership are explored. Special attention is given to the creation and termination of agency and partnership relationships as well as to the rights, duties and powers of principal, agent and third party in the agency setting. Employment terms, trade secrets and vicarious liability are discussed. Credit Level: P. Credit Hrs: 2.00-4.50

24BCL704

Bankruptcy

This survey of bankruptcy law covers basic concepts such as the automatic stay, adequate protection and property of the estate and also examines personal and business bankruptcy options under Chapters 7, 11, and 13. The course gives limited treatment to non-bankruptcy law of debt collection. It is recommended, but not required, that Commercial Law I be taken first. Prereq: 24BCL706. Credit Level: P. Credit Hrs: 3.00-4.50

24BCL705

Bankruptcy: Business Reorganization

This seminar deals with business rehabilitation utilizing the Bankruptcy Code. The major portion of the course is devoted to Chapter 11. Significant attention is also paid to Chapter 13. It is recommended, but not required, that Bankruptcy be taken first. Credit Level: P. Credit Hrs: 2.00-3.00

24BCL706

Commercial Law I

This course covers basic commercial law doctrine, focusing on two central devices in commercial credit, negotiability and the security interest. The law of these devices is found principally in Articles 3 and 9 of the Uniform Commercial Code. The treatment of security interests in bankruptcy is also covered. The topics to be addressed include the use of notes to separate payment obligations from their underlying transactions, creation and perfection of security interests in personal property, and priorities and remedies upon default in these secured transactions. Credit Level: P. Credit Hrs: 3.00-4.50

24BCL707

Commercial Law II

This course covers the law of domestic and international sales as well as the payment devices used in these transactions. After dealing with basic sales law doctrine, the course will focus on bringing together the law governing complex sales transactions. Doctrines covered include warranties, remedies, performance and risk of loss under Article 2 of the Uniform Commercial Code. This domestic law will be compared to the United Nations Convention on Contracts for the International Sale of Goods. The course also covers the law of payment devices used in sales transactions, including checks, documentary drafts and letters of

Business, Commercial and Labor

24BCL707

Commercial Law II

credit. The payments law covered will include parts of Articles 3,4,5 and 7 of the Uniform Commercial Code. Credit Level: P. Credit Hrs: 2.00-4.50

24BCL708

Corporations

This course involves the study of the law affecting the American modern private business corporation. It deals with problems connected with organizing and funding a new corporation, the control and management of the corporation, the duties of directors, officers and controlling shareholders and liability for breach of these duties, and with transactions in shares of the corporation by directors and other "insiders," including the impact of U.S. securities laws upon such transactions. Credit Level: P. Credit Hrs: 3.00-4.50

24BCL709

Corporate Finance

This course examines the legal rules governing financial transactions within a corporation and between the corporation and its shareholders. The course will also cover financing the corporation and organic changes, including mergers, consolidation, recapitalizations and charter amendments. Credit Level: P. Credit Hrs: 3.00-4.50

24BCL711

Corporate Transactions Negotiating and Drafting

This course provides exposure to corporate transactions and hands-on drafting experience with an active corporate practitioner. By the end of the course, students will have a basic understanding of the structure of a corporate agreement, and the purposes of its basic components, including recitals, representations and warranties, covenants, conditions precedent, closing logistics and post-closing obligations. Students work on a fictitious corporate acquisition from letter of intent through stock purchase agreement to closing documents, with emphasis on drafting, but including some discussion of structuring the transaction, negotiating strategies and practice negotiations. Course work includes weekly in-class drafting exercises, frequent written take-home drafting exercises and some required reading. Credit Level: P. Credit Hrs: 2.00-3.00

24BCL712

Antitrust

This course covers sections 1 and 2 of the Sherman Act, sections 2 (Robinson-Patman), 3 and 7 of the Clayton Act, and section 5 of the Federal Trade Commission Act, and their extensive judicial gloss. The legal concepts include ventures which substantially lessen competition or tend toward monopoly in any product in any section of the country. Credit Level: P. Credit Hrs: 2.00-4.50

24BCL713

Food, Drug and Safety Laws

Examines regulation of products used by consuming public. Covers Food and Drug Administration, Consumer Product Safety Commission and certain Environmental Protection Agency regulatory programs. Credit Level: P. Credit Hrs: 3.00-4.50

24BCL715

Labor Law

Areas covered in this survey course include organization, representation, and collective bargaining; strikes, picketing, boycotts, and other economic pressures; economic pressures by employers such as lockouts and subcontracting; and union security. Credit Level: P. Credit Hrs: 3.00-4.50

24BCL717

Mediation in the Labor Public Sector

This course emphasizes the mediation process and the significant differences between the private and public sector in labor relations.

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Business, Commercial and Labor**24BCL717****Mediation in the Labor Public Sector**

Students are separated into two groups of associates in law firms that represent either a county or union local that have reached impasse in bargaining. The students present the case to a professional mediator. Credit Level: P. Credit Hrs: 2.00-3.00

24BCL718**Product Liability**

Examines injury compensation systems that allocate the costs of harm to product makers, insurers, and consumers. Prepares the student for active participation in litigation, risk avoidance counseling, and the legislative and regulatory systems that impact on safe products. Credit Level: P. Credit Hrs: 2.00-4.50

24BCL719**Securities Enforcement and Litigation**

This course will explore the various ways in which the federal securities laws are enforced to protect investors and the public interest in a fair and open market. In the course of study, we will consider: 1) the investigation and enforcement powers of the SEC and self-regulatory organizations such as the NYSE and the NASD; 2) the criminal law provisions under which violations of the securities laws may be prosecuted; 3) litigation instituted against individual and corporate defendants by private plaintiffs such as shareholders and other investors; and 4) the development of compliance programs and codes of conduct designed to deter and prevent transgressions. Credit Level: P. Credit Hrs: 2.00-4.50

24BCL721**Securities Regulation**

This overview of federal securities laws stresses the registration requirements of the Securities Act of 1933 and the regulatory provisions of the Securities Exchange Act of 1934. State securities laws are considered in general and the Ohio Securities Act is reviewed in particular. Credit Level: P. Credit Hrs: 3.00-4.50

24BCL722**Worker's Social Legislation**

Provides an introduction to the theory and practice of the state and federal laws which are intended to protect workers' health and livelihood from the many risks of the work place. Specific topics include: workers' compensation, unemployment compensation, the Occupational Safety and Health Act, and the Social Security Act. Credit Level: P. Credit Hrs: 2.00-4.50

24BCL724**Employment Law**

This course will focus on the legal relationship between employer and the individual employee. It will cover the common law aspects of that relationship, particularly contacts and torts. It will then examine statutory modifications of the common law. Statutes that may be examined include ERISA, the Civil Rights Acts, whistle-blower protection legislation, unemployment and workers compensation acts, Fair Labor Standards Act and OSHA. The course is recommended for students contemplating a labor law, corporate or general practice. Credit Level: P. Credit Hrs: 3.00

24BCL725**Advanced Torts**

This course will cover topics not covered in the basic course. In today's legal world, tort law provides some of the most cutting edge issues. This course will supplement and enhance the curriculum offerings in corporate law and in constitutional law, with an emphasis on the constitutional torts such as defamation and privacy. Credit Level: P. Credit Hrs: 2.00-4.50

24BCL726**Government Contracts: Formation & Administration**

This course will provide an overview of the basic considerations in contracting with the federal government, including the sovereign's power to contract, the applicable statutes, regulations and executive orders, and sovereign immunity. Credit Level: P. Credit Hrs: 2.00-3.00

Business, Commercial and Labor**24BCL726****Government Contracts: Formation & Administration**

This course will provide an overview of the basic considerations in contracting with the federal government, including the sovereign's power to contract, the applicable statutes, regulations and executive orders, and sovereign immunity. Credit Level: P. Credit Hrs: 2.00-3.00

24BCL727**International Labor & Employment Law**

This seminar surveys various aspects of international labor and employment law and examines human rights, labor rights and labor standards in the context of an international economy heavily regulated by bilateral and multilateral trade agreements. The seminar materials will include background readings on labor, human rights, and international trade law and policy, as well as detailed discussion of issues where the labor, human rights and trade policy intersect. Credit Level: P. Credit Hrs: 2.00-3.00

24BCL728**Employee Benefits Law I**

This course will focus on the law controlling qualified retirement plans, beginning with the passage of the Employee Retirement Income Security Act of 1974 (ERISA) and ending with the changes under the Economic Growth and Tax Relief Reconciliation Act of 2001 (EGTRRA) (or more recent subsequent legislation, as applicable). Emphasis will be placed on the policy issues underpinning the development of employee benefit law, as well as the practical application of the law. The course will emphasize representations of the plan sponsor. Credit Level: P. Credit Hrs: 2.00-3.00

24BCL731**Payment Systems**

This is a core course in the area of commercial law. It builds upon basic contract and property principles to introduce you to important commercial concepts such as negotiability and good-faith purchase and how those concepts operate in a wide variety of settings. It covers legal rules that govern several familiar payment systems and devices: negotiable instruments (eg. notes and checks), wire transfers, credit cards, and electronic fund transfers. With respect to each payment system we will try to get a basic understanding of the operations and economics of the system as well as the governing law. Study of the law of modern payment systems provides an ideal opportunity for examining a phenomenon typical of modern law: widely scattered and rapidly changing sources of law. The applicable law is found, *inter alia*, in Art. 3,4,4A of UCC; various federal statutes and Federal Reserve System regulations; private agreements, such as those governing clearing houses and back credit card arrangements; and, of course, basic common law concepts. Credit Level: P. Credit Hrs: 2.00-4.00

24BCL732**Sales**

This course covers issues relating to contracts for the sale of goods under Article 2 of the UCC. The issues involve formation of such contracts, terms, mechanics of performance, warranties, and the remedies for various defaults. This class's approach to Art.2 of the UCC is based on two premises: first that the ability to read and understand statutes is a vital skill for lawyers; and, second, that you (the students) can best learn Art.2 (and most statutes) by reading, deconstructing, and reconstructing the statutory language for yourselves. Indeed you will learn the UCC better this way than by reading exclusively cases, since cases only tell you what judges think the Code means. Credit Level: P. Credit Hrs: 2.00-4.00

24BCL733**International Trade**

The regulation of international trade is an increasingly important aspect of law, business, domestic politics, and international affairs. This course will examine international trade law, focusing on the World Trade Organization and the international agreements that are part of the WTO system, especially the General Agreement on Tariffs and Trade (GATT). We will begin with basic international trade theory and policy and proceed to examine procedural and substantive aspects of the

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Business, Commercial and Labor**24BCL733****International Trade**

WTO system, including dispute settlement procedures, trade barriers, principles of nondiscrimination, dumping, subsidies, and trade restrictions relating to health, development, the environment, intellectual property, and relief from import competition. We will also address regional trade agreements such as North American Free Trade Agreement (NAFTA). Credit Level: P. Credit Hrs: 2.00-3.00

24BCL734**Corporations II**

This course will build on the core concepts learned in Corporations I and addresses advanced issues in modern corporation law. It will cover federal regulation of shareholder voting; federal and state regulation of mergers and other acquisitions; directors' fiduciary duties in connection with takeover attempts; and corporate governance issues presented by shareholder activities and the corporate social responsibility movement. Since the mid-80's, corporate law has expanded dramatically, with increased emphasis on state law fiduciary duties of directors and officers, particularly in the area of proxy regulation and corporate governance. These are important and interesting issues that students planning to enter corporate practice should understand. In addition, all students who want to understand better the complexities of the modern public corporation will benefit from this course. Credit Level: P. Credit Hrs: 2.00-4.00

24BCL735**Accounting for Lawyers**

A study of basic concepts and limitations of financial accounting, this course covers the financial reporting process and the developments of financial statements for external users, such as investors and creditors. Techniques for analyzing financial statements and auditing them are introduced. The course is designed for students with no background in accounting; students with such a background must not register. Credit Level: P. Credit Hrs: 2.00-4.00

24BCL736**Venture Capital & Private Equity**

This course studies the venture capital (VC) and private equity (PE) industries. The emergence of institutional VC and PE firms in and after the 1990s will be highlighted in the first four weeks of the semester, as will the legal and economic structures of such firms. Fundraising by such firms and investor perspectives will also be examined during this period. How VC/PE firms operate will be the primary focus of the next six weeks of the semester, with emphasis on how VC/PC firms screen, select, value and monitor investee companies, investment transaction structures and "down" round financing issues. Investment "exits" and related matters, such as legal issues faced by VC/PE-controlled public companies, will be the subject of the remainder of the semester. Credit Level: P. Credit Hrs: 1.00-5.00

Government**24GOVT501****Constitutional Law I**

This is an introductory course covering judicial review, federalism, separation of powers, and equal protection. Credit Level: P. Credit Hrs: 3.00-4.50

24GOVT502**Civil Procedure I**

This course covers various aspects of civil litigation from the filing of a complaint up to the discovery process. Jurisdiction over the person, venue and federal subject matter jurisdiction are explored. Coverage is also given to the decision in *Erie RR v. Tompkins* and its progeny, concerning the applicability of state law in federal courts. The remainder of the course is devoted to, service of process, joinder of parties, counterclaims and amendments. Credit Level: P. Credit Hrs: 3.00-4.50

24GOVT503**Civil Procedure II**

This course continues issues first explored in Civil Procedure I. It opens

Government**24GOVT503****Civil Procedure II**

with joinder of parties in multi-party actions, interpleader, class actions and intervention. Modern discovery procedures, the trial process, and post-trial motions are considered. The course ends with procedures governing appeals, alternative dispute resolution, and the effect of res judicata and collateral estoppel by judgment in prior litigation. Credit Level: P. Credit Hrs: 3.00-4.50

24GOVT701**Administrative Law**

Government agencies increasingly regulate the marketplace, health and safety, and provide basic services. This course explores the constitutional powers and limitations on agency action, judicial review of agencies, and the procedures with which agencies must comply in regulating or providing benefits. Credit Level: P. Credit Hrs: 3.00-4.50

24GOVT702**Federal Jurisdiction**

This course addresses issues of federalism and separation of powers raised by statutes and doctrines which establish and limit federal court jurisdiction. Among the matters addressed are standing, legislative courts, congressional power over federal jurisdiction, the Eleventh Amendment, and the abstention doctrines. Also considered are the role state courts play in the formation and application of doctrines. Credit Level: P. Credit Hrs: 3.00-4.50

24GOVT706**Legislation and Statutory Interpretation**

This seminar will explore some of the various procedural, constitutional, and jurisprudential issues raised by the role that the state and federal legislatures play in our constitutional order. In particular, the reading assignments will focus on legal questions relating to the manner in which representatives are elected; procedures governing legislative deliberation; representatives' powers, privileges, and duties; and the interpretation of statutes by courts and administrative agencies. Chief among the many aims of the course is to introduce the student to the legal problems posed by legislative government, in the hopes that as a practicing lawyer s/he will be a more sophisticated, effective, and responsible participant in the legislative process and/or in the subsequent implementation of statutes. Students will write a paper in lieu of taking an exam. A preliminary topic must be chosen by the 4th week; a final topic must be chosen by the 6th week; a complete draft must be submitted by the 13th week; and a final draft must be submitted by the last day of exams. Credit Level: P. Credit Hrs: 2.00-4.00

International**24INTL701****Advanced Problems in Environmental Law: International Environmental Law**

This course will cover the nature and causes of global and transnational environmental problems, international law and institutions for environmental protection, the problems of subsistence economies, and relationships between the developed worlds. Credit Level: P. Credit Hrs: 3.00-4.50

24INTL704**International Business Transactions**

This course is an introduction to the economic or business side of the international legal system through which public and private transactions occur. It includes the legal environment for creating new wealth, producing and distributing in world markets, disruptions in markets by political decisions or events, settling disputes both private and between private parties and governments, reducing tariffs and barriers to trade, minimizing conflicts and extraterritorial enforcement of antitrust, export control and handling problems in the conduct of international litigation. Credit Level: P. Credit Hrs: 3.00-4.50

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International**24INTL705****International Intellectual Property**

This course examines the various mechanisms by which intellectual property rights are granted and enforced worldwide--mechanisms that have become increasingly important in our "world without borders." Topics include treaties covering copyrights, trademarks, designs, and patents; the World Intellectual Property Organization; the regulatory systems of the European Union and other regional bodies; and the ways in which intellectual property owners may navigate these systems and, ultimately, protect their intellectual property across the globe. Students also will learn about special problems relating to international intellectual property law, such as developing countries and developing technologies. Prereq.: Introduction to Intellectual Property Law or Copyright Law and Trademark and Unfair Competition. Credit Level: P. Credit Hrs: 2.00-4.50

24INTL706**International Law**

This course is the core upper-level course for those students interested in international or comparative law. The course examines the process of public and private decision-making in the transnational context as well as the role of international lawyers in public and private relations and institutions in the post-Cold War era. The course uses structured problems to explore the tools of law as they are employed as an instrument of international policy in a range of human activities across national boundaries. Specific issues examined in this course include problems of jurisdiction, sources of international law in treaties and custom, processes for resolving disputes between private parties or between private parties and governments, available remedies and the enforcement of international legal rights in general. International law is a foundation for further studies in international law and policy, such as Int'l Bus. Trans, Int'l Human Rights, Int'l Environ. Law and Int'l Legal Theory. Credit Level: P. Credit Hrs: 3.00-4.50

24INTL708**Int'l Commercial Arbitration**

International arbitration has increased as a function of world trade. This course gives students a basic foundation in the mechanics of international commercial arbitration and an understanding of the tactical choices that frequently confront international arbitration practitioners. In particular, the course will examine systematically, through statutes, rules, national and international cases, and treatises, the establishment, operation, and implementation of awards of international commercial arbitration tribunals; the role of national courts in compelling, facilitating, and enforcing or vacating arbitral awards; and policies currently under consideration for changing arbitral practices. This course will be valuable for students planning to practice in the area of business transactions, as arbitration is frequently the dispute settlement method of choice for firms dealing with their counterparts in other countries. Even students whose practice will seemingly focus exclusively on domestic transactions will need to know the basics of international commercial arbitration, as advising, planning, and structuring are increasing tasks. Credit Level: P. Credit Hrs: 2.00-4.00

24INTL712**International Human Rights (Current Problems in): Women's Human Rights**

Students in this course will undertake a study in the status of women's human and legal rights globally. The course will focus on the current status of the rights of women in a variety of countries and cultures, and as they relate to issues of health, personal and political rights. The students will examine the role of domestic laws, international human rights instruments and traditional cultural values as they define the rights of women. Credit Level: P. Credit Hrs: 3.00-4.50

24INTL713**International Environmental Law**

This course will cover the nature and causes of global and intranational environmental problems, international law and institutions for environmental protection, the problems of subsistence economics, and relationships between the developed worlds. Prereq.: Environmental

International**24INTL713****International Environmental Law**

Law I or perm of instr. Credit Level: P. Credit Hrs: 2.00-3.00

24INTL714**International Criminal Law**

This course will introduce students to the principles of jurisdiction for international criminal law. Those principles will then be applied to the Foreign Corrupt Practices Act, antitrust and securities regulation, export controls, economic espionage, computer crimes, narcotics and money laundering, piracy and terrorism, and torture. Next, the course considers procedural aspects of trying those cases in United States courts, such as the extraterritorial application of the US Constitution, immunities from jurisdiction, mutual assistance in criminal cases, extradition and its alternatives, prisoner transfers, and recognition of foreign criminal judgements. Finally, the course examines the prosecution of international tribunals: human rights and criminal procedure, the Nuremberg and Tokyo precedents, the UN Yugoslav and Rwanda tribunals, the International Criminal Court, and the substantive law of international crimes, such as aggression, genocide, crimes against humanity, and war crimes. Credit Level: P. Credit Hrs: 2.00-4.50

Individual Rights and Liberties**24IRTS501****Constitutional Law II**

This required course covers individual rights and freedoms, including the incorporation of the Bill of Rights as against the States, freedom of speech and religion, due process, economic and personal liberties and state action. Credit Level: P. Credit Hrs: 2.00-4.50

24IRTS701**Civil Liberties**

This course examines legislation, such as section 1983 of the Civil Rights Act, designed to protect constitutional rights. Defenses and immunities are explored, as are available remedies. Legislation dealing with housing, discrimination in contractual relations, employment discrimination and voting rights is also examined. Credit Level: P. Credit Hrs: 3.00-4.50

24IRTS702**Criminal Procedure I**

This introductory course deals with the constitutional aspects of various police practices, focusing primarily on the Fourth, Fifth, and Sixth Amendments to the US Constitution. The course specifically addresses the right to counsel; arrest, search and seizure; wiretapping, electronic eavesdropping and the use of secret agents; police interrogation and confession; and the scope and administration of the exclusionary rules. Recommended prerequisite for Criminal Procedure II. Credit Level: P. Credit Hrs: 3.00-4.50

24IRTS703**Criminal Procedure II**

This continuation of Criminal Procedure I deals with the defense of entrapment; eyewitness identifications and lineups; pre-trial release; the decision whether to prosecute; the preliminary hearing; grand jury investigations and review; the location and scope of the prosecution; the right to a speedy trial, notice, discovery and disclosure; coerced and negotiated guilty pleas; trial by jury; the criminal trial itself; double jeopardy; and appeal. It is recommended that Criminal Procedure I be taken first. Credit Level: P. Credit Hrs: 3.00-4.50

24IRTS704**Education Law**

Examines legal issues encountered at all levels of education. Course will focus on such problems as academic freedom, curriculum control, censorship, mandatory education, church - state issues, faculty and student rights, tort and civil rights liability of educational institutions, and educational opportunity, including rights of the handicapped. Credit Level: P. Credit Hrs: 3.00-4.50

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Individual Rights and Liberties**24IRTS705****Employment Discrimination**

This course surveys the major legislative and executive provisions prohibiting various types of discrimination in employment. Discrimination is considered in the context of hiring, promotion, discharge, benefits, conditions, and the like. Consideration is also given to the procedures applicable to employment discrimination cases. Credit Level: P. Credit Hrs: 3.00-4.50

24IRTS706**Family Law**

Primary focus is on the relationship between law and the family in the context of the creation, maintenance and restructuring of domestic relations. Special attention is given to the nature of marriage, separation, divorce, dissolution, support, alimony and child custody. Credit Level: P. Credit Hrs: 2.00-4.50

24IRTS707**First Amendment Seminar**

Directed principally at exploring freedom of speech and freedom of religion, this seminar enables each student to consider both the historical development of and contemporary cases and issues related to the First Amendment. Credit Level: P. Credit Hrs: 3.00-4.50

24IRTS708**Gender and the Constitution**

This course explores gender equality from the perspective of U.S. constitutional law. Decisions, principally by the U.S. Supreme Court, in the areas of reproductive freedom, single sex education, affirmative action, and pornography will be discussed. The course will also explore the perspectives of feminist legal theorists as well as the work of constitutional scholars with respect to methods of constitutional interpretation. Credit Level: P. Credit Hrs: 2.00-4.50

24IRTS709**Human Rights Seminar**

This course examines the Universal Declaration of Human Rights and the International Covenants on Civil and Political Rights, and Economic, Social, and Cultural Rights along with several treaties which have been promulgated relating to such matters as genocide, refugees, racial discrimination, and the political rights of women. Using a problem-oriented approach, students engage in a number of lawyering roles such as presenting testimony before the Senate Foreign Relations Committee, oral argument before the US Supreme Court, and drafting a petition for submittal to the United Nations Subcommittee on Prevention of Discrimination and Protection of Minorities. Credit Level: P. Credit Hrs: 3.00-4.50

24IRTS711**Immigration and Nationality Law Review: Editor**

Immigration & Nationality Law Review: Editor (EIC) shall be responsible for all final editorial decisions made relative to the editing of the contents of the review; the progress of the final edited version of the Review; and initiating organic changes to the Constitution. The powers of the EIC by default are those not assigned to other editors for the purposes of ongoing organization. The powers of the EIC may not be delegated to any committees without permission of the Faculty Advisor. The EIC may be one or more third year students, selected by the outgoing board and by the faculty advisor at the end of the year prior to their service as EIC. Credit Level: P. Credit Hrs: 3.00

24IRTS712**Immigration and Nationality Law Review: Articles Editor**

See Above Information on Editor. Credit Level: P. Credit Hrs: 2.00

24IRTS713**Immigration Law and Policy**

Students are introduced to national and international legislation and decisions concerning the entrance and residence in the United States by aliens, including the social, economic and political aspects thereof. Credit Level: P. Credit Hrs: 2.00-4.50

Individual Rights and Liberties**24IRTS714****Juvenile Law**

Surveys the various components of the juvenile justice system in the context of jurisdiction, rights and obligation of the parties, and dispositions. Areas of concentration include delinquency, unruliness, dependency, neglect, child abuse and contributing to the delinquency of minors. Some attention is also given to torts, contracts, and student rights. Credit Level: P. Credit Hrs: 3.00-4.50

24IRTS715**Freedom Center Journal of Law and History: Editor**

This journal will support the intellectual efforts of the Underground Railroad and Freedom Center. The purpose of the journal is to generate an historical analysis of the response of oppressed peoples to unjust laws; the primary, but not exclusive, focus is African-American history. The Journal will also offer an additional opportunity for black law students to gain writing and editing skills. The academic work for student credit is similar to the requirements established by the LAW REVIEW and HUMAN RIGHTS QUARTERLY. Credit Level: P. Credit Hrs: 3.00

24IRTS716**Freedom Center Journal of Law and History: Articles Editor**

This journal will support the intellectual efforts of the Underground Railroad and Freedom Center. The purpose of the journal is to generate an historical analysis of the response of oppressed peoples to unjust laws; the primary, but not exclusive, focus is African-American history. The Journal will also offer an additional opportunity for black law students to gain writing and editing skills. The academic work for student credit is similar to the requirements established by the LAW REVIEW and HUMAN RIGHTS QUARTERLY. Credit Level: P. Credit Hrs: 2.00

24IRTS717**Poverty and the Law**

The seminar seeks to develop an appreciation of the law's role as a significant factor in the social and economic conditions of society. Some of the questions addressed in the seminar are: What are the problems of the poor? What is, and has been, the role of law with respect to these problems? What is, and should be, the role of the legislature in alleviating inequities? An understanding of the substantive law in the area is only the first step in the resolution of these issues. Credit Level: P. Credit Hrs: 3.00-4.50

24IRTS718**Problems in Litigating Civil Rights**

The first area to be examined will be what rights are due individuals and their constitutional and statutory sources with emphasis on the linkage between those directed at historical racial issues and contemporary problems of age and disabilities. Next, there will be an examination of the forum that is most appropriate for vindicating the rights. Finally, the seminar will examine the issues which relate to the nature and extent of remedies to be fashioned for violations of civil rights. Credit Level: P. Credit Hrs: 3.00-4.50

24IRTS720**Gender and the Constitution**

This course explores gender equality from the perspective of US constitutional law. Decisions, principally by the US Supreme Court, in the areas of reproductive freedom, single sex education, affirmative action, and pornography will be discussed. The course will also explore the perspectives of feminist legal theorists as well as the work of constitutional scholars with respect to methods of constitutional interpretation. Credit Level: P. Credit Hrs: 2.00-3.00

24IRTS721**Sexual Orientation and the Law**

This course will explore the relationship between sexual orientation and the law, encompassing recent decisions by the US Supreme Court, the Hawaii trial court's decision in the gay marriage case, and legislative responses, such as the Defense of Marriage Act. Constitutional privacy, the right to public access, and first amendment issues as they relate to

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Individual Rights and Liberties

24IRTS721

Sexual Orientation and the Law

sexual identity/ orientation will be examined. Credit Level: P. Credit Hrs: 2.00-3.00

24IRTS722

White Collar Crime

Examines the special problems of proving a 'guilty mind' and a 'guilty act' in the context of business and government activities. Specific emphasis will be placed on corporate criminal liability, personal liability in organizational settings, conspiracy, mail fraud, false statements, perjury and false declarations, obstruction of justice, bribery of public officials, and RICO: The Racketeer Influenced and Corrupt Organizations Act. Credit Level: P. Credit Hrs: 3.00-4.50

24IRTS729

Criminality and Civil Disability

This course will address the implications of criminality, and the civil disabilities that members of our society endure following the discharge of their sentences. Such disabilities range from the prohibition to bear arms to the inability to exercise the right to vote. The course will offer contemporary American and Jewish perspectives on the subject of criminality, guilt, and innocence, as well as various issues relating to the re-integration of offenders into society and the notion of civil disability. Credit Level: P. Credit Hrs: 2.00-3.00

24IRTS730

Death Penalty: Race, Poverty and Disadvantage

This course will examine the process of imposing the death penalty, with emphasis on legal representation for people who cannot afford lawyers, and racial discrimination. It will address the influence of race, poverty, politics, and the passions of the moment in decision making in capital cases; prosecutorial discretion; judicial independence; the participation of people of color as jurors, judges, prosecutors, and attorneys in the criminal justice system; mental health issues; and the appropriateness of the death penalty for people who are mentally retarded, mentally ill, or children. Credit Level: P. Credit Hrs: 2.00-3.00

24IRTS731

Criminal Procedure Capstone

Criminal Procedure Capstone is designed to prepare students for the transition to criminal defense practice. The course will focus on pre- and post- guilty plea process. Students will participate in a simulation of the federal sentencing process, including writing a sentencing memorandum and arguing a client's position at a sentencing hearing before a guest judge. Credit Level: P. Credit Hrs: 3.00-4.00

24IRTS732

Wrongful Convictions: Causes & Remedies

The course will address the primary causes of wrongful convictions, and the legal remedies. Each week a different topic will be presented. Examples of weekly topics include eyewitness misidentification, false confessions, junk science, bad defense lawyering, prosecutorial misconduct, "Brady" violations, etc. Students will read articles about this topic, and in class we might watch a video or have a guest speaker in addition to engaging in discussion about the topic. Credit Level: P. Credit Hrs: 1.00-4.00

24IRTS736

Capital Punishment

This course will examine the process of imposing the death penalty, with emphasis on legal representation for people who cannot afford lawyers, and racial discrimination. It will address the influence of race, poverty, politics, and the passions of the moment in decision making in capital cases; prosecutorial discretion; judicial independence; the participation of people of color as jurors, judges, prosecutors, and attorneys in the criminal justice system; mental health issues; and the appropriateness of the death penalty for people who are mentally retarded, mentally ill, or children. Credit Level: P. Credit Hrs: 2.00-3.00

Individual Rights and Liberties

24IRTS737

Domestic Relations/Domestic Violence Clinic

In this one semester clinical program students advocate for victims of domestic violence in civil protective order hearings and address family law issues that arise in the protective order context, including child support and custody. As needed, students may assist attorneys at the Legal Aid Society of Greater Cincinnati by researching family law issues (as well as assisting in related matters) that arise during the course of Legal Aid's representation of clients in divorce and other family related issues. Credit Level: P. Credit Hrs: 2.00-5.00

24IRTS738

Domestic Relations/Domestic Violence: Field Placement

Field Placement requirement of this course. Students must enroll concurrently. Credit Level: P. Credit Hrs: 2.00-5.00

24IRTS739

Domestic Violence Civil Protection Order Clinic (2L)

Concurrent enrollment in Domestic Violence Civil Protection 2L Clinic Field Experience course required. Enrollment by permission of instructor. Credit Level: P. Credit Hrs: 1.00-4.00

24IRTS740

Domestic Violence Civil Protection Order Clinic Field Experience (2L)

Concurrent enrollment in Domestic Violence Civil Protection 2L Clinic course required. Enrollment by permission of instructor. Credit Level: P. Credit Hrs: 1.00-4.00

24IRTS774

Habeas Corpus and Post Conviction Remedies

This class will focus upon practical and procedural issues involving criminal post-conviction remedies at both the state and federal levels. The class will examine not only the constitutional aspects of collaterally attacking a conviction, but will also address the mechanisms of litigating post-conviction appeals. While not excluding other types of cases, the class will concentrate on the death penalty, using as a model a current case. Criminal Procedure I is a prerequisite for this course. Credit Level: P. Credit Hrs: 2.00-4.00

24IRTS775

Innocence Project: Wrongful Convictions

In this course, students examine the various types of evidence that might lead to the wrongful convictions of innocent persons. They will also consider the roles police, prosecutors and defense lawyers play in the criminal justice system, with an emphasis on discovering how errors can lead to the conviction of the innocent. Credit Level: P. Credit Hrs: 2.00-4.00

24IRTS776

Innocence Project: Field Placement

Students will be assigned to one or more cases of Ohio inmates convicted of serious crimes who have steadfastly maintained their innocence. Working with volunteer attorneys, students will consider and select investigative avenues which show promise for establishing that the case was wrongly decided. The goal of the project is to obtain the release of innocent inmates. Credit Level: P. Credit Hrs: 4.00-6.00

24IRTS777

Critical Race Theory

In the mid-1980's, a new scholarly movement developed in legal academe, Critical Race Theory. Early advocates of CRT-challenged both the substance and style of conventional legal scholarship. Substantively, race crts rejected formal equality, individual rights, and color-blind approaches to solving legal problems. Stylistically, critical race scholars often employed new methodologies for legal scholarship, including storytelling and post-modern and post-structural analysis. The goal of this two-credit seminar is to examine the genesis of CRT and, in light of its theoretical commitments, to explore CRTS possibilities and limitations. Such an exploration will require us to think carefully not only about race and racism, but also about sexism, classism, and heterosexism. Thus, some of the readings will be drawn from Critical Legal Studies, Feminist Jurisprudence, and Queer or Sex

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Individual Rights and Liberties**24IRTS777****Critical Race Theory**

Criticism. Hopefully, the seminar will provide an opportunity for us to challenge--critically and collegially--our most basic assumptions about race, law, and racial justice. Credit Level: P. Credit Hrs: 2.00-4.00

24IRTS982**Human Rights Quarterly: Article Editor**

Human Rights Quarterly: Article Editor. Participating students engage in the selection and editing of articles for publication in the UC Human Rights Quarterly. Students also write notes and comments for publication in the Quarterly. Open only to student contributors to the Quarterly. Credit Level: P. Credit Hrs: 2.00-3.00

24IRTS988**Human Rights Quarterly: Editor**

Participating students engage in the selection and editing of articles for publication in the UC Human Rights Quarterly. Students also write notes and comments for publication in the Quarterly. Open only to student contributors to the Quarterly. Credit Level: P. Credit Hrs: 3.00-4.50

Law**24LAW801****One Semester Only FT**

ONE SEMSTER ONLY FT Credit Level: P. Credit Hrs: 12.00-18.00

24LAW802**LAW CONTINUING PT**

LAW CONTINUING PT Credit Level: P. Credit Hrs: 1.00-11.00

24LAW803**Consortium**

Course created for students taking a course at another institution through the Consortium. Credit Level: P. Credit Hrs: 1.00-12.00

24LAW901**Exchange Student-Law**

Special Permission needed to enroll in this course Perm of College. Credit Level: P. Credit Hrs: 12.00

24LAW902**Exchange Student-Law (special fee)**

Special Permission needed to enroll in this course Perm of College. Credit Level: P. Credit Hrs: 12.00

Litigation and Skills**24LITG501****Lawyering II**

This course covers basic techniques of oral and written advocacy, which the student practices by representing one of the parties in a hypothetical case at the trial court level. Credit Level: P. Credit Hrs: 2.00-3.00

24LITG502**Lawyering I**

This course covers skills basic to competent legal research and writing. The students write objective memoranda of law based on hypothetical problems composed by the instructors. The course emphasizes issue recognition, case and statutory interpretation, legal analysis, and the use of plain English. Credit Level: P. Credit Hrs: 2.00-3.00

24LITG701**Justice and the Legal System**

This course examines various tensions between law and justice in the legal system. By focusing on the role of justice in advocacy, the course will endeavor to equip students to be more effective advocates. By focusing on the function of justice in judicial decision-making, the course will endeavor to provide greater insight into the influence of justice in judicial decisions. The grade in this course will be based on participation in class discussion, as well as upon a paper. Credit Level: P. Credit Hrs: 3.00-4.50

Litigation and Skills**24LITG701****Justice and the Legal System**

This course examines various tensions between law and justice in the legal system. By focusing on the role of justice in advocacy, the course will endeavor to equip students to be more effective advocates. By focusing on the function of justice in judicial decision-making, the course will endeavor to provide greater insight into the influence of justice in judicial decisions. The grade in this course will be based on participation in class discussion, as well as upon a paper. Credit Level: P. Credit Hrs: 3.00-4.50

24LITG703**Appellate Advocacy**

Working with the record of a case tried in a Hamilton County court, students prepare appellate briefs and present oral arguments. The grade is based not on competition but on the final product of each student. Recommended that Appellate Practice and Procedure be taken first. Credit Level: P. Credit Hrs: 3.00-4.50

24LITG704**Appellate Practice and Procedure**

This covers the role and function of appellate courts: preserving issues for appeal; appealability; appeal strategy; the record on appeal; briefs and oral argument; operating procedures of appellate courts; motion practice; extraordinary writs; and related matters. Each student prepares a critique of an actual case pending in an appellate court. Credit Level: P. Credit Hrs: 3.00-4.50

24LITG705**Complex Litigation**

Introduces the students to the increasing trend toward complex litigation (cases with complex issues, multi-party cases, and multi-forum cases). Explores the use of procedural devices; the functioning of the judicial panel on multi-district litigation; and case management by lawyers, judges, and special masters. Credit Level: P. Credit Hrs: 3.00

24LITG706**Conflict of Laws**

This course deals with the legal ramifications of disputes involving contacts with two or more states or foreign jurisdictions. The choice of law evolution is explored, from both a doctrinal and policy perspective. Included are issues of constitutional limitations on choice of law, the extraterritorial application of American law, and special problems raised by the enforcement of foreign judgments. Credit Level: P. Credit Hrs: 2.00-4.50

24LITG707**Evidence**

This course focuses on the proof of facts in a trial court. Common law doctrines are contrasted with evidence rules created by statute as exemplified by the Federal Rules of Evidence. Credit Level: P. Credit Hrs: 3.00-4.50

24LITG709**Introduction to Client Interviewing & Counseling**

This course will include basic theory and techniques of interviewing and counseling, including the underlying psychological issues and prescriptions for effective communication and assisting clients in understanding alternatives and making decisions. Classroom demonstration, simulation exercises and discussion will be used to place students in the position of lawyer and client. Credit Level: P. Credit Hrs: 1.00-4.00

24LITG710**Introduction to Alternative Dispute Resolution**

This course will introduce the theory and practice of alternative dispute resolution (ADR). Students will examine the basic concept of resolving disputes without an adjudication by a court, and will cover various methods of ADR, including mediation, arbitration, neutral evaluation, minitrial and summary jury trial. Their characteristics will be compared and contrasted with traditional court-based litigation. Credit Level: P. Credit Hrs: 2.00-4.50

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LT: Literature. NS: Natural Sciences. QR: Quantitative Reasoning. SE: Social & Ethical Issues. SS: Social Sciences.

Litigation and Skills**24LITG711****Judicial Extern Class**

The class component of the Judicial Extern Program covers writing for judges and proper conduct for judges and judicial clerks. Students must enroll concurrently in the Judicial Extern Field Placement. Student may not, however, enroll concurrently in the other extern programs. Credit Level: P. Credit Hrs: 1.00-2.00

24LITG712**Law Review**

Varied credit. Participating students engage in the selection and editing of articles for publication in the University of Cincinnati Law Review. Students also write notes and comments for publication in the Review. Open only to student contributors to the Review. Credit Level: P. Credit Hrs: 0.00-7.50

24LITG713**Law Review**

Varied credit. See 24LITG712. Credit Level: P. Credit Hrs: 0.00-7.50

24LITG714**Law Review**

Varied credit. See 24LITG712. Credit Level: P. Credit Hrs: 3.00-4.50

24LITG715**Legal Drafting**

Using research provided, students draft a client letter, complaint, set of interrogatories, contract and will. For each project, 2-3 students will interview the client to obtain the necessary facts. The final work product, due at the end of the semester, is a portfolio containing corrected drafts of each assignment, plus the applicable law, rules, and sample documents used to create all five assignments. Open to 3L's only. Credit Level: P. Credit Hrs: 3.00-4.50

24LITG716**Legal Extern Class**

The classroom component of the Legal Extern Program emphasizes practical lawyering skills, law office economics, and ethical issues. Students must enroll concurrently in the Legal Extern Field Placement. Students may not enroll concurrently in the other extern programs. Credit Level: P. Credit Hrs: 1.00

24LITG717**Moot Court**

This is a skills course involving advanced argumentation and persuasion via the preparation of a partisan appellate brief. Oral arguments are required. Offered to second-year students in the first semester. Credit Level: P. Credit Hrs: 1.00-1.50

24LITG718**Moot Court Douglass Competition**

Participating students represent the College of Law at the Frederick Douglass Moot Court Competition. Credit Level: P. Credit Hrs: 2.00-6.00

24LITG719**Moot Court Editor**

Selected third-year students critique, annotate, and discuss oral arguments and written briefs submitted in Moot Court-Fourth Semester. Credit Level: P. Credit Hrs: 2.00-3.00

24LITG720**Moot Court - Fourth Semester**

Participating students represent the College of Law in various intercollegiate moot court competitions. Credit Level: P. Credit Hrs: 2.00-4.50

24LITG721**Moot Court Jessup International**

Participating students represent the College of Law at the Jessup International Moot Court Competition. Credit Level: P. Credit Hrs: 2.00

Litigation and Skills**24LITG722****Moot Court - Senior Semester**

Participating students represent the College of Law in intercollegiate National Moot Court Competition. Credit Level: P. Credit Hrs: 2.00-3.00

24LITG723**Negotiations**

The objective of this course is to develop the skills which lawyers use in the process of negotiating on behalf of their clients. Theory and technique are discussed, and demonstrations of negotiations are presented on video tape. This is a skills course and students are graded on their performance in negotiation simulations. Credit Level: P. Credit Hrs: 3.00-4.50

24LITG726**Remedies**

This course covers all forms of ultimate relief in civil actions: damages, restitution, equitable relief. The first portion deals with the damages remedy in tort, contract, real property, and personal property litigation. The second unit analyzes the alternative remedy of restitution, in law and equity. The course concludes with those cases governing specific relief in equity, specific performance in contract and injunctions in tort. Credit Level: P. Credit Hrs: 3.00-4.50

24LITG728**Political Trials**

Political Trials A political trial is one where the prosecution or the defense is politically motivated or where the results will have a substantial political impact. The course will provide an understanding of what a political trial is and where they take place and will explore the connection of law, politics, and the social and historical trends in the country. Among the trials to be considered will be the Scopes Monkey Trial, the Rosenberg Spy Case, and the Chicago 7 Conspiracy Trial. Credit Level: P. Credit Hrs: 2.00-3.00

24LITG729**Street Law Extern Field Placement**

Each law student teaches the Street Law curriculum at an area high school during one fifty-minute section three days per week. The curriculum includes introduction to law, family law, consumer law, housing law, torts, and criminal law with topics in contracts and procedure. There is also a classroom component in which the law students learn both the interactive teaching techniques and the substantive law they will be teaching. (Students may not enroll concurrently in the Judicial, Legal, or Street Law Extern Programs.) Credit Level: P. Credit Hrs: 1.00-4.50

24LITG730**PILG Public Interest Legal Grants**

Participating students work on projects for organizations that provide legal services to underserved populations. Reports at the end of the summer are made in accordance with requirements established by the supervising faculty member. Open only to students receiving summer work study and/or public interest fellowship funds. Credit Level: P. Credit Hrs: 1.00

24LITG731**Intensive Practical Lawyering Skills**

This is an intensive course designed to give students insight into the day-to-day work of practicing lawyers and to provide students the opportunity, through simulation, to learn and practice fundamental lawyering skills. Students will develop professional skills as they interview and counsel the client, draft pleadings, depose the opposing party in preparation for litigation, assist the client's decision-making, and negotiate on behalf of the client. These skills are developed through a framework designed to present the student with a theoretical context for better understanding the importance of practical lawyering skills. Credit Level: P. Credit Hrs: 2.00-3.00

24LITG733**Trial Practice**

The development of litigative techniques is stressed through student participation in simulated trial situations. Each aspect of the trial is

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Litigation and Skills**24LITG733****Trial Practice**

studied and emphasis is placed upon strategy and fact management. Open to third year students only. Credit Level: P. Credit Hrs: 3.00-4.50

24LITG734**Judicial Extern Field Placement**

Judicial Extern Field Placement. The work performed in the judicial extern field placement is essentially the same as that performed by a law clerk to a judge. It usually involves preparing memoranda on cases, reviewing case files, drafting opinions and orders, attending court and conferences. The precise tasks performed, however, depend upon the type of court and style of the judge. Students must enroll concurrently in the Judicial Extern Class. Coreq: 24LITG711. Credit Level: P. Credit Hrs: 2.00

24LITG735**Legal Extern Field Placement**

Legal externs work under the supervision of attorneys in local, state and federal public agencies, as well as for legal aid and other non-profit organizations in the private sector. Students must enroll concurrently in the Legal Extern Class. Coreq: 24LITG716. Credit Level: P. Credit Hrs: 2.00

24LITG738**Criminal Defense Investigation & Discovery**

This course will explore the essentials of using investigation and discovery to defend an indigent, criminal defendant. The course will consist of several components: Theoretical, practice-oriented (with scholarly discussion interspersed throughout), and then finally a review of the major themes of the class which will require each student to discuss the book which he or she was assigned at the beginning of the semester. Recommended but not required: Criminal Procedure I, Evidence. Credit Level: P. Credit Hrs: 2.00-3.00

24LITG740**Forensic Sciences**

This course is designed to familiarize students with contemporary scientific evidence and expert witnesses. Acknowledged experts will present their specialties with an eye toward what the lawyer should know about the scientific area and how to utilize an expert witness. Topics include: pathology, eye-witness identification, fingerprints, tool mark and firearms identification, arson investigation and accident reconstruction. Credit Level: P. Credit Hrs: 2.00-3.00

24LITG741**Mediation Advocacy Workshop**

The course will include an introduction to mediation processes, contrasting mediation with litigation and direct negotiation. Classroom exercises and discussion will prepare students for interviewing and counseling the client, representing the client's broader range of interests in mediation and achieving optimal outcomes. Students will be called upon to practice mediation advocacy skills. Credit Level: P. Credit Hrs: 1.00-2.00

24LITG742**Moot Court Rendigs Problem Writer**

Selected student will write the Rendigs National Products Liability Moot Court Competition problem. Credit Level: P. Credit Hrs: 3.00

24LITG743**Sixth Circuit Appellate Practice**

The class introduces students to the basics of appellate advocacy, with particular emphasis on practice before the US Court of Appeals for the Sixth Circuit. Students will have the opportunity to work for actual clients on cases pending before the Sixth Circuit, including preparing the briefs and possible presentation of oral argument. Attention will also be devoted to studying the judges on the Sixth Circuit, with expected guest lectures from Sixth Circuit judges. Credit Level: P. Credit Hrs: 2.00-3.00

Litigation and Skills**24LITG744****Practice Session**

In this class, students and faculty will meet and discuss readings relevant to a particular problem of legal policy. Enrollment will be limited to 15. Students will take turns leading discussion and presenting short analytical papers or a longer term paper. Credit Level: P. Credit Hrs: 1.00-3.00

24LITG745**Mediation**

This course will equip students with the skills and strategic analysis necessary to successfully fulfill the role of neutral third-party mediator. Students will undertake a series of mediation role plays, and will receive intensive feedback on technique, skill, and intervention choices. Video-taping will be used extensively, enabling students to calibrate perception and reality of their own mediation style and effectiveness. The class will also view and critique the techniques used by other experienced mediators (on video-tape and through in-class demonstration), permitting us to see a range of mediator presence, styles and choices. Recommended but not required is the Negotiations class. Students who have not taken Negotiations will be asked to complete limited additional reading, and to attend a one hour "Negotiation Highlights" lecture to be scheduled in the fall. Credit Level: P. Credit Hrs: 1.00-4.00

24LITG746**Federal Criminal Practice**

In this class, students and faculty (Assistant US Attorneys) will meet and discuss federal criminal practice from investigation through appeal. Students will have the opportunity to analyze and discuss real cases and then see them actually presented in the court room. Students will also have the opportunity to participate in responding to motions, etc. Credit Level: P. Credit Hrs: 2.00-4.50

24LITG747**Law Review Contributing Editor**

By permission only. Credit Level: P. Credit Hrs: 1.00-3.00

24LITG748**Rules of Legal Writing**

Students enrolled in this course will study and practice ways to improve their writing. Using a set of specific rules for enhancing writing, students will analyze and correct examples of poorly written material and compose and correct original material. With emphasis on plain English this course is designed to improve students' understanding of the grammar and composition skills necessary for effective legal writing. Credit Level: P. Credit Hrs: 1.00-3.00

24LITG749**Advanced Legal Research: Methods and Applications**

This course builds upon the basic research skills and techniques learned in the required "Lawyering I" course. Its problem-solving approach gives students practical research experience that will enhance their understanding of the legal literature and legal research principles. Students will learn to assess and respond strategically to legal research problems using available resources in print and digital formats. Scope is limited to researching United States federal and state law. Credit Level: P. Credit Hrs: 2.00-3.00

24LITG750**Advanced Decision Analysis Workshop**

This course expands on the decision analysis for case evaluation and client-counseling in simple cases. It moves to sophisticated applications in complex cases, where attorneys use decision analysis to think through litigation management and strategy, and to communicate with opposing counsel and (particularly corporate) clients. In-house counsel increasingly require the use of decision analysis for settlement and litigation decisions. Students completing this course could claim a reasonable degree of proficiency in decision analysis for legal practice. Credit Level: P. Credit Hrs: 1.00-3.00

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Litigation and Skills**24LITG751****Indigent Defense Clinic**

Enrollment in class and field placement is required. Students will be interviewed for selection for this two-semester clinic. 3L's who qualify for Student Intern License only. Please submit resume and a letter of interest. Credit Level: P. Credit Hrs: 1.00-3.00

24LITG752**Indigent Defense Clinic FP**

Enrollment in class and field placement is required. See information on Indigent Defense Clinic. Credit Level: P. Credit Hrs: 1.00-3.00

24LITG753**Street Law**

Complete separate Street Law Extern Preference form and include transcript and resume. Students may not enroll concurrently in Extern Programs. You must also register for the Field Placement portion of this class. Credit Level: P. Credit Hrs: 1.00-3.00

24LITG754**Trial Practice: Criminal Defense**

This class will concentrate on developing trial skills with a focus on representing the criminally accused. Beginning with developing the Theory of Defense, this class will expose students to all aspects of criminal defense trial work, including pre-trial motions, making and responding to objections, and each component of a criminal trial. The goal of the class is to provide an introduction to the zealous and effective representation of the criminal defendant. Credit Level: P. Credit Hrs: 3.00-4.00

24LITG756**Trial Practice: Mock Trial Competition**

Class participation is limited to students who have instructor permission. Student try-outs (via resume, interview) are required. Credit Level: P. Credit Hrs: 2.00-4.00

24LITG757**6th Circuit Field Experience**

Field Experience portion; concurrent enrollment in class required. Credit Level: P. Credit Hrs: 1.00-3.00

24LITG758**Environmental Law Practice 1**

Advanced study in Environmental Law I. Enrollment in Environmental Law I required. Credit Level: P. Credit Hrs: 1.00-3.00

24LITG759**Intro to Intellectual Property Practice 1**

Enrollment in Introduction to Intellectual Property required. Credit Level: P. Credit Hrs: 1.00-3.00

24LITG760**Trial Practice Competition**

Students will conduct extensive preparation for and will enter a regional trial competition in the Spring, under the supervision of attorney-coaches. Students who "win" at the regional level will participate in the national trial competition for no additional credit. Credit Level: P. Credit Hrs: 1.00-5.00

24LITG761**International Business Transactions Practice 1**

Must enroll concurrently in International Business Transactions. Credit Level: P. Credit Hrs: 1.00-5.00

24LITG875**Advanced Remedies: Remedying Race Discrimination**

Advanced Remedies: Remedying Race Discrimination This seminar provides an opportunity to explore and critique the judiciary's attempts to redress race discrimination. Because the course is a remedies course, it will take as a given legal liability. Students will be expected both to understand and question current judicial approaches to redressing race discrimination. Credit Level: P. Credit Hrs: 2.00-3.00

Litigation and Skills**24LITG876****Research Seminar**

Students in this advanced research seminar will explore in depth topics as determined by the faculty member. Each student will write and present an independent research paper on a topic approved in advance. Credit Level: P. Credit Hrs: 2.00-4.50

24LITG901**Individual Research Project**

Under the direct supervision of a member of the faculty, upper level students engage in original research and prepare for credit a substantial work product. The research project is selected jointly by the student and the faculty member. Customarily the final product will be a research paper, and, in that case, the paper must be 10-15 pages long for one credit, 20-30 pages long for two credits, and 35-50 pages long for three credits. Credit Level: P. Credit Hrs: 1.00

24LITG902**Individual Research Project**

Under the direct supervision of a member of the faculty, upper level students engage in original research and prepare for credit a substantial work product. The research project is selected jointly by the student and the faculty member. Customarily the final product will be a research paper, and, in that case, the paper must be 10-15 pages long for one credit, 20-30 pages long for two credits, and 35-50 pages long for three credits. Credit Level: P. Credit Hrs: 2.00

24LITG903**Individual Research Project**

Under the direct supervision of a member of the faculty, upper level students engage in original research and prepare for credit a substantial work product. The research project is selected jointly by the student and the faculty member. Customarily the final product will be a research paper, and, in that case, the paper must be 10-15 pages long for one credit, 20-30 pages long for two credits, and 35-50 pages long for three credits. Credit Level: P. Credit Hrs: 3.00

Property**24PROP501****Property**

This course surveys the varieties of property interests and relations available in Anglo-American law, with an emphasis on tracing their development and evolution in modern American society. Discussion usually covers adverse possession, the traditional estates in land, future interests, landlord-tenant law, concurrent ownership, land use regulation and eminent domain, nuisance, and easements and other servitudes. Credit Level: P. Credit Hrs: 4.00-6.00

24PROP701**Advanced Problems in Environmental Law**

The course will focus on problem solving and application of environmental statutes and regulations to situations practitioners face daily. Risk assessments and environmental auditing will be examined as tools to aid the practicing lawyer. Negotiation strategies for real estate transactions and remedial programs will also be explored. This will be a hands-on, "you make the tough call" course. Prereq: 24PROP705. Credit Level: P. Credit Hrs: 2.00-4.50

24PROP702**Computer Law**

This course tackles the legal issues surrounding computer technology, including the protectability of computer software; the misappropriation of computer technology; software licenses, support, distribution, and development agreements; ownership of online "content;" privacy in a computer age; and liability for tortious acts and computer crimes. Credit Level: P. Credit Hrs: 2.00-4.50

24PROP703**Copyright Law**

This course examines copyright law in detail, with particular focus on the Copyright Law of 1976, its history, and its ability to respond to recent developments in technology. Copyright Law offers protection for

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Property**24PROP703****Copyright Law**

works considered to be within the "fine arts" (music, paintings, photographs, sculpture) and "literature" (books, stories plays) as well as more mundane works, including commercial, i.e., applied art and even data directories. Copyright also covers architectural works reliant on technology, such as computer software. Students will gain an understanding of how that law might apply to emerging technologies. Credit Level: P. Credit Hrs: 3.00-4.50

24PROP705**Environmental Law I**

Surveys the government's role in environmental protection, including the scope and nature of governmental control. Topics covered include pollution control, toxic substances and hazardous waste, as well as conservation measures. Credit Level: P. Credit Hrs: 2.00-4.50

24PROP706**Environmental Law II**

This course will focus on issues related to climate change. If there is time, the professor may address additional environmental topics. Students may write a paper on a wide range of environmental topics, not just those related to climate change. Credit Level: P. Credit Hrs: 2.00-4.50

24PROP707**Environmental Litigation**

This course focuses on how the United States Environmental Protection Agency (EPA) and state environmental agencies use administrative actions, civil penalties, criminal penalties, and injunctions to enforce environmental statutes. In addition, students will learn when citizen suits can substitute for agency litigation. Environmental Law I or II recommended but not required. Credit Level: P. Credit Hrs: 2.00-4.50

24PROP708**Estate Planning**

This course explores tax, non-tax and Medicaid aspects of planning for the transfer of family wealth. The primary tax planning focus of the course is developed through study of the use of various techniques, including transfers between spouses, lifetime gifts (particularly gifts to children), charitable gifts, intra-family transfers and life insurance. Non-tax issues considered include the role, duties and ethical obligations of the attorney, as well as the use of durable powers of attorney and living wills. Medicaid issues considered include the desirability of planning to ensure that the Government, rather than the family, is financially responsible for a parent or grandparent's nursing home care, as well as specific planning techniques to achieve this result. Prereq.: Federal Income Tax. Recommend Wills and Gift and Estate Tax be taken first. May take concurrently. Credit Level: P. Credit Hrs: 2.00-4.50

24PROP709**Estate & Gift Tax**

This course examines the three federal taxes imposed on the transfer of family wealth: the Gift Tax, Estate Tax and Generation-Skipping Tax. Credit Level: P. Credit Hrs: 2.00-4.00

24PROP710**Government Regulation Directed Reading**

Government Regulation examines the instances of and reasons for government intervention in private markets. The first part of the course studies the legal, policy, and political dimensions of government intervention. The second and third parts will explore economic and social regulation, respectively. The course will examine such regulatory areas as energy, workplace safety, food and drug, telecommunications, education, and welfare. Credit Level: P. Credit Hrs: 3.00-4.50

24PROP711**Introduction to Intellectual Property**

This course provides an introduction to the field of Intellectual Property Law and thus serves as a step into this broad and increasingly important field. The course will also serve an overview function for students who have taken or will take other intellectual property courses by exploring the ways in which the various federal intellectual property

Property**24PROP711****Introduction to Intellectual Property**

disciplines fit with each other and with related forms of state law protection. In particular, the course will cover copyright law, moral rights, trademark law (including closely related trade dress and product simulation matters), unfair competition, idea protection, false advertising, trade secret law and rights of publicity. Coverage of patent law is brief. The course will conclude with a discussion of the simultaneous application of differing but overlapping forms of intellectual protection to several specific types of creative product. Credit Level: P. Credit Hrs: 3.00

24PROP713**Patent Law**

This course examines the federal statutory system of protection for useful, novel, and non-obvious inventions and those developments that enrich the technological arts. Topics also include the protection of trade secrets, as well as the impact of those trade secrets upon the employment relationship. Students with a science background will find it very helpful to them in this course and this field. Credit Level: P. Credit Hrs: 2.00-4.00

24PROP714**Patent Office Practice and Procedure**

This course provides students with "hands-on" experience in conducting patent practice before the United States Patent and Trademark Office. Topics include patent searches; patentability opinions; patent drafting; filing; responding to correspondence from the Patent Examiner; and conducting litigation before the Board of Patent Appeals and Interferences and the Federal Circuit Court of Appeals. Credit Level: P. Credit Hrs: 3.00-4.50

24PROP715**Real Estate Transactions**

Covers the legal problems involved in the transfer of both commercial and residential real property: the real estate broker, the contract of sale and an extensive consideration of the various methods of title assurance. The course concludes with an introduction to mortgages. Credit Level: P. Credit Hrs: 2.00-3.00

24PROP716**Trademark and Unfair Competition**

This course examines the law governing trademarks and other means of identifying products and services in the minds of consumers. Instruction primarily will focus on the federal statute governing trademarks and unfair competition, the Lanham Trademark Act of 1946, but students will learn about state laws and state law doctrines in the field as well. Topics include the protectability of marks, including words, symbols, and "trade dress;" federal registration of marks; causes of action for infringement, dilution, and "cybersquatting;" and defenses, including parodies protected by the First Amendment. Credit Level: P. Credit Hrs: 2.00-3.00

24PROP717**Wills, Trusts and Future Interests**

This course covers the variety of ways in which people can arrange for the passage of their property during life or at their death. We study common law and statutory methods of dealing with property left by a decedent who did or did not leave a will; the procedures and problems of creating, construing, contesting, or revoking wills and trusts; the concerns for providing for surviving spouses and other family members; the kinds of trusts available; fiduciary duties in the administration of estates and trusts; some of the methods for avoiding the probate of estates; and the details for the law of future interests (including the Rule against Perpetuities). Related tax questions may be discussed, but they are not emphasized. Credit Level: P. Credit Hrs: 4.00-6.00

24PROP718**Advertising Law Seminar**

This seminar will explore copyright, trademark, and other intellectual property issues surrounding the creative world of advertising. Topics will include logos; products and their packaging; the use of images in

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Property

24PROP718

Advertising Law Seminar

advertising; celebrity sponsorship; false advertising, comparative advertising and the "pain reliever wars;" contests and lotteries; metatags, banner advertisements, and other creatures of the Internet; and government regulation of "unfair" trade practices. To fulfill the seminar requirement, students will be asked to research and write an opinion letter to a mock client analyzing and evaluating its mock advertising portfolio--much like attorneys are asked to do in practice. A limited number of students may be given permission to substitute a research paper relating to the topics discussed, but only upon consulting with and receiving permission from the instructor. Prereq.: Introduction to Intellectual Property or Trademark and Unfair Competition. Credit Level: P. Credit Hrs: 2.00-3.00

24PROP720

Patent Litigation & Strategy

This is a perspective course focusing on the unique procedural, substantive and strategic aspects of patent litigation. Specific topics include claim interpretation, the interrelationship between written descriptions and claims, proof of infringement, special issues in attorney/client privilege and waiver, discovery of confidential information, validity issues, patent remedies and defenses. Students will have the opportunity to prepare written pleadings and to orally argue claim interpretations and infringement positions in simulated hearings and/or motions. Performance on these projects will form the basis for student assessment. The course will benefit students seeking to acquire broad-based litigation skills as well as those with specific interest in patent law. Credit Level: P. Credit Hrs: 2.00-4.00

24PROP721

Law and the Internet

The internet is a new medium but does it require new law? This course will explore the intersection of the new internet technology with traditional legal principles of due process, jurisdiction and choice of law; trademarks, copyrights and other intellectual property; content regulation; service provider liability; privacy and First Amendment; torts and crimes, contracting; governance and other issues. Students not only will examine the extent to which legal issues presented by the internet fit within a conventional legal framework but they will be encouraged to re-examine the relevance of traditional legal approaches to 21st century life and legal practice. Credit Level: P. Credit Hrs: 2.00-4.00

24PROP723

Licensing Intellectual Property

Transactions to convey intellectual property (IP), which includes patents, trademarks, trade secrets, and copyrights, are a crucial part of business and technology law. Details of simple licenses will be taught in general as well as with reference to issues unique to the specific type of IP involved. Aspects of more complex licenses, due diligence to assess licensing opportunities, IP audits, and resolution of licensing disputes will also be described. Introduction to Intellectual Property required; Business Associations I recommended. Credit Level: P. Credit Hrs: 3.00-4.00

24PROP880

Trademark Practice and Procedure

This course provides students with "hands on" experience in conducting trademark practice before the United States Patent and Trademark Office. Topics include trademark searches; trademark "clearance" opinions; filing; responding to correspondence from the Trademark Examining Attorney; and conducting litigation before the Trademark Trial and Appeal Board and the Federal Circuit Court of Appeals. Credit Level: P. Credit Hrs: 2.00-4.00

Perspective

24PRSP501

Introduction to Law

Prepares students with common grounding in basic legal concepts, historical context, the language of law and legal reasoning. Introduces

Perspective

24PRSP501

Introduction to Law

the student to the idea of law as a particular institution of government. Credit Level: P. Credit Hrs: 1.00-1.50

24PRSP502

Criminal Law

This course deals with substantive criminal law, although its focus is on the various principles that apply to all crimes rather than on the elements of specific crimes. Homicidal crimes are given separate attention, however. The various defenses, including insanity, are reviewed. Credit Level: P. Credit Hrs: 3.00-4.50

24PRSP702

English Legal History

Survey of English legal history from the Norman Conquest to the Glorious Revolution. The course is intended to provide students with a historical background to and perspective on their present study and future practice of Anglo-American law. Credit Level: P. Credit Hrs: 2.00-4.50

24PRSP704

Jurisprudence

This course studies recurring issues and debates in the philosophy of law, including those among positivism and natural law theory, legal realism, utilitarianism, critical legal studies, and policy-oriented jurisprudence. Often, the class then studies one or more of these theoretical debates in a practical context (perhaps involving the development of a legal doctrine, or in a controversial case or set of cases). The readings for the course typically include selections from contemporary (H.L.A.Hart, Lon Fuller, Ronald Dworkin, John Rawls) and historically important (Plato, Immanuel Kant, John Stuart Mill) philosophers of law. Credit Level: P. Credit Hrs: 2.00-4.50

24PRSP705

Law and Literature

This seminar explores differences and similarities between the languages of the law and the languages of literature, between legal thinking and literary thinking, between the ways in which literary works construct worlds and the ways in which the law constructs worlds. Credit Level: P. Credit Hrs: 3.00

24PRSP706

Law and Economics

Introduction to the economic analysis of law. Topics to be covered include the Coase Theorem, efficiency and equity in the choice of legal rules, economic analysis of property law, and the efficiency of common law. Credit Level: P. Credit Hrs: 3.00-4.50

24PRSP707

The Legal Imagination

This course investigates the resources that the law has for expressing and coming to terms with human experience. We read selections from literature, philosophy, history, and other disciplines, all of which speak about general matters of human experience (e.g., life and death, friendship, racism, school rules, making a decision), and then we compare these with selections on the same topics taken from law. What does the law allow us to say and think, and what does it force us to omit or ignore? In this way, we explore the powers and the limits of legal language and its characteristic forms of expression (e.g., the judicial opinion, the statute, the rule). Credit Level: P. Credit Hrs: 2.00-3.00

24PRSP710

Advanced Problems in Constitutional Law: Constitutional Interpretation

An exploration of various advanced topics in Constitutional law. Credit Level: P. Credit Hrs: 3.00-4.50

24PRSP711

Law and Popular Culture

This course will study law-related films within basic traditional legal training, using film and film theory as tools to gain access to other aspects of the law. There is a distinction between research in law and

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Perspective**24PRSP711****Law and Popular Culture**

research about the law. Film can tell us much about the law. Traditional disciplines do not always provide the director encounter with concrete experiences of daily living that literature and film can achieve. Credit Level: P. Credit Hrs: 2.00-3.00

24PRSP713**Law, Literature and Feminism**

This seminar explores differences and similarities between the language of the law and the languages of literature, between legal thinking and literary thinking, between the ways in which literary works construct worlds and the ways in which the law constructs worlds. Credit Level: P. Credit Hrs: 2.00-3.00

24PRSP714**Interaction of Medicine and Law**

The aim of the Interaction of Medicine and the Law course is to give law students a practical introduction to the basic medical terminology, the role that medicine plays in a variety of legal circumstances, and confront problems that arise when the medical and legal professions come together. The focus of this course will be more on the application of law as it appears in every day practice than on the textual intricacies which found the legal system itself. Credit Level: P. Credit Hrs: 2.00-3.00

24PRSP715**Second Year Lawyering: Ethics and Skills of Practice**

In this course, students will consider the lawyer-client relationship in the context of realistic scenarios, evaluating the complex choices an ethical lawyer must make and demonstrating the basic skills a lawyer must master to establish an effective lawyer-client relationship. Following an examination of the ABA Model Rules and/or the Code of Professional Responsibility, students will consider the ethical components of the lawyer client relationship, with an emphasis on competency, confidentiality, and conflicts of interest. Students will also gain skills in client interviewing, counseling, decision-making and will prepare several documents, including an engagement letter and fee agreement, a letter declining representation, and a marketing piece. Credit Level: P. Credit Hrs: 2.00-4.00

24PRSP716**Second Year Lawyering: Second Semester**

This is a continuation of Fall Semester Credit Level: P. Credit Hrs: 2.00

Specialty**24SPCL703****Disability Law**

Although major federal laws on disability discrimination existed before 1990, it was not until the Americans with Disabilities Act (ADA) was passed that there was a comprehensive statute applying to virtually all aspects of an individual's life experience. The primary goal of this course is to introduce students to the major federal substantive law relating to rights of individuals with disabilities, primarily relating to nondiscrimination. Another important goal of the course will be to focus on the underlying philosophy of disability rights law. Credit Level: P. Credit Hrs: 2.00-4.50

24SPCL704**Entertainment Law**

This course examines issues relating to the entertainment industry, in which practical considerations often are more important than the dictates of intellectual property law. In addition to studying problems specific to film, television, theater, music, and literary publishing, students will discuss the roles of managers and agents and the rights of entertainers throughout the entertainment industry. Credit Level: P. Credit Hrs: 2.00-4.00

24SPCL705**Health Care Law**

This class explores the financing and regulation of health care, bioethics, the various structures of health care organizations, the

Specialty**24SPCL705****Health Care Law**

physician-patient relationship, professional liability of health care providers, and tort reform for medical injuries. Credit Level: P. Credit Hrs: 2.00-4.50

24SPCL706**Law and Psychiatry**

Considers the structure of the mental health profession by addressing duties owed by practitioners and researchers to patients or clients, such as the obligation to preserve the confidences and privacy of the client. The seminar will also consider issues related to mentally ill or incapacitated individuals and the institutional systems and processes designed to deal with such persons. Credit Level: P. Credit Hrs: 3.00-4.50

24SPCL707**Research Seminar**

Students in this advanced research seminar will explore in depth topics as determined by the faculty member. Each student will write and present an independent research paper on a topic approved in advance. Credit Level: P. Credit Hrs: 2.00-4.50

24SPCL708**Mental Health Law I: Civil Commitment**

In this class, formerly titled "Public Sector Mental Health Law," we will focus on the legal aspects of publicly-financed mental health care and the traditional and current governmental responses to mental disability. These issues stem largely from the movement known as deinstitutionalization, or the widespread release of persons with mental disabilities into community settings. The seminar begins with an historical overview of deinstitutionalization and the role of the law in that movement. After briefly examining the current public sector mental health system, using Ohio's system as an example, we will consider a variety of civil commitment laws and the legal issues related to those laws. We will also study the impact of American with Disabilities Act (ADA) on persons with mental disabilities, access to community-based mental health services, patient rights, and criminal law diversion alternatives. Credit Level: P. Credit Hrs: 2.00-3.00

24SPCL709**Mental Health Law Extern Field Placement**

Mental Health Law Extern Field Placement Students enrolled in the Mental Health Law Externship Program work with various courts, government and community agencies, and advocacy groups involved with some aspect of mental health law in Ohio. Simultaneous or subsequent enrollment in the Mental Health Law Seminar is required to receive credit for the externship. Students may not enroll concurrently in the Judicial, Legal, Mental Health Law, or Street Law Extern Programs. Credit Level: P. Credit Hrs: 2.00

24SPCL710**Mental Health Law II: Medical Malpractice**

This course will focus on the private sector health care issues that arise frequently in mental disability law. Issues to be covered include: medical and psychiatric malpractice and professional liability, licensing and regulation of health professions, confidentiality, duties to warn and other duties to third parties, guardianship and conservatorship, third-party payer issues, including the growing influence of HMOs and managed care regimes, insurance industry regulation, including parity laws, and health care advanced directives. Although emphasis will be placed on the applicability of these issues in the mental disability law arena, the course will also be appropriate for students interested in health law generally. Credit Level: P. Credit Hrs: 2.00-4.00

24SPCL711**Introduction to Sports Law**

This course is designed to introduce students to the substantive and practical aspects of sports law. Students will be exposed to a review of current and selected past case law, a review and interpretation of federal and state legislation, as well as an interpretation of NCAA Bylaws and Constitutional provisions. Credit Level: P. Credit Hrs: 2.00-

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Specialty**24SPCL711****Introduction to Sports Law**

3.00

24SPCL712**Feminist Jurisprudence: The Work Family Axis**

While the predominant focus in feminist jurisprudence in recent times has been on sex and violence this course shifts the focus to the design of market and family work and the entitlements that flow from it. This course will examine family law employment discrimination law, and feminist theory in the context of rethinking how we as a society structure the relationship of paid work to work in the family. Credit Level: P. Credit Hrs: 3.00

24SPCL713**Health Issues Facing Vulnerable Populations**

This class examines a variety of medical issues and their impact on "vulnerable populations," including minorities, women, children, prisoners, individuals with contagious diseases, and the mentally disabled. Some of the topics that will be addressed concern genetic testing, access to advanced medical technologies, confidentiality issues, human experimentation, and sex selection and cloning. Credit Level: P. Credit Hrs: 3.00

24SPCL714**Media Law: Issues and Problems**

This seminar will explore current issues in the law as it relates to media. Students will examine such topics as libel, discovery or editorial materials and privileges, privacy and news- gathering torts, and access to information, including issues arising under the Freedom of Information Act. Throughout the course, hypothetical "problems" will be used to illustrate the points being discussed. Credit Level: P. Credit Hrs: 2.00

24SPCL715**JD/WS Extern**

Special permission required. Credit Level: P. Credit Hrs: 1.00-6.00

24SPCL716**JD/WS Tutorial Component**

Special permission of both the College of Law and the McMicken College of Arts & Sciences-Women's Studies Graduate program are required for this course. Credit Level: P. Credit Hrs: 1.00-3.00

24SPCL717**JD/WS Conference Presentation**

Special permission required. Credit Level: P. Credit Hrs: 1.00

24SPCL718**Advanced Health Care Practice**

This course will develop knowledge and skills for effective legal practice in a dramatic health care case, arising from high numbers of newborn deaths following heart surgery performed by a surgical team in a large hospital. Faculty will lecture and lead discussion on legal issues and process strategies. The course will end with presentations by health law attorneys on practice experience representing physicians and hospitals. This course will 'cover' the following topics in health law: the structure of the health care enterprise, health care licensing and quality control, staff privileges and hospital-physician contracts, informed consent, direct institutional liability, corporate negligence, complex causation and expert testimony, and vicarious liability. Credit Level: P. Credit Hrs: 2.00-4.50

24SPCL719**Animal Law**

This course addresses legal and philosophical materials relevant to understanding the legal status of animals. The focus is on the status of animals as property, the doctrine of standing, and the nature of legal rights as applied to nonhuman animals. The course incorporates developing tort law concepts, criminal law, and constitutional law, and considers the evolution of the law's understanding and treatment of animals by examining federal and state statutes and policies. Credit

Specialty**24SPCL719****Animal Law**

Level: P. Credit Hrs: 2.00-3.00

24SPCL720**National Security Law**

This course will introduce students to National Security Law. Areas of coverage include: the international law of conflict management, American security doctrine and deterrence, security aspects of sea and space law, the national institutional framework, individual rights and responsibilities, and other national legal issues. The Foreign Intelligence Surveillance Act (FISA) and the Classified Information Procedures Act (CIPA) will be considered. Credit Level: P. Credit Hrs: 2.00-4.00

24SPCL721**Health Care Finance**

This course examines the transactional aspects of health care law. The course first considers how health care services are reimbursed by providing students with an understanding of the complex interaction of private insurance, the federal Medicare program, and the state/federal Medicaid program. The course also provides an analysis of the regulatory schemes regulating the business relationships between health care providers, including fraud and abuse law, Stark II, HIPAA and Antitrust laws. In addition, the course provides an overview of the rapidly evolving organizational forms through which health care is delivered, such as integrated delivery systems, physician practice management companies and joint ventures. All issues will be reviewed from a transactional lawyer's perspective and case studies will be used to arrive at practical legal solutions. Credit Level: P. Credit Hrs: 2.00-4.00

24SPCL722**Advanced Topics in Mental Health**

This course is designed to meet needs of students who have taken other law-medicine classes and wish to study criminal law topics in greater depth, and students who have not taken other law-medicine classes, but whose anticipated career paths may include criminal defense work or becoming assistant prosecutors. The primary instructors for this class are experienced forensic psychiatrists; they will supplement their presentations and class discussions with presentations by other mental health clinicians with extensive experience in performing mental evaluations for courts. Course topics include waiving 'Miranda' rights, false confessions, trial competence, 'pro se' defendants, mental state defense, sex offenders, violence, capital punishment, juvenile delinquency, and malingerers. Credit Level: P. Credit Hrs: 2.00-3.00

24SPCL723**Topics in Law: Advanced Civil Procedure**

Topics in Law: topics will vary depending on interests and faculty availability. Credit Level: P. Credit Hrs: 1.00-4.00

Tax**24TAX702****Business Planning**

Please see the College of Law website for description. Credit Level: P. Credit Hrs: 2.00-4.50

24TAX703**Corporate Tax I**

This course involves the study of the U.S. income taxation of corporations and shareholders, particularly the language of Subchapter C and other selected sections of the Internal Revenue Code. Prereq.: Federal Income Taxation (may be waived by instructor). Credit Level: P. Credit Hrs: 3.00-4.50

24TAX704**Corporate Tax II**

Advanced Corporate Tax continues the study of U.S. income taxation of corporations and shareholders. It includes intensive coverage of corporate reorganizations and various other advanced corporate tax

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Tax**24TAX704****Corporate Tax II**

topics. Credit Level: P. Credit Hrs: 3.00-4.50

24TAX705**Federal Income Taxation**

This course is structured around the two dominant themes of the taxation of individuals under the Internal Revenue Code: what is income, and what is deductible; and when must the taxpayer recognize income, and when can the taxpayer deduct a particular expense. Also examines miscellaneous topics such as capital gains and losses, identifying the proper taxpayer, etc. Credit Level: P. Credit Hrs: 3.00-6.00

24TAX706**Partnership Tax**

After examining classification of entities as partnerships (as opposed to corporations or other forms of business organization), this course studies tax issues arising during the life-cycle of a partnership -- formation, operation, sales and exchanges of partnership interests, operating distributions, and liquidating distributions. Credit Level: P. Credit Hrs: 3.00-4.50

24TAX707**Tax Policy**

This course critically examines our method of taxing income: criteria for a sound tax policy; tax system versus tax on income; use or acceptance of certain deductions, credits and exclusions. Students examine and evaluate proposals for tax reform. Credit Level: P. Credit Hrs: 2.00-3.00

24TAX708**Tax Procedure**

This course prepares individuals for resolving federal tax problems administratively within the I.R.S. as well as within the court system. It examines I.R.S. organization; rulings, private and public, technical advise memorandums and determination letters; audits; appellate protests; criminal and civil litigation, with special emphasis on the US Tax Court. Credit Level: P. Credit Hrs: 2.00-3.00

24TAX709**Contemporary Issues in Business Regulation**

This seminar examines contemporary issues that are prevalent in the regulation of business organizations and activities. The class will engage in detailed discussions on topics listed in the syllabus. With the exception of the first few class meetings, students will volunteer to act as the lead discussant on his/her chosen topic. The student is required to prepare an outline prior to the class. In addition, two students will be assigned to comment on the discussion and outline of the lead student. The other students are also encouraged to comment and make suggestions. Prerequisite: Corporations I and/or an undergraduate degree in business, economics, or finance. Substantial working experience in the business world is a good substitute for the above course/degree requirements, but enrollment must be approved in advance. Credit Level: P. Credit Hrs: 2.00-4.00

24TAX877**Advanced Federal Income Taxation**

The course will concentrate on income taxation of trusts and estates, Subchapter J. Emphasis will be on design of trusts to save taxes. If time permits, other income tax planning ideas will be covered, such as income tax planning with S corporations and their use in estate freezes. Credit Level: P. Credit Hrs: 2.00

COLLEGE OF MEDICINE

COURSE DESCRIPTIONS

(26) College of Medicine

2008 - 2009

College of Medicine 1

Biostatistics and Epidemiology

26BE761

Special Topics -- Biostatistics in Research

Seminars or tutorial sessions dealing with special topics in biostatistics related to research and application basic to field of environmental health. Credit Level: G. Credit Hrs: 1.00-15.00

26BE762

Applied Longitudinal Data Analysis

The methodology of general linear mixed models (GL MM) using SAS is presented in detail. Example data sets are analyzed using PROC MIXED. Course content includes applied aspects of model building using RANDOM & REPEATED statements, comparisons of covariance structures for analyzing. Credit Level: G. Credit Hrs: 3.00

26BE763

Special Topics - Pediatric Environmental Health

See 26BE761. Credit Level: G. Credit Hrs: 1.00-15.00

26BE764

Statistical Genetics I: Principles and Methods

First of 2 part course. Students should be able to learn the basic principle of statistical inference in relation to the biological features of genetic data and relevant distributional properties of such data. Part 2 26BE765 Credit Level: G. Credit Hrs: 3.00

26BE765

Statistical Genetics II: Segregation and Linkage Analyses

Second of 2 part course. Students should be able to learn the principles of conducting quantitative analyses of data for determining the mode of inheritance and localization of genes underlying a familial trait. Part 1 26BE764 Credit Level: G. Credit Hrs: 3.00

26BE766

Principles of Clinical Trials

Scientific, regulatory, managerial, and dissemination aspects of clinical trials, including: types and quality of trial design, pros and cons of experimental vs management trials, randomization, rationale and implementation of masking strategies, sample size estimation and subject/clinical consent. Prereq: 26BE787. Credit Level: G. Credit Hrs: 3.00

26BE767

Scientific Integrity

Lecture series addressing ethical issues in research including of human experimentation, animal welfare, conflict of interest, and responsible authorship and publication practices. Course equivalent is 26 GNTD 730. Credit Level: G. Credit Hrs: 1.00

26BE768

Decision Analysis and Cost-effectiveness Analysis

Introduction to methods and applications of decision analysis, cost-effectiveness, and cost-benefit analysis in medical decision making. Bayes Theorem, diagnostic test, design assessment and economic analysis of health care programs. Credit Level: G. Credit Hrs: 3.00

26BE769

Special Topics - Epidemiology - Patient Specimen Methods

See 26BE766. Credit Level: G. Credit Hrs: 1.00-15.00

26BE770

Survey and Qualitative Methods for Health Research

Students learn concepts, methods, and practical procedures for locating, evaluating, and implementing health survey instruments to answer research questions. Other items of study are: questionnaire design and construction, intro to scale construction, methods for testing psychometric properties of instruments, and scaling methodologies. Credit Level: G. Credit Hrs: 2.00

Biostatistics and Epidemiology

26BE771

Introduction to Genome Science

Prereq: Molecular Biology. Will allow students exposed to general research areas in genome science, a study of the structure, content, and evolution of genomes. Core concepts and methodologies will be presented. Credit Level: G. Credit Hrs: 3.00

26BE776

Introduction to Epidemiology

Methodology for studies of disease in human populations. Examples include chronic disease, infectious disease, occupational and environmental epidemiology. Sources, collection, handling, interpretation of health data. Credit Level: G. Credit Hrs: 3.00

26BE777

Non Linear Statistical Analysis

Methods will be discussed for performing analysis of variance on data which include missing values. The technique will include quick approximate methods, exact methods and reliable computer programs. Credit Level: G. Credit Hrs: 3.00

26BE778

Introduction to SAS Programming

This course includes the use of SAS and other statistical packages as well as instruction in data management for epidemiologists and biostatisticians. Credit Level: G. Credit Hrs: 2.00

26BE779

Human Genome Diversity

Prereq: Basic Human/Pop. Genetics. Students should be able to understand the concept of interindividual variation at the genome level & how this relates to studies on evolution of modern human, global migration of human populations, and to natural history of disease causing mutations. Credit Level: G. Credit Hrs: 3.00

26BE784

Seminar of the Epidemiology of Infectious Diseases

Epidemiologic, serologic and public health aspects of modern infectious diseases, their transmission and methods of control. Credit Level: G. Credit Hrs: 2.00

26BE787

Introduction to Biostatistics

Descriptive statistics, probability distributions, estimation, types of error, significance level, test of hypotheses, sample size, correlation, linear regression, non-parametric methods. Emphasizes practical-applied aspects. Credit Level: G. Credit Hrs: 4.00

26BE788

Regression Analysis

Linear regression, least squares, elementary matrix operation, multiple regression models, correlation analysis, and introductory analysis of variance. Prereq: 26BE787. Credit Level: G. Credit Hrs: 4.00

26BE789

Experimental Design

Study of the applications of randomized block, Latin square, and factorial designs for scientific experimentation including confounding, fractional factorial. Fixed, random, mixed designs. Prereq: 26BE787. Credit Level: G. Credit Hrs: 4.00

26BE790

Computational Functional Genomics

Introduce students to mathematical & statistical models & concepts underlying current approaches to computational analysis of functional genomics & proteomics data. Credit Level: G. Credit Hrs: 3.00

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Biostatistics and Epidemiology**26BE793****Statistics of Bioassay**

Study of the statistical methods of parallel line, slope ratio, probit, logit and other bioassay techniques. Quantitative and quantal bioassays.

Credit Level: G. Credit Hrs: 3.00

26BE794**Survey Sampling**

Study of the applications of simple random, stratified, cluster, systematic, multistage, ratio, regression sampling techniques; minimization of costs. Credit Level: G. Credit Hrs: 3.00

26BE795**Nonparametric Statistics**

Study of estimation and hypothesis testing with minimal assumptions. Includes the study of rank tests and other distribution-free statistics.

Credit Level: G. Credit Hrs: 3.00

26BE796**Introduction to Statistics**

Descriptive statistics, probability, estimation, statistical errors, parametric and nonparametric hypothesis testing, statistical fallacies. Emphasizes applied-practical aspects. Less material covered than in 787. Credit Level: G. Credit Hrs: 4.00

26BE797**Categorical Data Analysis & Logistic Regression Analysis**

Statistical methods for analyzing discrete categorical and qualitative data are presented including Chi-square, Mantel Haenszel, McNemar's test, PMR, SMR. Credit Level: G. Credit Hrs: 3.00

26BE798**Survival Analysis**

Nonparametric and parametric methods of estimating and comparing survival functions for mortality studies including Kaplan-Meier, Weibull, exponential model, Cox regression. Credit Level: G. Credit Hrs: 3.00

26BE799**Applied Multivariate Analysis**

Extension of univariate tests in normal populations to the multivariate case with a review of matrix algebra, Hotellings T, Wilks Lambda, Discriminant analysis. Credit Level: G. Credit Hrs: 3.00

26BE804**Biostatistical and Epidemiological Consultation**

Biostatistical and Epidemiological Consultation preceptorship (offers one-on-one consultation to other University personnel). Credit Level: G. Credit Hrs: 1.00-3.00

26BE805**Biostatistical and Epidemiological Consultation**

See 26BE804. Credit Level: G. Credit Hrs: 1.00-3.00

26BE806**Biostatistical and Epidemiological Consultation**

See 26BE804. Credit Level: G. Credit Hrs: 1.00-3.00

26BE810**Laboratory Technologies in Genome Research**

Advanced course for the students who are interested in the common & novel laboratory technologies that are currently used in genomics research. Principle of the technologies & their major applications will be presented along with examples of research projects where those technologies were employed. Credit Level: G. Credit Hrs: 3.00

26BE828**Epidemiology and Biostatistics Division Seminar**

Seminars presented by the faculty and students presenting subjects of interest in epidemiology and biostatistics. Current research by speaker as well as review of the literature. Credit Level: G. Credit Hrs: 1.00

26BE829**Epidemiology and Biostatistics Division Seminar**

See 26BE828. Credit Level: G. Credit Hrs: 1.00

Biostatistics and Epidemiology**26BE830****Epidemiology and Biostatistics Division Seminar**

See 26BE828. Credit Level: G. Credit Hrs: 1.00

26BE842**Neuroepidemiology**

Neuroepidemiology is the investigation of the distribution and dynamics of neurologic disease in free ranging human populations. This course explores the scope and methods of neuroepidemiology. Prereq:

26BE776. Credit Level: G. Credit Hrs: 3.00

26BE861**Teaching Practicum in Biostatistics/Epidemiology Environmental Medicine**

Teaching practicum in epidemiology and/or biostatistics. Practice of assisting and teaching in environmental courses by special arrangement with faculty member who will provide supervision. www.eh.uc.edu Credit Level: G. Credit Hrs: 1.00-3.00

26BE862**Introduction to Medical Informatics**

Introduction to the field of health informatics and its relation to patient care and clinical research. Topics include: field overview, clinical informatics, data standards, security and confidentiality, regional health information exchange, standards/terminologies, databases, internet/intranet and healthcare. Credit Level: G. Credit Hrs: 3.00

26BE863**Special Topics Biostatistics - Proteomics and Wavelets**

See 26BE761. Credit Level: G. Credit Hrs: 1.00-15.00

26BE864**Advanced Statistical Methods in Biomedical Research**

New methods of analyzing complex data constantly evolve and the purpose of this course is to expose these methods to graduate students. The methods are culled mostly from research journals and as such no textbook is prescribed for this course. Prereq: 26BE787. Credit Level: G. Credit Hrs: 3.00

26BE865**Special Topics Biostatistics - Spatial Data Analysis on R**

See 26BE761. Boosting and bagging are two of the most recent techniques available in the literature to enhance quality of prediction in data analysis. Credit Level: G. Credit Hrs: 1.00-15.00

26BE866**Molecular Epidemiology Laboratory**

Teaches students about molecular techniques used to assess DNA, RNA, & protein for markers of Expos ure & markers of disease state and susceptibility. Will rotate through a minimum of 5 labs and will learn basic research projects & basic techniques in host labs, critical to ongoing evaluations. Coreq: 26BE973. Credit Level: G. Credit Hrs: 1.00

26BE867**Health Services Research**

Research on effects of the organization, delivery, and financing of healthcare. Principles of health services research, including patterns of resource utilization, small area variation, medical errors, and measurement and improvement of quality of care will be emphasized. Credit Level: G. Credit Hrs: 3.00

26BE868**Genetics of Complex Diseases**

Introduction to complex disease and traits. Epidemiology and genetic basis of complex diseases. Credit Level: G. Credit Hrs: 3.00

26BE869**Study Design and Analysis**

Seminars or tutorial sessions dealing with special topics in epidemiology related to research and application basic to field of environmental health. Prereq: 26BE776, 26BE787. Credit Level: G. Credit Hrs: 3.00

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Biostatistics and Epidemiology**26BE870****Global Environmental Epidemiology**

See 26BE766. Credit Level: G. Credit Hrs: 1.00-15.00

26BE871**Logistic Regression and Log Linear Models**

Analysis of discrete data using logistic and loglinear models including interpretation of coefficients and model-building strategies. Familiarity with SAS software through examples will be emphasized. Credit Level: G. Credit Hrs: 3.00

26BE874**Classic Topics in Epidemiology**

Study of historical works in epidemiology including Snow, Panum, Goldberger, and comparison with recent epidemiologic research. Credit Level: G. Credit Hrs: 2.00

26BE879**Epidemiology of Occupations**

Methodology and results of epidemiological studies of occupations including morbidity and mortality. Real examples and practical factors are considered. Prereq: 26BE776. Credit Level: G. Credit Hrs: 3.00

26BE884**Use of Statistical Procedures in Computer Package Programs**

The computer package programs SAS and BMDP contain an extensive array of statistical procedures, and a selection of the more useful and popular ones will be examined. The underlying theory, program statements, output, and application to real biomedical data sets will be discussed. Credit Level: G. Credit Hrs: 3.00

26BE887**Statistical Methods in Epidemiology**

Statistical methods for occupational and environmental health studies are reviewed, including case-control, cohort logistic regression, log-linear, matching. Credit Level: G. Credit Hrs: 3.00

26BE892**Pharmacoepidemiology**

Discussions with review of epidemiologic studies around a theme, e.g., environmental- or reproductive- or AIDS-related epidemiology for students who have completed the introductory course. Prereq: 26BE776. Credit Level: G. Credit Hrs: 2.00

26BE893**Advanced Epidemiology - Appraisal of Epidemiological Studies and Clinical Trials**

Sophisticated epidemiologic seminar review along a theme, e.g., the epidemiologic basis of standard; setting for students who have completed at least two other courses in epidemiology. Credit Level: G. Credit Hrs: 2.00-4.00

26BE894**Structural Equation Modeling**

Path analysis, measurement error models; confirmatory factor analysis; general structural equation model with latent variables; alternative estimators and models for categorical data. Credit Level: G. Credit Hrs: 3.00

26BE897**Epidemiology of Cardiovascular Diseases**

An introduction to epidemiology of the major cardiovascular diseases with a focus on risk factors. Prereq: 26BE776. Credit Level: G. Credit Hrs: 3.00

26BE898**Epidemiology of Cancer**

A general overview of known associations of environmental and occupational factors with various types of cancer; includes discussion of types of studies that give rise to associations and causation. Each student selects either a particular etiology or cancer site for a report to the class. Credit Level: G. Credit Hrs: 3.00

Biostatistics and Epidemiology**26BE961****Meta Analysis**

History of Meta-Analysis, searching literature, computation of effect sizes, pooling sizes, summary of data meta-regression; individual patient data (IPD) meta-analysis. Credit Level: G. Credit Hrs: 3.00

26BE962**Special Topics Biostatistics - Graphics on R**

See 26BE761. Credit Level: G. Credit Hrs: 1.00-15.00

26BE963**Special Topics Biostatistics --Genome Wide Association Studies**

See 26BE761. Credit Level: G. Credit Hrs: 1.00-15.00

26BE964**Special Topics Biostatistics**

See 26BE761. Credit Level: G. Credit Hrs: 1.00-15.00

26BE965**Special Topics Biostatistics**

See 26BE761. Credit Level: G. Credit Hrs: 1.00-15.00

26BE966**Clinical Research Scholars Seminar**

Topics such as grant writing, research presentation, job negotiation, critique research and interaction among trainees from all tracks. Credit Level: G. Credit Hrs: 1.00

26BE967**Special Topics - Epidemiology - Disease Specific Translational Research**

See 26BE766. Credit Level: G. Credit Hrs: 1.00-15.00

26BE968**Dilemmas in Epidemiology**

See 26BE766. Credit Level: G. Credit Hrs: 1.00-15.00

26BE969**Special Topics in Molecular Epidemiology**

See 26BE766. Credit Level: G. Credit Hrs: 1.00-15.00

26BE970**Special Topics Epidemiology-Epidemiology of Cancer**

See 26BE766. Credit Level: G. Credit Hrs: 1.00-15.00

26BE973**Molecular Epidemiology - The Use of Biomarkers in Epidemiologic Research**

The course covers how biomarkers can be used in epidemiologic research; scientific, technical and ethical issues in the use of biomarkers and a range of applications for the use of biomarkers in the study of various diseases. Prereq: 26BE776. Credit Level: G. Credit Hrs: 3.00

26BE975**Design and Management of Field Studies in Epidemiology**

Opportunity to acquire knowledge and skills both in formulating a research problem, writing a research proposal or grant application, designing questionnaires, the art of presenting study findings, and evaluating research. Prereq: 26BE776. Credit Level: G. Credit Hrs: 4.00

26BE980**Quality Control Statistics**

Introduces the statistical methodology used in process quality control. Emphasis will be on data analysis techniques, graphical presentations, and interpretation. Credit Level: G. Credit Hrs: 3.00

26BE981**Statistics in the Pharmaceutical Industry**

Discusses controlled clinical trials in general and pharmaceutical industry research in particular. Also covers statistical methods used in the industry. Credit Level: G. Credit Hrs: 2.00

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Cell and Molecular Biology**26CB101****Gross Anatomy**

Study of the body walls, cavities, and lower limb, and head, neck, and upper limb of the human body in the dissecting room; supplemented by lectures. BoK: NS. Credit Level: U. Credit Hrs: 2.00-6.00

26CB841**Medical Histology and Cell Biology**

The normal microscopic structure of cells, tissues and organs with emphasis on structural-functional relationships. Credit Level: G. Credit Hrs: 4.00

26CB871**Human Gross Anatomy**

See 26CB101 for description. Perm of Instructor. Credit Level: G. Credit Hrs: 4.00-10.00

26CB880**Biology of Cancer**

Currently, a one quarter course that covers a broad spectrum of issues relating to the genesis and progression of cancer. Some topics that are covered include cell kinetics and cell cycle regulation in normal and cancerous cells, oncogenes and growth factors, tumor suppressors, the genetics of cancer, mutation and environmental exposure, signal transduction and the role of the immune system in cancer. Credit Level: G. Credit Hrs: 4.00

26CB881**Research**

Laboratory research in cellular or molecular biology, leading toward a doctoral dissertation. Credit Level: G. Credit Hrs: 1.00-20.00

26CB882**Research**

See 26CB881. Credit Level: G. Credit Hrs: 1.00-20.00

26CB883**Research**

See 26CB881. Credit Level: G. Credit Hrs: 1.00-20.00

26CB884**Research**

See 26CB881. Credit Level: G. Credit Hrs: 1.00-15.00

26CB915**Seminar**

Formal presentations of current research in cell and molecular biology will be given by speakers from both UC and other institutions. Credit Level: G. Credit Hrs: 1.00

26CB916**Seminar**

See 26CB915 for course description. Credit Level: G. Credit Hrs: 1.00

26CB917**Seminar**

See 26CB915 for course description. Credit Level: G. Credit Hrs: 1.00

26CB921**Seminar Redux**

This is a discussion course in which the research topic and format of presentation of the Cell Biology seminar for each week are analyzed in detail. Credit Level: G. Credit Hrs: 1.00

26CB922**Scientific Writing**

Principles and practice of scientific writing, including manuscripts and proposals. Perm of Instructor. Credit Level: G. Credit Hrs: 2.00

26CB923**Data Critique and Presentation I**

The main goals of this course are to teach students critical data analysis and interpretation skills through discussion of specific examples of the current biomedical literature. Students also receive

Cell and Molecular Biology**26CB923****Data Critique and Presentation I**

instruction in techniques for effective presentation of data to colleagues. Credit Level: G. Credit Hrs: 2.00

26CB924**Data Critique and Presentation II**

The main goals of this course are to teach students critical data analysis and interpretation skills through discussion of specific examples of the current biomedical literature. Students also receive instruction in techniques for effective presentation of data to colleagues. Prereq: 26CB923. Credit Level: G. Credit Hrs: 2.00

26CB925**Introduction to Grant Writing and Review**

The goal of this course is to introduce students to successful grant writing strategies. Students receive instruction in grantsmanship and participate in grant writing exercises. Completed grants are critically reviewed by instructors and students. Prereq: 26CB923, 26CB924. Credit Level: G. Credit Hrs: 2.00

26CB926**Data Critique and Presentation III**

The main goals of this course are to teach students critical data analysis and interpretation skills through discussion of specific examples of the current biomedical literature. Students also receive instruction in techniques for effective presentation of data to colleagues. Prereq: 26CB924, 26CB923. Credit Level: G. Credit Hrs: 2.00

26CB950**Special Topics in Cell Biology**

This course offers intensive instruction in specialized areas of cell biology including such topics as cell motility, cell-cell interactions, molecular endocrinology and intracellular trafficking. The content and format varies. Credit Level: G. Credit Hrs: 2.00-4.00

26CB952**Action of Cancer Therapeutics**

This course is designed for students interested in the mechanisms through which cancer therapeutics act and their implementation in clinical settings. The course is team-taught by basic researchers and participating clinical faculty. The course will provide an overview of a variety of therapeutic approaches utilized in the treatment of cancer, the molecular basis through which these therapeutics function, clinical relapse and new therapeutics under development. Credit Level: G. Credit Hrs: 2.00

26CB954**Advanced Cell Biology: Cell Growth and Differentiation**

This course is targeted to advanced students who want to attempt to define a stem cell and study the impact of extra-cellular signals on cell proliferation and differentiation. The level of this course is beyond that presented in Molecular Biology of the Cell II. The course will be held twice a week in a case study format and will be taught and moderated by faculty of the Cell and Molecular Biology Graduate Program. Course grades will be determined by the quality of class participation each week, the creativity and participation of each student as leader of case study presentations (each student is required to lead their case study group twice during the quarter), and a paper submitted by each student on one of the course topics. This course will be offered in alternating years with Advanced Cell Biology: Cell Communication Inside and Out. One of the Advanced Cell Biology courses is required for one quarter for students in the Cell and Molecular Biology Graduate Program. Credit Level: G. Credit Hrs: 2.00

26CB955**From Drug Target to Therapy**

This course provides an overview of the complex process of discovering a new therapeutic agent. Students will be given a basic understanding of the tools, techniques and approaches as exemplified in the discovery of several recent launches in the cancer field (primarily Gleevec, Iressa, Herceptin). We anticipate scheduling a few seminars from persons credited with discovering marketed therapeutics. Student evaluations

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Cell and Molecular Biology**26CB955****From Drug Target to Therapy**

will be based on a short paper, active participation and attendance.

Credit Level: G. Credit Hrs: 3.00

Developmental Biology**26DB900D****Developmental Biology Dissertation Research**

Students who have been approved for PhD candidacy are eligible for this special fee dissertation course. Full-time (12 credits) dissertation research effort is required, and a student registered for this course cannot register for any other courses in that quarter. Research in the lab of faculty member on a defined problem will be performed to teach lab techniques and approaches to research. Literature readings and discussion of research with staff and dissertation writing also are included. Offered each quarter, may be taken repeatedly. Credit Level: G. Credit Hrs: 12.00

26DB901**Developmental Biology Research Seminar**

Contemporary research papers presented by members of the staff and invited speakers. May be taken repeatedly. Credit Level: G. Credit Hrs: 1.00

26DB902**Developmental Biology Research Seminar**

See 26DB901. Credit Level: G. Credit Hrs: 1.00

26DB903**Developmental Biology Research Seminar**

See 26CB901. Credit Level: G. Credit Hrs: 1.00

26DB904**Journal Club**

Discussions of research papers in a particular field. May be taken repeatedly. Credit Level: G. Credit Hrs: 1.00

26DB905**Journal Club**

See 26CB904. Credit Level: G. Credit Hrs: 1.00

26DB906**Journal Club**

See 26CB904. Credit Level: G. Credit Hrs: 1.00

26DB973**Developmental Biology Laboratory Research**

Readings, discussions, research in lab of staff member on small defined problem: to familiarize student with research of staff; to teach lab technique and approach to research. Offered ea. qtr. May be taken repeatedly. Credit Level: G. Credit Hrs: 1.00-17.00

26DB985**Introduction to Developmental Biology**

Principles of development of cells, tissues and organisms will be illustrated through genetic and biologic approaches. Credit Level: G. Credit Hrs: 3.00

26DB986**Advanced Developmental Biology**

Principles of development of cells, tissues and organisms will be illustrated through genetic and cell biologic approaches. Credit Level: G. Credit Hrs: 4.00

26DB987**Development and Disease**

This course would explore the developmental basis of human disease processes. It is a natural consequence of recent insights into the molecular basis of normal and abnormal development. This course will cover topics not covered in our other Developmental Biology courses. Credit Level: G. Credit Hrs: 3.00

Environmental Health Sciences**26EHS745****Introduction to Environmental Health**

A general study of biological and medical principles and disciplines as they apply to the recognition and resolution of problems of environmental health. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

26EHS749**Quality Assurance and Quality Control in Environmental Toxicology and Chemistry**

The principles and strategies for a QA/QC program to provide credible data and to evaluate the accuracy, bias, and precision of environmental, toxicological, and biological monitoring data forming the basis for critical decisions on vital human health and environmental matters. Credit Level: G. Credit Hrs: 3.00

26EHS750**Public Policy and Environmental Health**

The community attitudes and political climates that impact on scientific information and determine public health policy. The Occupational Safety and Health Act and the Toxic Substances Act will be used as primary examples. Credit Level: G. Credit Hrs: 2.00

26EHS776**Special Topics -- Environmental Health**

Seminars or tutorial sessions dealing with special topics as related to research and application basic to the field of environmental health. Credit Level: G. Credit Hrs: 1.00-15.00

26EHS777**Special Topics Environmental Health**

See 26EHS776. Credit Level: G. Credit Hrs: 1.00-15.00

26EHS778**Special Topics Environmental Health**

See 26EHS776. Credit Level: G. Credit Hrs: 1.00-15.00

26EHS779**Special Topics - Environmental Health**

See 26EHS776. Credit Level: G. Credit Hrs: 1.00-15.00

26EHS780**Special Topics Environmental Health**

See 26EHS776. Credit Level: G. Credit Hrs: 1.00-15.00

26EHS785**Introductory Physiology**

Basic biological principles with lectures on structure and function in mammals. Credit Level: G. Credit Hrs: 3.00

26EHS876**Special Topics -- Environmental Health**

See 26EHS776. Credit Level: G. Credit Hrs: 1.00-15.00

26EHS877**Special Topics Environmental Health**

See 26EHS776. Credit Level: G. Credit Hrs: 1.00-15.00

26EHS878**Special Topics Environmental Health**

See 26EHS776. Credit Level: G. Credit Hrs: 1.00-15.00

26EHS879**Special Topics Environmental Health**

See 26EHS776. Credit Level: G. Credit Hrs: 1.00-15.00

26EHS880**Special Topics Environmental Health**

See 26EHS776. Credit Level: G. Credit Hrs: 1.00-15.00

26EHS976**Special Topics -- Environmental Health**

See 26EHS776. Credit Level: G. Credit Hrs: 1.00-15.00

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Environmental Health Sciences**26EHS977****Special Topics Environmental Health**

See 26EHS776. Credit Level: G. Credit Hrs: 1.00-15.00

26EHS978**Special Topics Environmental Health**

See 26EHS776. Credit Level: G. Credit Hrs: 1.00-15.00

26EHS979**Special Topics Environmental Health**

See 26EHS776. Credit Level: G. Credit Hrs: 1.00-15.00

26EHS980**Special Topics Environmental Health**

See 26EHS776. Credit Level: G. Credit Hrs: 1.00-15.00

Environmental and Industrial Hygiene**26EIH707****Principles of Occupational Exposure Assessment**

Lectures, demonstrations on problems arising from man's environment, industrial hygiene, air pollution fundamentals and practices. Credit Level: G. Credit Hrs: 3.00

26EIH725**Teaching Practicum in Environmental Health**

Practice of assisting and teaching in environmental courses by special arrangement with faculty member who will provide supervision. Credit Level: G. Credit Hrs: 1.00-3.00

26EIH726**Teaching Practicum in Environmental Health**

See 26ENV725. Credit Level: G. Credit Hrs: 1.00-3.00

26EIH727**Teaching Practicum in Environmental Health**

See 26ENV725. Credit Level: G. Credit Hrs: 1.00-3.00

26EIH741**Practice in Occupational Exposure Assessment I**

Calibration of sampling equipment, collection and analysis of pollutant gases, vapors, and particles. Quality assurance/control. Control of exposures through use of respirators. Lec., lab. Credit Level: G. Credit Hrs: 3.00

26EIH742**Practice in Occupational Exposure Assessment II**

Assessment of human exposure to chemical and physical occupational hazards: bioaerosols, heat stress, noise, chemicals. Exposure control through ventilation. Lec., lab. Taking the course Physical Aspects of the Environment (26-EIH-790) simultaneously or before is strongly recommended. Credit Level: G. Credit Hrs: 3.00

26EIH743**Physical and Biological Aspects of Aerosols**

Concepts and parameters for generating, transport, sampling and characterizing airborne particles and microorganisms; principles and techniques for aerosol measurements; use of PM collectors and direct-reading instruments in indoor and ambient air environments; identification and enumeration of airborne microorganisms and aeroallergens; bioaerosols and health effects; bioterrorism threat; id/control Credit Level: G. Credit Hrs: 3.00

26EIH771**Special Topics -- Air Pollution - Practice in Occupational Exposure Assessment 2**

Seminars or tutorial sessions dealing with special topics in air pollution related to research and application basic to field of environmental health. Credit Level: G. Credit Hrs: 1.00-15.00

Environmental and Industrial Hygiene**26EIH772****Energy and Environment**

Environmental and health impacts of existing and developing energy systems, from source development to conversion to utilization, including transport elements, recycling, and conservation. Credit Level: G. Credit Hrs: 2.00

26EIH773**Special Topics Air Pollution - Oak Ridge National Laboratories**

See 26EIH771. Credit Level: G. Credit Hrs: 1.00-15.00

26EIH774**Special Topics Air Pollution - Occupational Exposure Assessment**

See 26EIH771. Credit Level: G. Credit Hrs: 1.00-15.00

26EIH775**Evaluation of Workplace Exposures**

Evaluation of chemical, physical hazards in industrial workplaces. Potential hazards include noise, glare, heat, dust, solvents, electromagnetic radiation, etc. Credit Level: G. Credit Hrs: 3.00

26EIH776**Special Topics - Ventilation Design Concepts**

See 26EIH771. Credit Level: G. Credit Hrs: 1.00-15.00

26EIH777**Special Topics Air Pollution - Expanded EIH 742 Topics**

See 26EIH771. Credit Level: G. Credit Hrs: 1.00-15.00

26EIH779**Industrial Ventilation**

Air flow through ventilation systems, and their design for industrial uses; selection of exhaust hoods; sizing of ducts; calculation of system pressure losses; selection of fans; design of complex systems. Credit Level: G. Credit Hrs: 3.00

26EIH781**Programmatic Aspects of Occupational Safety and Health**

Principles, philosophies, basic concepts of occupational medicine, industrial hygiene, safety, nursing and epidemiology and their interrelationship. Credit Level: G. Credit Hrs: 1.00

26EIH782**Special Topics I.H.-Eval of WHO Toolbox for Exposure Control in Mozambique & other African Countries**

Seminars or tutorial sessions dealing with special topics in industrial hygiene as related to research and application basic to field of environmental health. Credit Level: G. Credit Hrs: 1.00-15.00

26EIH783**Special Topics-ERC Coal Mining Trip**

See 26EIH782. Credit Level: G. Credit Hrs: 1.00-15.00

26EIH784**Special Topics Industrial Hygiene - Aerosol Generation and Protection Laboratory**

See 26EIH782. Credit Level: G. Credit Hrs: 1.00-15.00

26EIH785**Special Topics Industrial Hygiene - Introduction to Occupational & Environmental Health**

Replaces 26EIH781 - Intro to OCC Health - see 29AN CH810 course description Credit Level: G. Credit Hrs: 1.00-15.00

26EIH786**Occupational Health High School Workshop**

See 26EIH782. Credit Level: G. Credit Hrs: 1.00-15.00

26EIH790**Physical Aspects of the Environment**

Principles and techniques of recognizing and evaluating health problems of vibration, heat, noise, non-ionizing radiation, ultraviolet, visible, infrared, and microwave. Credit Level: G. Credit Hrs: 3.00

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Environmental and Industrial Hygiene**26EIH819****Occupational Health, Hygiene and Safety Workshop**

Interdisciplinary workshop of occupational safety, occupational nursing, industrial hygiene, and occupational medicine students. Involves group projects, interdisciplinary presentations and team building skills. Credit Level: G. Credit Hrs: 2.00

26EIH820**Occupational Health, Hygiene and Safety Workshop**

See 26EIH819. Credit Level: G. Credit Hrs: 2.00

26EIH821**Occupational Health, Hygiene and Safety Workshop**

See 26EIH819. Credit Level: G. Credit Hrs: 2.00

26EIH834**Hazardous Materials Management**

Technical, health, economic, and institutional issues in hazardous waste management, including generation, storage, transportation, treatment and disposal, field trips, risk assessment, emergency response, waste minimization and computer applications. Credit Level: G. Credit Hrs: 2.00

26EIH835**Environmental Quality Management**

Topics vary but include technical, economic, and institutional aspects of selected water, wastewater, solid and hazardous wastes, energy and housing programs. Credit Level: G. Credit Hrs: 2.00

26EIH843**Human Biological Monitoring and Biological Markers**

The development and use of specific metabolites, DNA and protein adducts, and general screening tests of exposure to chemicals and of adverse effects in humans. Credit Level: G. Credit Hrs: 3.00

26EIH845**Methods to Obtain Complete Occupational Histories**

Students will attend the occupational medicine clinic, assist in obtaining an occupational history and research potential exposures for the jobs held to better understand effects of workplace exposures. Credit Level: G. Credit Hrs: 2.00

26EIH846**Effective Methods for Worker Health and Safety Training**

Specific needs of adult learners, effective methods for workplace health and safety training and a practicum on program design are included. Open to students in hygiene, safety and related professions. Credit Level: G. Credit Hrs: 2.00

26EIH871**Special Topics -- Air Pollution-- Bioaerosol sampling and analysis.**

See 26EIH771. Credit Level: G. Credit Hrs: 1.00-15.00

26EIH872**Special Topics Air Pollution - Readings in Biomonitoring**

See 26EIH771. Credit Level: G. Credit Hrs: 1.00-15.00

26EIH873**Special Topics - I. H. - Energy and the Environment**

See 26EIH771. Credit Level: G. Credit Hrs: 1.00-15.00

26EIH874**Special Topics Air Pollution - Biological Monitoring Particle Matter**

See 26EIH771. Credit Level: G. Credit Hrs: 1.00-15.00

26EIH875**Special Topics Air Pollution**

See 26EIH771. Credit Level: G. Credit Hrs: 1.00-15.00

Environmental and Industrial Hygiene**26EIH881****Special Topics -- Industrial Hygiene --Pilot Research Project (PRP)**

See 26EIH782. Credit Level: G. Credit Hrs: 1.00-15.00

26EIH882**Special Topics Industrial Hygiene-Carcinogenesis**

See 26EIH782. Credit Level: G. Credit Hrs: 1.00-15.00

26EIH883**Special Topics-Issues in Occupational Toxicology**

See 26EIH782. Credit Level: G. Credit Hrs: 1.00-15.00

26EIH884**Special Topics Industrial Hygiene - Professional Development**

See 26EIH782. Credit Level: G. Credit Hrs: 1.00-15.00

26EIH885**Special Topics Industrial Hygiene - Identification of Potential Workplace Exposures**

See 26EIH782. Credit Level: G. Credit Hrs: 1.00-15.00

26EIH901**Instrumental Methods of Analysis of Pollutants I**

Lecture, lab. Chromatography. Credit Level: G. Credit Hrs: 3.00

26EIH902**Instrumental Methods of Analysis of Pollutants II**

Lecture, laboratory. Direct reading instrumentation. Credit Level: G. Credit Hrs: 3.00

26EIH903**Instrumental Methods of Analysis of Pollutants III**

Lecture, laboratory. Introduction to mass spectrometry, fluorescence and ultra-violet spectroscopy and allied topics. Credit Level: G. Credit Hrs: 3.00

26EIH904**Identification of Potential Workplace Exposures**

Field trips to representative industrial plants to illustrate principles of industrial operations, and methods employed in controlling physical, chemical hazards. Credit Level: G. Credit Hrs: 2.00

26EIH905**Identification of Potential Workplace Exposures**

See 26EIH904. Credit Level: G. Credit Hrs: 3.00

26EIH971**Advanced Topics in Environmental and Occupational Hygiene**

Follow up to 26EIH775. Provide time for a structured review and discussion of the issues raised in the survey reports conducted in 26EIH775 history/ethics .OSHA procedures and history/ethics are covered in order to provide an opportunity for 2nd yr students to synthesize knowledge/skills. Credit Level: G. Credit Hrs: 1.00

26EIH972**Special Topics Air Pollution**

See 26EIH771. Credit Level: G. Credit Hrs: 1.00-15.00

26EIH973**Special Topics Air Pollution**

See 26EIH771. Credit Level: G. Credit Hrs: 1.00-15.00

26EIH974**Special Topics Air Pollution**

See 26EIH771. Credit Level: G. Credit Hrs: 1.00-15.00

26EIH975**Special Topics Air Pollution**

See 26EIH771. Credit Level: G. Credit Hrs: 1.00-15.00

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Environmental and Industrial Hygiene**26EIH981****Current Topics in Occupational Hygiene**

OH seminar series on current topics in the field. Meetings every other week. Credit Level: G. Credit Hrs: 1.00

26EIH982**Current Topics in Occupational Hygiene**

OH seminar series on current topics in the field. Meetings every other week. Credit Level: G. Credit Hrs: 1.00

26EIH983**Current Topics in Occupational Hygiene**

OH seminar series on current topics in the field. Meetings every other week. Credit Level: G. Credit Hrs: 1.00

26EIH984**Special Topics Industrial Hygiene**

See 26EIH782. Credit Level: G. Credit Hrs: 1.00-15.00

26EIH985**Special Topics Industrial Hygiene**

See 26EIH782. Credit Level: G. Credit Hrs: 1.00-15.00

Environmental Health**26ENV701****Environmental Health Seminar**

Lectures and discussions covering a broad range of problems in environmental health led by guest lecturers considered leaders in their field. Credit Level: G. Credit Hrs: 1.00

26ENV702**Environmental Health Seminar**

See 26ENV701. Credit Level: G. Credit Hrs: 1.00

26ENV703**Environmental Health Seminar**

See 26ENV701. Credit Level: G. Credit Hrs: 1.00

26ENV791**Master's Thesis Research**

Credits to be arranged. This course is to be used by the student working on his/her master thesis. Credit Level: G. Credit Hrs: 1.00-15.00

26ENV796**Special Topics**

Seminars or tutorial sessions; biological science, toxicology, engineering, clinical medicine, related to environmental health. Credit Level: G. Credit Hrs: 1.00-15.00

26ENV797**Special Topics**

See 26ENV796. Credit Level: G. Credit Hrs: 1.00-15.00

26ENV798**Special Topics**

See 26ENV796. Credit Level: G. Credit Hrs: 1.00-15.00

26ENV799**Special Topics**

See 26ENV796. Credit Level: G. Credit Hrs: 1.00-15.00

26ENV891**Research**

Credits to be arranged. Credit Level: G. Credit Hrs: 1.00-15.00

26ENV896**Special Topics - Biomedical Engineering Applications for Study of Vascular Function**

. Credit Level: G. Credit Hrs: 1.00-15.00

Environmental Health**26ENV897****Special Topics**

See 26ENV796. Credit Level: G. Credit Hrs: 1.00-15.00

26ENV898**Special Topics**

See 26ENV796. Credit Level: G. Credit Hrs: 1.00-15.00

26ENV899**Special Topics**

See 26ENV796. Credit Level: G. Credit Hrs: 1.00-15.00

26ENV991**Doctoral Dissertation Research**

Credits to be arranged. Credit Level: G. Credit Hrs: 1.00-15.00

26ENV996**Special Topics**

See 26ENV796. Credit Level: G. Credit Hrs: 1.00-15.00

26ENV997**Special Topics**

See 26ENV796. Credit Level: G. Credit Hrs: 1.00-15.00

26ENV998**Special Topics**

See 26ENV796. Credit Level: G. Credit Hrs: 1.00-15.00

26ENV999**Special Topics**

See 26ENV796. Credit Level: G. Credit Hrs: 1.00-15.00

Graduate Medicine Interdepartmental**26GNTD720****Academic Conduct**

This course will provide a description of academic and scientific conduct and misconduct, as outlined in the UC policy book, The Student Code of Conduct and the National Academy of Sciences publication, On Being a Scientist. Credit Level: G. Credit Hrs: 0.00-1.00

26GNTD730**Ethics in Research**

A nine week lecture series addressing ethical issues in research including such topics as human experimentation, animal welfare, conflict of interest, and responsible authorship and publication practices. Credit Level: G. Credit Hrs: 1.00

26GNTD741**Medical Biochemistry and Human Genetics**

Chemistry of proteins, enzymes and other macromolecules; bioenergetics, cellular and mammalian metabolism, metabolic control mechanisms, molecular genetics and nutrition. Credit Level: G. Credit Hrs: 7.00

26GNTD742**Medical Biochemistry and Human Genetics**

Chemistry of proteins, enzymes and other macromolecules; bioenergetics, cellular and mammalian metabolism, metabolic control mechanisms, molecular genetics and nutrition. Credit Level: G. Credit Hrs: 5.00

26GNTD780**Flex Option Research**

Laboratory rotation for students in the Flex Option Program during the first year of graduate study in the College of Medicine. Credit Level: G. Credit Hrs: 1.00-12.00

26GNTD781**Flex Option Research**

Laboratory rotation for students in the Flex Option Program during the first year of graduate study in the College of Medicine. Credit Level: G. Credit Hrs: 1.00-12.00

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Graduate Medicine Interdepartmental**26GNTD781****Flex Option Research**

Laboratory rotation for students in the Flex Option Program during the first year of graduate study in the College of Medicine. Credit Level: G. Credit Hrs: 1.00-12.00

26GNTD782**Flex Option Research**

Laboratory rotation for students in the Flex Option Program during the first year of graduate study in the College of Medicine. Credit Level: G. Credit Hrs: 1.00-12.00

26GNTD783**Flex Option Research**

Laboratory rotation for students in the Flex Option Program during the first year of graduate study in the College of Medicine. Credit Level: G. Credit Hrs: 1.00-12.00

26GNTD871**Molecular Genetics**

Genetic concepts, DNA structure, replication and repair, recombination, transcription, translation, regulation, cloning methods. Perm of Instructor. Credit Level: G. Credit Hrs: 3.00

26GNTD872**Biochemistry**

Application of classical and molecular techniques to problems of protein structure and function; membrane organization and dynamics; biochemistry of membrane transport processes. Credit Level: G. Credit Hrs: 3.00

26GNTD873**Cell Biology**

This course covers membrane biology and basic cell biology. Emphases include membrane structure and generation of resting and action potentials, cell compartmentalization and organelles, protein trafficking and secretion, cytoskeleton, extracellular matrix, nuclear architecture and chromosome structure. The course integrates morphological, biochemical and biophysical approaches. Credit Level: G. Credit Hrs: 3.00

26GNTD881**Introduction to Functional Genomics**

The course will consist of a series of lectures/seminars on the theory and use of methods of functional genomics in biomedical research. Lectures will be presented by some local speakers and invited experts outside the university. The course will include eight lab sessions, five on bioinformatics that will be offered in an electronic classroom and three "wet labs" that will provide hands-on experience in practical application of functional genomics principles. Prereq: 26GNTD871. Credit Level: G. Credit Hrs: 3.00

Immunobiology**26IMM801****Journal Club**

Critical reviews and group discussion of current issues and literature. Presentations will be made by students, faculty and outside speaker. Credit Level: G. Credit Hrs: 1.00

26IMM802**Journal Club**

Critical reviews and group discussion of current issues and literature. Presentations will be made by students, faculty and outside speaker. Credit Level: G. Credit Hrs: 1.00

26IMM803**Journal Club**

Critical reviews and group discussion of current issues and literature. Presentations will be made by students, faculty and outside speaker. Credit Level: G. Credit Hrs: 1.00

Immunobiology**26IMM804****Seminar**

Research seminars by guest scientists and summations of research in progress by faculty and fellows. Credit Level: G. Credit Hrs: 1.00

26IMM805**Seminar**

Research seminars by guest scientists and summations of research in progress by faculty and fellows. Credit Level: G. Credit Hrs: 1.00

26IMM806**Seminar**

Research seminars by guest scientists and summations of research in progress by faculty and fellows. Credit Level: G. Credit Hrs: 1.00

26IMM807**Immunobiology Student / Post Doc Forum**

Graduate students present their research with the aid of their mentor. Credit Level: G. Credit Hrs: 1.00

26IMM808**Seminar (Immunohematology Club)**

Immunohematology Club is a seminar as part of the immunobiology graduate program curriculum. Credit Level: G. Credit Hrs: 1.00

26IMM872**Research**

Investigative work in partial fulfillment of requirements for the Masters and the PhD degrees. Offered each quarter. Credit Level: G. Credit Hrs: 1.00-12.00

26IMM888**Foundations of Immunology I**

Foundations of Immunology is intended to be a comprehensive immunology course for first year graduate students. It covers the structure and organization of the immune system, basic concepts of the innate and adaptive immune responses, and T and B cell development and biology. Lectures will also include details of immunological techniques. While the course has no official prerequisites, students will find that some background in basic biochemistry, cell biology and molecular genetics will be desirable. Credit Level: G. Credit Hrs: 4.00

26IMM889**Foundations of Immunology II**

This course is designed to apply the concepts learned in Foundations of Immunology I to understanding the regulation of immune responses and inflammation. Prereq: 26IMM888. Credit Level: G. Credit Hrs: 4.00

26IMM890**Advanced Topics in Immunology**

This course will cover the most significant advances in immunological research, derived from the current literature. Each class section will focus on a specific topic with first, a short general discussion and second, a focused look at some isolated issues. Students will be assigned papers to present at each class session. Journal club format will be used, where the course director will cover background and introductory information on a current topic of immunology (i.e. chemokines, cytokine receptors, apoptosis, memory, etc.) and will subsequently lead a round table discussion of data from the primary literature. Designed for masters, doctoral and advanced undergraduate students with prior experience in immunology. A portion of the grade will be based on an NIH-style grant proposal turned in at the end of the course. The grant will be based on any paper that is covered in the course. The last session will consist of a student-run study section to critique the grants written by their peers. Prereq: 26IMM888, 26IMM889. Credit Level: G. Credit Hrs: 1.00

26IMM891**Advanced Topics in Immunology**

This course will cover the most significant advances in immunological research, derived from the current literature. Each section will focus on a specific topic with a short general discussion and a focused look at some isolated issues. Students will be assigned papers to present at each class session. Journal club format will be used, in

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Immunobiology**26IMM891****Advanced Topics in Immunology**

which the course director will cover background and introductory information on a current topic of immunology (chemokines, cytokines receptors, apoptosis, memory, etc.) and will subsequently lead a round table discussion of data from the primary literature. Designed for masters, doctoral and advanced undergraduate students with prior experience in immunology. A portion of the grade will be based on an NIH-style grant proposal turned in at the end of the class. The grant will be based on any paper that is covered in the class. The last session will consist of a student-run study section to critique the grants written by their peers. Credit Level: G. Credit Hrs: 2.00

Molecular, Cellular and Biochemical Pharmacology**26MCBP801****Lab Rotation**

A series of practical laboratory methods employed in contemporary pharmacology research. Computer models and modeling, quantitative analysis, statistical applications, experimental design. Molecular, cellular, organ, organ system and organism levels. Credit Level: G. Credit Hrs: 1.00-12.00

26MCBP802**Lab Rotation**

See 26MCBP801. Credit Level: G. Credit Hrs: 1.00-12.00

26MCBP803**Lab Rotation**

See 26MCBP801. Credit Level: G. Credit Hrs: 1.00-12.00

26MCBP804**Lab Rotation**

See 26MCBP801. Credit Level: G. Credit Hrs: 1.00-12.00

26MCBP805**Seminar**

Emphasis on drugs; mechanism of action; historical, classical and novel concepts; current discoveries; trends in pharmacology. Oral presentation and written assignments/reports. Current literature and critical reviews. Credit Level: G. Credit Hrs: 1.00

26MCBP806**Seminar**

See 26MCBP805. Credit Level: G. Credit Hrs: 1.00

26MCBP807**Seminar**

See 26MCBP805. Credit Level: G. Credit Hrs: 1.00

26MCBP821**Cell Biophysics I**

Membranes and Bioenergetics. Current concepts of structure, function, regulation, and intracellular integration of energy transducing membranes, with emphasis on their roles in heart muscle and in heart and neural diseases and aging. Credit Level: G. Credit Hrs: 3.00

26MCBP823**Integrated Molecular Pharmacology and Medicine**

Pharmacology at the whole animal, organ, tissue, cellular and molecular levels. Integrated concepts of biomechanics and bioenergetics, structure and function, excitation-contraction coupling, ion transport, regulatory mechanisms, drug actions and transgenic approaches. Perm of Instructor. Credit Level: G. Credit Hrs: 3.00-5.00

26MCBP831**Receptor Pharmacology**

An introductory course designed specifically for graduate students to supplement portions of the primary course in pharmacology with emphasis on modern concepts of drug receptor interactions. Credit Level: G. Credit Hrs: 4.00

Molecular, Cellular and Biochemical Pharmacology**26MCBP837****Advanced Topics Protein Phosphorylation**

Concepts of protein, phosphorylation by various protein kinases. Regulation of cellular functions through phosphorylation/dephosphorylation processes. Credit Level: G. Credit Hrs: 3.00

26MCBP841**Pharmacology and Therapeutics I**

Principles of drug action and the rational use of drugs in clinical disorders. Lectures, demonstrations, and conferences. Credit Level: G. Credit Hrs: 3.00

26MCBP842**Pharmacology and Therapeutics II**

Continuation of 26MCBP841. Prereq: 26MCBP841. Credit Level: G. Credit Hrs: 2.00

26MCBP843**Pharmacology and Therapeutics III**

Principles of drug action and the rational use of drugs in clinical disorders. Lectures, demonstrations, and conferences. Credit Level: G. Credit Hrs: 3.00

26MCBP844**Pharmacology and Therapeutics IV**

Principles of drug action and the rational use of drugs in clinical disorders. Lectures, demonstrations, and conferences. Credit Level: G. Credit Hrs: 3.00

26MCBP851**Cardiac Muscle Bioenergetics**

Current concepts of bioenergetics, molecular and cell biology as they related to the intracellular integration of energy production and utilization in normal and ischemic cardiac muscle. Credit Level: G. Credit Hrs: 3.00

26MCBP871**Lab Rotation**

A series of laboratory problems carried out under supervision of the staff. Credit Level: G. Credit Hrs: 1.00-15.00

26MCBP873**Advanced Topics in Electropharmacology**

Membrane potentials and electrical models of nerve, muscle, and synapse. Analysis of ionic theories for bioelectric phenomena. Credit Level: G. Credit Hrs: 3.00

26MCBP888**Community Pharmacology**

Individual research projects and seminars on use of drugs by medical and non-medical community, e.g., drug epidemiology, drug "abuse," drug information. Credit Level: G. Credit Hrs: 2.00-6.00

26MCBP903**Special Topics in Pharmacology**

This course offers advanced instruction in specialized areas of pharmacology. The content and format varies. Credit Level: G. Credit Hrs: 1.00-4.00

26MCBP905**Emerging Concepts in Targeting Common Metabolic Disorders**

Students will be introduced to the emerging multidisciplinary concepts in the prevention and cure of the most common metabolic diseases. Credit Level: G. Credit Hrs: 2.00

26MCBP951**Molecular Pharmacology**

The goal of this course is to introduce the major concepts, literature and experimental approaches related to the study of membrane transport proteins, including ion channels, pumps and transporters. Perm of Instructor. Credit Level: G. Credit Hrs: 4.00

26MCBP971**Research**

Dissertation research in Pharmacology and Cell Biophysics. Credit

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Molecular, Cellular and Biochemical Pharmacology**26MCPB971****Research**

Level: G. Credit Hrs: 1.00-15.00

Molecular & Cellular Physiology**26MCP841****Medical Physiology I**

Subcellular organelles, cells, tissues, organ systems and their integrated activity. Focus: cellular, muscle, cardiac, circulatory, renal, respiration, the physiology acid base, and the physiology of energy balance and temperature regulation. Credit Level: G. Credit Hrs: 7.00

26MCP842**Medical Physiology II**

Subcellular organelles, cells, tissues, organs systems, and their integrated activity. Focus: gastrointestinal physiology, endocrine physiology, and the physiology of reproduction. Perm of Instructor. Credit Level: G. Credit Hrs: 5.00

26MCP843**Graduate Physiology I**

To understand the body fluid spaces and the forces and flows maintaining homeostasis at the cellular level. To understand bioelectrical phenomena for the origin of the cell membrane potential to cardiac electrophysiology. To be able to characterize muscle mechanical properties as well as to understand the underlying mechanisms. To expose students to standard laboratory approaches used to explore essential cellular processes. Perm of Instructor. Credit Level: G. Credit Hrs: 2.00

26MCP844**Graduate Physiology II**

To provide a thorough understanding of the fundamental principles of cardiac and vascular physiology at the whole animal, organ and cell and molecular levels. To review some of the major research areas and experimental approaches that represent current and pressing questions in cardiovascular research. To expose students to laboratory environments and techniques currently in use to explore cardiovascular function - particularly in gene-manipulated mouse models. To review and evaluate the current literature in representative areas of cutting-edge cardiovascular research. Perm of Instructor. Credit Level: G. Credit Hrs: 3.00

26MCP845**Graduate Physiology III**

To provide a thorough understanding of the fundamental principles of renal, respiratory and acid-base physiology at the whole animal, organ, cell and molecular levels. To review major research areas and experimental approaches used in renal, respiratory and acid-base research. To familiarize students with techniques currently in use to explore renal, respiratory and acid-base function. To review and evaluate the current literature. Perm of Instructor. Credit Level: G. Credit Hrs: 3.00

26MCP846**Graduate Physiology IV**

To provide current understanding of hormone actions and endocrine control of body functions, particularly as it relates to the gastrointestinal system. To review major research areas and experimental approaches used in the study of hormone signaling and GI function. To familiarize students with techniques currently in use to explore endocrine and GI physiology. To critically review and evaluate current literature in the area of hormone signaling mechanism and control of epithelial function. Perm of Instructor. Credit Level: G. Credit Hrs: 3.00

26MCP847**Graduate Physiology V**

To provide a thorough understanding of the fundamental principles of neurophysiology animal, organ, cell and molecular levels. To review and evaluate the current literature in representative areas neurophysiology with attention to current experimental approaches. Credit Level: G. Credit Hrs: 3.00

Molecular & Cellular Physiology**26MCP847****Graduate Physiology V**

To provide a thorough understanding of the fundamental principles of neurophysiology animal, organ, cell and molecular levels. To review and evaluate the current literature in representative areas neurophysiology with attention to current experimental approaches. Credit Level: G. Credit Hrs: 3.00

26MCP848**Special Topics in Systems Biology and Physiology**

This course provides advanced education in current areas of interest within systems biology and physiology, utilizing faculty expertise and serving students' interests and needs. The content and format varies. Prerequisite - Permission of Program Director and Instructor. Credit Level: G. Credit Hrs: 1.00-4.00

26MCP849**Statistical Methods in Physiology**

A practical course in statistics that will equip students to select and execute the appropriate statistical tests to analyze experimental data typically encountered in physiology research. Course topics include: experimental design; statistical concepts, pitfalls and misconceptions; statistical analysis (including t-tests, analysis of variance, and regression analysis); appropriate and effective data presentation. Credit Level: G. Credit Hrs: 3.00

26MCP874**Research Careers**

A wide range of career options are presented by professionals in field research. Credit Level: G. Credit Hrs: 1.00

26MCP900**Introduction to Research Techniques**

The objective of this course is to demonstrate techniques used in physiology in the context of solving a scientific problem. Credit Level: G. Credit Hrs: 2.00

26MCP902**Human Systems Physiology I**

This course will investigate the bioenergetics of cellular homeostasis, cellular bioelectrical phenomena, muscle, and cardiovascular physiology from molecular to whole organism levels. Credit Level: G. Credit Hrs: 4.00

26MCP903**Human Systems Physiology II**

This course will investigate the fundamentals of respiratory, renal and gastrointestinal physiology along with understanding applications of quantitative biology to physiologic problems. Credit Level: G. Credit Hrs: 4.00

26MCP911**Seminar/Journal Club**

Research seminars by guest scientists and summations of research in progress by faculty and fellows. Perm of Instructor. Credit Level: G. Credit Hrs: 1.00

26MCP912**Seminar/Journal Club**

Research seminars by guest scientists and summations of research in progress by faculty and fellows. Perm of Instructor. Credit Level: G. Credit Hrs: 1.00

26MCP913**Seminar/Journal Club**

Research seminars by guest scientists and summations of research in progress by faculty and fellows. Perm of Instructor. Credit Level: G. Credit Hrs: 1.00

26MCP951**Molecular Physiology I: Membrane Transport Proteins**

The goal of this course is to introduce the major concepts, literature and experimental approaches related to the study of membrane transport proteins, including ion channels, pumps, and transporters. Credit Level:

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Molecular & Cellular Physiology**26MCP951****Molecular Physiology I: Membrane Transport Proteins**

G. Credit Hrs: 4.00

26MCP952**Molecular Physiology II: Molecular Endocrinology**

This course is an advanced study of the molecular mechanisms responsible for hormone, growth factor and cytokine signal transduction. Credit Level: G. Credit Hrs: 4.00

26MCP953**Molecular Physiology III**

The purpose of this course is to integrate abundant molecular biological information and classic organ physiology. The course will be directed to teach students how molecular biology approaches can be applied to study cell and organ function. Emphasis will be placed on the integration of key physiological concepts of selected topics, with particular focus on examples of control mechanisms and how they adapt to changes in the environment to maintain homeostasis. In addition, the topics will be selected from the point of view of their potential relevance in pathophysiology and treatment of major diseases. The clinical correlation will be presented. Credit Level: G. Credit Hrs: 4.00

26MCP963**Renal Physiology**

Concepts of renal function. Discussions of glomerular and tubular functions. Credit Level: G. Credit Hrs: 2.00

26MCP970**Introduction to Research**

Laboratory research for graduate students who have not yet advanced to candidacy. Credit Level: G. Credit Hrs: 1.00-15.00

26MCP971**Thesis Research**

Thesis research in Molecular and Cellular Physiology. Credit Level: G. Credit Hrs: 1.00-15.00

26MCP978**Cell Biology of the Blood Vessel Wall**

Focus on endothelial cell-vascular smooth muscle interactions in the control of vasomotor tone. Credit Level: G. Credit Hrs: 2.00

26MCP981**Physiology/Reproduction**

Discussion of cellular mechanisms of reproductive hormone action, control of growth and development, gametogenesis, reproductive cycles, pregnancy including cardiovascular adaptations during pregnancy, and parturition. Current research methods and publications will be discussed. Credit Level: G. Credit Hrs: 3.00

Medicine**26MD101****Freshman MD Course**

Medical curriculum for first year students. Credit Level: P. Credit Hrs: 24.00

26MD102**Freshman MD Course**

Medical curriculum for first year students. Credit Level: P. Credit Hrs: 24.00

26MD103**Freshman MD Course**

Medical curriculum for first year students. Credit Level: P. Credit Hrs: 24.00

26MD201**Sophomore MD Course**

Medical curriculum for second year students. Credit Level: P. Credit Hrs: 24.00

Medicine**26MD202****Sophomore MD Course**

Medical curriculum for second year students. Credit Level: P. Credit Hrs: 24.00

26MD203**Sophomore MD Course**

Medical curriculum for second year students. Credit Level: P. Credit Hrs: 24.00

26MD401**Junior MD Course**

Medical curriculum for third year students. Credit Level: P. Credit Hrs: 24.00

26MD402**Junior MD Course**

Medical curriculum for third year students. Credit Level: P. Credit Hrs: 24.00

26MD403**Junior MD Course**

Medical curriculum for third year students. Credit Level: P. Credit Hrs: 24.00

26MD404**Junior MD Course**

Medical curriculum for third year students. Credit Level: P. Credit Hrs: 24.00

26MD501**Senior MD Course**

Medical curriculum for fourth year students. Credit Level: P. Credit Hrs: 24.00

26MD502**Senior MD Course**

Medical curriculum for fourth year students. Credit Level: P. Credit Hrs: 24.00

26MD503**Senior MD Course**

Medical curriculum for fourth year students. Credit Level: P. Credit Hrs: 24.00

26MD504**Senior MD Course**

Medical curriculum for fourth year students. Credit Level: P. Credit Hrs: 24.00

26MD533**Medical Curriculum Special Studies**

Special studies for the first, second, third or fourth year medical student. Schedules worked out in conjunction with the student, the Promotion Board and Student Affairs. Credit Level: P. Credit Hrs: 12.00

Molecular Gen, Biochem, Microbiol & Immunology**26MG599****Introduction to Immunology**

A comprehensive introductory level immunology course for graduate students, advanced undergraduates, technicians and fellows. It will cover basic immunochemistry and cellular and molecular immunology. While the course has no official prerequisites, students will find that some background in basic biochemistry, cell biology and molecular genetics will be desirable. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

26MG620**Advanced Immunology-Contemporary Topic I**

This course will cover the most significant advances in immunological research, derived from the current literature. Journal club format will be used, where the presenter will cover background and introductory information on a topic chosen with the advice and consent of the instructor, and will subsequently lead a round table discussion of data from the primary literature. Designed for masters, doctoral and

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Molecular Gen, Biochem, Microbiol & Immunology**26MG620****Advanced Immunology-Contemporary Topic I**

advanced undergraduate students with prior experience in immunology. Each student will be assigned as discussion leader twice per quarter. Enrollment limited to 10. BoK: NS. Credit Level: U, G. Credit Hrs: 1.00

26MG621**Advanced Immunology-Contemporary Topics II**

Same as 26MG620. BoK: NS. Credit Level: U, G. Credit Hrs: 1.00

26MG622**Advanced Immunology-Contemporary Topics III**

Same as 26MG620. BoK: NS. Credit Level: U, G. Credit Hrs: 1.00

26MG649**Pathogenic Mechanisms**

This course covers the basics of bacterial fungal pathogenesis and virology with emphasis on viral replication. Perm of Instructor. Credit Level: G. Credit Hrs: 3.00

26MG708**Yeast Mutants as an Educational Tool**

This course will provide teachers the necessary knowledge and training to permit them to teach fundamental aspects of modern molecular biological research to their K-12 students. This course will use a problem in yeast biochemical genetics to guide students through the application of the scientific method. The essential laboratory component of the class is designed to familiarize teachers with molecular genetic techniques. Perm of Instructor. Credit Level: G. Credit Hrs: 4.00

26MG710**Advanced Molecular Genetics I: Gene Regulation**

Provides a literature-based view of major research questions, with emphasis upon gene structure and the regulation of gene expression. Student discussions are included with the lecture format. Prereq: 26GNTD871. Credit Level: G. Credit Hrs: 4.00

26MG711**Mechanisms of Signal Transduction**

Provides a research literature-based view of modern aspects of signal transduction and includes student driven discussions of seminal papers in the signal transduction field. Topics include receptor-mediated signal transduction originating at the plasma membrane and covers major effector pathways including those leading to second messenger generation, kinase cascade assembly, and activation of transcription factors. We will be discussing signaling mechanisms related to cellular homeostasis, developmental biology, immunology, and cancer. Recommended prerequisites: Introduction to Molecular Genetics and Molecular Biology of the Cell I. Spring Quarter only. Prereq: 26GNTD871, 26GNTD872. Credit Level: G. Credit Hrs: 3.00

26MG712**Microbiology and Immunology**

This course will provide individuals interested in microbiology with a firm foundation to pursue their studies. In addition, the course will provide all biological science students with the fundamentals of prokaryotic biology that lie at the heart of modern molecular genetic techniques. The topics to be covered include prokaryotic structure and function, gene regulation and protein synthesis, gene transfer, plasmids, bacteriophage genetics and restriction and modification of systems. Credit Level: G. Credit Hrs: 3.00

26MG718**Structural Biology**

This course will cover structural techniques used to determine protein structure, dynamics and enzyme mechanisms. Particular emphasis will be placed on solution NMR techniques to problems in protein structure and enzyme mechanism. The course will consist of both lectures and a review of pertinent literature articles. Topics to be covered include NMR theory, practical aspects of biological NMR, the use of structural techniques in understanding HIV proteins, structural studies of muscle

Molecular Gen, Biochem, Microbiol & Immunology**26MG718****Structural Biology**

proteins, as well as mechanistic studies of ribonucleases and phosphoryl transfer enzymes. Credit Level: G. Credit Hrs: 2.00

26MG719**Proteins: Structure, Function and Engineering**

Designed for graduate students who have completed the first quarter of Molecular Biology of the Cell. Protein design; enzyme specificity and mechanisms of catalysis; transport physiology and enzymology; macromolecular assembly, protein-protein interactions and signal transduction; NMR and macromolecular structure. Credit Level: G. Credit Hrs: 4.00

26MG730**PC Research Applications**

An introduction to the use of database, spreadsheets, graphics, word processing programs, and DNA sequence analysis. Credit Level: G. Credit Hrs: 1.00

26MG820**Biologic Threat Agents**

This course deals with microbes of interest in bioterrorism. Lectures providing background information on selected agents will be followed by student presentations of current research papers on the topic. Winter Quarter only. 3 gr. cr. hrs. Perm of Instructor. Credit Level: G. Credit Hrs: 3.00

26MG821**Human Genetics**

Hours to be arranged. Credit Level: G. Credit Hrs: 1.00-3.00

26MG822**Immunology**

Hours to be arranged. Credit Level: G. Credit Hrs: 1.00-3.00

26MG823**Advanced Topics in Structural Biology**

This advanced topics course will explore the principles, methodologies, and practical applications of macromolecular crystallography in contemporary structural biology research. In addition to understanding the central issues that underlie macromolecular structure determination by crystallographic methods, students will learn through hands-on experiments of the practical aspects for growing crystals, collecting and analyzing X-ray diffraction data, and ultimately determining crystal structures. Credit Level: G. Credit Hrs: 1.00-3.00

26MG824**Image Analysis: A Practical Approach**

This is a practical course on the application of image analysis to current problems in biological research. Students will be provided hands on experience with the application of state of the art image analysis equipment to problems in immunocytochemistry, gel analysis and fluorescence microscopy in living cells. Credit Level: G. Credit Hrs: 2.00

26MG825**Nucleic Acids**

DNA structure and DNA protein interactions during gene expression. Credit Level: G. Credit Hrs: 1.00-3.00

26MG826**Pathogenic Mechanisms**

Hrs. to be arranged. Credit Level: G. Credit Hrs: 1.00-3.00

26MG827**Proteins/Enzymology**

Hrs. to be arranged. Credit Level: G. Credit Hrs: 1.00-3.00

26MG828**Topics in Virology**

Hrs. to be arranged. Credit Level: G. Credit Hrs: 1.00-3.00

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Molecular Gen, Biochem, Microbiol & Immunology**26MG831****Growth Factors**

Hrs. to be arranged. Credit Level: G. Credit Hrs: 1.00-3.00

26MG833**Topics in Genetics: Graduate Seminar**

Hrs. to be arranged. Credit Level: G. Credit Hrs: 3.00

26MG834**Scientific Writing for Publication and Funding I**

The aim of this course is to improve the student's ability to write scientific papers and grant proposals in a clear and cogent manner.

Credit Level: G. Credit Hrs: 1.00

26MG835**Scientific Writing for Publication and Funding II**

Continuation of 26MG834. Prereq: 26MG834. Credit Level: G. Credit Hrs: 1.00

26MG836**Myocardial Biology**

The purpose of this course is to examine in detail the cardiac muscle cell with the major goal of understanding how the heart functions and is regulated. The role of calcium as a central regulator is stressed. Credit Level: G. Credit Hrs: 3.00

26MG837**Advanced Topics in Gene Regulation**

A research article-based course exploring the most recent literature in the field of eukaryotic gene expression and mechanisms of gene regulation. Format will be primarily through numerous student-participatory discussions of research papers and will include several visits by noted leaders in the field from outside institutions. Offered every other year. Prereq: 26MG710. Credit Level: G. Credit Hrs: 3.00

26MG838**Special Topics in Molecular Genetics**

Hrs. to be arranged. Credit Level: G. Credit Hrs: 1.00-3.00

26MG868**Genetics of Complex Diseases**

Introduction to complex disease and traits. Epidemiology and genetic basis of complex diseases. Credit Level: G. Credit Hrs: 3.00

26MG870**Masters Research**

Investigative work in partial fulfillment of the requirements for the Masters degree. Credit Level: G. Credit Hrs: 1.00-15.00

26MG921**Graduate Seminar in Molecular Genetics I**

Review of current literature (under director of faculty adviser). Credit Level: G. Credit Hrs: 2.00

26MG922**Graduate Seminar in Molecular Genetics II**

Review of current literature (under direction of faculty adviser). Credit Level: G. Credit Hrs: 2.00

26MG923**Graduate Seminar in Molecular Genetics III**

Review of current literature (under direction of faculty adviser). Credit Level: G. Credit Hrs: 2.00

26MG950**Doctoral Literature Review**

Independent study course where the student submits a short, written review describing previous work performed by others in the field related to his/her dissertation project. For Molecular Genetics Doctoral Students Only. Autumn Qtr. Credit Level: G. Credit Hrs: 1.00

26MG971**PHD Dissertation Research**

Investigative work in partial fulfillment of the requirements for the PhD degree. Credit Level: G. Credit Hrs: 1.00-15.00

Molecular Gen, Biochem, Microbiol & Immunology**26MG971****PHD Dissertation Research**

Investigative work in partial fulfillment of the requirements for the PhD degree. Credit Level: G. Credit Hrs: 1.00-15.00

26MG972**Special Problems**

Laboratory work and readings. The specific area of concentration will be determined by consultation with the staff. Credit Level: G. Credit Hrs: 1.00-15.00

Medical Physics**26MP941****Radiobiology I**

Physics and chemistry of ionizing radiation interaction with living cell systems. Subcellular and cellular effects: damage, repair, sensitivity. Measurement methods, survival curve models, in vitro, in vivo assays. Tumor and normal tissue responses. Radiosensitizers, radioprotectors, hypoxia. Genetic effects, oncogenes, carcinogenesis, risk estimates. Cancer radiotherapy: fractionation, dose-rate, adjuvant therapies. Effects on whole body, organ and tissues systems, dose limits. Credit Level: G. Credit Hrs: 2.00

26MP942**Radiobiology II**

See 26MP941. Credit Level: G. Credit Hrs: 2.00

26MP943**Radiobiology III**

See 26MP941. Credit Level: G. Credit Hrs: 2.00

26MP944**Radiologic Dosimetry I**

Physical interactions between electromagnetic radiation and matter; exposure and absorbed dose; dose calculations for external and internal radiation sources. Credit Level: G. Credit Hrs: 2.00

26MP945**Radiologic Dosimetry II**

See 26MP944. Credit Level: G. Credit Hrs: 2.00

26MP946**Radiologic Dosimetry III**

See 26MP944. Credit Level: G. Credit Hrs: 2.00

26MP950**Radiologic Imaging Physics I**

Physical principles of imaging including diagnostic radiology, x-ray equipment, image quality evaluation, information transfer systems, special imaging modalities of mammography, digital radiography, CT, ultrasound, MRI, nuclear medicine, radiation detection, clinical instrumentation. Credit Level: G. Credit Hrs: 2.00

26MP951**Radiologic Imaging Physics II**

See 26MP950. Credit Level: G. Credit Hrs: 2.00

26MP952**Radiologic Imaging Physics III**

Physical principles of imaging including diagnostic radiology, x-ray equipment, image quality evaluation, information transfer systems, special imaging modalities of mammography, digital radiography, CT, ultrasound, MRI, nuclear medicine, radiation detection, clinical instrumentation. Credit Level: G. Credit Hrs: 2.00

26MP972**Radiological Sciences Lab I**

Selected laboratory experiments including surveys and calibrations of radiation units for diagnostic radiology, nuclear medicine, and therapeutic oncology. Credit Level: G. Credit Hrs: 2.00-4.00

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Medical Physics**26MP973****Radiological Sciences Lab II**

See 26MP972. Prereq: 26MP972. Credit Level: G. Credit Hrs: 2.00-4.00

26MP981**Special Topics - Treatment Planning**

Extend student knowledge of use of ionizing radiation for therapeutic gain, detailed information on specialized radiation therapy treatment. Credit Level: G. Credit Hrs: 3.00

26MP982**Special Topics - Quality Assurance**

Will include initial acceptance of treatment units and continuing quality assurance of treatment units. Includes daily, weekly, monthly, annual quality assurance for proper completion of therapeutic prescription. Credit Level: G. Credit Hrs: 3.00

26MP983**Special Topics - Regulatory Issues**

Detailed review of applicable regulatory issues associated with radiation therapy, regulatory roles of USNRC, USFDA, state agencies and issues which arise from hospital accreditation issues. Credit Level: G. Credit Hrs: 3.00

26MP984**Special Topics in Nuclear Medical Physics**

Extend knowledge of nuclear medicine to clinical applications as well as imaging processing, quality assurance and radiation protection. Includes role of medical physicist in quality assurance and radiation protection. Credit Level: G. Credit Hrs: 3.00

26MP985**Special Topics in Diagnostic Radiological Physics**

Extend students knowledge of clinical diagnostic radiological physics and issues of image processing, quality assurance and radiation protection. Credit Level: G. Credit Hrs: 3.00

26MP989**Advanced Imaging Physics**

The course will extend the students knowledge of a particular aspect of diagnostic radiological physics. Topics will be selected on the basis of the interest of instructor and/or students. Credit Level: G. Credit Hrs: 3.00

26MP991**Research in Radiological Sciences**

Selected research projects in diagnostic and therapeutic radiology, radiologic physics, nuclear medicine and radiobiology. Credit Level: G. Credit Hrs: 1.00-15.00

26MP992**Seminar: Current Research in Radiological Sciences**

Reading, presentation, and critical discussion of recent research contributions in the radiological sciences. Credit Level: G. Credit Hrs: 1.00

26MP993**Clinical Medical Physics**

Clinical experience in areas of physics applied to diagnostic radiology, therapeutic radiology, and nuclear medicine. Credit Level: G. Credit Hrs: 1.00-15.00

26MP995**Clinical Aspects of Treatment Planning**

The course will familiarize students with clinical goals for radiation therapy as related to various tumor systems. The students will gain an appreciation of the role of radiation therapy as a therapeutic agent as well as the role of radiation physicist. Credit Level: G. Credit Hrs: 3.00

26MP996**Clinical Aspects of Treatment Planning**

The course will familiarize students with clinical goals for radiation therapy as related to various tumor systems. The students will gain an appreciation of the role of radiation therapy as a therapeutic agent as

Medical Physics**26MP996****Clinical Aspects of Treatment Planning**

well as the role of radiation physicist. Credit Level: G. Credit Hrs: 3.00

26MP997**Clinical Aspects of Treatment Planning**

The course will familiarize students with clinical goals for radiation therapy as related to various tumor systems. The students will gain an appreciation of the role of radiation therapy as a therapeutic agent as well as the role of radiation physicist. Credit Level: G. Credit Hrs: 3.00

Neuroscience**26NS777****Scientific Writing for Neuroscientists**

This course is designed to provide students with a solid background in scientific communication skills as they relate to neuroscience research. Students will be familiarized with various forms of science writing, including manuscript preparation, grant preparation and review articles. Credit Level: G. Credit Hrs: 3.00

26NS778**Fundamentals of Neuroscience I**

This is the first half of a two-quarter course that will serve as an introduction to neuroscience for UC NS grad students and interested students from other UC grad programs. This course will provide an overview of our current understanding of molecular and cellular neuroscience. Credit Level: G. Credit Hrs: 3.00

26NS779**Fundamentals of Neuroscience II**

This is a second half of a two-quarter course that will serve as an introduction to neuroscience for graduate students in the UC NS Graduate Program and interested students from other UC graduate programs. Fundamentals of Neuroscience II is intended to integrate and extend topics covered in Fundamentals of Neuroscience I, and will provide an overview of our current understanding of neuroendocrine and motor systems, reward and addiction, and behavioral and cognitive neuroscience. Credit Level: G. Credit Hrs: 4.00

26NS830**Neuropharmacology**

This course covers the neurochemical mechanisms underlying the behavioral effects of psychoactive drugs. Reference to specific neurotransmitter systems and drugs are used to illustrate general principles. Topics include drug modulation of synaptic transmission; brain adaptations to chronic drug treatments; psychotherapeutic drugs and what they tell us about the etiology of brain disorders. Credit Level: G. Credit Hrs: 2.00

26NS840**Survey of Neuroscience Research**

Weekly research seminars by faculty to introduce incoming graduate students to research opportunities in neuroscience at the University of Cincinnati. This series of seminars will assist students in identification of laboratories in which they desire to do laboratory rotations and ultimately dissertation research. Credit Level: G. Credit Hrs: 1.00

26NS841**Brain and Behavior I**

The first quarter of a two quarter sequence that introduces the principles and concepts of nervous system organization: structural organization, cellular neurophysiology, neuropharmacology, sensory and motor systems, higher cortical functions. Required for Neuroscience PhD students. Credit Level: G. Credit Hrs: 4.00-10.00

26NS842**Neuroscience: Development and Plasticity**

A graduate course designed to introduce students to cellular and developmental neuroscience. Topics include: structure and function of the neuron and synapse; nervous system segmentation; neuronal and glial differentiation; axonal pathfinding; cellular mechanisms of learning; neural regeneration. Required for Neuroscience PhD students. Credit

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Neuroscience**26NS842****Neuroscience: Development and Plasticity**

Level: G. Credit Hrs: 1.00-4.00

26NS850**Introduction to Laboratory Research**

Laboratory research for graduate students who have not yet advanced to candidacy. Credit Level: G. Credit Hrs: 1.00-12.00

26NS851**Introduction to Laboratory Research**

See 26NS850. Credit Level: G. Credit Hrs: 1.00-12.00

26NS852**Introduction to Laboratory Research**

See 26NS850. Credit Level: G. Credit Hrs: 1.00-12.00

26NS861**Brain and Behavior II**

An overview of human neurological and psychiatric disorders through the various stages of human development, including seizures, schizophrenia, substance abuse, Alzheimer's disease, Parkinson's disease and other movement disorders. The course is offered during a four-week concentrated block of time. Perm of Instructor. Credit Level: G. Credit Hrs: 4.00-10.00

26NS901**Neuroscience Seminar**

Formal presentations of current research in neuroscience will be given by speakers from both UC and other institutions. Credit Level: G. Credit Hrs: 1.00

26NS902**Neuroscience Seminar**

See 26NS901. Credit Level: G. Credit Hrs: 1.00

26NS903**Neuroscience Seminar**

See 26NS901. Credit Level: G. Credit Hrs: 1.00

26NS910**Neuroscience Journal Club**

This course will emphasize critical analysis of current issues in neuroscience research. Presentations will be made by students, faculty and outside speakers and group discussion is encouraged. Credit Level: G. Credit Hrs: 1.00

26NS911**Neuroscience Journal Club and Ethics Module**

See 26NS910. Credit Level: G. Credit Hrs: 1.00

26NS912**Neuroscience Journal Club**

See 26NS910. Credit Level: G. Credit Hrs: 1.00

26NS930**Advanced Topics in Neuroscience**

A didactic course intended to provide an in-depth analysis of the history, methodology, and/or current research in a specified topic in neuroscience. Credit Level: G. Credit Hrs: 1.00-4.00

26NS931**Neuronal Signal Transmission**

Starting with the generation of an action potential (AP), the first half of this course describes in detail the mechanisms by which the electrical activity of an AP is converted into the release of neurotransmitter at the presynaptic nerve terminal, followed by the induction of ionic conductances at the postsynaptic terminal and finally how that information is transferred to the cell body of the target neuron. The second half of the course considers other types of signal transduction by which extracellular signals such as hormones and growth factors give rise to intracellular second messengers. A short section on cellular

Neuroscience**26NS931****Neuronal Signal Transmission**

immunology is also included. Credit Level: G. Credit Hrs: 1.00-4.00

26NS940**Advanced Study in Neuroscience**

Individualized readings or research in a specified topic in neuroscience. This course will allow students to study topics independently under the direction of faculty who have expertise in that area. Credit Level: G. Credit Hrs: 1.00-12.00

26NS999**Dissertation Research**

Laboratory research for graduate students who have advanced to candidacy. Credit Level: G. Credit Hrs: 1.00-12.00

Occupational Medicine**26OCCM746****Survey of Public Health**

An overview of various topics in public health, including health services administration, communicable disease, epidemiology, chronic disease epidemiology, and other issues of current public health concern suitable for both undergraduate and graduate students with wide variety of health care career interests. Credit Level: G. Credit Hrs: 3.00

26OCCM748**Occupational Health Management**

The course will cover the principles in the development of a business plan in occupational health, including the basics of financial statements and projections, marketing and occupational health information systems. Credit Level: G. Credit Hrs: 3.00

26OCCM773**The Skin and the Environment**

Lectures and discussions of basic science aspects of cutaneous reactions to environmental stress; clinical characteristics of environmental skin diseases and injuries; hazard identification, clinical management, prevention and control of environmental skin diseases and injuries. Credit Level: G. Credit Hrs: 2.00

26OCCM783**Occupational and Environmental Health Law**

Overview of laws related to occupational and environmental health, including workers' compensation, toxic tort litigation, Americans with Disabilities Act, Family Medical Leave Act, Occupational Safety and Health Act, and the role of scientific experts. Credit Level: G. Credit Hrs: 1.00

26OCCM786**Basics of Occupational Medicine I**

A course designed to be an entry level, overview of occupational medicine for physicians, industrial hygienists, nurses and other health professionals. Credit Level: G. Credit Hrs: 2.00

26OCCM787**Special Topics - Occupational Medicine - Preventive Medicine**

Seminars or tutorial sessions dealing with special topics in occupational medicine related to research and application basic to field of environmental health. Credit Level: G. Credit Hrs: 1.00-15.00

26OCCM788**Special Topics - Occupational Medicine - Basics of Environmental Medicine**

See 26OCCM787. Credit Level: G. Credit Hrs: 1.00-15.00

26OCCM789**Special Topics - Occupational Medicine - Occupational Health Program Management & Administrative**

See 26OCCM787. Credit Level: G. Credit Hrs: 1.00-15.00

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Occupational Medicine**26OCCM790****Special Topics - Respirators & Respiratory Protection**

See 26OCCM854. Credit Level: G. Credit Hrs: 1.00-15.00

26OCCM791**Special Topics-Medical Toxicology**

See 26OCCM787. Credit Level: G. Credit Hrs: 1.00-15.00

26OCCM844**Pulmonary Function Testing**

Principles of pulmonary function testing including basic spirometry, lung volume and diffusion studies, specific and nonspecific challenge testing, A.T.S. standards and interpretation of test results. Credit Level: G. Credit Hrs: 1.00-10.00

26OCCM849**The Lung and the Environment I**

Lectures and discussions on etiology, pathogenesis, evaluation and treatment of lung diseases of occupational and environmental origin. Credit Level: G. Credit Hrs: 2.00

26OCCM850**The Lung and the Environment II**

See 26OCCM849. Credit Level: G. Credit Hrs: 2.00

26OCCM854**Respirators and Respiratory Protection I**

This course will enable students to identify the proper type of respiratory protection to use based upon the hazards that exist. Government standards will be presented along with demonstrations of fit testing techniques. Problem solving and "hands-on" techniques will be stressed. Credit Level: G. Credit Hrs: 2.00

26OCCM877**Occupational Pulmonary Clinic**

A clinical practice rotation designed for physicians to achieve proficiency in completing an occupational history and exam with special emphasis on lung toxins, ordering and interpreting appropriate pulmonary and radiographic tests, using acquired information to develop a complete differential for lung disorders, and forming a clinically and legally appropriate opinion of work relatedness. Credit Level: G. Credit Hrs: 2.00-4.00

26OCCM886**Special Topics -- Occupational Medicine - Public Health Selected Topics**

See 26OCCM787. Credit Level: G. Credit Hrs: 1.00-15.00

26OCCM887**Special Topics - Occupational Medicine - Medicolegal Skills**

See 26OCCM787. Credit Level: G. Credit Hrs: 1.00-15.00

26OCCM888**Occupational Dermatology Clinic**

A clinical practice rotation designed for physicians to achieve proficiency in understanding common occupational skin problems and the physical, chemical and biological sources of these problems. Develop skills in differentiating between occupational and non-occupational skin disease and treatment/prevention of common occupational skin problems. Credit Level: G. Credit Hrs: 2.00-4.00

26OCCM889**Hospital Occupational Health Clinic**

A clinical practice rotation designed for physicians to acquire knowledge of hazards present in hospital environment and develop the ability to recognize and treat common infectious exposures. Develop ability to design and implement site specific health promotion and surveillance programs. Acquire knowledge of psychological and social stresses of work in hospital environment along with role of Employee Assistance Programs. Credit Level: G. Credit Hrs: 1.00-15.00

Occupational Medicine**26OCCM890****Special Topics - Occupational Medicine - Intro to Clinical Occupational Health and Disease Mgmt**

see S.T. Credit Level: G. Credit Hrs: 1.00-15.00

26OCCM891**Special Topics - Introduction to Forensic Disability Evaluation and Management**

This course will focus on medical forensic evaluation of impairment and disability claims with focus on specific aspects of the medical and physical examination, review of medical records, treatment modalities assessment and options, diagnostic studies available to evaluate disabling conditions... Credit Level: G. Credit Hrs: 1.00-15.00

26OCCM892**Special Topics - Occupational Medicine - Emergency Preparedness**

See 26OCCM787. Credit Level: G. Credit Hrs: 1.00-15.00

26OCCM896**Basics of Occupational Medicine II**

A course designed to provide an in-depth survey of pertinent issues and topics in the practice of Occupational Medicine, built upon knowledge gained from Basics of Occupational Medicine I. For physicians, nurses and healthcare professionals. Credit Level: G. Credit Hrs: 2.00

26OCCM899**General Occupational Medicine Clinic**

A clinical practice rotation designed for physicians to achieve proficiency in general occupational medicine principles including patient evaluations to recognize common occupational illnesses and to determine if illnesses or complaints are occupationally related. Credit Level: G. Credit Hrs: 2.00-6.00

26OCCM925**Occupational Medicine Resident - Industrial Days**

Rotation through the medical department of a prominent local or national industry -- active participation in medical routine, related personnel functions. Credit Level: G. Credit Hrs: 1.00-15.00

26OCCM926**Occupational Medicine Resident - Industrial Days**

See 26OCCM925. Credit Level: G. Credit Hrs: 1.00-15.00

26OCCM927**Occupational Medicine Resident - Industrial Days**

See 26OCCM925. Credit Level: G. Credit Hrs: 1.00-15.00

26OCCM928**Occupational Medicine Resident - Industrial Days**

See 26OCCM925. Credit Level: G. Credit Hrs: 1.00-15.00

26OCCM929**Occupational Medicine Resident - Non-Industrial Clinical Experience**

This course is designed for Occupational Medicine Residents to supplement their general medical clinical skills by rotating through a variety of non-occupational clinical settings. The most common clinical experiences in the past have been Physical Medicine and Rehabilitation, Orthopedics, Emergency Medicine, and Ophthalmology. Arrangements are made with participating clinical departments for each resident on an individual basis. Credit Level: G. Credit Hrs: 1.00-15.00

26OCCM930**Occupational Medicine Resident - Non-Industrial Clinical Experience**

See 26OCCM929 for course description. Credit Level: G. Credit Hrs: 1.00-15.00

26OCCM931**Occupational Medicine Resident - Non-Industrial Clinical Experience**

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Occupational Medicine**26OCCM931****Occupational Medicine Resident - Non-Industrial Clinical Experience**

See 26OCCM929 for course description. Credit Level: G. Credit Hrs: 1.00-15.00

26OCCM932**Occupational Medicine Resident - Non-Industrial Clinical Experience**

See 26OCCM929 for course description. Credit Level: G. Credit Hrs: 1.00-15.00

26OCCM986**Special Topics -- Occupational Medicine -- NIOSH Industrial Days**

See 26OCCM787. Credit Level: G. Credit Hrs: 1.00-15.00

26OCCM987**Basics of Environmental Medicine**

A comprehensive overview of environmental medicine, appropriate for multidisciplinary student participation, directed at the interactive disciplines of medicine, nursing, epidemiology, industrial hygiene, toxicology, environmental engineering and safety and other relation disciplines. Two credit hours course features didactic lectures by speakers who are experts in the field. Third hour will be required for the Occupational Medicine residents. Credit Level: G. Credit Hrs: 2.00-3.00

26OCCM988**Special Topics - Occupational Medicine**

See 26OCCM787. Credit Level: G. Credit Hrs: 1.00-15.00

26OCCM989**Special Topics - Occupational Medicine**

See 26OCCM787. Credit Level: G. Credit Hrs: 1.00-15.00

26OCCM990**Special Topics - Occupational Medicine**

See 26OCCM787. Credit Level: G. Credit Hrs: 1.00-15.00

Occupational Safety and Ergonomics**26OSE744****Biomechanical and Physiological Aspects of Muscular Activity**

Biomechanics of human static posture and dynamic motion, cardiovascular and metabolic cost of muscular activity, biomechanics of trauma, spinal mechanics, and biomechanical modelling. Credit Level: G. Credit Hrs: 3.00

26OSE748**Introduction to Measurement Techniques in Ergonomics**

Provide students with an understanding and working knowledge of how to evaluate and control the risk of musculoskeletal disorders of the low back and upper extremity in the design of industrial workplaces. Risk & exposure assessment techniques will be discussed. Credit Level: G. Credit Hrs: 3.00

26OSE756**Special Topics -- Introduction to Measurement Techniques in Ergonomics**

Seminars or tutorial sessions dealing with special topics in occupational safety as related to research and application basic to the field of environmental health. Credit Level: G. Credit Hrs: 1.00-15.00

26OSE757**Special Topics - Occupational Safety -Introduction to Ergonomic Laboratory Research**

See 26OSE756. Credit Level: G. Credit Hrs: 1.00-15.00

26OSE758**Special Topics - Occupational Safety - Human Vibration**

See 26OSE756. Credit Level: G. Credit Hrs: 1.00-15.00

Occupational Safety and Ergonomics**26OSE759****Special Topics - Occupational Safety**

See 26OSE756. Credit Level: G. Credit Hrs: 1.00-15.00

26OSE760**Special Topics - Occupational Safety**

See 26OSE756. Credit Level: G. Credit Hrs: 1.00-15.00

26OSE792**Principles of Ergonomics**

Concepts, criteria to achieve optimal mutual fitting of worker capabilities to job. Biomechanics, heat, cold, shift work, fatigue, anthropometry, task analysis, cumulative trauma disorders, work station/tool design. Credit Level: G. Credit Hrs: 3.00

26OSE856**Special Topics -- Occupational Safety**

See 26OSE756. Credit Level: G. Credit Hrs: 1.00-15.00

26OSE857**Special Topics - Occupational Safety**

See 26OSE756. Credit Level: G. Credit Hrs: 1.00-15.00

26OSE858**Special Topics - Occupational Safety**

See 26OSE756. Credit Level: G. Credit Hrs: 1.00-15.00

26OSE859**Special Topics - Occupational Safety**

See 26OSE756. Credit Level: G. Credit Hrs: 1.00-15.00

26OSE860**Special Topics - Occupational Safety**

See 26OSE756. Credit Level: G. Credit Hrs: 1.00-15.00

26OSE873**Basic Industrial Safety**

Content, administration and implementation of safety programs in industry. Covers good practices and governmental regulations. Credit Level: G. Credit Hrs: 2.00

26OSE956**Special Topics -- Occupational Safety**

See 26OSE756. Credit Level: G. Credit Hrs: 1.00-15.00

26OSE957**Special Topics - Occupational Safety**

See 26OSE756. Credit Level: G. Credit Hrs: 1.00-15.00

26OSE958**Special Topics - Occupational Safety**

See 26OSE756. Credit Level: G. Credit Hrs: 1.00-15.00

26OSE959**Special Topics - Occupational Safety**

See 26OSE756. Credit Level: G. Credit Hrs: 1.00-15.00

26OSE960**Special Topics - Occupational Safety**

See 26OSE756. Credit Level: G. Credit Hrs: 1.00-15.00

Public Health**26PH701****Introduction to Evidence Based Public Health**

This course will include an orientation to the US public health system, current concepts and issues, and major contemporary public health problems. A second content theme will include a brief overview of the development of the quality improvement movement in medicine, resulting in the evidence based public health movement. These two segments will be integrated as students learn to apply the principles of an evidence based approach to current public health problems in the

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Public Health**26PH701****Introduction to Evidence Based Public Health**

greater Cincinnati area. A seminar style of teaching, employing small group discussion of cases, will be employed. Perm of Department. Credit Level: G. Credit Hrs: 4.00

26PH702**Health Systems and Health Policy**

Course content will include the application of political science and economics to the planning, financing, organization, administration, and evaluation of policy affecting the public's health. Topics will include the organization and effectiveness of United States health care and public health systems; determinants of health, need, and utilization; quality, costs and accessibility of care; development of public policy concerning medical care and public health, emergency preparedness, and the relationship between public decisions and the marketplace as they concern the public's health. Perm of Department. Credit Level: G. Credit Hrs: 4.00

26PH703**Introduction to Population Health and Disease**

Course content will include distributions, determinants, and natural history of disease, disabilities and death in human populations; the characteristics and dynamics of health and illness in human populations, including the application of genomic issues and studies to public health. A seminar style of teaching, employing small group discussion of cases, will be employed. Perm of Department. Credit Level: G. Credit Hrs: 4.00

26PH704**Legal and Ethical Issues in Public Health**

Course content will include public health law and the uses of law to promote the public's health; the ethical and legal bases for public health practice and research, including the belief that people are interdependent on each other and the environment; the priority of addressing the root causes of health and illness; and the importance of communicating public health messages in ways that respect the values, opinions, beliefs and practices of people in various communities. Perm of Department. Credit Level: G. Credit Hrs: 4.00

26PH705**Statistical Analysis for Public Health Practitioners**

Public Health workers need to read and interpret public health and medical literature to keep abreast of the latest methods. This course will provide an introduction of basic concepts of statistics, methods of statistical analysis and tools of statistical computation. The goal is to help students understand the language of statistics and the art of statistical investigation; perform basic statistical analysis of their own research; and read and evaluate analytical results in health and research articles. Perm of Department. Credit Level: G. Credit Hrs: 4.00

26PH706**The Environment and the Public's Health**

Starting with a review of the major human and natural activities that threaten the public's health (overpopulation, climate change, peak oil, etc) this course will examine the causal links between chemical, physical, and biological agents in the environment and their impact on human health. The basic principles of toxicology will be presented including dose-response relationships, absorption, distribution, metabolism, and excretion of chemicals. The overall role of environmental risks in the pattern of human disease, both nationally and internationally, will be covered. The engineering and policy strategies, including risk assessment, used to evaluate and control these risks will be introduced. Credit Level: G. Credit Hrs: 4.00

26PH707**Community Assessment and Programming**

This course is designed to assist students in acquiring skills related to defining a health problem, conducting an assessment, and developing, implementing and evaluating health programs. Students will acquire the skills needed to assess the health patterns of communities and populations in partnership with key members of the community that

Public Health**26PH707****Community Assessment and Programming**

encompasses the culture, geography, political structure, environment and assets of the community. Students will learn methods to obtain and interpret information regarding the risks and benefits to the community/population assessment methods. Students will gain knowledge needed to develop management and leadership skills required to build community led interventions aimed at improving the overall health of an identified community or population. Students will build their knowledge on public health models and methods for conducting population based assessments and program planning. Credit Level: G. Credit Hrs: 4.00

26PH711**Leadership Development In Public Health**

This course will include the development of management skills and leadership attitudes and competencies which allow the promotion and implementation of sound health policy and practices. Concepts covered include stewardship, equity, social justice and accountability. Perm of Department. Credit Level: G. Credit Hrs: 4.00

26PH713**Policy and Advocacy For Public Health**

An advanced course for those interested in the role of policy and advocacy in improving the public's health at the state and national levels. Students will understand the roles of legislation and regulation and how to effect these processes, as well as how these processes in turn effect public health's ability to perform its core functions. Students will aid in the development of policy briefs on targeted issues. Perm of Department. Credit Level: G. Credit Hrs: 4.00

26PH721**Understanding Vulnerable Populations**

This course aims to examine concepts and methods in the study of vulnerability in health and in particular, strategies and future directions for resolving disparities in health care access, quality, and health status at the community and national levels. Vulnerability risks will be defined, and implications for public health and social and human services delivery will be discussed. A comprehensive approach incorporating individual and community factors and current government and private initiatives will be reviewed. Also included will be interpretation of the existing knowledge and programs for application at the community level. Credit Level: G. Credit Hrs: 4.00

26PH723**Global and International Health Systems**

Course will provide an overview of global and national health systems to provide the student with a perspective on how national and other societies approach health and health care including cultural, economic and political systems. In addition to the World Health Organization, certain UN agencies and NGOs, national systems from the developed and under- developed world will be examined and contrasted, including those of England, Canada, China and Cuba. Credit Level: G. Credit Hrs: 4.00

26PH791**Public Health Practicum**

The Practicum is an individually-planned, supervised, and evaluated practice experience through which the student will develop an understanding of and appreciation for practice in a public health-related environment relevant to their chosen concentration. The typical practicum will occur at a public health agency with the student supervised on-site by a qualified preceptor who may have an adjunct faculty appointment. The Practicum site will be selected by the student from a listing of available, approved sites within their concentration of choice and must be approved by their advisor. Projects or problems identified during the Practicum may well lead directly into the Capstone. The practicum is set up with three sections. One for each concentration. Section 001 is for the health education and Section 002 is for the Leadership Concentration. Perm of Department. Credit Level: G. Credit Hrs: 4.00

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Public Health**26PH798****Public Health Capstone I**

The culminating experience is the mechanism by which the student demonstrates her/his ability to synthesize and integrate the knowledge and skills gained throughout the program. It allows the student to apply theory and principles in a situation that approximates some aspect of professional problem-solving practice and serves as a means by which faculty judge whether the student has mastered the body of knowledge and can demonstrate proficiency in the required competencies. Many different models are acceptable, including written or oral comprehensive examinations, supervised practice experiences, a major written paper such as a thesis or an applied research project, development of case studies, extended internship with portfolio, capstone seminars and others. The capstone will be proposed by the student with the approval of her/his advisor; a faculty supervisory committee will be identified to oversee the student's progress through the capstone. Students will typically register for the capstone across more than one term. Credit Level: G. Credit Hrs: 2.00-6.00

26PH799**Public Health Capstone II**

The culminating experience is the mechanism by which the student demonstrates her/his ability to synthesize and integrate the knowledge and skills gained throughout the program. It allows the student to apply theory and principles in a situation that approximates some aspect of professional problem-solving practice and serves as a means by which faculty judge whether the student has mastered the body of knowledge and can demonstrate proficiency in the required competencies. Many different models are acceptable, including written or oral comprehensive examinations, supervised practice experiences, a major written paper such as a thesis or an applied research project, development of case studies, extended internship with portfolio, capstone seminars, and others. The capstone will be proposed by the student with approval of her/his advisor; a faculty supervisory committee will be identified to oversee the student's progress through the Capstone. Students will typically register for the capstone across more than one term. Credit Level: G. Credit Hrs: 2.00-6.00

Pathobiology and Molecular Medicine**26PMM599****Introductory Immunology**

This course is intended to be a comprehensive introductory level immunology course for graduate students, advanced undergraduates, technicians and fellows. It will cover basic immunochemistry, cellular, and molecular immunology. While the course has no official prerequisites, students will find that some background in basic biochemistry, cell biology and molecular genetics would be desirable. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

26PMM721**Methods in Biomedical Research**

Rigorous laboratory course designed to familiarize the aspiring scientist in the biologic sciences with contemporary research methods (including molecular biologic techniques) as they are applied to the study of human disease. Credit Level: G. Credit Hrs: 5.00

26PMM884**Histology for Research**

A hands-on graduate level course for researchers who use transgenic mice as models of gene function or human disease. After taking this course, the student will have an understanding of the structure and function of all major organ systems, and will be proficient in the comparative anatomy of human and rodent tissues. Previous coursework in physiology is beneficial, but not required. Course may be taken for 1 credit (histologic identification only) or 3 credits (histologic identification and basic organ system physiology. Credit Level: G. Credit Hrs: 1.00-3.00

Pathobiology and Molecular Medicine**26PMM885****Basic Principles of Pathology**

Lecture and seminar with basic concepts of pathobiology, including cell degeneration, inflammation, toxic, immunologic, infectious, and environmental injury and neoplasia. Credit Level: G. Credit Hrs: 0.00-3.00

26PMM891**Research Rotation-Fall**

Laboratory work, readings in research aspects of pathobiology and molecular medicine. Specific area of concentration determined by consultation with staff. Credit Level: G. Credit Hrs: 3.00-5.00

26PMM892**Research Rotation-Winter**

See 26PMM891. Credit Level: G. Credit Hrs: 3.00-5.00

26PMM893**Research Rotation-Spring**

See 26PMM891. Credit Level: G. Credit Hrs: 3.00-5.00

26PMM894**Research Rotation-Summer**

See 26PMM891. Credit Level: G. Credit Hrs: 3.00-5.00

26PMM899**Immunology of Disease**

Basic cellular and molecular mechanisms of immunity as they relate to the pathogenesis of disease. Host responses to cancer and infection, congenital immunodeficiencies and AIDS. Prereq: 26PMM599. Credit Level: G. Credit Hrs: 2.00

26PMM900**Elective Rotation in Pharmaceutical Research**

Lecture, demonstration, clinical correlation and laboratory exercise covering pathology of organ systems. Credit Level: G. Credit Hrs: 5.00

26PMM971**Thesis Research in Pathobiology and Molecular Medicine**

Hours and credits to be arranged. Offered each quarter. Restricted to P&MM students who have advanced to candidacy. Credit Level: G. Credit Hrs: 1.00-15.00

26PMM979**Research Seminar**

A seminar-type class offering discussion of contemporary papers in experimental pathobiology and molecular medicine. Emphasis is on learning to read scientific literature, to interpret data, and to understand concepts of experimental design. Perm of Instructor. Credit Level: G. Credit Hrs: 1.00

26PMM980**Research Journal Club**

This course is designed to teach students how to select and read scientific literature. It will include group discussions on the content of the literature including interpretation of data and experimental design and implementation. Credit Level: G. Credit Hrs: 1.00

26PMM981**Molecular Pathogenic Mycology**

The goal of this course is to provide information on the basic biology, genetics, and clinical importance of the major human fungal pathogens. Perm of Instructor. Credit Level: G. Credit Hrs: 2.00

26PMM983**Pathobiology of Lipid-related Disease**

Pathobiology of Lipid-related Disease is an intensive course designed for graduate students serious about obtaining a firm understanding of the basics of lipid structure/function, metabolism and the pathological conditions that arise from mishandling of lipids in the body. Perm of Instructor. Credit Level: G. Credit Hrs: 2.00

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Pathobiology and Molecular Medicine**26PMM984****Molecular Basis of Disease: Hematology/Oncology Disorders**

The purpose of this course is to provide a background in several important topics within Hem/Onc for students in the first year of the Pathobiology and Molecular Medicine curriculum, but it is also open to graduate students from other programs. Perm of Instructor. Credit Level: G. Credit Hrs: 2.00

26PMM989**MOLECULAR PATHOGENIC MYCOLOGY JOURNAL CLUB**

An advanced topics course that uses a journal club format to discuss recent advances in the basic biology and genetics of the major human fungal pathogens. Credit Level: G. Credit Hrs: 1.00

Physician Scientist Training Program**26PSTP741****Medical Histology and Cell Biology**

The normal microscopic structure of cells, tissues and organs with emphasis on structural-functional relationships. Credit Level: G. Credit Hrs: 3.00

26PSTP742**Gross Anatomy**

Study of the body walls, cavities, and lower limb, and head, neck, and upper limb of the human body in the dissecting room; supplemented by lectures. Credit Level: G. Credit Hrs: 3.00

26PSTP743**Biological Chemistry**

Chemistry of proteins, enzymes and other macromolecules; bioenergetics, cellular and mammalian metabolism, metabolic control mechanisms, molecular genetics and nutrition. Credit Level: G. Credit Hrs: 3.00

26PSTP744**Physiology**

Subcellular organelles, cells, tissues, organ systems and their integrated activity. Focus: cellular, muscle, cardiac, circulatory, renal, respiration, the physiology acid base, and the physiology of energy balance and temperature regulation. Credit Level: G. Credit Hrs: 3.00

26PSTP745**Clinical Foundations of Medical Practice I**

This course is designed to prepare MD/PhD students for their clinical years. Credit Level: G. Credit Hrs: 3.00

26PSTP746**Brain & Behavior I**

This course introduces the principles and concepts of nervous system organization: structural organization, cellular neurophysiology, neuropharmacology, sensory and motor systems, higher cortical functions. Credit Level: G. Credit Hrs: 9.00

26PSTP747**Pathology of Disease**

Lecture and seminar with basic concepts of pathobiology, including cell degeneration, inflammation, toxic, immunologic, infectious, and environmental injury and neoplasia. Credit Level: G. Credit Hrs: 3.00-4.00

26PSTP748**Pharmacology & Therapeutics**

Principles of drug action and the rational use of drugs in clinical disorders. Lectures, demonstrations, and conferences. Credit Level: G. Credit Hrs: 2.00-4.00

26PSTP749**Medical Microbiology**

A study of the biology of microorganisms with emphasis on important examples of infectious agents (bacteria, viruses and fungi); the principles of immunology with stress placed on the relationship between host and microbe; the role of microbiology in clinical medicine and surgery. Credit Level: G. Credit Hrs: 3.00-4.00

Physician Scientist Training Program**26PSTP750****Brain & Behavior II**

An overview of human neurological and psychiatric disorders through the various stages of human development, including seizures, schizophrenia, substance abuse, Alzheimer's disease, Parkinson's disease and other movement disorders. The course is offered during a four-week concentrated block of time. Credit Level: G. Credit Hrs: 3.00-4.00

26PSTP751**Clinical Foundations of Medical Practice II**

This is required for MD/PhD students. It is designed to prepare medical students for their clinical years. Credit Level: G. Credit Hrs: 3.00-4.00

26PSTP901**Seminar Medical Science**

Under the direction of a faculty advisor, students present, discuss and analyze current literature. Credit Level: G. Credit Hrs: 1.00

26PSTP902**Biomedical Science Journals**

See Seminar Medical Sciences, 26PSTP901. Credit Level: G. Credit Hrs: 1.00

26PSTP951**Research**

Basic science or clinical research. Credit Level: G. Credit Hrs: 1.00-12.00

26PSTP952**Research**

Basic science or clinical research. Credit Level: G. Credit Hrs: 1.00-12.00

26PSTP953**Research**

Basic science or clinical research. Credit Level: G. Credit Hrs: 1.00-12.00

26PSTP954**Research**

Basic science or clinical research. Credit Level: G. Credit Hrs: 1.00-12.00

Toxicology**26TOX771****Biological Effects of Air Pollutants**

Effects of ambient and industrial air pollutants on humans, laboratory animals and plants. Offered alternate years. Credit Level: G. Credit Hrs: 2.00

26TOX782**Survey of Environmental Toxicology**

Entry, action, and elimination of toxic chemicals; dose-response relationships; design, interpretation and application of the data. Credit Level: G. Credit Hrs: 3.00

26TOX791**Special Topics -- Current Methods in In Vito Toxicology**

Seminars or tutorial sessions dealing with special topics in toxicology as related to research and application basic to field of environmental health. Credit Level: G. Credit Hrs: 1.00-15.00

26TOX792**Special Topics - EGMT Core Course - BM Section**

See 26TOX791. Credit Level: G. Credit Hrs: 1.00-15.00

26TOX793**Special Topics - Historical Perspectives in Analytical Toxicology**

See 26TOX791. Credit Level: G. Credit Hrs: 1.00-15.00

26TOX794**Special Topics - Occupational Toxicology**

See 26TOX791. Credit Level: G. Credit Hrs: 1.00-15.00

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Toxicology**26TOX794****Special Topics - Occupational Toxicology**

See 26TOX791. Credit Level: G. Credit Hrs: 1.00-15.00

26TOX795**Special Topics - Toxicology - Survey of Occupational and Environmental Toxicology II**

See 26TOX791. Credit Level: G. Credit Hrs: 1.00-15.00

26TOX837**Toxicology Seminar**

Required for graduate students in the Toxicology PhD program. Each student is required to present a research seminar based on literature or his/her own research. Credit Level: G. Credit Hrs: 1.00

26TOX838**Toxicology Seminar**

See 26TOX837. Credit Level: G. Credit Hrs: 1.00

26TOX839**Toxicology Seminar**

See 26TOX837. Credit Level: G. Credit Hrs: 1.00

26TOX841**Development of Scientific Hypotheses**

Discussions of current research articles in the fields of environmental genetics, molecular toxicology, and molecular biology. Credit Level: G. Credit Hrs: 2.00

26TOX848**Introduction to Bioinformatics and Biocomputing**

An introduction to the principles of organization and analysis of biological information using computational methods. Comparison of internet resources for biological research, including molecular structure and function determination and phylogenetic analysis. Credit Level: G. Credit Hrs: 3.00

26TOX851**Environmental Genetics and Molecular Toxicology (EGMT)Core Course**

Focus on gene-toxicant interactions. Overview of epidemiology; introduction to the principles of pharmacogenetics, exposure assessment, and biotransformation. Credit Level: G. Credit Hrs: 4.00

26TOX852**Environmental Genetics and Molecular Toxicology (EGMT) Core Course**

Focus on gene-toxicant interactions. See 26TOX851. Need permission of instructor or class 26TOX851. Credit Level: G. Credit Hrs: 4.00

26TOX878**Applied Risk Assessment**

Topics include exposure-response, dose-response, risk characterization of carcinogenic and non-cancer outcomes, and uncertainty assessment. Computer programs such as Crystal Ball and GIS-ArcView are used to evaluate risk using real-world scenarios for lead and organic solvents. Credit Level: G. Credit Hrs: 3.00

26TOX883**Environmental Mutagenesis and Carcinogenesis**

Lectures on current concepts of the mechanism of action of environmental mutagens and carcinogens, and their application in detection and testing. Credit Level: G. Credit Hrs: 3.00

26TOX885**Neurobehavioral Toxicology**

Examinations of behavioral, neurophysiological and neurochemical effects associated with environmental toxicants. Credit Level: G. Credit Hrs: 3.00

26TOX890**Mechanisms in Environmental Chemical Carcinogenesis**

Lecture and discussion of chemical carcinogens in the environment, trends in research, mechanisms of action of carcinogens at the cellular

Toxicology**26TOX890****Mechanisms in Environmental Chemical Carcinogenesis**

and molecular level, and methods of analysis. Credit Level: G. Credit Hrs: 3.00

26TOX891**Special Topics - Toxicology**

See 26TOX791. Credit Level: G. Credit Hrs: 1.00-15.00

26TOX892**Special Topics - Toxicology**

See 26TOX791. Credit Level: G. Credit Hrs: 1.00-15.00

26TOX893**Special Topics - Toxicology**

See 26TOX791. Credit Level: G. Credit Hrs: 1.00-15.00

26TOX894**Special Topics - Toxicology**

See 26TOX791. Credit Level: G. Credit Hrs: 1.00-15.00

26TOX895**Special Topics - Toxicology**

See 26TOX791. Credit Level: G. Credit Hrs: 1.00-15.00

26TOX987**Risk Assessment**

Lectures deal with hazard identification, dose-response assessment, exposure assessment and risk characterization. Current literature and Federal Guidelines are the basis for lectures. Credit Level: G. Credit Hrs: 4.00-5.00

26TOX991**Special Topics - Toxicology**

See 26TOX791. Credit Level: G. Credit Hrs: 1.00-15.00

26TOX992**Special Topics - Toxicology**

See 26TOX791. Credit Level: G. Credit Hrs: 1.00-15.00

26TOX993**Special Topics - Toxicology**

See 26TOX791. Credit Level: G. Credit Hrs: 1.00-15.00

26TOX994**Special Topics - Toxicology**

See 26TOX791. Credit Level: G. Credit Hrs: 1.00-15.00

26TOX995**Special Topics - Toxicology**

See 26TOX791. Credit Level: G. Credit Hrs: 1.00-15.00

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COLLEGE OF NURSING

COURSE DESCRIPTIONS

(29) College of Nursing

2008 - 2009

College of Nursing 1

Advanced Nursing - Adult Health

29ANAH505

Bridging the Gap in Oncology Nursing Care

The course is designed to enhance nursing students' knowledge regarding the health patterns and care of patients with cancer. Issues and trends in cancer care as well as nursing interventions specific to selected cancers will be explored. Topics will include carcinogenesis, treatment modalities, symptom management, delivery systems, and nursing intervention strategies. Cancer prevention and early detection in diverse cultural client systems will be investigated. Scholarly inquiry will be used to analyze the care of oncology patients in various environmental contexts. Emphasis will be placed on developing the professional nursing role related to the care of oncology client systems. Prereq: 29NURS303. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

29ANAH506

Integrative Therapies for Health Sciences

An interdisciplinary course introducing students in the health sciences to complementary and alternative therapies. This course covers the history, theoretical and physiological foundation, utilization and contraindications for use of an array of popular integrative therapies. Information is included on how to integrate complementary and alternative therapies into clinical practice. BoK: DC. Credit Level: U, G. Credit Hrs: 3.00

29ANAH802

Special Populations in Primary Care

This course provides an in-depth exploration of the special health care requirements of specific populations. An examination of particular health care issues that are unique to the adolescent, women, and the elderly is conducted. Each population is addressed by focusing on distinctive topics that incorporate the development of advanced therapeutic interventions that can be used in primary care and long-term care. Credit Level: G. Credit Hrs: 2.00

29ANAH803

Special Topics in Acute Care

This course provides in-depth exploration of advanced therapeutic nursing interventions that are designed to promote, maintain, or restore the health of client systems across the adult lifespan with acute health pattern disruptions. The application of technology, informatics, and select therapies is explored relative to adult client systems within the acute care environmental context. Students analyze the purpose, cost-benefits, selection criteria, and outcomes for each therapeutic nursing intervention. Selected symptoms reported by adult client systems with acute illness are used as exemplars for the development of advanced therapeutic nursing interventions. Current theory and research related to the interventions are examined. Coreq: 29NURS825, 29NURS813. Credit Level: G. Credit Hrs: 3.00

29ANAH804

Advanced Adult Pathophysiology

The course builds upon the student's pre-existing knowledge of the pathophysiology of disease in adults and the normal health patterns of aging. The focus of the course is an in-depth consideration of alterations that occur as variations in health patterns across the life span. It explores the underlying cellular mechanisms that form the basis for advanced nursing practice to manage the variations in health patterns of adult client systems. The theoretical basis of evolving health patterns in the aging populations is explored. Contemporary research in biochemical processes and cellular dysfunction is emphasized. Students have the opportunity to apply theoretical content in an associated clinical experience. Prereq: 29NURS811. Credit Level: G. Credit Hrs: 2.00

29ANAH805

Advanced Adult Acute Care Nursing I

This is a seminar which provides students with the theoretical base to

Advanced Nursing - Adult Health

29ANAH805

Advanced Adult Acute Care Nursing I

manage the care of acutely ill client systems across the adult lifespan with selected health pattern alterations. Students will focus on the maintenance and restoration of client system's health patterns as transition occurs across acute and ambulatory care environmental contexts. Client systems with selected health pattern alterations reflecting the major adult mortality and morbidities will be discussed. Students will focus on the management of single disorders that affect adult client systems as well as more complex problems. Ethical considerations and role components in advanced nursing practice will be addressed within the context of holistic nursing care. Critique of current nursing and related science research, serving as the basis for care management decision-making is emphasized. This course includes at least 0.5 (5 clock hours) of pharmacology content. Prereq: 29NURS825, 29NURS813. Credit Level: G. Credit Hrs: 2.00

29ANAH806

Well Women and Special Populations for Advanced Nursing Practice

Examines the care of the well woman across the lifespan and prepares students to assume professional practice roles and responsibilities in assessing the healthy women and adolescents. Includes an exploration of the special health care requirements and culture of specific populations with an examination of particular health care issues that are unique to the adolescent, women, and the elderly. Each population will be addressed by focusing on distinctive topics that incorporate the development of advanced therapeutic interventions that can be utilized in primary care and long-term care. Prereq: 29NURS812. Credit Level: G. Credit Hrs: 3.00

29ANAH807

Advanced Adult Acute Care Nursing II

This is the second of two courses which provides students with the theoretical base to manage the care of acutely ill client systems across the adult lifespan with selected health pattern alterations. Students will focus on the maintenance and restoration of client system's health patterns as transition occurs across acute care environmental contexts. Client systems with selected health pattern alterations reflecting the major adult mortality and morbidities will be discussed. Students will focus on the management of single disorders that affect adult client systems as well as more complex problems. Ethical considerations and role components in advanced nursing practice will be addressed within the context of holistic nursing care. Current nursing and related science research serve as the basis for evidence based practice care. This course includes at least 0.5 credits (5 clock hours) of pharmacology content. Prereq: 29NURS825, 29NURS813. Credit Level: G. Credit Hrs: 2.00

29ANAH808

Adult Health Assessment and Differential Diagnosis

(2 didactic and 3 clinical contact hours per week). Develops diagnostic reasoning skill and incorporates the analysis of history data, physical findings, and diagnostic studies that contribute to the formulation of differential diagnoses of the major health problems. Includes a clinical practicum. Credit Level: G. Credit Hrs: 3.00

29ANAH810

Advanced Acute Care Practicum I

This practicum is the first of three sequential clinical practica in advanced acute care nursing of adults. Students engage in comprehensive assessment, diagnosis and care planning activities for client systems with health pattern alterations. The focus of the clinical experiences is on the selection and implementation of extant therapeutic nursing interventions, the beginning design of newly required therapeutic interventions, and discernment of measurable outcome criteria for both. The student engages in beginning

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Advanced Nursing - Adult Health**29ANAH810****Advanced Acute Care Practicum I**

implementation of the roles inherent in advanced nursing practice. Clinical experiences take place in various environmental contexts including acute care and primary care. Prereq: 29NURS811, 29NURS812. Coreq: 29ANAH804, 29ANAH808, 29ANAH811, 29NURS813. Credit Level: G. Credit Hrs: 3.00

29ANAH811**Advanced Adult Health Nursing I**

Provides the theoretical base to manage the care of adults with selected health pattern alterations as transitions occur across acute and ambulatory care. Ethical considerations and role components in advanced nursing practice are addressed within the context of holistic nursing care. Credit Level: G. Credit Hrs: 3.00

29ANAH812**Advanced Adult Health Nursing II**

Prepares students to manage the health care of adults with major mortality and morbidity health pattern alterations that directly affect multiple systems or are more complex. Focus is on the promotion, maintenance and restoration of adult health patterns as transition occurs across acute and ambulatory care. Credit Level: G. Credit Hrs: 3.00

29ANAH813**Advanced Adult Health Nursing Practicum I**

(9 clinical contact hours per week). Provides the opportunity for students to engage in comprehensive assessment, diagnosis and care planning activities for adults with health pattern alterations and implementation of the roles inherent in advanced nursing practice. Credit Level: G. Credit Hrs: 3.00

29ANAH814**Advanced Adult Health Nursing Practicum II-Part 1**

(9 clinical contact hours/week). Focuses on the selection and implementation of therapeutic nursing intervention, the design of newly required therapeutic interventions, and formulation of measurable outcome criteria. Collaboration as a member of the multidisciplinary health care team is emphasized. Credit Level: G. Credit Hrs: 3.00

29ANAH815**Advanced Adult Health Nursing Practicum II-Part 2**

(9 clinical contact hours/week including 1 hour of seminar). This practicum is a continuation of 29ANAH814 and may be taken concurrently or sequentially. Credit Level: G. Credit Hrs: 3.00

29ANAH818**Advanced Adult Health Nursing Practicum III-Part 1**

Focuses on comprehensive assessment, diagnosis and care planning activities for adults with health pattern alterations and implementation of the roles inherent in advanced nursing practice. Clinical experiences will take place in mutually negotiated setting. Prereq: 29ANAH812, 29ANAH815. Credit Level: G. Credit Hrs: 4.00

29ANAH819**Advanced Adult Health Nursing Practicum III-Part 2**

This practicum is a continuation of 29ANAH818 and may be taken concurrently or sequentially. Credit Level: G. Credit Hrs: 4.00

29ANAH820**Advanced Adult Health Nursing III**

This is the third of three sequential seminars that provides students with the theoretical base to manage the care of client systems across the adult life span with selected health pattern alterations. Students focus on the promotion, maintenance, and restoration of client system's health patterns as transition occurs across acute and ambulatory care environmental contexts. Client systems with selected health pattern alterations reflecting the major adult mortality and morbidities or the most common health problems encountered by advanced practice nurses are discussed. Students focus on the management of single disorders that affect adult client systems. Ethical considerations and role components in advanced nursing practice are addressed within the

Advanced Nursing - Adult Health**29ANAH820****Advanced Adult Health Nursing III**

context of holistic nursing care. Critique of current nursing and related science research, serving as the basis for care management decision-making is emphasized. Prereq: 29ANAH812. Credit Level: G. Credit Hrs: 3.00

29ANAH821**Advanced Acute Care Practicum II: Part 1**

The practicum is the second of three sequential clinical practica in advanced acute care nursing. Students engage in comprehensive assessment, diagnosis, and care planning activities for client systems with common health pattern alterations. The clinical experiences focus on the selection and implementation of extant therapeutic nursing interventions, the continued design of newly required therapeutic interventions, and formulation of measurable outcome criteria related thereto. Collaboration as member of the multidisciplinary health care team is emphasized. The student engages in implementation of the roles inherent in advanced nursing practice. Clinical experiences take place in various environmental contexts including acute care and ambulatory care. Prereq: 29ANAH810. Coreq: 29ANAH801, 29ANAH803, 29ANAH807, 29ANAH812. Credit Level: G. Credit Hrs: 3.00

29ANAH822**Advanced Acute Care Practicum II: Part 2**

The course is a continuation of Advanced Acute Care Nursing Practicum II, Part 1, 29ANAH821. Prereq: 29ANAH810. Coreq: 29ANAH821. Credit Level: G. Credit Hrs: 3.00

29ANAH823**Advanced Acute Care Practicum III: Part 1**

The practicum is the third in a series of three advanced acute care practica. Students engage in comprehensive assessment, diagnosis and care planning activities for client systems with health pattern alterations. The clinical experiences focus on the selection and implementation of extant therapeutic nursing interventions, the design of newly required therapeutic interventions, and formulation of measurable outcome criteria related thereto. Collaboration as a peer on the multidisciplinary health care team is emphasized. The students implement the roles inherent in advanced nursing practice. Clinical experiences take place in mutually negotiated settings. Prereq: 29ANAH822. Coreq: 29ANAH820. Credit Level: G. Credit Hrs: 4.00

29ANAH824**Advanced Acute Care Practicum III: Part 2**

The practicum is the continuation of Advanced Acute Care Practicum III, Part 1. Prereq: 29ANAH822. Coreq: 29ANAH820, 29ANAH823. Credit Level: G. Credit Hrs: 4.00

29ANAH825**Advanced Nursing Practice in Anesthesia I**

Overview course that integrates physiology, applied physics and related mathematics. Topics include history, legal aspects, preoperative assessment, preinduction preparation, environmental safety, use of equipment, and anesthesia delivery systems. Credit Level: G. Credit Hrs: 7.00

29ANAH826**Advanced Nursing Practice in Anesthesia II**

Focuses on the physiological effects of anesthetic agents on the health patterns of client systems. Emphasizes nursing interventions and measurable client system outcomes. Credit Level: G. Credit Hrs: 4.00

29ANAH827**Advanced Nursing Practice in Anesthesia III**

Focuses on anesthesia interventions and outcomes for children and pregnant women. Emphasizes maternal physiology, neonatal care and resuscitation, management of obstetrical complications, and special needs of children undergoing anesthesia. Examines the properties of anesthetic, accessory, and therapeutic agents. Credit Level: G. Credit Hrs: 3.00

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Advanced Nursing - Adult Health**29ANAH828****Advanced Nursing Practice in Anesthesia IV**

Focuses on anesthesia interventions and outcomes for client systems requiring surgical intervention for complex alterations in health patterns. Addresses professional, management, financial, ethical and legal aspects of anesthesia nursing practice. Prereq: 29ANAH827. Credit Level: G. Credit Hrs: 4.00

29ANAH829**Advanced Pharmacology for Advanced Nursing Practice in Anesthesia**

Discusses anesthetic and analgesic agents used in complex situations. Focuses on the pharmacodynamics, pharmacokinetics, structural activity relationships, effects, toxic/adverse reactions and associated treatments and pharmacotherapeutics. Credit Level: G. Credit Hrs: 3.00

29ANAH830**Advanced Nursing Practice in Anesthesia Practicum I**

Focuses on preoperative evaluation of client systems prior to anesthesia administration, development of an anesthesia plan of care with focus on therapeutic nursing interventions and outcomes, and administration of anesthesia to selected client systems with altered health patterns. Credit Level: G. Credit Hrs: 3.00

29ANAH831**Advanced Nursing Practice in Anesthesia II**

Provides for increasing responsibility for anesthesia interventions in the perioperative period. Focus is on routine surgical procedures, a variety of modalities, and non-complex alteration in client system health patterns. Credit Level: G. Credit Hrs: 9.00

29ANAH832**Advanced Nursing Practice in Anesthesia Practicum III**

Continues development of the professional role with anesthesia interventions for client systems with varying health patterns that require surgery using general and regional anesthetic techniques. Credit Level: G. Credit Hrs: 11.00

29ANAH833**Advanced Nursing Practice in Anesthesia Practicum IV**

Focuses on anesthesia interventions and evaluation of outcomes for children and pregnant women in community hospital settings. Opportunities for emergency call for client systems with unanticipated alterations in health patterns of an emergent nature. Prereq: 29ANAH832. Credit Level: G. Credit Hrs: 9.00

29ANAH834**Adult Ambulatory Care for Advanced Nursing Practice: Seminar I**

This seminar is the first of three courses that prepares nurses for professional roles in advanced nursing practice. It is taken in conjunction with the clinical practicum and provides an opportunity to discuss clinical cases while demonstrating the ability to apply the didactic material to practice. Coreq: 29ANAH813. Credit Level: G. Credit Hrs: 1.00

29ANAH835**Adult Ambulatory Care for Advanced Nursing Practice: Seminar II**

This seminar is the second of three courses that prepares nurses for professional roles in advanced nursing practice. It is taken in conjunction with the clinical practicum and provides an opportunity to discuss clinical cases while demonstrating the ability to apply the didactic material to practice. Coreq: 29ANAH814, 29ANAH815. Credit Level: G. Credit Hrs: 1.00

29ANAH836**Adult Ambulatory Care for Advanced Nursing Practice: Seminar III**

This seminar is the last of three courses that prepares nurses for professional roles in advanced nursing practice. It is taken in conjunction with the clinical practicum and provides an opportunity to discuss clinical cases while demonstrating the ability to apply the

Advanced Nursing - Adult Health**29ANAH836****Adult Ambulatory Care for Advanced Nursing Practice: Seminar III**

This course provides elective clinical practice opportunities for nurse anesthesia students. Credit Level: G. Credit Hrs: 1.00

29ANAH844**Independent Study in Nurse Anesthesia Practice**

This course provides elective clinical practice opportunities for nurse anesthesia students. Credit Level: G. Credit Hrs: 1.00-5.00

29ANAH845**Independent Study in Nurse Anesthesia Practice**

This course provides elective clinical practice opportunities for nurse anesthesia students. Credit Level: G. Credit Hrs: 1.00-5.00

29ANAH846**Advanced Nursing Practice in Anesthesia Clinical Internship I**

Provides concentrated clinical experience in anesthesia interventions with a variety of clients in various perioperative environmental contexts. Emphasizes legal, ethical and financial considerations inherent in the advanced nursing practice role in anesthesia. Credit Level: G. Credit Hrs: 1.00

29ANAH847**Advanced Nursing Practice in Anesthesia Clinical Internship II**

Provides continuing concentrated clinical experience in implementing anesthesia interventions and evaluating outcomes with implementation of research findings. Emphasizes interventions with clients experiencing complex alterations in health patterns in a variety of perioperative environmental contexts. Prereq: 29ANAH846. Credit Level: G. Credit Hrs: 1.00

29ANAH848**Advanced Nursing Practice in Anesthesia Clinical Internship III**

Culminating concentrated clinical experience that provides opportunity to plan and select/design nursing interventions in anesthesia and evaluate outcomes in all phases of perioperative care. Emphasizes clients with a variety of altered, complex, and atypical health patterns. Prereq: 29ANAH847. Credit Level: G. Credit Hrs: 1.00

29ANAH849**Advanced Nursing Practice in Anesthesia Practicum V**

Provides intensive clinical practice in anesthesia interventions. Clinical experiences in various specialties with clients with increasingly complex alterations in health patterns requiring more expertise in anesthesia management. Credit Level: G. Credit Hrs: 12.00

29ANAH858**Acute Care Seminar I**

This seminar is the first of three courses that prepares nurses for professional roles in advanced nursing practice. It is taken in conjunction with the clinical practicum and provides an opportunity to discuss clinical cases while demonstrating the ability to apply the didactic material to practice. Coreq: 29ANAH810. Credit Level: G. Credit Hrs: 1.00

29ANAH859**Acute Care Seminar II**

This seminar is the second of three courses that prepares nurses for professional roles in advanced nursing practice. It is taken in conjunction with the clinical practicum and provides an opportunity to discuss clinical cases while demonstrating the ability to apply the didactic material to practice. Prereq: 29ANAH858. Coreq: 29ANAH821, 29ANAH822. Credit Level: G. Credit Hrs: 1.00

29ANAH860**Acute Care Seminar III**

This seminar is the last of three courses that prepares nurses for professional roles in advanced nursing practice. It is taken in conjunction with the clinical practicum and provides an opportunity to discuss clinical cases while demonstrating the ability to apply the didactic material to practice. Prereq: 29ANAH859. Coreq: 29ANAH823, 29ANAH824. Credit Level: G. Credit Hrs: 1.00

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Advanced Nursing - Adult Health**29ANAH860****Acute Care Seminar III**

This seminar is the last of three courses that prepares nurses for professional roles in advanced nursing practice. It is taken in conjunction with the clinical practicum and provides an opportunity to discuss clinical cases while demonstrating the ability to apply the didactic material to practice. Prereq: 29ANAH859. Coreq: 29ANAH823, 29ANAH824. Credit Level: G. Credit Hrs: 1.00

29ANAH861**Advanced Acute Care Nursing Internship I**

The internship is the first of five sequential clinical courses in the Post-Master Certificate Acute Care Nurse Practitioner Program. Students engage in comprehensive assessment, diagnosis and care planning activities for client systems with health pattern alterations. The focus of the clinical experiences is on the selection and implementation of extant therapeutic nursing interventions, the beginning design of newly required therapeutic interventions, and discernment of measurable outcome criteria for both. The students engage in beginning implementation of the roles inherent in practice as a nurse practitioner. Clinical experiences take place in various environmental contexts including acute and ambulatory care settings. Prereq: 29NURS811, 29NURS812. Coreq: 29NURS813, 29ANAH804, 29ANAH808. Credit Level: G. Credit Hrs: 1.00

29ANAH862**Advanced Acute Care Nursing Internship II**

The internship is the second of five sequential clinical courses in the Post-Master's Certificate Acute Care Nurse Practitioner Program. Students engage in comprehensive assessment, diagnosis and care planning activities for client systems with health pattern alterations. The focus of the clinical experiences is on the selection and implementation of extant therapeutic nursing interventions, the beginning design of newly required therapeutic interventions, and discernment of measurable outcome criteria for both. The students engage in beginning implementation of the roles inherent in practice as a nurse practitioner. Clinical experiences take place in various environmental contexts including acute and ambulatory care settings. Coreq: 29ANAH801, 29ANAH803, 29ANAH807, 29ANAH861. Credit Level: G. Credit Hrs: 1.00

29ANAH863**Advanced Acute Care Nursing Internship III**

The internship is the third of five sequential clinical courses in the Post-Master's Certificate Acute Care Nurse Practitioner Program. Students engage in comprehensive assessment, diagnosis and care planning activities for client systems with health pattern alterations. The focus of the clinical experiences is on the selection and implementation of extant therapeutic nursing interventions, the beginning design of newly required therapeutic interventions, and discernment of measurable outcome criteria for both. The students engage in beginning implementation of the roles inherent in practice as a nurse practitioner. Clinical experiences take place in various environmental contexts including acute and ambulatory care settings. Coreq: 29ANAH801, 29ANAH803, 29ANAH807, 29ANAH862. Credit Level: G. Credit Hrs: 1.00

29ANAH864**Advanced Acute Care Nursing Internship IV**

The internship is the fourth of five sequential clinical courses in the Post-Master's Certificate Acute Care Nurse Practitioner Program. Students engage in comprehensive assessment, diagnosis and care planning activities for client systems with health pattern alterations. The focus of the clinical experiences is on the selection and implementation of extant therapeutic nursing interventions, the beginning design of newly required therapeutic interventions, and discernment of measurable outcome criteria related thereto. Collaboration as a peer on the multidisciplinary health care team is emphasized. Students implement the roles inherent in practice as a nurse practitioner. Clinical experiences take place in mutually negotiated settings. Coreq: 29ANAH863. Credit Level: G. Credit Hrs: 1.00

Advanced Nursing - Adult Health**29ANAH865****Advanced Acute Care Nursing Internship V**

The internship is the fifth of five sequential clinical courses in the Post-Master's Certificate Acute Care Nurse Practitioner Program. Students engage in comprehensive assessment, diagnosis and care planning activities for client systems with health pattern alterations. The focus of the clinical experiences is on the selection and implementation of extant therapeutic nursing interventions, the beginning design of newly required therapeutic interventions, and discernment of measurable outcome criteria related thereto. Collaboration as a peer on the multidisciplinary health care team is emphasized. Students implement the roles inherent in practice as a nurse practitioner. Clinical experiences take place in mutually negotiated settings. Coreq: 29ANAH864. Credit Level: G. Credit Hrs: 1.00

29ANAH870**Adult Health Nursing Internship I**

Internship for clinical nursing practice in adult health nursing. Credit Level: G. Credit Hrs: 1.00

29ANAH871**Adult Health Nursing Internship II**

Internship for clinical nursing practice in adult health nursing. Credit Level: G. Credit Hrs: 1.00

29ANAH872**Adult Health Nursing Internship III**

Internship for clinical nursing practice in adult health nursing. Credit Level: G. Credit Hrs: 1.00

29ANAH873**Adult Health Nursing Internship IV**

Internship for clinical nursing practice in adult health nursing. Credit Level: G. Credit Hrs: 1.00

29ANAH874**Adult Health Nursing Internship V**

Internship for clinical nursing practice in adult health nursing. Credit Level: G. Credit Hrs: 1.00

Advanced Nursing - Community Health**29ANCH501****Health Policy Topics (Gen Ed)**

This elective course develops knowledge and skill to systematically identify and analyze health care literature pertinent to health policy formulation. The effects of health policy decisions on health care delivery, providers, and consumers are examined with emphasis on nursing practice. Health policy topics may vary with course offering. Approved for General Education credit. BoK: SE. Credit Level: U, G. Credit Hrs: 3.00

29ANCH800**Family Health Nursing: Theory and Counseling in the Health Patterns of Families.**

Focuses on health patterns of families, structure, dynamics, culture and coping strategies in a variety of environmental contexts. Presents health promotion and illness prevention interventions and role in consultation and referral of families. Prereq: 29NURS800. Credit Level: G. Credit Hrs: 3.00

29ANCH801**Family Health Nursing: Therapeutic Interventions in the Health Patterns of Women and Children**

Presents content for health promotion, health maintenance, differential diagnosis and management, and outcome evaluation of health pattern variations in women of childbearing age and of children. Emphasis is on specialized knowledge necessary to provide primary care, including consultation and referral. Credit Level: G. Credit Hrs: 4.00

29ANCH802**Family Health Nursing: Advanced Clinical Pharmacology**

Focuses on safe selection of pharmacologic agents for the management of health pattern alterations of adults and children.

H=University Honors course.

BoK (Breadth of Knowledge) Coding. DC: Diversity & Culture. EC: English composition. FA: Fine Arts. HP: Historical Perspectives. HU: Humanities. LT: Literature. NS: Natural Sciences. QR: Quantitative Reasoning. SE: Social & Ethical Issues. SS: Social Sciences.

Advanced Nursing - Community Health**29ANCH802****Family Health Nursing: Advanced Clinical Pharmacology**

Therapy options based on pharmacologic protocols, lifestyle and cost-effectiveness issues, and environmental contexts are explored. Credit Level: G. Credit Hrs: 2.00

29ANCH803**Family Health Nursing I: Therapeutic Interventions in Adults with Acute Health Patterns Variations**

Focuses on differential diagnosis, management, and outcome evaluation of common acute adult health pattern variations. Topics include health screening, risk assessment, health promotion, and health counseling. Prerequisites: Health Assessment for Advanced Nursing Practice. Credit Level: G. Credit Hrs: 4.00

29ANCH804**Family Health Nursing II: Therapeutic Interventions in Adults with Chronic Health Pattern Variations**

Focuses on differential diagnosis, management, and outcome evaluation of common chronic adult health pattern variations. Topics include health screening, risk assessment, health promotion, health maintenance, and health counseling. Credit Level: G. Credit Hrs: 4.00

29ANCH805**Family Health Nursing: Practicum I**

This practicum is the first in a series of three designed to provide clinical experiences for the advanced nursing practice role in the care of individuals and families. Students will apply knowledge from health assessment, pharmacology, and family health nursing courses. A clinical preceptor will supervise students in ambulatory settings providing therapeutic interventions to a variety of individual and family client systems from diverse cultures across the lifespan in various environmental contexts. Prereq: 29ANCH824, 29NURS813. Coreq: 29NURS821. Credit Level: G. Credit Hrs: 6.00

29ANCH806**Family Health Nursing: Practicum II**

This course is the second in a series of three designed to provide experiences for the advanced nursing practice role in the care of individuals and families. A clinical preceptor will supervise students in ambulatory settings providing therapeutic interventions to a variety of healthy individuals and families, and in those experiencing episodic or chronic health pattern variations. Coreq: 29NURS823. Credit Level: G. Credit Hrs: 7.00

29ANCH807**Family Health Nursing: Practicum III**

This course, a continuation of Family Health Nursing: Practicum II, is designed to provide experiences for the advanced nursing practice role in the care of individuals and families. Prereq: 29ANCH806, 29NURS823. Credit Level: G. Credit Hrs: 7.00

29ANCH808**Family Nursing Seminar I**

This seminar is the first of three courses that prepares nurses for professional roles in advanced nursing practice. It is taken in conjunction with the clinical practicum and provides an opportunity to discuss clinical cases while demonstrating the ability to apply the didactic material to practice. Coreq: 29ANCH805. Credit Level: G. Credit Hrs: 1.00

29ANCH809**Family Nursing Seminar II**

This seminar is the second of three courses that prepares nurses for professional roles in advanced nursing practice. It is taken in conjunction with the clinical practicum and provides an opportunity to discuss clinical cases while demonstrating the ability to apply the didactic material to practice. Prereq: 29ANCH805. Coreq: 29ANCH806. Credit Level: G. Credit Hrs: 1.00

29ANCH810**Introduction to Occupational Health Nursing**

Introduces student to foundational concepts of occupational health and

Advanced Nursing - Community Health**29ANCH810****Introduction to Occupational Health Nursing**

safety, emphasizing the role of the occupational health nurse. Credit Level: G. Credit Hrs: 3.00

29ANCH811**Managing Common Occupational and Environmental Diseases and Injuries**

This course provides a foundation for understanding common occupational and environmental diseases and injuries. Concepts in epidemiology, pathophysiology, toxicology, and nursing will be used to assess workers and their worksites, and to plan interventions. Emphasis will be given to using the team approach to assess and manage occupational and environmental diseases and injuries. Credit Level: G. Credit Hrs: 3.00

29ANCH812**Advance Practice in Occupational Health Nursing Practicum**

Field experience with a worker population in an occupational setting to identify potential work related illnesses and injuries, strategies for prevention, implementation of strategies, and evaluation of outcomes. Prereq: 29ANCH811. Credit Level: G. Credit Hrs: 2.00

29ANCH813**Managing Health and Safety Programs in the Workplace**

This synthesis course focuses on the development, implementation, and evaluation of occupational and environmental health services and programs. Students apply their knowledge of occupational health diseases and injuries, program planning, health promotion, and health behavior theory to the workplace. Discussion focuses on common occupational and environmental health services and programs that use prevention and intervention strategies to reduce risk for workers. Emphasis will be given on using the multidisciplinary team to develop, implement, and evaluate health services and programs. Prereq: 29NURS806, 29NURS814, 29NURS811. Credit Level: G. Credit Hrs: 3.00

29ANCH814**Practicum in Occupational Health Nursing**

This course provides a field experience focused on developing occupational health nursing skills within a specific work setting. A service project is negotiated with a preceptor, completed, and presented at the completion of the course. A summary evaluation of the experience is presented to the professor and preceptor. Prereq: 29ANCH810. Credit Level: G. Credit Hrs: 3.00

29ANCH815**Leadership in Occupational Health Practicum**

The focus of this practicum is the assessment, management and evaluation of a project related to occupational health and safety. Application of nursing theory and research within an occupational health setting or regulatory body will be emphasized, along with decision making, budgeting, human resources and health cost management. The need to use an interdisciplinary approach to meeting the health and safety needs of diverse worker populations within the culture of the organization will also be emphasized. Prereq: 29ANCH813. Credit Level: G. Credit Hrs: 5.00

29ANCH817**Internship in Occupational Health Nursing**

Concentrated field experience in selected areas of advance practice occupational health nursing. Credit Level: G. Credit Hrs: 5.00

29ANCH819**Practicum I: Information Systems**

This practica course is designed to assist students in the development of skills in information technology required for the tracking of populations, management of services and evaluation of interventions. Credit Level: G. Credit Hrs: 2.00

29ANCH821**Family Health Nursing Clinical Internship I**

Internship for clinical nursing practice in family health nursing. Credit

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Advanced Nursing - Community Health**29ANCH821****Family Health Nursing Clinical Internship I**

Level: G. Credit Hrs: 2.00

29ANCH822**Family Health Nursing Clinical Internship II**

Internship for clinical nursing practice in family health nursing. Credit

Level: G. Credit Hrs: 2.00

29ANCH823**Family Health Nursing Clinical Internship III**

Internship for clinical nursing practice in family health nursing. Credit

Level: G. Credit Hrs: 2.00

29ANCH824**The Care of Well Women and Children for Family Nursing Practice**

This course focuses on the care of well women and children across the lifespan. It prepares students to assume professional practice roles and responsibilities in health promotion, health maintenance and management of common health pattern variations pertaining to gynecological and primary care of well women and children. Emphasis is on family-centered, community based health care for diverse client systems. Prereq: 29NURS820, 29NURS812. Credit Level: G. Credit Hrs: 3.00

29ANCH841**Nursing Leadership - Targeting Population Needs**

During this practicum students will analyze aspects of organizations/communities relative to the patient/client populations they serve. Students will apply appropriate theories to evaluating the structure, organization, culture, climate, and other relevant aspects of their chosen organization or community. Emphasis is placed on the development and application of skills used in assessing organizational/community dynamics for related population groups in a variety of environmental and organizational contexts. Credit Level: G. Credit Hrs: 3.00-5.00

29ANCH842**Family Nursing Seminar III**

This seminar is the last of three courses that prepares nurses for professional roles in advanced nursing practice. It is taken in conjunction with the clinical practicum and provides an opportunity to discuss clinical cases while demonstrating the ability to apply the didactic material to practice. Prereq: 29ANCH806. Coreq: 29ANCH807. Credit Level: G. Credit Hrs: 1.00

29ANCH851**Epidemiology for Advanced Nursing Practice**

This course is designed to develop the graduate level nurse's ability to apply epidemiology concepts to clinical practice when developing populations based programs or services. Emphasis is placed on the ability to analyze and critique epidemiologic studies related to clinical practice and population focused health planning and care. Credit Level: G. Credit Hrs: 3.00

29ANCH852**Health Promotion and Risk Reduction**

This course is designed to assist students in developing skills and the ethical foundation necessary for assessing a population based on risk for disease and injury and to evaluate the health patterns of populations. Perm of Instructor. Credit Level: G. Credit Hrs: 3.00-4.50

29ANCH853**Community Health Practicum I: Interdisciplinary Health Planning**

Based on community/public health nursing practice models, students will collaborate with an interdisciplinary team to make programmatic recommendations based on analysis of community-focused population data. Prereq: 29ANCH851. Credit Level: G. Credit Hrs: 5.00

29ANCH854**Foundations of Public Health Nursing**

This course provides the foundation for advanced practice as a public

Advanced Nursing - Community Health**29ANCH854****Foundations of Public Health Nursing**

health nurse. The course helps the student build on core public health theory and functions to develop knowledge and skills within the scope and standards of the specialty. Credit Level: G. Credit Hrs: 3.00

29ANCH855**Practicum II: Community Assessment**

During this practicum students will apply appropriate theories and frameworks to assess the health status and determinants of health for a community. Students will analyze data related to health trends and develop a community diagnosis that incorporates multiple determinants of health for the total community/selected populations. Credit Level: G. Credit Hrs: 3.00-7.00

29ANCH856**Global Health**

This course is designed to assist the graduate student in the development of skills in trending population health data over time from a global perspective. These skills will assist the student in identifying emerging issues from the local to the global level related to the health patterns of populations. In addition the course is aimed at helping the student develop skills related to terrorism, natural disasters, environmental health concerns, emergent health conditions, and poverty. Credit Level: G. Credit Hrs: 3.00

29ANCH857**Advanced Practice Community Health Nursing Seminar**

Based on community/public health nursing practice models students will evaluate the multiple strategies for intervention at the population level within a community grassroots framework and a public health/agency framework. Credit Level: G. Credit Hrs: 3.00

29ANCH859**Practica III: Health Planning Implementation and Evaluation**

Students will develop a population-focused health program relevant to the promotion of health for an identified population/community and select an appropriate implementation and evaluation plan. Credit Level: G. Credit Hrs: 5.00

29ANCH860**Practica IV: Public Health Nursing Leadership**

Students will investigate the role of the public health nurse as a leader in the promotion of the public's health. The course will focus on public health policy, communication and management strategies as they pertain to the delivery of population-focused care. Credit Level: G. Credit Hrs: 3.00-7.00

29ANCH872**Interdisciplinary Practicum I**

Opportunities are provided to interact with members of an interdisciplinary team for the purpose of team building to accomplish a commonly identified goal. Credit Level: G. Credit Hrs: 2.00

29ANCH879**Community Health Internship**

Internship for clinical nursing practice in community health nursing. Credit Level: G. Credit Hrs: 2.00-10.00

29ANCH882**Gerontological Nursing Clinical Internship**

Internship for clinical nursing practice in gerontological nursing. Credit Level: G. Credit Hrs: 1.00-5.00

Advanced Nursing - Nursing Administration**29ANNA837****Nursing Service Administration Practicum I**

Opportunities to analyze the operational aspects of nursing service. Students apply nursing and management theories in evaluating the structure and processes used by nursing administration to achieve outcomes. Credit Level: G. Credit Hrs: 3.00

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Advanced Nursing - Nursing Administration**29ANNA838****Nursing Service Administration Practicum II**

Opportunities to analyze the professional roles of nurse administrators in management. Emphasizes analysis and use of resources to meet departmental and/or organizational goals within a variety of environmental contexts. Credit Level: G. Credit Hrs: 3.00

29ANNA839**Nursing Service Administration: Practicum III**

Analyzes major policies, organizational situations, and strategic planning aspects of the nursing manager roles. Credit Level: G. Credit Hrs: 6.00

29ANNA886**Nursing Service Administration Seminar**

Integrates theory and practice in professional nursing management roles with focus on transition into nursing management roles and utilization of administrative theory in practice. Credit Level: G. Credit Hrs: 3.00

29ANNA898**Strategic Concepts and Models in Nursing Service Administration**

Provides an introduction to the key concepts and theoretical models of strategic management as applied to the health care industry. Emphasizes the role of the nurse executive in formation of strategy and of the nurse manager in the implementation process. Credit Level: G. Credit Hrs: 3.00

Advanced Nursing - Parent Child**29ANPC507****Special Topics in Women's Health**

The course is designed to examine the larger spheres of sociocultural, anthropological, and political variables that influence design, delivery, accessibility and outcomes of health care for women on local, regional, national and international levels. Special topics include science and women's health, sexuality, health policy and gender-specific research, women's life transitions, and specific health challenges. BoK: DC. Credit Level: U, G. Credit Hrs: 3.00

29ANPC801**Differential Diagnosis for Women's Health**

The focus of this course is to understand the diagnostic reasoning process through analysis of present and past histories, physical findings and diagnostic studies that contribute to the formulation of differential diagnoses. The client is assessed from a holistic nursing perspective with consideration of her cultural, social, ethnic, family and community environments. Prereq: 29NURS820, 29NURS812. Credit Level: G. Credit Hrs: 1.00

29ANPC802**Advanced Physiology and Pathophysiology**

This course builds upon basic knowledge of human anatomy and physiology, and the mechanisms of disease. It provides an in-depth consideration of molecular physiology while integrating examples of physiological principles and pathophysiology most likely to be encountered by the advanced practice nurse. Basic and translational research into biochemical, molecular and organ system function and dysfunction will be emphasized. Current thought concerning age-related changes and theories of physiology across the life span will be included. Credit Level: G. Credit Hrs: 4.00

29ANPC804**Conceptual Framework for Women's Health**

Introduces advanced practice nursing role in Women's Health. Addresses concepts of care management, the nursing process, utilization of paradigms of wellness and health, and communication pertinent to women's health nursing practice. Credit Level: G. Credit Hrs: 3.00

29ANPC805**Advanced Women's Health I**

This course, the first in a series of two sequential courses, lays the

Advanced Nursing - Parent Child**29ANPC805****Advanced Women's Health I**

foundation for the women's health care management process and the care of women across the lifespan. It prepares students to assume professional roles and responsibilities in the management of normal and common health pattern variations pertaining to gynecological care. There are at least 0.5 credits (5 clock hours) of pharmacology content. Emphasis is on family-centered, community-based health care for diverse client systems. Prereq: 29NURS820, 29NURS812. Coreq: 29ANPC812, 29NURS813. Credit Level: G. Credit Hrs: 3.00

29ANPC806**Advanced Women's Health Care Practicum I**

This course is the first in a series of three sequential clinical courses in Women's Health Care. The student will engage in comprehensive assessment, diagnosis and management of women's health care across the lifespan. The student will assume a professional practice role and responsibility for management of normal and common health pattern variations pertaining to gynecological care. Emphasis is on family-centered, community-based health care for diverse client systems. Prereq: 29ANPC890, 29ANPC802, 29NURS801, 29ANPC801, 29NURS812. Coreq: 29ANPC806. Credit Level: G. Credit Hrs: 4.00

29ANPC807**Women's Health Nursing I Internship**

Internship for clinical nursing practice in women's health nursing. Credit Level: G. Credit Hrs: 1.00-3.00

29ANPC808**Women's Health Nursing II Internship**

Internship for clinical nursing practice in women's health nursing. Credit Level: G. Credit Hrs: 1.00-3.00

29ANPC809**Primary Care of Episodic Illness for Women**

This course provides students with the theoretical base to assess, diagnose, and manage the care of client systems across the lifespan with selected episodic health pattern alterations. Students will focus on the promotion, maintenance and restoration of client system's health patterns. Culturally competent, holistic, ethical, age and gender specific, and risk stratified care will be discussed. Nonpharmacologic aspects of care such as teaching and coaching will be addressed as well as the pharmacologic management designed to help clients achieve desired outcomes. Evidence based practice will serve as the basis for care management. This course includes 0.5 credits (5 clock hours) of pharmacology content. Prereq: 29NURS825, 29NURS813. Credit Level: G. Credit Hrs: 3.00

29ANPC810**Conceptual Framework for Nurse-Midwifery Practice**

Introduces the professional role of the nurse midwife including the management process, the nursing process, utilization of paradigms of wellness and health, and communication pertinent to nurse midwifery practice. Credit Level: G. Credit Hrs: 3.00

29ANPC811**Primary Care for Women**

(3 didactic and 1 lab with 30 contact hours/quarter). Prepares students to provide primary care for women utilizing critical thinking and decision-making skills. Prereq: 29ANPC810. Credit Level: G. Credit Hrs: 5.00

29ANPC812**Advanced Reproductive Dynamics**

Explores the anatomical and physiological basis for advanced nursing practice in reproductive health care. Includes genetics and reproductive endocrinology in the adult female, male, fetus, and neonate. Examines normal and abnormal fetal development from the perspective of maternal and environmental influences. Prereq: 29NURS820. Credit Level: G. Credit Hrs: 3.00

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Advanced Nursing - Parent Child**29ANPC813****Pharmacology for Nurse-Midwifery Practice/Women's Health Practice**

Examines Nurse Midwifery/Women's Health pharmacologic management and therapeutic interventions to address health patterns in the student's focus area: midwifery or women's health. Prereq: 29NURS811, 29NURS813, 29ANPC812. Credit Level: G. Credit Hrs: 2.00

29ANPC814**Nurse-Midwifery I**

This course, the first in a series of four sequential courses, lays the foundation for the nurse-midwifery management process and the care of the well woman across the lifespan. It prepares students to assume professional roles and responsibilities in the management of normal and common health pattern variations pertaining to gynecological care. Emphasis is on family-centered, community-based health care for diverse client systems. Included are at least 0.5 credits (5 clock hours) of pharmacology content. Prereq: 29ANPC890, 29NURS801, 29NURS820, 29NURS812. Credit Level: G. Credit Hrs: 3.00

29ANPC815**Nurse-Midwifery Practicum I**

This course is the first in a series of four sequential clinical courses in Nurse-midwifery. Students will engage in comprehensive assessment, diagnosis and nurse-midwifery management for well women across the lifespan and assume professional practice roles and responsibilities in managing common health pattern variations pertaining to gynecological care. Emphasis is on family-centered, community-based health care for diverse client systems. Prereq: 29ANPC802, 29ANPC890, 29NURS812, 29NURS801. Coreq: 29ANPC814. Credit Level: G. Credit Hrs: 5.00

29ANPC816**Nurse-Midwifery II**

This course, the second in a sequence of four, prepares students to assume professional roles in the care of normal antepartum women and those with health pattern variations with an at-risk pregnancy. Emphasis is placed on the collaborative management of interventions to achieve desired outcomes during pregnancy. Included are at least 0.5 (5 clock hours) of pharmacology content. Students use scholarly inquiry to further develop their practice knowledge. Research related to normal and at-risk client systems is applied. The course expands on the history of nurse-midwifery as it impacts on professional role issues. Prereq: 29ANPC814, 29ANPC815. Credit Level: G. Credit Hrs: 3.00

29ANPC817**Nurse-Midwifery Practicum II**

This course is the second in a series of four sequential clinical courses in nurse-midwifery. Students will engage in comprehensive assessment, diagnosis and nurse-midwifery management for childbearing women and assume professional practice roles and responsibilities in managing common health pattern variations pertaining to childbearing women during the antepartum period. Students will use scholarly inquiry to evaluate and apply evidence-based practice to further develop their practice. Emphasis is on family-centered, community-based health care for diverse client systems. Professional practice role is further developed. Prereq: 29ANPC814, 29ANPC815. Coreq: 29ANPC816. Credit Level: G. Credit Hrs: 8.00

29ANPC819**Women's Health in a Contemporary Global Society**

The course is designed to present a global perspective of selected contemporary physiological, psychological, and sociocultural issues and concepts associated with women's health. Variations in women's health conditions are discussed from a diagnostic, treatment, and intervention perspective. Credit Level: G. Credit Hrs: 3.00

29ANPC820**Developmental Physiology of the Fetus/Newborn**

The course is designed to provide the student with an in-depth understanding of developmental physiology of the fetus and neonate.

Advanced Nursing - Parent Child**29ANPC820****Developmental Physiology of the Fetus/Newborn**

Principles of biologic growth and development, physiologic maturation of organ systems, birth physiology, and transition to extrauterine life through early infancy will be covered. Adaptation to physiologic stress and alterations from normal will be addressed. Prereq: 29ANPC844. Coreq: 29NURS813. Credit Level: G. Credit Hrs: 2.00

29ANPC821**Developmental Physiology of the Fetus/Newborn**

This course provides the student with an in-depth understanding of developmental physiology of the fetus and neonate. Principles of biologic growth and development, physiologic maturation of organ systems, birth physiology, and transition to extrauterine life through early infancy are covered. Adaptation to physiologic stress and alterations from normal are also addressed. Credit Level: G. Credit Hrs: 2.00

29ANPC822**Advanced Newborn/Infant Health Assessment**

The course provides the knowledge necessary to perform comprehensive assessments and to interpret diagnostic data in the care of newborns and infants. Systematic data collection, diagnostic reasoning, and clinical problem solving are emphasized. (Content focuses on physical examination as well as fetal, perinatal, psychosocial, gestational age, neuro-behavioral, and developmental assessments of newborns and infants.) Differential diagnosis will be discussed. Credit Level: G. Credit Hrs: 5.00

29ANPC823**Advanced Newborn/Infant Pharmacotherapeutics**

The course is an introduction to the understanding of pharmacokinetics, pharmacodynamics, and pharmacotherapeutics of the fetus, newborn and infant. Special considerations of drug therapy in the fetus/newborn/infant, and advanced nursing management of selected newborn/infant therapeutics is addressed. Six hours of legal, ethical, and financial content related to prescribing are addressed in this course. Credit Level: G. Credit Hrs: 5.00

29ANPC824**Neonatal Pathophysiology and Advanced Nursing Management I: The High Risk Family**

The course provides the theoretical and practical knowledge needed for the management of healthy and at risk newborns and their families. Issues of neonatal health care delivery, the advanced practice neonatal nurse role, and care of the family are emphasized. Resuscitation and stabilization of the neonate is addressed. Credit Level: G. Credit Hrs: 3.00

29ANPC825**Advanced Practice Roles in Neonatal Nursing Practicum**

Application of role and leadership theories to needs of neonates and infants. Provides students practice in applying clinical and theory content in program major to practice in selected aspects of advanced practice role. Credit Level: G. Credit Hrs: 3.00-9.00

29ANPC826**Advanced Practice Neonatal Nursing Internship**

This course is designed to provide students with an opportunity to develop clinical competency in the neonatal nurse practitioner role. The experience is accomplished under the guidance of an approved preceptor. Credit Level: G. Credit Hrs: 2.00

29ANPC827**Neonatal Pathophysiology and Advanced Nursing Management II: The High Risk Newborn/Infant**

The course provides the student with the theoretical and practical knowledge needed in the nursing management of newborns and infants with acute and chronic health problems in the Neonatal Intensive Care Unit (NICU). Advanced practice skills are introduced. Credit Level: G. Credit Hrs: 3.00

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Advanced Nursing - Parent Child**29ANPC828****Neonatal Pathophysiology and Advanced Nursing Management III: The Acutely Ill Newborn/Infant**

The course provides the student with the theoretical and practical knowledge needed for the role of the advanced practice neonatal nurse in the neonatal intensive care unit. Content will focus on the assessment, pathophysiology, and management of health problems of critically and chronically ill newborns/infants and their client systems.

Credit Level: G. Credit Hrs: 3.00

29ANPC829**Practicum II: Clinical Care of Pediatric Clients with Acute Illnesses**

This clinical practicum introduces the APN student to diagnosing and managing common acute pediatric illnesses of newborns, infants, children, adolescents, and young adults in primary care contexts. In this practicum students use diagnostic reasoning to accurately diagnose common illnesses, and integrate research and standards of care to plan and deliver appropriate family-based care. Prereq: 29ANPC835. Credit Level: G. Credit Hrs: 3.00-8.00

29ANPC830**Practicum III: Clinical Care of Pediatric Clients with Chronic Illnesses**

This clinical practicum introduces the APN student to management of chronic conditions in health patterns for culturally diverse populations of infants, children, adolescents, and young adults in primary care contexts. In this practicum the students use diagnostic reasoning to accurately diagnose for chronic illnesses, and integrate research and standards of care to plan and deliver appropriate family-based care. Prereq: 29ANPC836. Credit Level: G. Credit Hrs: 3.00-6.00

29ANPC831**Advanced Pediatric Pharmacology**

This course provides nurses preparing for roles in advanced pediatric nursing practice with knowledge of pharmacotherapeutics for common acute and chronic variations in health patterns of the pediatric population. Course content includes the clinical pharmacology of common drug categories encountered in advanced practice pediatric nursing. Pharmacokinetic and pharmacodynamic principles, their clinical application and the use of pharmacologic agents in the prevention of illness and the restoration and maintenance of health are discussed. The mechanism of action, pharmacologic response, usual dose, adverse effects, indications, interactions, contraindications, and routes of administration of medications are emphasized. Credit Level: G. Credit Hrs: 3.00

29ANPC832**Well Women and Special Populations for Pediatrics**

This course prepares students to assume professional practice roles and responsibilities in providing care for well women across the lifespan but with special emphasis on the adolescent and young adult women. Contraception, emergency contraception, sexually transmitted infections, teen pregnancy, teen parenting, abortion, adoption, and adolescent and young adult sexuality are topics that will be discussed. A special pediatric populations will be a second focus of this course and will cover teen parents, children of teen parents, children in foster home care, children in alternative homes (group homes), homeless children and adolescents and incarcerated children and adolescents. Credit Level: G. Credit Hrs: 3.00

29ANPC834**Pediatric Primary Care I: Advanced Pediatric Health Promotion and Assessment**

This course introduces the student to the advanced practice nursing role in health promotion and assessment and in the prevention of illness in a culturally diverse population of newborns, infants, children, adolescents, and young adults in primary care contexts. Credit Level: G. Credit Hrs: 4.00

Advanced Nursing - Parent Child**29ANPC835****Pediatric Primary Care II: Care of Pediatric Clients with Acute Illnesses**

The focus of this course is to introduce the APN student to diagnosing and management of common acute pediatric illnesses in newborns, infants, children, adolescents, and young adults in primary care contexts. Management of acute illnesses includes recognizing signs and symptoms of common illnesses, using diagnostic reasoning to accurately diagnose common illnesses, and integrating research and standards of care to plan and implement care. Credit Level: G. Credit Hrs: 4.00

29ANPC836**Pediatric Primary Care III: Care of Pediatric Clients with Chronic Illnesses**

This course introduces the student to the advanced pediatric nursing practice role in the management of chronic conditions in health patterns for culturally diverse client systems from early pre/school-age to adolescence and early adulthood in multiple environmental contexts. Credit Level: G. Credit Hrs: 4.00

29ANPC837**Practicum I: Advanced Pediatric Health Promotion and Assessment**

This clinical practicum introduces the student to the advanced practice nursing role in health promotion and assessment and in the prevention of illness in a culturally diverse population of newborns, infants, children, adolescents, and young adults in primary care contexts. Prereq: 29ANPC834. Coreq: . Credit Level: G. Credit Hrs: 4.00

29ANPC839**Primary Care of Episodic Illness for Women Practicum**

This course is part of a series of sequential clinical courses in Women's Health Care and prepares the student to provide primary care of episodic illnesses throughout the lifespan. Students will engage in comprehensive assessment, diagnosis and women's health care management for women across the lifespan and assume professional practice roles and responsibilities in managing common health pattern variations pertaining to gynecological and primary care. Emphasis is on family-centered, community-based health care for diverse client systems. Prereq: 29NURS812, 29ANPC802, 29ANPC890, 29NURS801. Coreq: 29ANPC809. Credit Level: G. Credit Hrs: 3.00

29ANPC840**Advanced Women's Health II**

This course, the second in a sequence of two, prepares students to assume professional roles in the care of normal antepartal women and those with health pattern variations with an at-risk pregnancy. Emphasis is placed on the collaborative management of interventions to achieve desired outcomes during pregnancy. Included are at least 0.5 credits (5 clock hours) of pharmacology content. Students use scholarly inquiry to further develop their practice knowledge. Research related to normal and at-risk client systems is applied. Prereq: 29ANPC806, 29ANPC805. Coreq: 29ANPC841. Credit Level: G. Credit Hrs: 3.00

29ANPC841**Advanced Women's Health Care Practicum II**

This course, the second in a series of three sequential clinical courses in women's health care, prepares the students to assume the professional practice roles in the care of normal antepartal women and those with health pattern variations with an at-risk pregnancy. Emphasis is placed on the collaborative management of interventions to achieve desired outcomes during pregnancy. Students use scholarly inquiry to further develop their practice. Evidence-based research as related to normal and at-risk client systems is applied. Prereq: 29ANPC806, 29ANPC805. Coreq: 29ANPC840. Credit Level: G. Credit Hrs: 8.00

29ANPC842**Advanced Women's Health Care Practicum III**

This course, the third in a sequence of three, prepares the student for the fully integrated practice of women's health care to include primary care of episodic illnessness throughout the life span. The professional,

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Advanced Nursing - Parent Child**29ANPC842****Advanced Women's Health Care Practicum III**

social, political, legal, ethical, economic and financial factors that affect women's health care practice are analyzed. Prereq: 29ANPC840, 29ANPC841. Credit Level: G. Credit Hrs: 8.00

29ANPC843**Pediatric Primary Care I: Advanced Pediatric Health Promotion and Assessment**

This course introduces primary care concepts of the advanced nursing practice role in health promotion, assessment, and prevention for newborns, infants, children and adolescents from birth to 21 years of age. Socio-cultural, developmental, and family care theories form the basis of discussion of all age groups. An overview of genetics and its effect on patients and families is discussed. Various assessment tools are discussed including the Ballard, the Denver Developmental Screening Test, HEADSS and GAPS. Health care policy and health care economics related to children and families in the current political climate in relation to health care are appraised particularly in relation to vulnerable children, diverse cultures and health disparities. Prereq: 29NURS812, 29NURS807, 29NURS820, 29NURS804. Credit Level: G. Credit Hrs: 3.00

29ANPC844**Pediatric Primary Care II: Pediatric Episodic/ Primary Care**

This course provides students with a theoretical base to manage common, acute, and emergent health care concerns of newborns, infants, children and adolescents within the context of the primary care setting. This course will prepare the student to recognize signs and symptoms of common pediatric illnesses and injuries, using diagnostic reasoning skills to accurately diagnose conditions based on evidence-based practice and research principles and to design treatment plans. Providing families of ill/injured children with education and support will be addressed. Discussions related to the plight of culturally diverse and/or vulnerable children and their families in relation to actual/potential health disparities are also included in this course. This course includes 0.5 credits (5 clock hours) of pharmacology content. Prereq: 29NURS813, 29NURS810, 29NURS825, 29ANPC843. Credit Level: G. Credit Hrs: 3.00

29ANPC845**Pediatric Primary Care III: Chronic Health Problems in the Pediatric Population**

This course provides students with a theoretical base to manage chronic health concerns of newborns, infants, children and adolescents within the context of the primary care setting. This course will prepare the student to recognize signs and symptoms of chronic pediatric illnesses using diagnostic reasoning skills to accurately diagnose conditions based on evidence based practice and research principles and to design treatment plans. Providing families of chronically ill children with education and support will be addressed. Discussions of culturally diverse and/or vulnerable children and their families in relation to actual/potential health disparities are also included in this course. This course includes 0.5 credits (5 clock hours) of pharmacology content related to chronic health conditions in the pediatric population. Prereq: 29ANPC844, 29ANPC847, 29NURS805. Credit Level: G. Credit Hrs: 3.00

29ANPC846**Pediatric Primary Care IV: Child and Adolescent Mental Health Issues in the Primary Care Setting**

This course introduces the Pediatric Nurse Practitioner student to mental health issues, risk and preventive factors, and management within the primary care setting. Approaches to effective mental health screening and assessment along with common screening tools for child and adolescent mental health disorders are discussed. The KySS Guide will be used to teach students to identify, manage, and prevent child and adolescent mental health disorders within a primary care practice context. Psychopharmacology appropriate to the primary care setting will be addressed. This course includes 0.5 credits (5 clock hours) of pharmacology content related to use of medications for mental

Advanced Nursing - Parent Child**29ANPC846****Pediatric Primary Care IV: Child and Adolescent Mental Health Issues in the Primary Care Setting**

health conditions in children and adolescents. Prereq: 29ANPC845, 29NURS808. Credit Level: G. Credit Hrs: 3.00

29ANPC847**PNP Practicum I**

This introductory clinical practicum introduces the student to the advanced practice nurse role and responsibility in health promotion, prevention, and assessment of culturally diverse patients and families within the context of the primary care setting. Prereq: 29ANPC843. Credit Level: G. Credit Hrs: 6.00

29ANPC848**PNP Practicum II**

This intermediate clinical practicum introduces the student to advanced practice nurse roles and responsibilities in assessing acute illness/injury and chronic illnesses of culturally diverse patients and families within the context of the primary care setting. Prereq: 29ANPC844, 29ANPC847. Credit Level: G. Credit Hrs: 6.00

29ANPC849**PNP Practicum III**

This culminating clinical practicum allows the student to perform holistically in advanced practice nurse roles and responsibilities with culturally diverse patients and families within the context of the primary care setting. Prereq: 29ANPC845, 29ANPC848. Credit Level: G. Credit Hrs: 6.00

29ANPC851**Newborn/Infant Pathophysiology I**

The course provides the student with the theoretical and practical knowledge needed for the role of the neonatal nurse practitioner and clinical nurse specialist in the pathophysiology of healthy and at-risk newborns/infants and their client systems. Issues of neonatal health care delivery, the advanced practice neonatal nurse role, and care of the family will be emphasized. Credit Level: G. Credit Hrs: 5.00

29ANPC852**Pediatric Acute Care I**

This course provides students with a theoretical base to manage acute and emergent health care concerns of pediatric patients within the context of the acute care setting. Students recognize and manage signs and symptoms of acute illnesses and injuries, using diagnostic reasoning skills to accurately diagnose conditions and to design treatment plans. Providing families of hospitalized ill/injured children with education and support and the plight of culturally diverse and/or vulnerable children and their families in relation to actual/potential health disparities is discussed. This course includes 0.5 credits (5 clock hours) of pharmacology content. Prereq: 29NURS813, 29NURS822, 29NURS825, 29ANPC843, 29ANPC866. Coreq: 29ANPC844, 29NURS824. Credit Level: G. Credit Hrs: 2.00

29ANPC853**Pediatric Acute Care II**

This course provides students with a theoretical base to manage acute exacerbations of chronic health care concerns of pediatric patients within acute care settings. Students are prepared to recognize and manage acute episodes of chronic pediatric illnesses using diagnostic reasoning skills to accurately diagnose and design treatment plans. Education and support of families of chronically ill children will be addressed. The management of culturally diverse and/or vulnerable children and their families in relation to actual/potential health disparities is included in this course. This course includes 0.5 credits (5 clock hours) of pharmacology content related to chronic health conditions in the pediatric population. Prereq: 29ANPC844, 29ANPC852. Coreq: 29ANPC845. Credit Level: G. Credit Hrs: 2.00

29ANPC854**Advanced Child Health Nursing Internship I**

Internship for clinical nursing practice in child health nursing. Credit Level: G. Credit Hrs: 1.00

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Advanced Nursing - Parent Child**29ANPC854****Advanced Child Health Nursing Internship I**

Internship for clinical nursing practice in child health nursing. Credit Level: G. Credit Hrs: 1.00

29ANPC855**Advanced Child Health Nursing Internship II**

Internship for clinical nursing practice in child health nursing. Credit Level: G. Credit Hrs: 1.00

29ANPC856**Advanced Child Health Nursing Internship III**

Internship for clinical nursing practice in child health nursing. Credit Level: G. Credit Hrs: 1.00

29ANPC857**Advanced Child Health Nursing Internship IV**

Internship for clinical nursing practice in child health nursing. Credit Level: G. Credit Hrs: 1.00

29ANPC858**Advanced Child Health Nursing Internship V**

Internship for clinical nursing practice in child health nursing. Credit Level: G. Credit Hrs: 1.00

29ANPC859**Advanced Child Health Nursing Internship VI**

Internship for clinical nursing practice in child health nursing. Credit Level: G. Credit Hrs: 1.00

29ANPC861**Nurse-Midwifery Internship I**

This course, the first in a series of four sequential courses, lays the foundation for the nurse-midwifery management process and for women across the lifespan. It prepares students to assume professional practice roles and responsibilities in managing common health pattern variations pertaining to primary care, gynecological and antepartum care. Emphasis is on family-centered, community-based health care for diverse client systems. Perm of Instructor. Credit Level: G. Credit Hrs: 2.00

29ANPC862**Nurse-Midwifery Internship II**

This course, the second in a sequence of four, prepares students to assume professional practice roles in the care of women with health pattern variations with an at-risk pregnancy and selected gynecologic problems. Emphasis is placed on the collaborative management of interventions to achieve desired outcomes during pregnancy, parturition. Students use scholarly inquiry to further develop their practice. Research related to at-risk client systems is applied. The course expands on the history of nurse-midwifery as it impacts on professional role issues. Perm of Instructor. Credit Level: G. Credit Hrs: 3.00

29ANPC863**Nurse-Midwifery Internship III**

This course, the third in a sequence of four, prepares the student to assume professional practice roles and responsibilities in the care of women with common health pattern variations pertaining to normal and at-risk pregnancy and parturition, normal and at-risk neonates. Emphasis is placed on the collaborative management of interventions to achieve desired outcomes during the postpartum period. Research related to at-risk client systems is applied. Perm of Instructor. Credit Level: G. Credit Hrs: 3.00

29ANPC864**Nurse-Midwifery Internship IV**

This course, the last in a sequence of four, prepares the student for the fully integrated practice of nurse-midwifery. The social, political, legal, ethical, economic and financial factors that affect nurse-midwifery practice are analyzed. Perm of Instructor. Credit Level: G. Credit Hrs: 3.00

Advanced Nursing - Parent Child**29ANPC865****Pediatric Acute Care III: Pediatric Critical Care**

This course provides students with a theoretical base to manage care of medically fragile pediatric patients in intensive care units, step down units, emergency departments, and surgical departments. The student is prepared to manage signs and symptoms of critically ill patients and to accurately diagnose rapid changes in health status. Critical clinical decision making is stressed in the design of treatment plans. The need to provide families of critically ill children with culturally appropriate education and support to facilitate the patient's return to a state of wellness, relative wellness or a peaceful death, is addressed. This course includes 0.5 credits (5 clock hours) of pharmacology content related to the care of critically ill infants, children and adolescents. Prereq: 29ANPC845, 29ANPC853. Credit Level: G. Credit Hrs: 3.00

29ANPC866**Pediatric Acute Care Practicum I**

This introductory clinical practicum introduces the student to the advanced practice nurse role and responsibility in caring for children and families from culturally diverse backgrounds within the context of ambulatory/specialty clinic and hospital settings. The clinical emphasis is on wellness and caring for acute/episodic illnesses in children. Prereq: 29NURS813, 29NURS822, 29ANPC843, 29NURS825, 29ANPC886. Coreq: 29ANPC852, 29ANPC875. Credit Level: G. Credit Hrs: 6.00

29ANPC867**Nurse-Midwifery III**

This course, the third in a sequence of four, prepares the student to assume professional roles and responsibilities in the care of normal intrapart and post partal women and those with common health pattern variations pertaining to at-risk women in parturition and post partum; normal and at-risk neonates. Included are at least 0.5 credits (5 clock hours) of pharmacology content. Emphasis is placed on the collaborative management of interventions to achieve desired outcomes during the parturition and postpartum period and the neonate. Research related to normal and at-risk client systems is applied. Prereq: 29ANPC816, 29ANPC817. Credit Level: G. Credit Hrs: 4.00

29ANPC868**Nurse-Midwifery Practicum III**

This course is the third in a series of four sequential clinical courses in Nurse-midwifery. Students will engage in comprehensive assessment, diagnosis and nurse-midwifery management for childbearing women and their neonates during the intrapartum and postpartum period. Students will continue to assume professional practice roles and responsibilities in managing common health pattern variations pertaining to childbearing women and their neonates during the intrapartum and postpartum period. Students will use scholarly inquiry to evaluate and apply evidence-based practice to further develop their practice. Emphasis is on family-centered, community-based health care for diverse client systems. Professional practice role is further developed. Prereq: 29ANPC814, 29ANPC815, 29ANPC816, 29ANPC817. Coreq: 29ANPC867. Credit Level: G. Credit Hrs: 9.00

29ANPC869**Pediatric Acute Care Practicum II**

This intermediate clinical practicum introduces the student to advanced practice nurse roles and responsibilities in assessing and managing acute episodic illness of chronically ill hospitalized newborns, infants, children and adolescents from culturally diverse families within the context of the acute care setting. Prereq: 29NURS824, 29ANPC843, 29ANPC852, 29ANPC866. Coreq: 29ANPC876, 29ANPC853. Credit Level: G. Credit Hrs: 7.00

29ANPC870**Pediatric Acute Care Practicum III**

This culminating clinical practicum allows the student to perform holistically in advanced practice nurse roles and responsibilities with culturally diverse patients and families within the context of the critical care setting. Care of newborn, infants, children, and adolescents and their families will be in ICUs, Step Downs, Emergency Departments,

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Advanced Nursing - Parent Child**29ANPC870****Pediatric Acute Care Practicum III**

and/or Surgical areas. Prereq: 29ANPC845, 29ANPC853, 29ANPC869.
Coreq: 29ANPC879, 29ANPC865. Credit Level: G. Credit Hrs: 7.00

29ANPC871**Clinical Practicum I: General Assessment of the Newborn Infant**

This initial practicum focuses on health assessment and evaluation of diverse newborn/infants and their families in various clinical settings.
Prereq: 29ANPC822. Coreq: 29ANPC821. Credit Level: G. Credit Hrs: 3.00

29ANPC872**Clinical Practicum II: General Management of the Newborn/Infant**

The practicum focuses on the collaborative management of the diverse health patterns affecting the neonate/infant and their families. Emphasis is placed on development of the professional role and application of research findings to advanced nursing practice. Prereq: 29ANPC821, 29ANPC822, 29ANPC871, 29ANPC823. Credit Level: G. Credit Hrs: 5.00

29ANPC873**Clinical Practicum III: Neonatal Disease Process**

The course is designed to provide students with an opportunity to develop clinical competency in the multifaceted aspects of the neonatal nurse practitioner role. The focus of this clinical practicum is the management, implementation, and evaluation of strategies related to specific disease processes affecting the newborn/infant client. The experience is accomplished in a Level III designated Neonatal Intensive Care Unit under the guidance of an approved preceptor (Neonatal Nurse Practitioner and/or board certified Neonatologist). Prereq: 29ANPC821, 29ANPC822, 29ANPC871, 29ANPC872, 29ANPC823. Credit Level: G. Credit Hrs: 6.00

29ANPC874**Clinical Practicum IV: Neonatal Disease Process**

The course is designed to provide students with an opportunity to develop clinical competency in the multifaceted aspects of the neonatal nurse practitioner role. The focus of this clinical practicum is the management, implementation, and evaluation of strategies related to specific disease processes affecting the newborn/infant client. The experience is accomplished in a Level III designated Neonatal Intensive Care Unit under the guidance of an approved preceptor (Neonatal Nurse Practitioner and/or board certified Neonatologist). Prereq: 29ANPC821, 29ANPC822, 29ANPC871, 29ANPC872, 29ANPC823. Credit Level: G. Credit Hrs: 1.00-7.00

29ANPC875**Pediatric Acute Care Seminar I**

This seminar is the first of three courses that prepares nurses for professional roles in advanced nursing practice for acutely ill pediatric patients. It is taken in conjunction with the clinical practicum and provides an opportunity to debrief and discuss clinical cases while demonstrating the ability to apply the didactic material to practice. Coreq: 29ANPC866. Credit Level: G. Credit Hrs: 1.00

29ANPC876**Pediatric Acute Care Seminar II**

This seminar is the second of three courses that prepares nurses for professional roles in advanced nursing practice with acutely ill pediatric patients. It is taken in conjunction with the clinical practicum and provides an opportunity to debrief and discuss clinical cases while demonstrating the ability to apply the didactic material to practice. Coreq: 29ANPC869. Credit Level: G. Credit Hrs: 1.00

29ANPC877**Nurse-Midwifery IV**

This course, the fourth in a sequence of four, prepares the student for the fully integrated practice of nurse-midwifery. Included are at least 0.5 credits (5 clock hours) of pharmacology content. The professional, social, political, legal, ethical, economic and financial factors that affect nurse-midwifery practice are analyzed. Prereq: 29ANPC867, 29ANPC868. Credit Level: G. Credit Hrs: 2.00

Advanced Nursing - Parent Child**29ANPC877****Nurse-Midwifery IV**

This course, the fourth in a sequence of four, prepares the student for the fully integrated practice of nurse-midwifery. Included are at least 0.5 credits (5 clock hours) of pharmacology content. The professional, social, political, legal, ethical, economic and financial factors that affect nurse-midwifery practice are analyzed. Prereq: 29ANPC867, 29ANPC868. Credit Level: G. Credit Hrs: 2.00

29ANPC878**Nurse-Midwifery Practicum IV**

This course is the fourth in a series of four sequential clinical courses in Nurse-midwifery and prepares the student for fully integrated practice of Nurse-midwifery. Students will use scholarly inquiry to evaluate and apply evidence-based practice to further develop their practice. Emphasis is on family-centered, community-based health care for diverse client systems. Professional, historical, social, political, legal, ethical, economic factors that affect midwifery practice are analyzed. The student professional practice role as part of a multidisciplinary team is further developed. Prereq: 29ANPC814, 29ANPC815, 29ANPC816, 29ANPC817, 29ANPC867. Coreq: 29ANPC877. Credit Level: G. Credit Hrs: 9.00

29ANPC879**Pediatric Acute Care Seminar III**

This seminar is the last of three courses that prepares nurses for professional roles in advanced nursing practice. It is taken in conjunction with the clinical practicum and provides an opportunity to debrief and discuss clinical cases while demonstrating the ability to apply didactic material to practice. Coreq: 29ANPC870. Credit Level: G. Credit Hrs: 1.00

29ANPC880**Advanced Pediatric Acute Care Nursing Internship I**

Internship for clinical nursing practice in child health nursing for preparation as a Pediatric Acute Care Nurse Practitioner. The course is designed to provide students with an opportunity to develop clinical competency in the pediatric acute care nurse practitioner role. The experience is accomplished under the guidance of a faculty approved preceptor. Credit Level: G. Credit Hrs: 1.00

29ANPC881**Advanced Pediatric Acute Care Nursing Internship II**

Internship for clinical nursing practice in child health nursing for preparation as a Pediatric Acute Care Nurse Practitioner. The course is designed to provide students with an opportunity to develop clinical competency in the pediatric acute care nurse practitioner role. The experience is accomplished under the guidance of a faculty approved preceptor. Credit Level: G. Credit Hrs: 1.00

29ANPC882**Advanced Pediatric Acute Care Nursing Internship III**

Internship for clinical nursing practice in child health nursing for preparation as a Pediatric Acute Care Nurse Practitioner. The course is designed to provide students with an opportunity to develop clinical competency in the pediatric acute care nurse practitioner role. The experience is accomplished under the guidance of a faculty approved preceptor. Credit Level: G. Credit Hrs: 1.00

29ANPC883**Advanced Pediatric Acute Care Nursing Internship IV**

Internship for clinical nursing practice in child health nursing for preparation as a Pediatric Acute Care Nurse Practitioner. The course is designed to provide students with an opportunity to develop clinical competency in the pediatric acute care nurse practitioner role. The experience is accomplished under the guidance of a faculty approved preceptor. Credit Level: G. Credit Hrs: 1.00

29ANPC884**Advanced Pediatric Acute Care Nursing Internship V**

Internship for clinical nursing practice in child health nursing for preparation as a Pediatric Acute Care Nurse Practitioner. The course is designed to provide students with an opportunity to develop clinical

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Advanced Nursing - Parent Child**29ANPC884****Advanced Pediatric Acute Care Nursing Internship V**

competency in the pediatric acute care nurse practitioner role. The experience is accomplished under the guidance of a faculty approved preceptor. Credit Level: G. Credit Hrs: 1.00

29ANPC885**Advanced Pediatric Acute Care Nursing Internship VI**

Internship for clinical nursing practice in child health nursing for preparation as a Pediatric Acute Care Nurse Practitioner. The course is designed to provide students with an opportunity to develop clinical competency in the pediatric acute care nurse practitioner role. The experience is accomplished under the guidance of a faculty approved preceptor. Credit Level: G. Credit Hrs: 1.00

29ANPC886**Special Topics in Acute Care Pediatric Care**

This course provides in depth exploration of advanced therapeutic nursing interventions designed to promote, maintain, or restore the health of acutely ill newborns, infants, children and adolescents. The application of technology, informatics, and select therapies is explored relative to pediatric patients within the acute care environmental context. Students analyze the purpose, cost-benefits, selection criteria and outcomes for each therapeutic intervention. Selected symptoms common in acutely ill hospitalized pediatric patients are used as exemplars for the development of advanced therapeutic nursing interventions. Current theory and research related to the interventions are examined. Coreq: 29NURS825, 29NURS813. Credit Level: G. Credit Hrs: 3.00

29ANPC887**Nurse-Midwifery Practicum V**

This course, the fifth in a sequence of five, prepares the student for the fully integrated practice of nurse-midwifery to include primary care of episodic illnesses throughout the lifespan. The professional, social, political, legal, ethical, economic and financial factors that affect nurse-midwifery practice are analyzed. Prereq: 29ANPC877, 29ANPC878. Credit Level: G. Credit Hrs: 7.00

29ANPC890**Advanced Reproductive Dynamics**

This course explores the anatomical and physiological basis for advanced nursing practice in reproductive health care. Emphasis is on anatomy, physiology, and reproductive endocrinology in the adult female, male, fetus and neonate. Fetal development is examined from the perspective of maternal and environmental contexts. Credit Level: G. Credit Hrs: 4.00

29ANPC891**Advanced Women's Health I**

(3 didactic and 9 clinical with 270 clinical contact hours). Introduces the management process related to the primary care of women's health across the lifespan and during the antenatal period. Roles and responsibilities in management of complications of pregnancy and parturition and in care of the normal neonate are addressed. Clinical experiences are precepted. Prereq: 29ANPC812, 29ANPC813. Credit Level: G. Credit Hrs: 12.00

29ANPC892**Advanced Women's Health II**

(2 didactic and 10 clinical with 300 clinical contact hours). Prepares the student to assume professional practice roles and responsibilities in managing the care of the woman with health pattern variations across the life span. Women's health care legislation, health care management, and issues are explored. Clinical experiences are precepted. Prereq: 29ANPC805. Credit Level: G. Credit Hrs: 12.00

29ANPC893**Nurse Midwifery I**

(3 didactic and 5 clinical). This course prepares students for nurse-midwifery management including therapeutic interventions and the nursing process for the primary care of women across the lifespan, including childbearing. Concepts of family, community, and health

Advanced Nursing - Parent Child**29ANPC893****Nurse Midwifery I**

promotion are addressed. Credit Level: G. Credit Hrs: 8.00

29ANPC894**Nurse Midwifery II**

(4 didactic and 8 clinical). This course prepares students to assume professional practice roles and responsibilities in managing complications of pregnancy and parturition and the care of the normal neonate. Professional role issues, the history of midwifery, need for use of scholarly inquiry by nurse-midwives to further their practice and practice context are discussed. Credit Level: G. Credit Hrs: 12.00

29ANPC895**Nurse Midwifery III**

(3 didactic and 9 clinical). This course prepares the student to assume professional practice roles and responsibilities in the care of the woman with an at-risk pregnancy, the neonatal complications, and the woman with selected gynecologic problems. Credit Level: G. Credit Hrs: 12.00

29ANPC896**Nurse Midwifery IV**

(2 didactic and 8 clinical). This course prepares the student for the fully integrated practice of nurse-midwifery. Maternal-child health care legislation, health care legislation, health care management, professional management of nurse-midwifery practice, advanced professional roles, use of scholarly inquiry, and issues are discussed. Credit Level: G. Credit Hrs: 10.00

Advanced Nursing - Psychiatric**29ANPS441****Care of Clients with Substance Use, Abuse, and Addictions**

Nursing elective provides overview of theoretical and practical aspects of managing care of clients with substance abuse problems. BoK: NA. Credit Level: U. Credit Hrs: 3.00

29ANPS801**Advanced Concepts in Forensic Nursing**

The course builds the foundation for forensic studies related to nursing practice. Focuses on the legal issues experienced by forensic population. Factors related to epidemiology of violence, trauma, culture, poverty, and criminality are explored. Credit Level: G. Credit Hrs: 3.00

29ANPS820**Advanced Psychiatric Nursing I: Assessment and Diagnosis**

Focuses on assessment and differential diagnosis of common chronic health pattern variations in clients with mental disorders in various psychiatric settings. Credit Level: G. Credit Hrs: 4.00

29ANPS821**Advanced Psychiatric Nursing II: Interventions for Health Pattern Variations with Psychiatric Client**

Provides theoretical basis for advanced psychiatric nursing practice. Focuses on individual treatment modalities appropriate to a managed care environment, legal and ethical issues, and standards of practice. Credit Level: G. Credit Hrs: 4.00

29ANPS823**Substance Abuse and Advanced Psychiatric Nursing Practice**

Focuses on theories, research, treatment approaches, and societal and political issues related to primary, secondary, and tertiary levels of prevention for substance abuse across the life span. Credit Level: G. Credit Hrs: 4.00

29ANPS831**Psychiatric Nursing Internship**

This practicum provides the student with opportunities and supervision for clinical training in two psychotherapeutic modalities: Cognitive and Interpersonal Therapy. Emphasis is on establishing a Nurse Practitioner/client relationship and management of client care when using these treatment modalities. Credit Level: G. Credit Hrs: 2.00

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Advanced Nursing - Psychiatric**29ANPS832****Advanced Psychiatric Nursing: Internship II**

Internship for clinical nursing practice in psychiatric nursing. Credit Level: G. Credit Hrs: 1.00

29ANPS889**Psychopharmacology for Nurses in Advanced Practice**

Provides nurses in advanced practice with an understanding of the effects of psychotropic drugs and their relationship with other treatment modalities. Credit Level: G. Credit Hrs: 2.00

Nursing**29NURS101****Success in College and Nursing I**

This course is required for Pre-Nursing students. The purpose of the course is to introduce students to college life, the profession of nursing and to provide a sense of belonging to both. The course centers on academic skill development, personal success in the University and making a connection between general education and nursing. BoK: NA. Credit Level: U. Credit Hrs: 2.00

29NURS102**Success in College and Nursing II**

This course is required for Pre-Nursing students. The purpose of the course is to introduce students to college life, the profession of nursing and to provide a sense of belonging to both. The course centers on academic skill development, personal success in the University and making a connection between general education and nursing. Prereq: 29NURS101. BoK: NA. Credit Level: U. Credit Hrs: 2.00

29NURS200**Nutrition For Health**

This introductory nutrition course focuses on the relationship between nutrition and the promotion of health and prevention of disease. The course content introduces nutrients (both macronutrients and micronutrients) and their common dietary sources, daily requirements, and clinical deficiencies/excesses. The concept of energy balance and its effect on overnutrition and undernutrition will be discussed. The content also addresses the relationship between nutrient requirements and physiological needs across the entire life span, from prenatal nutrition through geriatric nutrition. Types of individuals, populations, or communities at risk for dietary imbalances as a result of genetic, environmental, or socio-cultural influences will be discussed. The content includes information related to legal/ ethical guidelines when appropriate. Emphasis will be placed on how to critically evaluate both popular and professional literature related to healthcare. The principles of nutrition discussed will be applicable to the role of the nurse in promotion of health and the management of patients' nutritional needs. Prereq: 15BIOL203, 15CHEM106. BoK: NA. Credit Level: U. Credit Hrs: 2.00

29NURS201**Introduction to Professional Nursing**

Students are introduced to the underlying values and concepts of nursing as a profession. Hallmark events, integral to the evolution of nursing as a profession are discussed. Nurse-client relationships and the role of the nurse as a member of an interdisciplinary health care team are emphasized. The nursing process as a methodology of care, the basic ethical principles and legal aspects relevant to care, the systems of health care delivery and the importance of evidence-based practice are addressed. The power of communication and leadership techniques is experienced throughout the course. BoK: NA. Credit Level: U. Credit Hrs: 2.00

29NURS202**Foundations of Nursing Practice I**

Students are introduced to the concepts, content, behaviors, and procedures that provide the foundation for nursing practice. The focus of the content is the use of assessment techniques relevant to specific nursing procedures, performance of basic nursing procedures, application of critical thinking, and the use of communication methods

Nursing**29NURS202****Foundations of Nursing Practice I**

while providing care. Application of the content occurs in a simulated laboratory setting that emphasizes self-directed learning, practice, and competent performance of selected skills and behaviors. Coreq: 29NURS201. BoK: NA. Credit Level: U. Credit Hrs: 4.00

29NURS203**Foundations of Nursing Practice II**

The concepts, content, behaviors, and procedures build upon those taught in Foundations of Nursing Practice I. Didactic content provides the basis for simulated experiences in a laboratory setting and clinical experiences in a health care setting. The development of the nurse-patient relationship, performance of basic nursing procedures, and use of critical thinking with emphasis on the collection of assessment data and the provision of selected nursing interventions are addressed. Students learn to apply verbal and written communication skills in interactions with other health care disciplines. Prereq: 29NURS201, 29NURS202. BoK: NA. Credit Level: U. Credit Hrs: 5.00

29NURS204**Nursing Health Assessment**

This course focuses on attaining the skills necessary for astute observation, purposeful inquiry and investigation, and outcomes based on nursing judgments. Students are introduced to the nursing process, health history taking, diagnostic study interpretation, physical examination skills and environmental evaluation for client systems across the life span. BoK: NA. Credit Level: U. Credit Hrs: 4.00

29NURS205**Pharmacology**

Course content explores the basic mechanisms of drug action, indications and contraindications of drug therapy, and the therapeutic effects as well as toxic and expected side effects of various medications. The nursing implications related to pharmacotherapies with clients across the life span are stressed. Legal and ethical issues related to medication administration and skills for calculating drug dosages are presented. Prereq: 29NURS200. BoK: NA. Credit Level: U. Credit Hrs: 4.00

29NURS206**Nutrition and Disease**

This course builds upon the nutrition principles introduced in Nutrition for Health (29NURS200). It provides an introduction to the assessment of nutritional status so that the registered nurse can identify patients at risk for malnutrition and address their nutrient needs in a comprehensive care plan. Types of individuals, populations, or communities at risk for dietary imbalances as a result of genetic, environmental, or socio-cultural influences will be discussed. The course will address the diagnosis, prevalence, health consequences, and treatment of obesity and undernutrition. Nutritional management of common medical conditions will be included. In addition, indications for enteral and parenteral nutrition support and potential delivery sites will be discussed. The content of the course will include information related to legal/ethical guidelines, when appropriate. The information gained in this course will be beneficial to the registered nurse in assessment and management of patients' nutritional needs related to specific medical conditions. Prereq: 29NURS200. BoK: NA. Credit Level: U. Credit Hrs: 2.00

29NURS207**Nursing Ethics and Law**

The course examines ethical theories and principles as applied to ethical aspects of selected issues in nursing and health care. Law as it applies to nursing practice is also examined. BoK: SE. Credit Level: U. Credit Hrs: 2.00

29NURS270**Pathophysiology**

Course discusses the physiological variations in health patterns based on examination of biological processes that affect the dynamic equilibrium (homeostasis) of the human body. A conceptual approach is

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Nursing**29NURS270****Pathophysiology**

used to integrate knowledge from the natural sciences. Applications to the professional role of practitioner are identified. BoK: NS. Credit Level: U. Credit Hrs: 4.00

29NURS271**Honors Guided Study**

Individualized study for honors recognition. BoK: NA. Credit Level: U. Credit Hrs: 2.00-3.00

29NURS300**Concepts of Community**

Course content emphasizes the concept of community focused nursing practice and the relationship among individuals, families, and communities across the life span. Critical attributes and characteristics of various communities are examined. Selected models and theories are used for identifying health patterns of culturally diverse client systems. Health policy, politics, and research are emphasized as the context for community health advocacy and the roles of the professional nurse. Prereq: 29NURS203. BoK: DC, SS. Credit Level: U. Credit Hrs: 3.00

29NURS301**Introduction to Genetics for Professional Nursing Practice**

Course content includes a foundational overview of the current state of genomics science and Human Genome Project. Basic genetic concepts about human chromosomes, karyotype, mitosis, meiosis, DNA, genotype, phenotype, Mendelian inheritance, mitochondrial and chromosomal aberrations and complex disorders will be reviewed. The student will be updated on emerging genetics content areas. An introduction to the top ten causes of mortalities and morbidities with genomic influences across the life span will be discussed. Family pedigree construction and analysis, dysmorphology and physical genetics assessment will be addressed. Financial, ethical, legal, and cultural implications of genetics testing and research will be highlighted. The roles of genetics specialists in interdisciplinary practice will be introduced. Prereq: 29NURS270. BoK: NA. Credit Level: U. Credit Hrs: 2.00-3.00

29NURS303**Nursing Care of Adults**

The content in this course follows and builds upon the introductory nursing courses Foundations I and II. Emphasis is on promoting and restoring health of adults with common health concerns and related physiologic and psychologic responses. Nursing process related to alterations in health patterns is explored. Content also includes appropriate information on genetics, cultural diversity, ethics, legal principles, and life span issues specifically related to adults. Clinical experiences facilitate the utilization of this knowledge. Scholarly inquiry is used to evaluate nursing interventions in a variety of environmental and biopsychosocial contexts. Prereq: 29NURS203, 29NURS204, 29NURS205. BoK: NA. Credit Level: U. Credit Hrs: 9.00

29NURS304**Gerontological Nursing Practice**

This course will focus on essential content necessary to provide quality care for older adults. Content will include best nursing practices in care of the healthy and ill older adult and the role of the professional nurse. Prereq: 29NURS203. BoK: SS. Credit Level: U. Credit Hrs: 3.00

29NURS305**Continuum of Care for Children and Families**

This course provides didactic and clinical experiences that focus on health patterns as a basis for nursing practice appropriate for children and families throughout their continuum of care. The concepts of health including promotion, maintenance, rehabilitation/restoration and palliation are incorporated into the nursing process. Content will also include information on age appropriate lifespan concerns, genetics, cultural diversity, legal, ethical and end of life issues. Clinical experience in acute care and community settings will facilitate the use of this knowledge. Scholarly inquiry and information technology will be

Nursing**29NURS305****Continuum of Care for Children and Families**

applied to examine professional nursing practice in a variety of environmental and biopsychosocial contexts. Prereq: 29NURS300, 29NURS303. BoK: NA. Credit Level: U. Credit Hrs: 9.00

29NURS306**Continuum of Care for Childbearing Families**

This course provides didactic content and clinical experiences that focus on the continuum of care for culturally diverse women of childbearing age and their families. The concepts of health promotion, health maintenance and health restoration are incorporated into discussion of the nursing process and the role of the professional nurse. Content will also include information on genetics, cultural diversity, legal and ethical issues, and related end-of-life issues. Clinical experiences in a variety of acute care and community-based settings will provide opportunities to apply the nursing process to low risk and at-risk pregnant women across the spectrum of reproductive health care. Prereq: 29NURS303, 29NURS300. BoK: NA. Credit Level: U. Credit Hrs: 9.00

29NURS307**Continuum Of Mental Health Care**

This course provides didactic and clinical experiences that focus on health pattern alterations as a basis for nursing practice appropriate for persons experiencing mental illness and their families throughout the continuum of care. The concepts of health including promotion, health maintenance, and rehabilitation/restoration are incorporated into discussion of the nursing process and the role of the professional nurse in the classroom and clinical settings. Content will also include information on age-appropriate lifespan concerns which include genetics, cultural diversity, legal and ethical issues, and related end-of-life issues. Scholarly inquiry and information technology will be applied to examine professional nursing practice in a variety of environmental and biopsychosocial texts. Prereq: 29NURS300, 29NURS303. Coreq.: BoK: NA. Credit Level: U. Credit Hrs: 9.00

29NURS308**Nursing Theory and Research**

The course introduces the student to nursing theory and research as a form of scholarly inquiry. Content includes the evolution of nursing theory and research, the components of theory, the research process, and the cyclical nature of practice, theory, and research. Nursing practice that utilizes research findings as a basis for nursing judgement and interventions with clients is emphasized. BoK: NA. Credit Level: U. Credit Hrs: 4.00

29NURS310**Independent Study for Registered Nurses**

This course provides opportunity for individual study in nursing for registered nurse students. BoK: NA. Credit Level: U. Credit Hrs: 6.00-12.00

29NURS373**Health Care Ethics**

This interdisciplinary course considers ethical theories and principles applicable to nursing, pharmacology, and allied health professions. Using scholarly inquiry, students will analyze ethical issues across the lifespan in diverse socioeconomic and cultural situations. Nursing students take an additional credit hour covering legal aspects of nursing practice. BoK: SE. Credit Level: U. Credit Hrs: 2.00-3.00

29NURS396**ROTC Nursing**

Seminar and clinical practice opportunities offered as a part of ROTC Nursing. BoK: NA. Credit Level: U. Credit Hrs: 3.00

29NURS401**Contemporary Adult Ambulatory Care**

The course is a practicum designed to introduce students to the role of the professional nurse in the ambulatory care setting. Emphasis is on further development of professional nursing skills and the use of the nursing process, particularly assessment, decision making, and

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Nursing**29NURS401****Contemporary Adult Ambulatory Care**

evaluation. Clinical experiences in a variety of ambulatory care settings enable students to develop essential skills for providing accessible, continuous, collaborative, affordable, and personalized care. Students gain experience in independent and interdisciplinary decision making with nurse preceptors and other health team members. Prereq: 29NURS305, 29NURS306, 29NURS307. BoK: NA. Credit Level: U. Credit Hrs: 2.00

29NURS403**Nurse as Professional Leader**

The course content focuses on the knowledge and skills essential to effective nursing leadership. Emphasis will be placed on strategies that facilitate professional practice of self and others as members of the health care organization. Prereq: 29NURS207, 29NURS305, 29NURS306, 29NURS307. BoK: SE. Credit Level: U. Credit Hrs: 3.00

29NURS407**Senior Capstone**

This project is the capstone experience for the nursing major. The project is an opportunity to integrate all course work in the program. The student completes a project to demonstrate the role of the professional nurse in relation to responsibility for health in a selected environmental context within a global society. BoK: NA. Credit Level: U. Credit Hrs: 3.00

29NURS410**Nursing Care of Adults with Complex Health Concerns**

The content in this course focuses on the synthesis of health patterns of client systems that are in acute care environments. Emphasis is on the use of the nursing process to provide illness and rehabilitation/restoration care to client systems experiencing complex and multi- system health pattern variations. Content will also include appropriate information on genetics and cultural diversity and life span, and end of life issues specific to the client experiencing complex health care concerns. Clinical experience in acute care settings will facilitate the utilization of this knowledge and the transition from student to professional nurse as the student manages the care of diverse client systems. Scholarly inquiry will be used to evaluate nursing interventions. Prereq: 29NURS305, 29NURS306, 29NURS307, 29NURS401. BoK: NA. Credit Level: U. Credit Hrs: 10.00-13.00

29NURS411**Professional Leader as Manager**

This course content introduces the managing role of the leader within varied nurse practice settings. Managerial concepts and leadership skills needed to promote high quality outcomes- based nursing care delivery are examined. The role of the professional nurse as manager is explored in relationship to the delivery of health care. Prereq: 29NURS403. BoK: NA. Credit Level: U. Credit Hrs: 3.00

29NURS414**Dysrhythmia Interpretation**

This course is designed to equip the learner with the ability to recognize and understand appropriate responses to major dysrhythmias that frequently occur in clinical practice. BoK: NA. Credit Level: U. Credit Hrs: 3.00

29NURS415**Community as Partner**

This course is designed to facilitate student transition to the role of the professional nurse in the community. Students have opportunities to design and implement population-based interventions to promote the health of communities. Students use models and strategies for population-based health promotion and risk reduction across the life span including end of life care. Prereq: 29NURS305, 29NURS306, 29NURS307, 29NURS308, 29NURS300. BoK: NA. Credit Level: U. Credit Hrs: 7.00

Nursing**29NURS452****Perioperative Nursing**

Designed for senior baccalaureate nursing students interested in careers in perioperative nursing and registered nurses wishing to develop perioperative nursing skills who did not have an opportunity to do so in their basic nursing program. BoK: NA. Credit Level: U. Credit Hrs: 3.00

29NURS457**RN Transition to Professional Nursing**

Facilitates transition of the registered nurse student into undergraduate nursing education. Emphasis is placed on the philosophy of baccalaureate education; professional nursing roles of practitioner, leader, and scholar; functional health patterns and the nursing process; teaching learning process; and evolution of nursing as a profession. BoK: HP. Credit Level: U. Credit Hrs: 4.00

29NURS458**RN Concepts of Community**

The relationships among individuals, families, and communities will provide the foundations for understanding community focused nursing practice. The multiple types of communities are discussed. Selected models and theories will be used for identifying health patterns of diverse client systems. Health policy, politics, and research will be discussed as the basis for community health advocacy and as related to the professional role of the nurse. BoK: SS. Credit Level: U. Credit Hrs: 4.00

29NURS460**RN-Theory and Research**

This course introduces the student to nursing theory and research as a form of scholarly inquiry. Content includes the evolution of nursing theory and research, the components of theory, the research process, and the cyclical nature of practice, theory, and research. Nursing practice that utilizes research findings as a basis for nursing judgement and interventions with clients is emphasized. Prereq: 29NURS457, 15MATH146. BoK: HP. Credit Level: U. Credit Hrs: 4.00

29NURS461**RN Community as Client**

This course discusses the local, state, national and global economic, cultural, and political factors that influence the health of communities. Methods for identifying target populations are identified. Strategies for risk reduction and models for health education and health promotion are discussed. The professional roles of the nurse are examined in the context of the community as client. BoK: NA. Credit Level: U. Credit Hrs: 3.00

29NURS462**RN-Concepts of Community**

Course content emphasizes the concept of community focused nursing practice and the relationship among individuals, families, and communities across the life span. Critical attributes and characteristics of various communities are examined. Selected models and theories are used for identifying health patterns of culturally diverse client systems. Health policy, politics, and research are emphasized as the context for community health advocacy and the roles of the professional nurse. Prereq: 29NURS457. BoK: SS, DC. Credit Level: U. Credit Hrs: 3.00

29NURS463**RN-Introduction to Genetics for Professional Nursing Practice**

The course content includes a foundational overview of the current state of genomics science and Human Genome Project. Basis genetic concepts about human chromosomes, karyotype, mitosis, meiosis, DNA, genotype, phenotype, Mendelian inheritance, mitochondrial and chromosomal aberrations and complex disorders are reviewed. The student is updated on emerging genetics content areas. An introduction to the top ten causes of mortalities and morbidities with genetic influences across the life span are discussed. Family pedigree construction and analysis, dysmorphology and physical genetics assessment are addressed. Financial, ethical, legal and cultural

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Nursing**29NURS463****RN-Introduction to Genetics for Professional Nursing Practice**

implications of genetics testing and research are highlighted. The roles of genetics specialists in interdisciplinary practice are introduced.

Prereq: 29NURS457. BoK: NA. Credit Level: U. Credit Hrs: 2.00

29NURS464**RN-Gerontological Nursing Practice**

This course content focuses on essential content necessary to provide quality care for older adults. Content includes best nursing practices in care of the healthy and ill older adult and the role of the professional nurse. Prereq: 29NURS457. BoK: NA. Credit Level: U. Credit Hrs: 3.00

29NURS465**RN-Community as Partner**

This course is designed to facilitate student transition to the role of the professional nurse in the community. Students have opportunities to design community focused interventions to promote the health of selected communities. Students use models and strategies for community focused health promotion and risk reduction across the life span including end of life care. Prereq: 29NURS457, 29NURS462. BoK: NA. Credit Level: U. Credit Hrs: 2.00

29NURS466**RN-Community as Partner-Practicum**

This course is designed to facilitate student transition to the role of the professional nurse in the community. Students have opportunities to design and implement community focused interventions to promote the health of select communities. Students use models and strategies for community focused health promotion & risk reduction across the life span including end of life care. Prereq: 29NURS465, 29NURS462. BoK: NA. Credit Level: U. Credit Hrs: 3.00

29NURS468**RN-Nurse as Professional Leader and Manager**

Course content focuses on the knowledge and skills essential to effective nursing leadership and introduces the managing role of the leader within varied nurse practice settings. Managerial concepts and leadership skills needed to promote high quality outcomes-based nursing care delivery are examined. Emphasis will be placed on strategies that facilitate professional practice of self and others as members of the health care organization. Prereq: 29NURS457. BoK: NA. Credit Level: U. Credit Hrs: 3.00

29NURS469**RN-Senior Capstone**

This course is the capstone experience for the nursing major. RN students have the opportunity to synthesize and integrate materials presented throughout the major courses through completion of a project related to nursing and health care. BoK: NA. Credit Level: U. Credit Hrs: 3.00

29NURS470**RN Nursing Elective**

This course provides students with an opportunity to fulfill requirements for a nursing elective by building on prior educational, professional, or work experiences. Students work individually with faculty in the design of course objectives and an evaluation plan that allows the student to demonstrate how current and/or past experiences contribute to the meeting of one or more objectives of the undergraduate program. Faculty approval of learning objectives and activities is required. BoK: NA. Credit Level: U. Credit Hrs: 3.00

29NURS472**Advanced Concepts in Professional Nursing**

This course provides students with learning opportunities to acquire knowledge and skills fundamental to professional nursing roles. Leadership and management concepts and skills are examined and promote high quality evidence-based nursing care delivery. Emphasis is placed on strategies that facilitate professional "use of self" and others as members of the health care organization. BoK: NA. Credit Level: U. Credit Hrs: 4.00

Nursing**29NURS474****Community Concepts and Contexts**

This course is focused on applying the concepts of community/public health nursing to populations within the context of their community. Knowledge and skills needed to develop partnerships with communities are emphasized as an integral part of developing culturally appropriate strategies for the prevention of disease and the promotion of health.

Prereq: 29NURS472. BoK: NA. Credit Level: U. Credit Hrs: 4.00

29NURS475**LINK Capstone**

This course is the capstone experience for the RN LINK program. Students demonstrate their achievement of the Baccalaureate Competencies of critical thinking, effective communication, knowledge integration and social responsibility through a process of self-reflection and evaluation. Prereq: 29NURS472, 29NURS474. BoK: NA. Credit Level: U. Credit Hrs: 1.00

29NURS483**Leader as Clinical Mentor**

The course content focuses on leadership and coaching knowledge and skills essential to effective clinical mentoring. Emphasis is placed on demonstration of effective leadership and communication strategies to facilitate senior level student leadership/coaching of sophomore student peers. Prereq: 29NURS403, 29NURS207, 29NURS305, 29NURS306, 29NURS307. BoK: NA. Credit Level: U. Credit Hrs: 3.00

29NURS485**Evidence-Based Practice for Clinical Decision-Making**

This course is designed to build on the basic research concepts. This course focuses on the development of knowledge and skills for locating and critically appraising sources of evidence and clinical practice guidelines (CPG) and change processes to ensure the use of best evidence for the management of diverse patients and populations. Prereq: 29NURS308. BoK: NA. Credit Level: U. Credit Hrs: 3.00

29NURS486**Family Impact on Treatment**

The focus of this course is to prepare the nurse working in the health care setting to better handle issues related to patients and their family support systems. Students will engage in discussions centered on vignettes relative to both inpatient and clinic settings as well as practice critical thinking and creativity in solving common interpersonal problems. BoK: NA. Credit Level: U. Credit Hrs: 3.00

29NURS487**Health Issues of Vulnerable and Marginalized Populations**

In this course, students will have the opportunity to examine the interplay between vulnerability, health status, and health care access and quality. Physical, psychological, demographic, environmental, socioeconomic, and cultural issues influencing the health status of and health care delivery to vulnerable populations are examined. BoK: NA. Credit Level: U. Credit Hrs: 3.00

29NURS492**International Health Care**

The clinical experiences in this course provide learning opportunities in a variety of global settings. With diverse experiences in community and/or acute care settings, the student will have the opportunity to understand the interplay of culture, education, nutrition, and political climate on health and illness. Perm of Instructor. BoK: DC. Credit Level: U. Credit Hrs: 2.00-4.00

29NURS493**International Health**

Seminars on factors influencing health status and delivery of health care in selected countries of the world, with a primary focus on those of developing nations. BoK: DC. Credit Level: U. Credit Hrs: 3.00

29NURS494**Spanish for Health Professionals**

This course introduces students in the health care professions to the values, beliefs, practices, and language of the Hispanic culture.

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Nursing**29NURS494****Spanish for Health Professionals**

Students learn the language skills necessary to facilitate basic communications for Spanish speaking people in the health care setting. BoK: HU., DC. Credit Level: U. Credit Hrs: 3.00

29NURS501**Patient Education in Health and Illness**

This course will enable students to develop educational competencies needed to influence patient behavior, increase health promotion knowledge, promote positive attitudes, and to develop skills necessary to maintain or improve their health. BoK: NA. Credit Level: U. Credit Hrs: 3.00

29NURS558**Substance Abuse: Current Trends in Prevention and Treatment**

The course focuses on primary, secondary, and tertiary levels of prevention related to substance abuse across the life span. Students examine the relationship between substance abuse and mental illness. Current trends in prevention and treatment approaches, research findings, and societal and political issues that influence prevention and treatment of substance abuse are explored. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

29NURS571**Independent Study**

Prereq.: Availability of and agreement with a faculty member to supervise the study; a 2.5 overall grade point average. BoK: NA. Credit Level: U. Credit Hrs: 1.00-4.00

29NURS572**Independent Study**

See 29NURS571. BoK: NA. Credit Level: U. Credit Hrs: 1.00-4.00

29NURS573**Independent Study**

See 29NURS571. BoK: NA. Credit Level: U. Credit Hrs: 1.00-4.00

29NURS576**Clinical Elective**

Provides elective clinical practice learning opportunities in a selected area of nursing practice. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-5.00

29NURS577**Refuting the Myths of Pain Management**

This course focuses on traditional and non-traditional nursing interventions for the management of the human experience of pain. Current theories of pain and pain management will be discussed in the context of acute, chronic, and cancer pain. BoK: DC. Credit Level: U, G. Credit Hrs: 3.00

29NURS578**Clinical Decision-Making in Critical Care Nursing**

The purpose of this course is to prepare nurses with the critical thinking skills to care for critically ill adult patients. The course will build on previously learned knowledge of critical care conditions and allow practice in clinical decision-making through a process of unfolding case studies. There will also be an emphasis on the use of scientific evidence in the clinical decision-making. This course is appropriate as an update for practicing critical care nurses and may serve as a critical care certification review. Prereq: 29NURS270, 29NURS410, 29NURS414. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

29NURS581**School Children with Special Health Needs**

The impact of chronic conditions and illness on the school age child, family, and school. Discusses the legal aspects of educating handicapped children, mental retardation, chronic illnesses, childhood cancer, AIDS, childhood and adolescent depression and suicide, eating disorders, and children with parents who have drinking problems. Course designed for school and community health nurses, school professionals, and students interested in school health. BoK: NA. Credit

Nursing**29NURS581****School Children with Special Health Needs**

Level: U, G. Credit Hrs: 3.00

29NURS588**Positioning for the Future: Internship in Area of Concentration**

This course focuses on application of the knowledge and skills essential for nursing practice in specific health care setting(s) with selected client systems. Transitioning of RNs in the changing health care system is facilitated with emphasis on critical thinking, priority setting, and integration of theory into clinical practice. Supervised clinical practice is required. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00-10.00

29NURS600**Applied Nutrition for Health Professionals**

Introduces health professions students to information about the essential nutrients and their relationship to health and disease. Includes discussion of nutrient requirements throughout the lifecycle, nutrition assessment, weight control, malnutrition, eating disorders, and over-the-counter dietary supplements. Theories associated with behavior change will be discussed throughout the course. Prereq: 17BIOL203. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

29NURS601**Case Studies In Interdisciplinary Health Care**

An interdisciplinary course designed to provide hands-on experience in the concepts and rationale for interdisciplinary care. Emphasis is placed on the essential need for interdisciplinary care and effective communication among the disciplines. The interrelated components of interdisciplinary care are applied within the learning exercises. The exercises are selected to illustrate the forces of change within the health care system and strategies to affect interdisciplinary health care in the future. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

29NURS602**Nursing and the Humanities**

The course examines the voices within poetry, short fiction, pathography, film and drama to explore the patient's experience of illness. The patient is viewed from the perspective of the individual as revealed by selected works from the humanities. In addition to the study of the patient's "voice", the course will also examine the image of the nurse as portrayed in the selected works and works in the humanities written by nurses. The course includes works that explore health and illness across the life span as well as works with a multi-cultural focus. BoK: HU. Credit Level: U, G. Credit Hrs: 3.00

29NURS603**Evidence-Based Practice for Clinical Decision-Making**

This course is designed to build on the research concepts developed in the undergraduate program. The senior undergraduate student or graduate student will develop knowledge and skills for locating and critically appraising sources of evidence and evidence-based clinical practice guidelines (CPG) and use of best evidence for the management of diverse patients and populations. Prereq: 29NURS308. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

29NURS604**Palliative Care of the Client and Family**

This course will focus on care of the client and family with a life-limiting disease and will provide the student the opportunity to experience interaction with nurse professionals working in the palliative care area, increase knowledge of palliative care models, and enhance understanding of priorities of care. Prereq: 29NURS303. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

29NURS700**Accelerated-Nursing Assessment**

Focus is on attaining the skills necessary for astute observation, purposeful inquiry and investigation, and outcomes based nursing judgments. Emphasis is placed on the nursing process, health history taking, diagnostic study interpretation, physical examination skills, and environmental evaluation. Credit Level: G. Credit Hrs: 4.00

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Nursing**29NURS701****Accelerated-Concepts of Community Health Nursing**

Course content emphasizes the concept of community focused nursing practice and the relationships among individuals, families, and communities across the life span. Critical attributes and characteristics of various communities are examined. Selected models and theories are used to identify health patterns of culturally diverse client systems. Health policy, politics, and research are emphasized as the context for community health advocacy. The course also examines methods to identify target populations for interventions designed to enhance the health of the community. Strategies for risk reduction and models for health education and health promotion will be discussed. The professional roles of the nurse are examined in the context of community health nursing. Coreq: 29NURS703. Credit Level: G. Credit Hrs: 3.00

29NURS702**Accelerated-Nursing Interventions**

Accelerated Pathway students identify health patterns of client systems and select the use of therapeutic nursing interventions for the promotion, maintenance, and restoration of health patterns for diverse client systems in a variety of environmental contexts. The practicum component provides opportunity for nursing practice skill attainment. Prereq: 29NURS700. Credit Level: G. Credit Hrs: 7.00

29NURS703**Accelerated-Socialization to Professional Nursing**

This course addresses societal influences on the development of the nursing profession. Professional guidelines, law and contemporary ethical concerns in health care are examined. Credit Level: G. Credit Hrs: 2.00

29NURS704**Health Patterns A Childbearing Accelerated**

This course focuses on health pattern alterations as a basis for nursing interventions appropriate for childbearing families. The concepts of health promotion, health maintenance, and health restoration are incorporated into discussion of the nursing process and the role of the professional nurse. Scholarly inquiry will be used to analyze nursing interventions in a variety of environmental and biopsychosocial contexts. Clinical experiences offer the student the opportunities to provide therapeutic nursing interventions to childbearing families in various environmental contexts. The student will apply the nursing process to childbearing families with variations in health patterns. Scholarly inquiry is used to evaluate nursing interventions in a variety of environmental and biophysical contexts. Prereq: 29NURS700, 29NURS702. Coreq: 29NURS701, 29NURS719, 29NURS707. Credit Level: G. Credit Hrs: 5.00

29NURS707**Health Patterns A Children and Families Accelerated**

This course focuses on health pattern alterations as a basis for nursing interventions appropriate for children and families. The concepts of health promotion, health maintenance, and health restoration are incorporated into discussion of the nursing process and the role of the professional nurse. Scholarly inquiry will be used to analyze nursing interventions in a variety of environmental and biopsychosocial contexts. Clinical experiences offer the student the opportunities to provide therapeutic nursing interventions to children and families with major health concerns in various environmental contexts. The student will apply the nursing process to children and families with variations in health patterns. Scholarly inquiry is used to evaluate nursing interventions in a variety of environmental and biophysical contexts. Prereq: 29NURS700, 29NURS702. Coreq: 29NURS701, 29NURS719, 29NURS704. Credit Level: G. Credit Hrs: 6.00

29NURS711**Accelerated Community as Partner**

The course is designed to facilitate student transition to the role of the professional nurse in the community. Students have opportunities to design and implement population-based interventions to promote the health of communities. Students use models and strategies for

Nursing**29NURS711****Accelerated Community as Partner**

population based health promotion and risk reduction across the life span including end of life care. Prereq: 29NURS701. Credit Level: G. Credit Hrs: 4.00

29NURS712**Leadership and Management in Professional Nursing**

The course focuses on management and leadership roles in various health care organizations. The course emphasizes integration of management and leadership skills to promote high quality patient outcomes through facilitation of high quality professional practice in the delivery of health care. Prereq: 29NURS708, 29NURS709. Credit Level: G. Credit Hrs: 2.00

29NURS714**Health Pattern Synthesis/Integration-Accelerated**

This seminar provides students with the opportunity to work in small groups to synthesize the complex health pattern variations of client systems in an acute care environment. Emphasis is placed on evaluating outcomes of therapeutic nursing interventions of diverse client systems. Offered for Accelerated Pathway students. Coreq: 29NURS715, 29NURS724. Credit Level: G. Credit Hrs: 3.00

29NURS715**Practicum: Transition to Professional Practice in an Acute Care Environment-Accelerated**

This practicum facilitates transition from student to professional nurse in the acute care environment. A variety of experiences provide the student opportunity to develop independence as care is managed for diverse client systems experiencing complex health pattern variations. Offered for Accelerated Pathway students. Credit Level: G. Credit Hrs: 5.00

29NURS716**Accelerated Health Patterns B: Adult**

This course focuses on health pattern alterations as the basis for nursing interventions appropriate for adult client systems. The concepts of health promotion, health maintenance, and health restoration are incorporated into discussion of the nursing process and the role of the professional nurse. Scholarly inquiry will be used to analyze nursing interventions in a variety of environmental and biopsychosocial contexts. Clinical experiences facilitate the utilization of this knowledge in the provision of holistic care. Prereq: 29NURS700, 29NURS702, 29NURS704, 29NURS707. Credit Level: G. Credit Hrs: 6.00

29NURS717**Accelerated Health Patterns B: Psychiatric Mental Health**

This course focuses on health pattern alterations as the basis for nursing interventions appropriate for psychiatric client systems. The concepts of health promotion, health maintenance, and health restoration are incorporated into discussions of the nursing process and the role of the professional nurse and practical clinical experiences. Scholarly inquiry is used to analyze nursing interventions in a variety of environmental and biopsychosocial contexts. Credit Level: G. Credit Hrs: 6.00

29NURS718**Accelerated Health Pattern Integration/Synthesis**

This course focuses on integration and synthesis of health pattern alterations as the basis for nursing interventions appropriate for adult client systems. The concepts of health promotion, health maintenance, and health restoration are incorporated into discussions of nursing process and the role of the professional nurse. Scholarly inquiry is used to analyze nursing interventions in a variety of environmental and biopsychosocial contexts. Clinical experiences facilitate utilization of this knowledge. Prereq: 29NURS716, 29NURS717, 29NURS711. Credit Level: G. Credit Hrs: 14.00

29NURS720**Health Patterns B Accelerated Practicum: Adult**

This practicum offers the student the opportunities to provide therapeutic nursing interventions to adult client systems with major

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Nursing**29NURS720****Health Patterns B Accelerated Practicum: Adult**

health concerns in various environmental contexts. The student will apply the nursing process to client systems with variations in health patterns. Prereq: 29NURS704, 29NURS706, 29NURS708. Credit Level: G. Credit Hrs: 3.00

29NURS724**Health Pattern Synthesis/Integration-Accelerated**

This course focuses on the synthesis of health patterns of client systems who are in an acute care environment. Focus is on the use of the nursing process when providing therapeutic nursing interventions for client systems experiencing complex health pattern variations. Scholarly inquiry will be used to evaluate nursing interventions. Offered for Accelerated Pathway students. Credit Level: G. Credit Hrs: 5.00

29NURS725**Accelerated-Therapeutic Nursing Interventions**

Accelerated Pathway students identify health patterns of client systems and select the use of therapeutic nursing interventions for the promotion, maintenance, and restoration of health patterns for diverse client systems in a variety of environmental contexts. The practicum component provides opportunity for nursing practice skill attainment. Credit Level: G. Credit Hrs: 7.00

29NURS726**Accelerated - Health Patterns A Childbearing**

This course focuses on health pattern alterations as a basis for nursing interventions appropriate for childbearing families. The concepts of health promotion, health maintenance, and health restoration are incorporated into discussion of the nursing process and the role of the professional nurse. Scholarly inquiry will be used to analyze nursing interventions in a variety of environmental and biopsychosocial contexts. Prereq: 29NURS700, 29NURS702. Coreq: 29NURS703, 29NURS705, 29NURS706. Credit Level: G. Credit Hrs: 2.00

29NURS730**Nursing Theory**

This course focuses on the systematic examination of concepts and theories common to nursing practice as a basis for developing a theoretical framework for nursing practice. Offered for Yonsei University students. Credit Level: G. Credit Hrs: 4.50

29NURS731**Nursing Research Methodology**

This course is designed for graduate neonatal or pediatric nursing students to provide scientific frameworks for research proposal development. Credit Level: G. Credit Hrs: 4.50

29NURS733**Advanced Maternal Child Health Seminar**

This seminar will include discussion about genetics and fetal development for the pregnant mother and child. Credit Level: G. Credit Hrs: 4.50

29NURS734**Child and Family**

This course focuses on the theories of family and group therapy with emphasis on families of young children and adolescents. Case studies are used to analyze the roles and functions of family members. Offered for Yonsei University students. Credit Level: G. Credit Hrs: 4.50

29NURS736**Advanced Physiology**

This course introduces the neonatal and pediatric student to physiology necessary for advanced nursing practice. Credit Level: G. Credit Hrs: 4.50

29NURS737**Statistical Analysis for Advanced Nursing Practice**

This course focuses on statistical analysis and interpretation for advanced nursing practice. Selected statistics will be explored along with the rationale and requirements for each statistical test. Offered for Yonsei University students. Credit Level: G. Credit Hrs: 4.50

Nursing**29NURS737****Statistical Analysis for Advanced Nursing Practice**

This course focuses on statistical analysis and interpretation for advanced nursing practice. Selected statistics will be explored along with the rationale and requirements for each statistical test. Offered for Yonsei University students. Credit Level: G. Credit Hrs: 4.50

29NURS738**Health Assessment**

This course introduces the neonatal and pediatric student to health assessment for advanced nursing practice. Credit Level: G. Credit Hrs: 4.50

29NURS740**Health Policy**

This course focuses on the theories and processes of health policy making. The issues include: manpower and organizational structure of the health care system and factors affecting development of the health care system. Offered for Yonsei University students. Credit Level: G. Credit Hrs: 4.50

29NURS800**Novice Nurse Educator Institute**

This course prepares the novice nurse educator for the beginning teaching role in clinical and laboratory settings. The course focuses on expectations of faculty in higher education, principles of teaching and learning, student socialization, clinical assessment and evaluation strategies, and evidence-based practice. Credit Level: G. Credit Hrs: 2.00

29NURS801**Pharmacology for Advanced Nursing Practice**

(3 cr. hours/week or 30 continuing education contact hours.) Prepares nurses for advanced practice with knowledge of pharmacokinetic and pharmacodynamic principles of common drug categories used to prevent illness and to restore and maintain health across the lifespan. Prereq: 29NURS811. Credit Level: G. Credit Hrs: 3.00

29NURS803**Health Care Policy, Organization, and Finance**

Examines health care organization, financing, and delivery. Emphasis is directed at organizational and financial processes and strategies used in evaluating, planning, monitoring, managing and improving outcome effectiveness. Credit Level: G. Credit Hrs: 3.00

29NURS804**Statistical Analysis for Advanced Nursing Practice**

Focuses on statistical analysis and interpretation for advanced nursing practice. Selected statistics will be explored along with the rationale and requirements for each statistical test. Credit Level: G. Credit Hrs: 3.00

29NURS805**Research and Evidence-Based Advance Practice Nursing**

This course is designed to build on the research and statistical concepts developed in undergraduate programs. Focusing on the evaluation and utilization of new knowledge for evidence-based practice, students will develop skills needed for the application of research findings to advanced practice nursing and the beginning conduct of scholarly inquiry. Ethical concerns and safety of human subjects in research will be highlighted. Credit Level: G. Credit Hrs: 3.00

29NURS807**Theoretical Foundations of Health Promotion, Risk Reduction and Health Planning**

This course is designed to build on theoretical perspectives and skills gained at the undergraduate level. Nursing and other scientific theories will be critiqued for applicability to health promotion/protection and disease prevention services for consideration of age, developmental stage, family history and ethnicity. These theories include principles of epidemiology, risk reduction, use of community/public health assessment information and demography, principles of teaching/learning, and the principles of behavioral change. Credit Level: G. Credit Hrs: 3.00

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Nursing**29NURS808****Health Care Policy, Organization and Finance**

This course will assist the advanced nursing practice student to develop knowledge about health care policy, organization, and finance from historical, sociocultural, political, economic, and legislative perspectives. The leadership of the Advance Practice Nurse in influencing the process of health care policy formulation, implementation, and modification as it effects client systems, clinical practice, and health care delivery are explored. The organization structure and the reimbursement process in a variety of practice settings for advanced practice nurses are examined. Credit Level: G. Credit Hrs: 3.00

29NURS809**Research for Evidence Based Practice**

This course is designed to build on the research and statistical concepts learned at the undergraduate level. The graduate student will develop knowledge and skills needed for the application of research findings to advanced nursing practice and the beginning conduct of scholarly inquiry. The course assists the graduate student to use an evidence based approach to the management of patient/population health care. Epidemiologic methods and clinical biostatistics are combined to provide a foundation for research planning and the appraisal of research quality. Theories of quality improvement are provided to assist students in evaluating outcomes of care. Ethical concern and safety of human subjects research will be highlighted. Credit Level: G. Credit Hrs: 5.00

29NURS810**Family and Cultural Theories for the Advanced Nurse Practice**

This course introduces the advanced practice nursing student to the concepts and frameworks of theories of family and culture throughout the lifespan. This includes growth and development throughout the lifespan with an emphasis on family interaction. Family structure and function will be investigated including family stressors, impediments, transitions, and coping mechanisms. Culture values regarding health and in health care will be explored emphasizing the effects of language, poverty, vulnerability and customs. Credit Level: G. Credit Hrs: 3.00

29NURS811**Cellular and Biophysical Basis for Pathophysiology**

This course builds upon basic knowledge of human anatomy, physiology, and the mechanisms of disease. It provides an in-depth consideration of molecular physiology while integrating examples of pathophysiology most likely to be encountered by the advanced practice nurse. Basic and translational research into biochemical, molecular and organ system dysfunction are emphasized. Current thought concerning age-related changes and theories of physiological aging are included. Credit Level: G. Credit Hrs: 4.00

29NURS812**Health Assessment for Advanced Nursing Practice**

(3 hours didactic/week and 3 hours clinical lab/week). Develops the knowledge and skills necessary for the performance of a comprehensive health assessment. Synthesis of data including diagnostic study interpretation is emphasized. Credit Level: G. Credit Hrs: 4.00

29NURS813**Pharmacology for Advanced Nursing Practice**

This course prepares nurses for professional roles in advanced nursing practice with knowledge of pharmacokinetic and pharmacodynamic principles of common drug categories used to prevent illness and to restore and maintain health for client systems across the lifespan. Mechanisms of action, pharmacologic response, usual doses, adverse effects, indications, interactions, compatibilities, contraindications and routes of administration will be emphasized in acute and chronic conditions. Six hours of legal, ethical and financial content related to prescribing is addressed in this course as required by the Ohio Board of Nursing. Prereq: 29NURS820. Credit Level: G. Credit Hrs: 4.00

Nursing**29NURS814****Health Planning**

Focuses on needs assessments, program planning, implementation, and evaluation in a variety of environmental contexts. Process and outcome evaluation are covered. Credit Level: G. Credit Hrs: 3.00

29NURS815**Financial Management in Health Services**

Prepares students with basic skills for the financial management of delivery systems. Topics discussed include reimbursement, budgeting, analyzing productivity, financial control, and alternative strategies for income production. Credit Level: G. Credit Hrs: 3.00

29NURS816**Human Resources Management in Health Services**

Provides a systems approach to human resources management in health service administration. Examines the external environment, organizational characteristics, subsystem components, and individual and collective outcomes. Credit Level: G. Credit Hrs: 3.00

29NURS817**Organization and Management of Health Care Systems**

Integrates theory and practice related to organization and management of nursing and health services. Focus is on transition into management roles and utilization of administrative theory. Case management, managed care, and quality improvement are addressed. Credit Level: G. Credit Hrs: 3.00

29NURS818**Genetic Applications to Advanced Practice Nursing**

This course provides an overview of the Human Genome Project and the current state of genomics science. Basic genetic concepts about human chromosomes, karyotype, mitosis, meiosis, recombinant DNA, genotype, phenotype, Mendelian inheritance, gene expression, biochemical genetics, and chromosomal aberrations are reviewed. Students are updated on emerging genetic terms including genomics, proteomics, pharmacogenetics, and metabolomics. Application of the top ten causes of mortalities and morbidities with genomic influences across the lifespan are applied to the role of the advanced practice nurse. Pedigree construction and analysis, dysmorphology assessment, and genetic screening and testing are addressed to enhance the advanced practice role. Ethical and legal implications of genetic testing are addressed. Content is structured to insure students will be able to gain an appreciation for laboratory techniques related to clinical genetics. Credit Level: G. Credit Hrs: 2.00

29NURS819**Data Management for Advanced Practice Nursing**

This practicum is designed to assist students in the development of skills in information technology required for tracking populations, management of services, and evaluation of interventions. Credit Level: G. Credit Hrs: 2.00

29NURS820**Advanced Physiology**

This course builds upon basic knowledge of human anatomy and physiology. It provides an in-depth consideration of molecular physiology while integrating examples of physiological principles most likely to be encountered by the advanced practice nurse. Basic and translational research into biochemical, molecular and organ system function will be emphasized. Current thought concerning age-related changes and theories of physiology across the life span will be included. Credit Level: G. Credit Hrs: 4.00

29NURS821**Primary Care of Episodic Illness**

This course provides students with the theoretical base to assess, diagnose, and manage the care of client systems across the lifespan with selected episodic health pattern alterations. Students will focus on the promotion, maintenance and restoration of client systems' health patterns. Culturally competent, holistic, ethical, age and gender specific, and risk stratified care will be discussed. Nonpharmacologic aspects of care such as teaching and coaching will be addressed as well as the

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Nursing**29NURS821****Primary Care of Episodic Illness**

pharmacologic management designed to help clients achieve desired outcomes. Evidence based practice will serve as the basis for care management. This course includes 0.5 credits (5 clock hours) of pharmacology content. Prereq: 29NURS825, 29NURS813. Credit Level: G. Credit Hrs: 3.00

29NURS822**Differential Diagnosis Across the Lifespan**

This course is the second sequential course that explores the comprehensive physical and psychological assessment of signs, symptoms and pathophysiological changes of the client system across the lifespan. The focus of the course is to develop diagnostic reasoning skill through analysis of present and past histories, physical findings and diagnostic studies that contribute to the formulation of differential diagnoses of the major health problems in the United States. The client is assessed from a holistic nursing perspective with consideration of his/her cultural, social, ethnic, family and community environments. Prereq: 29NURS820, 29NURS812. Credit Level: G. Credit Hrs: 3.00

29NURS823**Management of Chronic Illness**

This course provides students with the theoretical base to assess, diagnose, and manage the care of client systems across the lifespan with selected common chronic health pattern alterations. Students will focus on the promotion, maintenance and restoration of client system's health patterns. Culturally competent, holistic, ethical, age and gender specific, and risk stratified care will be discussed. Nonpharmacologic aspects of care such as teaching and coaching will be addressed as well as the pharmacologic management designed to help clients achieve desired outcomes. Current evidence based practice as the basis for care management decision making is emphasized. This course includes 0.5 credits (5 clock hours) of pharmacology content. Prereq: 29NURS825, 29NURS813. Credit Level: G. Credit Hrs: 4.00

29NURS824**Interventions for Advanced Nursing Practice**

This course provides in-depth exploration of advanced therapeutic nursing interventions that are designed to promote, maintain, or restore the health of client systems across the lifespan. Students will learn the theory and then practice the most common skills needed for advanced practice nursing in primary and urgent care settings. In addition, students will analyze the purpose, cost-benefits, selection criteria and outcomes for the evaluation of each therapeutic intervention. Current theory and evidence based medicine related to the interventions are examined. Prereq: 29NURS812, 29NURS820. Credit Level: G. Credit Hrs: 2.00

29NURS825**Pathophysiology for Advanced Nursing Practice**

This course is designed to build upon the student's pre-existing knowledge of the pathophysiology of disease across the life span. The focus of the course is an in-depth consideration of cellular alterations that occur as variations in health patterns across the lifespan. It explores the underlying cellular mechanisms that form the basis for advanced nursing practice to manage the variations in health patterns of client systems. Contemporary research in genetics, biochemical processes and cellular dysfunction is emphasized. Students will have the opportunity to apply theoretical content in an associated clinical course. Prereq: 29NURS820. Credit Level: G. Credit Hrs: 4.00

29NURS826**Finance and Economics of Healthcare**

This course explores healthcare finance and economics from the perspective of health care providers and non-financial managers of health services. Financial management principles, the healthcare reimbursement system, reimbursement processes, and factors influencing the financial environment are discussed with emphasis on strategies to promote and sustain the financial viability of the healthcare. Credit Level: G. Credit Hrs: 3.00-4.00

Nursing**29NURS830****Financial Reimbursement for Health Care Providers**

This course provides an overview of the health care financial reimbursement system and reimbursement process from initial coding through payment as it relates to health care providers. The essentials of compliant coding and supportive documentation are emphasized from the provider's perspective. Provider insurance credentialing and contracting and practice financial management are also discussed. Credit Level: G. Credit Hrs: 3.00

29NURS832**Master's Capstone Project**

Culminating experience in which one of three foci are selected: (1) integration of research findings into practice with evaluation of client system outcomes; or (2) evaluation of current nursing practice through examination of relevant client system clinical outcomes; or (3) description of new knowledge with potential for enhancing nursing practice. Credit Level: G. Credit Hrs: 2.00

29NURS833**Master's Research Thesis**

Capstone research experience. Credit Level: G. Credit Hrs: 3.00

29NURS834**The Shifting Instructional Paradigm: Teaching to Learning**

Building on a basic understanding of clinical instruction, this course focuses on the role of the faculty member in facilitation of learning in the traditional and virtual classroom. Non-traditional, innovative teaching strategies and evidence-based practice in nursing education will be explored. Prereq: 29NURS800. Credit Level: G. Credit Hrs: 3.00

29NURS835**Transforming Curricula and Student Evaluation in Nursing**

Taught from a outcomes-based perspective, this course focuses on the role of the faculty member in curricular and course design and evaluation and assessment of student learning. Competency based student assessment will be addressed. Content on test design, construction and evaluation, and the use of instructional technology in student evaluation is also included. Prereq: 29NURS800. Credit Level: G. Credit Hrs: 4.00

29NURS836**Practicum: The Competent Nurse Educator**

This course provides the student with an ongoing mentored classroom experience. A faculty mentor will be assigned to assist the student in developing instructional skills in the traditional and/or virtual classroom for an entire academic term. Prereq: 29NURS834, 29NURS835. Coreq: 29NURS837. Credit Level: G. Credit Hrs: 4.00

29NURS837**Role Seminar: The Competent Nurse Educator**

This seminar is designed to complement 29NURS836 Practicum: The Competent Nurse Educator. A guided discussion format is used to evaluate the role of the nurse educator as leader, teacher, and scholar as a member of a higher education community. Issues to be discussed include classroom management, mentorship, change design and implementation, student counseling, legal and ethical issues in higher education, and the scholarship of teaching and learning. Prereq: 29NURS834, 29NURS835. Coreq: 29NURS836. Credit Level: G. Credit Hrs: 3.00

29NURS843**Research Practicum**

Learning experience as a research assistant. Credit Level: G. Credit Hrs: 1.00-4.00

29NURS847**Directed Specialty Study II: Critical Care**

This course will focus on evidence-based practice concepts in Critical Care. Guided self-assessment and independent study aid the student to expand their knowledge base related to advanced practice within their specialty. Prereq: 29NURS851. Credit Level: G. Credit Hrs: 3.00

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Nursing**29NURS848****Directed Specialty Study II: Gerontology**

This course will focus on evidence-based practice concepts in Gerontology. Guided self-assessment and independent study aid the student to expand their knowledge base related to advanced practice within their specialty. Prereq: 29NURS851. Credit Level: G. Credit Hrs: 3.00

29NURS849**Directed Specialty Study II: Adult Health**

This course will focus on evidence-based practice concepts in Adult Health. Guided self-assessment and independent study aid the student to expand their knowledge base related to advanced practice within their specialty. Prereq: 29NURS851. Credit Level: G. Credit Hrs: 3.00

29NURS850**Evidence-Based Practice for the Nurse Leader**

This course is designed to build on the research competencies acquired in a Master of Science in Nursing program. The student will develop knowledge and skills to translate the best available evidence for the improvement in outcomes in healthcare. Prereq: 29NURS804, 29NURS805. Credit Level: G. Credit Hrs: 3.00

29NURS851**Directed Specialty Study I: Symptom Management**

Through seminar discussions, students learn to systematically approach complex clinical situations. This seminar course focuses on the design, implementation and evaluation of innovative interventions for client symptoms and functional problems. New models for the delivery of individual and group interventions are explored. Credit Level: G. Credit Hrs: 3.00

29NURS852**Role Integration of the CNS I**

This course focuses on the role development of clinical nurse specialist. Models and frameworks are explored to aid in the integration of the many subroles of the CNS. The role of the CNS in clinical judgment, clinical inquiry, facilitation of learning, program planning and project management, advocacy and moral agency, collaboration, caring practices, cultural diversity, and systems thinking are explored. Credit Level: G. Credit Hrs: 3.00

29NURS854**Clinical Nurse Specialist Practicum I**

In this practicum, students will engage in the beginning implementation of the role of the clinical nurse specialist including clinical expert, consultant, educator, researcher, and leader. Clinical experiences will take place in various contexts consistent with the student's clinical specialty. Prereq: 29NURS820, 29NURS812, 29NURS825, 29NURS813, 29NURS822. Coreq: 29NURS852, 29NURS853. Credit Level: G. Credit Hrs: 6.00

29NURS855**Role Seminar I**

This seminar is taken in conjunction with the clinical practicum and provides an opportunity to discuss clinical cases, clinical projects, and education programs while demonstrating the ability to apply the didactic material to practice. Prereq: 29NURS820, 29NURS812, 29NURS825, 29NURS813, 29NURS822. Coreq: 29NURS852, 29NURS854. Credit Level: G. Credit Hrs: 1.00

29NURS856**Clinical Nurse Specialist Practicum II**

In this practicum, students will continue to engage in the beginning implementation of the role of the clinical nurse specialist including clinical expert, consultant, educator, researcher, and leader. Clinical experiences will take place in various contexts consistent with the student's clinical specialty. Credit Level: G. Credit Hrs: 6.00

29NURS857**Role Seminar II**

This seminar is taken in conjunction with the clinical practicum and

Nursing**29NURS857****Role Seminar II**

provides an opportunity to discuss clinical cases, clinical projects, and education programs while demonstrating the ability to apply the didactic material to practice. Prereq: 29NURS855. Coreq: 29NURS800, 29NURS834, 29NURS835, 29NURS856. Credit Level: G. Credit Hrs: 1.00

29NURS858**Clinical Nurse Specialist Practicum III**

In this practicum, students will continue to engage in the beginning implementation of the role of the clinical nurse specialist including clinical expert, consultant, educator, researcher, and leader. Clinical experiences will take place in various contexts consistent with the student's clinical specialty. Coreq: 29NURS860. Credit Level: G. Credit Hrs: 5.00

29NURS859**Role Seminar III**

This seminar is taken in conjunction with the clinical practicum and provides an opportunity to discuss clinical cases, clinical projects, and education programs while demonstrating the ability to apply the didactic material to practice. Prereq: 29NURS856. Coreq: 29NURS860, 29NURS858. Credit Level: G. Credit Hrs: 1.00

29NURS860**Leadership Dynamics in Healthcare Organizations**

This course focuses on the integration of core leadership concepts and principles into leadership roles at various levels throughout the healthcare organization. Students examine the theoretical basis for development and application of effective leader behaviors in healthcare organizations. Emphasis is placed on the experience of becoming and being a leader. Credit Level: G. Credit Hrs: 3.00

29NURS871**Special Topics (In Area of Concentration)**

Study in a specified topic or area. Credit Level: G. Credit Hrs: 1.00-5.00

29NURS872**Independent Study**

Independent study to expand knowledge and experience beyond that gained in regularly offered courses. Credit Level: G. Credit Hrs: 1.00-5.00

29NURS873**Independent Study**

Independent study to expand knowledge and experience beyond that gained in regularly offered courses in the graduate program. Perm of Instructor. Credit Level: G. Credit Hrs: 1.00-7.00

29NURS874**Independent Study**

Independent study to expand knowledge and experience beyond that gained in regularly offered courses in the graduate program. Perm of Instructor. Credit Level: G. Credit Hrs: 1.00-7.00

29NURS877**Special Topics (In Area of Concentration)**

Study in a specified topic or area. Credit Level: G. Credit Hrs: 1.00-5.00

29NURS878**Special Topics (In Area of Concentration)**

Study in a specified topic or area. Credit Level: G. Credit Hrs: 1.00-5.00

29NURS890**CULTURE, HEALTH & COMMUNITY**

The course will explore the phenomenon of culture and its broad implications for health. Cultural frameworks and research studies in the extant literature that explain and investigate the relationships between culture and health will be examined. Other relevant constructs related to culture such as ethnicity, race, religion, and socioeconomic status will be examined for their impact on population health. Credit Level: G. Credit Hrs: 3.00

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Nursing**29NURS892****Cancer Survivorship**

This interdisciplinary course is the first of two courses that focus on the survivorship phase of the cancer trajectory. An overview of cancer pathophysiology and the diagnostic and treatment modalities of the major cancers provides the foundation for understanding the impact of the disease and treatment on quality of life. An examination of the state of the science of delivery of care from a multidisciplinary approach is emphasized. Credit Level: G. Credit Hrs: 3.00

29NURS940**Nursing Inquiry I**

A seminar focusing on the theoretical and research dynamics of nursing inquiry as a basis for understanding the development of knowledge in nursing science and the impact of health determinants on individuals, communities, and systems. Credit Level: G. Credit Hrs: 4.00

29NURS941**Nursing Inquiry II**

A seminar offering an in-depth study of the theoretical and philosophical underpinnings of nursing inquiry. Students study the development, history, and philosophy of science in general and their relationship to the development of nursing inquiry. Contemporary philosophies of science and theories provide the foundation for exploring methods of inquiry relevant to phenomena of interest. Prereq: 29NURS940. Credit Level: G. Credit Hrs: 4.00

29NURS942**Nursing Inquiry III**

A seminar that offers students the opportunity to apply the processes of nursing inquiry to the exploration of phenomena of interest to nursing. Students integrate varied philosophical, theoretical, and methodological perspectives in designing dynamic approaches for the advancement of nursing science. Prereq: 29NURS940, 29NURS941. Credit Level: G. Credit Hrs: 5.00

29NURS945**Scientific Basis for Clinical Reasoning**

This course examines approaches for the translation of the best available evidence into practice for improved outcomes in healthcare. Prereq: 29NURS804, 29NURS805. Credit Level: G. Credit Hrs: 6.00

29NURS948**Introduction to Qualitative Methods**

This course focuses on qualitative research relevant to the study of human phenomena of concern to nurses. Philosophical issues are examined as they relate to paradigms and research methods. Qualitative research methods and criteria of research are analyzed. Students participate in data collection methods and analyses of data. Credit Level: G. Credit Hrs: 3.00

29NURS949**Professional Seminar II**

This is the second course in a four course sequence, and is designed to continue the socialization of students into the roles and responsibilities of active novice nurse researchers. Students are exposed to all components of the research process by working with a senior nurse researcher who will actively mentor them in research endeavors. To do this, students devote 60 hours working on research teams as novice investigators; attend research team meetings, scholarship roundtables, and other appropriate seminars as identified by the research mentor or course faculty. Prereq: 29NURS950. Credit Level: G. Credit Hrs: 3.00

29NURS950**Professional Seminar I**

This is the first in a four course sequence, and is designed to socialize the student into the roles and responsibilities of the PhD-prepared nurse scientist. Students will be given the opportunity to develop specific beginning competencies necessary to engage in a career as an independent nurse scientist. Students will become competent in understanding how the conceptual framework of the doctoral program - Multiple Determinants of Health - relates to the programs of faculty research and to the development of their own research. Opportunities

Nursing**29NURS950****Professional Seminar I**

for becoming acquainted with faculty programs of research will be provided. The specific topics of roles and responsibilities of the PhD-prepared nurse scientist, the ANA Social Policy Statement, internal and external funding mechanisms, beginning grantsmanship, the National Institutes of Health Strategic Mission and Plan, establishing collegial relationships, successful collaboration, scientific reading and writing, and dissemination of scholarship will be presented. During this class, students will select a senior research mentor for Winter and Spring Quarter. Credit Level: G. Credit Hrs: 2.00

29NURS952**Professional Seminar III**

This is the third course in a four course sequence, and is designed to further socialize the student into the roles and responsibilities of an independent nurse researcher. Students continue to be exposed to all components of the research process through the research practicum begun in 29NURS951. In addition to completing 60 hours of research practicum, students will attend a weekly 2-hour seminar to continue synthesizing the knowledge needed to function as an independent nurse researcher. Students will independently conduct research based on their mentor's program of research, produce a research synthesis paper, and begin to formulate an independent research project. Prereq: 29NURS950, 29NURS951. Credit Level: G. Credit Hrs: 4.00

29NURS953**Professional Seminar IV**

As students work on their independent research projects and take course work related to their phenomenon of concern, this seminar is designed to assist students with the final articulation of their phenomenon of concern and research trajectory, increase their ability to write persuasively about their phenomenon, and assist with writing and submitting scholarly works, including publications, presentations, and grant proposals. Research mentors will attend seminar with their students twice during the quarter. Credit Level: G. Credit Hrs: 1.00

29NURS954**Proposal Seminar I**

This required doctoral course facilitates the development of a dissertation proposal in a mentored environment by means of participation with peers, doctoral faculty, and the dissertation advisor. The course is a forum for students to explore methods of inquiry in the area of their phenomenon of concern with particular attention to the research problem, theoretical foundations, research methods, and data management and analysis. Students are guided in the application of the fundamentals of scientific writing and critical analyses of the literature. Faculty and students discuss the format and procedures for progression in the dissertation process. Credit Level: G. Credit Hrs: 3.00

29NURS955**Proposal Seminar II**

This required doctoral course is the second in a series to facilitate the development of a dissertation proposal in a mentored environment. The course is a forum for students to participate with peers, doctoral faculty, and the dissertation advisor to explore methods of inquiry in the area of their phenomenon of concern. There is particular attention to finalization of the research problem, theoretical foundations, research methods, and data management and analysis. Students are guided in the application of the fundamentals of scientific writing and critical analyses of the literature. Faculty and students discuss the format and procedures for the dissertation process and dissertation defense. Prereq: 29NURS954. Credit Level: G. Credit Hrs: 3.00

29NURS957**Dissertation Seminar**

The dissertation seminar runs concurrently with dissertation credit hours. In this seminar, all students who are working on dissertation will come together on a regular basis to discuss progress, problems, and lessons learned in order to progress in a timely manner through the dissertation process. The seminar is led by a senior scientist with significant experience with dissertation advisement. Credit Level: G.

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Nursing**29NURS957****Dissertation Seminar**

Credit Hrs: 1.00

29NURS958**Advanced Qualitative Methods**

This course introduces the philosophical underpinnings of three interpretive methodologies: ethnography, grounded theory, and hermeneutic phenomenology. The participants will immerse themselves in the historical and classical literature that provides the foundation for these three methodologies. The participants will critique studies using each of the three interpretive research methodologies.

Prereq: 29NURS948, 29NURS973. Credit Level: G. Credit Hrs: 3.00

29NURS960**Religiosity, Spirituality, and Health Sciences Research**

This course is designed to provide the student an introduction to the history, evaluation, implementation, and application of research concerned with the relationship between religiosity, spirituality, and health. A primary focus will be comprehending research issues related to conceptual definitions, measurement, design, analysis, and interpretation. Perm of Instructor. Credit Level: G. Credit Hrs: 3.00

29NURS963**Theories and Methods for Analysis of Discrete Data**

This course introduces the student to the theory and methods used in analysis of discrete data. The course is designed to provide the student with an understanding of the rates and the probability models frequently used in health care research. A major focus of the course is the application of these theories and methods in the study of human phenomena of concern to nursing. Credit Level: G. Credit Hrs: 3.00

29NURS964**Measurement in Research Using Item Response Theory**

This course provides the student with the knowledge and skills to develop and evaluate measurement tools using item response theory. The mathematical and psychometric history of measurement and the subsequent development of the Rasch Measurement Model will be discussed. Students will have the opportunity to apply the principles and methods of the Rasch Measurement in the laboratory setting. Credit Level: G. Credit Hrs: 3.00

29NURS965**Teaching and Learning in Graduate Nursing Education: Practicum and Seminar**

Designed to prepare nursing faculty for the teaching role in graduate education, this course (seminar and practicum) provides the participant with a guided teaching experience in the graduate classroom and/or practicum. The seminar covers such topics as how professional expertise is taught and learned, teaching styles appropriate for students already engaged in the profession, and evaluation of students' professional skills. Prereq: 29NURS834, 29NURS835, 29NURS837. Credit Level: G. Credit Hrs: 5.00

29NURS966**Educational and Professional Leadership Strategies in Nursing**

This course is an exploration of the interplay of the university faculty member role, educational and professional leadership, and external forces that impact upon nursing education programs. Students will complete a comprehensive investigation of the academic nursing role in higher education relative to program administration, student issues, program requirements, and faculty expectations. Credit Level: G. Credit Hrs: 3.00

29NURS967**The Scholarship of Teaching and Learning: Research Methods**

This course focuses on emerging methodologies for the study of nursing education. Students will critique current research literature pertaining to nursing education. Applicability of a variety of research methodologies (e.g., evidence-based, critical, participatory, feminist, grounded, phenomenological, and postmodern) will be explored. A research proposal related to a phenomenon of interest in nursing

Nursing**29NURS967****The Scholarship of Teaching and Learning: Research Methods**

education will be developed. Credit Level: G. Credit Hrs: 3.00

29NURS968**The Phenomenon of Human Care and Caring**

This course focuses on a systematic examination of the phenomenon of human care and caring using a cultural paradigmatic foundation. Human care literature will be analyzed systematically and discussed from a multidisciplinary perspective of care theorists. Historical, cultural, epistemic and ontologic dimensions of care and caring along with research methodologies will be considered in advancing the science of nursing. Credit Level: G. Credit Hrs: 3.00

29NURS969**The Science of Symptom Management**

This course provides a systematic evaluation of the state of the science related to symptom management. Symptom management models, current theories and research related to symptom clusters, interventions and outcomes (including biophysical and economic) will be analyzed. Research design, methods, measurement implementation and analysis issues related to symptom management will be explored. Prereq: 29NURS940, 29NURS973. Credit Level: G. Credit Hrs: 3.00

29NURS971**Instrument Evaluation and Development**

This seminar focuses on the evaluation of existing instruments and development of new instruments designed to measure psychosocial and behavioral concepts of interest to nursing. Emphasis is placed on the use of rigor in the tool development and evaluation process as well as ethical and professional standards for the conduct of research. Prereq: 29NURS804, 29NURS982. Credit Level: G. Credit Hrs: 3.00

29NURS972**Nursing Research Methods**

Seminar focuses on conceptualization of clinical nursing phenomena, relevant research designs consistent with quantitative and qualitative research methods used in describing and in examining comparative, associational and predictive relationships among phenomena, and corresponding measurement and data collection techniques. Credit Level: G. Credit Hrs: 4.00

29NURS973**Quantitative Research Methods**

This is a seminar in which students focus on basic quantitative research designs. Students discuss varied approaches to examining nursing phenomena and identify appropriate designs for the research questions that are generated. Strengths and weaknesses of various designs will be analyzed. Methods for operationalizing variables will be explored. Sampling strategies will be compared. Students will examine the components of research proposals for common nursing funding agencies. Emphasis will be placed on the use of scientific rigor in the research process as well as the ethical and professional standards for the conduct and reporting of research. Credit Level: G. Credit Hrs: 3.00

29NURS974**Teaching and Learning in Graduate Nursing Education**

Designed to prepare nursing faculty for the teaching role in graduate education, this course (seminar and practicum) provides the participant with a guided teaching experience in the graduate classroom and/or practicum. The seminar covers such topics as how professional expertise is taught and learned, teaching styles appropriate for students already engaged in the profession, and evaluation of students' professional skills. Prereq: 29NURS834, 29NURS835, 29NURS837. Credit Level: G. Credit Hrs: 5.00

29NURS975**Educational and Professional Leadership Strategies in Nursing**

This course is an exploration of the interplay of the university faculty member role, educational and professional leadership, and external forces that impact upon nursing education programs. Students will complete a comprehensive investigation of the academic nursing role in

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Nursing**29NURS975****Educational and Professional Leadership Strategies in Nursing**

higher education relative to program administration, student issues, program requirements and faculty expectations. Credit Level: G. Credit Hrs: 3.00

29NURS976**The Scholarship of Teaching and Learning: Research Strategies**

This course focuses on emerging methodologies for the study of nursing education. Students will critique current research literature pertaining to nursing education. Applicability of a variety of research methodologies (e.g. evidence-based, critical, participatory, feminist, grounded, phenomenological and postmodern) will be explored. A research proposal related to a phenomenon of interest in nursing education will be developed. Credit Level: G. Credit Hrs: 3.00

29NURS977**Quality of Life: Theoretical and Methodological Issues**

This seminar course explores quality of life from various theoretical and methodological perspectives. Qualitative and quantitative methods used to examine quality of life are analyzed and strategies to enhance rigor in studies are explored. Issues in quality of life research are debated. Credit Level: G. Credit Hrs: 3.00

29NURS978**Analysis of Educational Processes in Nursing**

This elective doctoral course provides information necessary for effective functioning as an educator. Educational theories and principles, development of objectives, measurement and evaluation considerations and curriculum design and development are discussed. Credit Level: G. Credit Hrs: 3.00

29NURS979**Consultation Process in Nursing Education**

Course provides an understanding of consultation as a complex partnership process. Consultation is explored in terms of theory and practice and examined from the standpoint of underlying assumptions and relative advantages and disadvantages. Credit Level: G. Credit Hrs: 3.00

29NURS980**Health Policy and Ethical Issues in Nursing Science**

Analysis of social, public and health policy in relation to the advancement of nursing science. The contribution of nursing research to the development of health policy is analyzed and evaluated. Credit Level: G. Credit Hrs: 3.00

29NURS981**Dissertation**

In-depth research in doctoral focus area. Credit Level: G. Credit Hrs: 1.00-19.00

29NURS982**Advanced Multivariate Analysis I: Foundations**

This course is an advanced statistical seminar for doctoral-level students on multivariate statistical techniques. It is intended to serve as the first quarter of a year-long sequence on advanced multivariate statistics. The course will be taught from an applied perspective with an emphasis on modern statistical techniques. Topics covered include foundational concepts and traditional statistical techniques such as MANOVA and DFA that fall within the rubric of the General Linear Model. Prereq: 29NURS804. Credit Level: G. Credit Hrs: 3.00

29NURS983**Advanced Multivariate Analysis II: Generalized Linear and Additive Models**

This course is intended to serve as the second quarter of a year-long sequence on advanced multivariate statistics. The course will be taught from an applied perspective with an emphasis on modern statistical techniques. The General Linear Model (GLM) will be reviewed and more advanced topics such as modeling and interpreting interactions within the GLM will be introduced. The Generalized Linear Model will

Nursing**29NURS983****Advanced Multivariate Analysis II: Generalized Linear and Additive Models**

be taught, beginning with logistic regression. Finally, the Generalized Additive Model will be taught as an adjunct to the other modeling procedures learned. Prereq: 29NURS982. Credit Level: G. Credit Hrs: 3.00

29NURS984**Advanced Multivariate Analysis III: Structural Equation Modeling & Hierarchical/Multilevel Models**

This course is the third in a 3-quarter sequence on advanced multivariate statistics. The structural equation model will be presented as two primary components: 1) the measurement model; and, 2) the structural or path model. Building on knowledge of regression, path modeling will be presented, followed by an introduction to psychometrics. Multiple measurement models will be introduced, including: factor analysis; latent class models, and item response theory (IRT) models. Hierarchical or multilevel models will be covered. Both linear and nonlinear forms (e.g. logistic/logit regression) will be discussed. Prereq: 29NURS982, 29NURS983. Credit Level: G. Credit Hrs: 3.00

29NURS985**Seminar Study of Qualitative Data Analysis**

Seminar that focuses on the analysis of data for selected qualitative methods. Emphasis is placed on the identification and synthesis of themes or common elements in qualitative data through defined levels of abstraction. Credit Level: G. Credit Hrs: 3.00

29NURS986**Doctoral Candidacy Examination**

The Doctoral Candidacy Examination documents the student's synthesis of knowledge in nursing science, scholarly inquiry, and other areas of study and determines the student's readiness to undertake research independently. Credit Level: G. Credit Hrs: 0.00

JAMES L. WINKLE COLLEGE OF PHARMACY

COURSE DESCRIPTIONS

(25) College of Pharmacy

2008 - 2009

College of Pharmacy 1

Pharmacy-Administrative Science

25PADM551

Medication Distribution System Analysis

The use of control theory in evaluating and designing medication distribution systems. Discussion including pharmacy automation, operations analysis, job redesign, and centralized vs. decentralized operations. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

25PADM553

Pharmacy Seminar

A forum for the development of an in-depth understanding of the opportunities and challenges being faced by pharmacy and the health care system. Guest speakers focus on areas of dynamic change in pharmacy along with student presentations. BoK: NA. Credit Level: U, G. Credit Hrs: 2.00

25PADM571

Introduction to Pharmaceutical Economics & Policy

Introduction to the economic and policy analysis of the pharmaceutical industry. Focus will be on the suppliers of therapeutic agents and their motivation and performance. Potential applications of economic analyses in pharmacy and the health policy process. Demand and supply issues related to bringing products to markets, setting drug prices, and comparison of international trends will be included. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

25PADM500

Financial Realities of Pharmacy

Discussion of types of business enterprises, insurance needs, employee benefits, and taxes that are appropriate for pharmacists and pharmacies. Credit Level: G. Credit Hrs: 2.00

25PADM611

Application of Statistics for Pharmacists

Application of the basic principles of statistics to the practice of pharmacy. Statistical validity scientific integrity of literature and the design of methods for conducting drug related studies. Perm of College. Credit Level: G. Credit Hrs: 3.00

25PADM621

Pharmacy Communications

Introduction into social, psychological and professional aspects of pharmacist communications. Perm of College. Credit Level: G. Credit Hrs: 3.00

25PADM631

Pharmacy Jurisprudence

A study of Federal, state, and local laws and regulations governing the practice of pharmacy. Perm of Instructor. Credit Level: G. Credit Hrs: 3.00

25PADM650

Pharmacoeconomics-NTPD

The application of pharmacoeconomic principles in interpreting cost consequence studies of pharmaceutical and other therapeutic modalities. Sources, reliability and validity of operational measures of costs, clinical, economic and quality of life outcomes will be covered Perm of College. Credit Level: G. Credit Hrs: 3.00

25PADM672

Research in Pharmacoepidemiology and Drug Safety

Research applications for post-marketing drug safety surveillance. Focus will be on pharmacoepidemiologic research, therapeutic risk management, and pharmacoepidemiology contribution to pharmacy practices. Perm of College. Credit Level: G. Credit Hrs: 3.00

25PADM712

Pharmacy Management I

A study of the socioeconomic factors involved with the practice of contemporary pharmacy Perm of Instructor. Credit Level: G. Credit Hrs:

Pharmacy-Administrative Science

25PADM712

Pharmacy Management I

3.00

25PADM722

Pharmacy Management II

A study of the principles of operations, financial and personnel management as applied to contemporary pharmacy practice Prereq: 25PADM712. Credit Level: G. Credit Hrs: 3.00

25PADM731

Health Related Quality of Life Measures

Conceptual and quantitative characterization of humanistic outcomes from health care. The course will examine the development, evaluation and use of quality of life measures with specific reference to bone disease. Sources, reliability and validity of operational measures of patient's perceptions will be examined. Credit Level: G. Credit Hrs: 3.00

25PADM774

Evaluation of Administrative Pharmacy Research

An evaluative review of published research in the managerial and legal aspects of pharmacy practice. Credit Level: G. Credit Hrs: 3.00

25PADM812

Pharmacoeconomics

This course is an introduction to Outcomes Research focusing on the economic, clinical and humanistic dimensions. It covers cost/consequence analysis, decision analysis and quality of life measures in health care. Perm of College. Credit Level: G. Credit Hrs: 3.00

Pharmacy-Biological Science

25PBIO502

Vitamins

An in-depth examination of the biochemical aspects of vitamins and how they contribute to the health and well-being of humans. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

25PBIO520

Clinical Toxicology

Overview and principles of toxicology with emphasis on management of the poisoned patient. BoK: NA. Credit Level: U, G. Credit Hrs: 2.00

25PBIO525

Biochemical Toxicology of Drugs and Chemicals

Focus will be on the toxicity of drugs and chemicals to the major organs of the body; target organ toxicology of xenobiotics. A major emphasis of the course is to describe the principal mechanisms by which chemicals injure the major tissues of the body. Selective chemical classes will be highlighted for their well-known toxic actions in mammalian systems. BoK: NA. Credit Level: U, G. Credit Hrs: 2.00

25PBIO610

Pharmacology Basics

Provide an understanding of the basic concepts and applications of the science of pharmacology, giving a solid base upon which to build a working knowledge of how drugs can influence target cellular activity in a manner that is beneficial to human health. The course will emphasize theoretical aspects of drug actions at the cellular and molecular levels, and on clinical aspects of pharmacology with specific examples of the application of pharmacologic principles in disease states. BoK: NA. Credit Level: G, U. Credit Hrs: 3.00

25PBIO501

Nutrition and Drugs

Interactions between foods, food supplements, electrolytes, and drugs which affect nutritional status or the status of a disease in treatment. Credit Level: G. Credit Hrs: 2.00

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Pharmacy-Biological Science**25PBIO505****Development of Computer Assisted Pharmacy Instruction**

An individual studies course in which students develop computer assisted instruction programs. Perm of Instructor. Credit Level: G. Credit Hrs: 3.00

25PBIO574**Substances of Abuse and Addictive Disorders**

The course will focus on the mechanism of action of commonly abused drugs such as opiates, stimulants, and barbiturates, alcohol and hallucinogens along with issues of drugs, diagnosis and treatment of addictive disorders. Drug abuse within the profession as well as regulatory issues concerning pharmacists will be covered. Credit Level: G. Credit Hrs: 3.00

25PBIO612**Biochemistry**

The chemistry and metabolism of substances involved in life processes. Perm of College. Credit Level: G. Credit Hrs: 4.00

25PBIO613**Anatomy and Physiology**

Important aspects of human physiology and anatomy relative to normal human health, pathological states, and pharmacotherapeutics will be covered. Lab exercises will be coordinated with the lecture material. Perm of College. Credit Level: G. Credit Hrs: 6.00

25PBIO622**Pharmacogenomics**

Discussions of gene structure, DNA replication, transcription, translation, and recombinant DNA technology. Prereq: 25PBIO612, 25PBIO613. Credit Level: G. Credit Hrs: 2.00

25PBIO624**Principles of Pharmacology**

Autonomic drugs are used to illustrate pharmacological principles including mechanism of action, cellular effects and adverse reactions associated with pharmacotherapy. Credit Level: G. Credit Hrs: 5.00

25PBIO722**Topics in Neuropharmacology**

This course is a specialized journal club for graduate students interested in neuropharmacology. It requires reading of the primary literature associated with research interests. It is a student-directed learning that requires presentation of journal articles. Credit Level: G. Credit Hrs: 1.00

25PBIO723**Topics in Neuropharmacology**

This course is a specialized journal club for graduate students interested in neuropharmacology. It requires reading of the primary literature associated with research interests. It is a student-directed learning that requires presentation of journal articles. Credit Level: G. Credit Hrs: 1.00

25PBIO740**Methods of Biochemistry and Molecular Biology**

A laboratory course in modern experimental methods used in biochemistry and molecular biology with emphasis on problem solving. Perm of Instructor. Credit Level: G. Credit Hrs: 3.00

25PBIO750**Reproductive Pharmacology-Physiology**

Disorders and diseases of the reproductive system impact a significant portion of the population, and not only those of reproductive age. Moreover, management of reproduction, particularly through pharmacological means, is broadly used in most societies. This elective will explore these topics. Credit Level: G. Credit Hrs: 3.00

25PBIO760**Renal Pharmacology**

How drugs and toxins affect kidney function and how the kidney influences therapeutic activity of drugs. 3 discussion hrs. Credit Level: G. Credit Hrs: 3.00

Pharmacy-Biological Science**25PBIO800****Contemporary Pharmacology Techniques**

A rotational experience in pharmacology laboratories to acquaint graduate students with experimental techniques. 12 lab. hrs. per wk. Credit Level: G. Credit Hrs: 1.00-4.00

25PBIO850**Pharmacodynamics**

A study of the sites and mechanisms of drug action, fundamental receptor concepts, biological factors influencing drug action, and the principles of experimental pharmacology. 4 discussion hrs. Credit Level: G. Credit Hrs: 4.00

25PBIO852**Molecular Pharmacology: Cell Signaling**

Contemporary issues in molecular cell regulation with a focus on mechanisms of intracellular signal transduction pathways: nuclear hormone receptors, the G-protein coupled transducers, the Ras-MAP kinase cascade, and the JAK/Stat pathway. Perm of Instructor. Credit Level: G. Credit Hrs: 4.00

Pharmacy-Pharmaceutics**25PCEU602****Sunscreens and Phototoxicity**

Skin structure and color. Reaction between light and skin, nature of radiation, tanning, melanogenesis and its function. Sunscreens, ultraviolet absorbers; photosensitization. BoK: NA. Credit Level: U, G. Credit Hrs: 2.00

25PCEU615**Advanced Physical Pharmacy I**

A discussion of the physical-chemical principles of significant importance to pharmaceutical and cosmetic systems. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

25PCEU614**Introduction to Principles of Physical Pharmacy**

Physical-organic Chemistry as related to development and production of pharmaceutical dosage forms. Perm of Instructor. Credit Level: G. Credit Hrs: 3.00

25PCEU633**Drug Delivery I**

Pharmaceutical principles of dosage forms and pharmacy-related calculations. Physicochemical properties; biopharmaceutics; stability; formulation packaging of solution dosage forms used for various routes of administration. Perm of Instructor. Credit Level: G. Credit Hrs: 6.00

25PCEU711**Drug Delivery II**

Principles of drug delivery and their effect on pharmacokinetic responses in patients. Optimization of pharmacotherapy through selective and controlled release of drugs from various dosage forms. Prereq: 25PCEU633. Credit Level: G. Credit Hrs: 6.00

25PCEU721**Clinical Pharmacokinetics**

Principles of dosing regimen design; effects of co-variables such as age, gender, genetic make-up and disease state on pharmacokinetics; therapeutic drug monitoring; individualization of dosing regimens. Prereq: 25PCEU711. Credit Level: G. Credit Hrs: 4.00

25PCEU723**Fundamentals of Powder Technology**

A study of the up to date technologies of studying pharmaceutical and cosmetic powders with special reference to particle size and distribution, flow properties, mixing and relevant factors affecting mixing uniformity of powders and their dosage forms. Perm of Instructor. Credit Level: G. Credit Hrs: 2.00

25PCEU727**Diffusion Dissolution and Mass Transport in Pharmaceutical Systems**

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Pharmacy-Pharmaceutics**25PCEU727****Diffusion Dissolution and Mass Transport in Pharmaceutical Systems**

Diffusion fundamentals, values of diffusion coefficients, dissolution and release models, diffusion in lipid membranes, self-diffusion, tracer diffusion, diffusion of associating solutes facilitated diffusion, skin membrane systems. Perm of College. Credit Level: G. Credit Hrs: 3.00

25PCEU731**In Vitro Tests in Drug Evaluation**

Discussion and laboratory work on physical tests for drug product evaluation and interpretation in respect to biopharmaceutics. Credit Level: G. Credit Hrs: 3.00

25PCEU745**Specialized Research Techniques in Biopharmaceutics and Pharmacokinetics**

Individual instruction in animal experimentation, use and application of special skills such as computers, electron microscopy, techniques in pathology, animal surgery, etc. 3-12 lab. hrs. per wk. Credit Level: G. Credit Hrs: 1.00-4.00

25PCEU757**Advances in Drug Delivery Systems**

Recent advances in basic approaches to the development, manufacture and evaluation of controlled release delivery systems both in vitro and in vivo. Credit Level: G. Credit Hrs: 3.00

25PCEU763**Biopharmaceutics of Biotechnology-Based Drugs**

Biopharmaceutical and pharmacokinetic aspects in development and delivery of biotechnology-based drugs, with special emphasis on peptides and proteins. Credit Level: G. Credit Hrs: 3.00

25PCEU765**Biopharmaceutics Seminar I**

Assignment of special topics in biopharmaceutics and presentation of a paper based upon library research including the use of MEDLINE. Credit Level: G. Credit Hrs: 2.00

25PCEU767**Kinetic/Dynamic Evaluation of Human Experiments**

Design of studies involving human subjects and discussion on correlation of pharmacologic response with drug disposition. Credit Level: G. Credit Hrs: 2.00

25PCEU770**Advanced Pharmaceutics I: Solutions and Colloids**

Physiochemical properties related to the design and performance of solution and semisolid dose forms. Solubility and partitioning, ionic equilibria, colligative properties, degradation kinetics, suspension and emulsion stability, complexation, protein binding, polymer solutions. Prereq: 15CHEM382, 15MATH227. Credit Level: G. Credit Hrs: 4.00

25PCEU771**Advanced Pharmaceutics II: Kinetics, Transporters and Metabolism**

Physiochemical properties related to the design and performance of Dosage Forms with a focus on chemical reaction rates and solution stability. The course covers diffusion fundamentals, enzyme kinetics, transporters and efflux systems and reviews drug metabolism and pharmacokinetics. Prereq: 25PCEU770. Credit Level: G. Credit Hrs: 4.00

25PCEU772**Advanced Pharmaceutics III: Biomembranes, Dose msd Metabolism**

Physiochemical properties related to the design and performance of Dosage Forms with a focus on Biomembrane barriers and dosage form design. Controlled drug release, targeted drug delivery systems and nanotechnology as they relate to dose form design. Prereq: 25PCEU770, 25PCEU771. Credit Level: G. Credit Hrs: 4.00

Pharmacy-Pharmaceutics**25PCEU780****Cosmetic Science Capstone Project I**

This course requires comprehensive evaluation of a contemporary issue in cosmetic science or topical drug development that demonstrates competency in multidisciplinary, didactic coursework and scientific, regulatory, and business aspects of research and development related to these products. Perm of Instructor. Credit Level: G. Credit Hrs: 3.00

25PCEU781**Cosmetic Science Capstone Project II**

This course requires comprehensive evaluation of a contemporary issue in cosmetic science or topical drug development that demonstrates competency in multidisciplinary, didactic coursework and scientific, regulatory, and business aspects of research and development related to these products. Perm of Instructor. Credit Level: G. Credit Hrs: 3.00

25PCEU790**Molecular Biology of Skin**

An advanced course that focuses on measuring the properties of human skin. Modern protocols for testing the effects of skin care products will be discussed. The major emphasis will be on noninvasive measurement of skin function using biophysical instrumentation. Prereq: 25PCEU791. Credit Level: G. Credit Hrs: 2.00

25PCEU791**Skin Care Science**

Cosmetic ingredients, formulation, preparation and evaluation. Surfactants and emulsions, shampoos and dentifrices. Credit Level: G. Credit Hrs: 3.00

25PCEU792**Cosmetic Science II**

Skin and skin care products, hair, safety testing and microbiological aspects of cosmetics. Credit Level: G. Credit Hrs: 3.00

25PCEU793**Hair Care Science**

Antiperspirant, decorative and hair treatment preparations. Stability and stabilization of cosmetic products. Perm of Instructor. Credit Level: G. Credit Hrs: 3.00

25PCEU794**Cosmetic Science Laboratory**

Application of cosmetic science to formulation and preparation of prototypes of cosmetic classes. Credit Level: G. Credit Hrs: 3.00

25PCEU795**Cosmetic Science Research and Development**

Studies on aspects of cosmetic preformulation; influence of equipment, the evaluation of finished cosmetic products and the development of new ones. Credit Level: G. Credit Hrs: 3.00

25PCEU796**Color cosmetics**

Fundamentals of color cosmetics including the science of colors, color regulations, principles of formulation and testing of color cosmetics. Credit Level: G. Credit Hrs: 2.00

25PCEU797**Color Cosmetics Laboratory**

This course is designed to give hands-on experience with the formulation, laboratory scale manufacture and evaluation of color cosmetic products including lipsticks, pressed powders and liquid make-up. Perm of College. Credit Level: G. Credit Hrs: 1.00

25PCEU798**Clinical and Instrumental Testing of Skin**

This is an advanced course that focuses on measuring the properties of human skin. Modern protocols for testing the effects of skin care products will be discussed. The major emphasis will be on noninvasive measurements of skin function using biophysical instrumentation. Prereq: 25PCEU791. Credit Level: G. Credit Hrs: 3.00

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Pharmacy-Pharmaceutics**25PCEU799****Cosmetic Science III: Product Formulation**

This course focuses on the formulation of cosmetic and OTC products used in personal care including skin care, hair care, antiperspirants, and oral care. Perm of Instructor. Credit Level: G. Credit Hrs: 3.00

25PCEU801**Tablet Machine Instrumentation**

Advanced level state-of-the-art instruction on the basic principles and applications of the various technologies for the instrumentation of tablet presses and the optimization of tablet formulation. Credit Level: G. Credit Hrs: 2.00

Pharmacy-Pharmaceutical Chemistry**25PCHM623****Principles of Medicinal Chemistry**

The application of chemical, biochemical and biological principles to the design and development of clinically important drugs. Receptors, physicochemical properties of drugs, drug metabolism and prodrug concepts will be discussed. Credit Level: G. Credit Hrs: 3.00

25PCHM732**Advanced Medicinal Chemistry**

A discussion of molecular mechanisms of receptor interaction as a basis for classification of drugs according to biochemical target sites. Credit Level: G. Credit Hrs: 3.00

25PCHM733**Computer-Assisted Drug Design**

Discussion and application of modern techniques of computer-assisted drug design. Credit Level: G. Credit Hrs: 3.00

Pharmaceutical Drug Development**25PHDD600****Statistical Prin. for Clinical Research Studies**

This course will provide an overview of the statistical principles used for the design, analysis, and interpretation of results for clinical research studies. The course will also cover the statistical topics discussed in regulatory guidances for clinical research studies. Credit Level: G. Credit Hrs: 3.00

25PHDD601**Global Drug Development**

Overview of research, legal regulatory and product life-cycle aspects that impact decisions in global pharmaceutical product development. Perm of College. Credit Level: G. Credit Hrs: 3.00

25PHDD602**Regulatory Affairs I: Pre-Clinical/IND**

Principles and regulatory guidelines for pre-clinical evaluation of the pharmacology, toxicology and pharmacokinetics of investigational drugs and biologics and key elements of the Investigational Drug (IND) application and Clinical Investigators brochures. Perm of College. Credit Level: G. Credit Hrs: 3.00

25PHDD603**Pre-Clinical Product Development**

The course provides an understanding of the role of formulation/dosage form development in the overall scheme for new drug approval with an emphasis on preformulation/formulation studies, current good manufacturing practices and FDA/ICH guidelines for formulation components, processes and equipment, stability testing programs and overall quality assurance. Issues pertaining to the biopharmaceutics classification system, special aspects of formulation of biologicals and the impact of dosage form on drug disposition will also be underscored. Perm of College. Credit Level: G. Credit Hrs: 3.00

25PHDD604**Pharmaceutical Project Management**

Course challenges students with the logistic and strategic issues of modern drug development at the global level. It includes exposure to principles of project management of complex programs involving

Pharmaceutical Drug Development**25PHDD604****Pharmaceutical Project Management**

discovery, pharmaceutical development, operations, regulatory affairs, clinical affairs, and marketing. Corporate challenges involved with portfolio management and optimization will be presented focusing on tools used for optimum decision making. Perm of College. Credit Level: G. Credit Hrs: 3.00

25PHDD605**Clinical Trials Design and Research I**

Regulatory, statistical and operational issues in phase I trials will be discussed. The use of first dose in humans, dose escalation schemes, determination of maximal tolerated dose, mass balance, metabolism and bioavailability will be covered along with drug-drug interaction and food-effect studies. Perm of Instructor. Credit Level: G. Credit Hrs: 3.00

25PHDD606**Regulatory Affairs II: Clinical Research & Human Subjects Protections**

Principles and regulatory guidelines for human subjects research including analysis and assessment of regulatory issues, ethical challenges in human trials, societal pressures on product development, and current controversies in clinical trials. Principles, policies and practices in the process of transferring pre-clinical findings to human trials will be discussed. Perm of Instructor. Credit Level: G. Credit Hrs: 3.00

25PHDD607**Seminar in Drug Development**

The course will require the students to conduct an in-depth analysis on current issues in drug development and apply the best practices in making scientific presentations. Perm of College. Credit Level: G. Credit Hrs: 3.00

25PHDD701**Phase II Clinical Trials: Therapeutic Evaluation**

The role of Phase II trials in new drug development and approval with emphasis on proof-of-concept and dose-ranging requirements. Trial designs including cross-over and parallel group will be discussed. The importance of Phase II trials for making dose selections for Phase III will be explored. Perm of College. Credit Level: G. Credit Hrs: 3.00

25PHDD702**Medical Devices & Combination Products**

Overview on regulatory pathways for medical devices and combination products to support a successful marketing application. Perm of College. Credit Level: G. Credit Hrs: 3.00

25PHDD703**Phase III Clinical Trials: Therapeutic Confirmation**

The role of Phase III trials in drug development and approval. Randomized controlled trial designs and factorial designs, selection of dose levels, management of multi-center and multi-national trials, population pharmacokinetics, choice of endpoints, surrogate endpoints, and management of milestones and metrics will be discussed. Perm of College. Credit Level: G. Credit Hrs: 3.00

25PHDD704**Biopharmaceutical Business and Financial Mgmt**

This course will focus on management of the biotechnology, pharmaceutical and contract research industries, including funding the drug development process, competition, business, competition, business models, intellectual property and funding of biotechnology. Perm of College. Credit Level: G. Credit Hrs: 3.00

25PHDD705**Pharmacovigilance and Post-Marketing Surveillance**

Introduction to pharmacovigilance and research applications for post-marketing drug surveillance. Covers basic concepts of pharmacoepidemiology and describes the New Drug Application filing and approval process related to drug safety assessment as well as adverse event monitoring. Perm of College. Credit Level: G. Credit Hrs: 3.00

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Pharmaceutical Drug Development**25PHDD707****Drug Development Project I**

A problem-based/hypothesis driven research project or a comprehensive evaluation of a contemporary issue in drug/device development that demonstrates competency in multidisciplinary didactic coursework and scientific, regulatory and business aspects of new product development. Perm of College. Credit Level: G. Credit Hrs: 3.00

25PHDD708**Drug Development Project II**

A problem-based/hypothesis-driven research project or a comprehensive evaluation of a contemporary issue in drug/device development that demonstrates competency in multidisciplinary didactic coursework and scientific, regulatory and business aspects of new product development. Perm of College. Credit Level: G. Credit Hrs: 3.00

Pharmacy-Interdisciplinary**25PHID541****Research in Pharmaceutical Sciences**

Selected research projects designed to acquaint the student with the scientific method of investigation. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-3.00

25PHID542**Research in Pharmaceutical Sciences**

See 25PHID541. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-3.00

25PHID543**Research in Pharmaceutical Sciences**

See 25PHID541. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-3.00

25PHID544**Research Seminar in Pharmaceutical Sciences**

Presentation of research in progress and reports on assigned topics. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00

25PHID700**Principles of Pharmaceutical Sciences**

Introduction to basic concepts of pharmacology, pharmacodynamics, medicinal chemistry, pharmaceuticals, pharmacoeconomics, and health outcomes that impact decisions in the drug development process. Perm of College. Credit Level: G. Credit Hrs: 4.00

25PHID701**Seminar in Pharmaceutical Sciences**

Presentation of research in progress and reports on assigned topics. Credit Level: G. Credit Hrs: 1.00

25PHID702**Seminar in Pharmaceutical Sciences**

See 25PHID701. Credit Level: G. Credit Hrs: 1.00

25PHID703**Seminar in Pharmaceutical Sciences**

See 25PHID701. Credit Level: G. Credit Hrs: 1.00

25PHID741**Research in Pharmaceutical Sciences**

Selected research projects to acquaint the student with the scientific method. Credit Level: G. Credit Hrs: 1.00-12.00

25PHID742**Research in Pharmaceutical Sciences**

See 25PHID741. Credit Level: G. Credit Hrs: 1.00-12.00

25PHID743**Research in Pharmaceutical Sciences**

See 25PHID741. Credit Level: G. Credit Hrs: 1.00-12.00

25PHID751**Publication of Papers in Medical Sciences**

Discussion of all aspects of preparing and submitting a manuscript to a scientific medical journal. 3 lec. hrs. per wk. Credit Level: G. Credit Hrs:

Pharmacy-Interdisciplinary**25PHID751****Publication of Papers in Medical Sciences**

3.00

25PHID765**Statistical Methods in Pharmaceutical Research I**

The application of statistical analyses in decision making in pharmaceutical research. Credit Level: G. Credit Hrs: 3.00

25PHID766**Statistical Methods in Pharmaceutical Research II**

The application of correlation and regression analyses techniques in pharmaceutical research. Prereq: 25PHID765. Credit Level: G. Credit Hrs: 3.00

25PHID767**Statistical Methods in Pharmaceutical Research III**

The application of designs frequently used in the pharmaceutical sciences with real problems and data. Prereq: 25PHID766. Credit Level: G. Credit Hrs: 3.00

25PHID801**Special Topics in Pharmaceutical Sciences**

This course will deal with areas of current interest in pharmaceutical sciences with topics to be chosen by the instructor. Participation will be via classroom discussion (lecture and/or seminar format), library research and/or laboratory experience. Credit Level: G. Credit Hrs: 1.00-8.00

25PHID802**Special Topics in Pharmaceutical Sciences**

See 25PHID801. Credit Level: G. Credit Hrs: 1.00-8.00

25PHID803**Special Topics in Pharmaceutical Sciences**

See 25PHID801. Credit Level: G. Credit Hrs: 1.00-8.00

25PHID804**Special Topics in Pharmaceutical Sciences**

See 25PHID801. Credit Level: G. Credit Hrs: 1.00-8.00

25PHID871**MS Thesis Research**

Var. gr. cr. up to 15 hrs. Credit Level: G. Credit Hrs: 1.00-15.00

25PHID872**MS Thesis Research**

See 25PHID871. Credit Level: G. Credit Hrs: 1.00-15.00

25PHID873**MS Thesis Research**

See 25PHID871. Credit Level: G. Credit Hrs: 1.00-15.00

25PHID971**PhD Dissertation Research**

Var. gr. cr. up to 15 hrs. Credit Level: G. Credit Hrs: 1.00-15.00

25PHID972**PhD Dissertation Research**

See 25PHID971. Credit Level: G. Credit Hrs: 1.00-15.00

25PHID973**PhD Dissertation Research**

See 25PHID971. Credit Level: G. Credit Hrs: 1.00-15.00

Pharmacy-Professional Experience**25PHE615****Longitudinal Patient Care Experience**

Professional development utilizing community service, clinic visits and following patients over an extended period of time. Perm of College. Credit Level: G. Credit Hrs: 1.00

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Pharmacy-Professional Experience**25PHPE625****Longitudinal Patient Care Experience**

Professional development utilizing community service, clinic visits and following patients over an extended period of time. Perm of College.
Credit Level: G. Credit Hrs: 1.00

25PHPE635**Longitudinal Patient Care Experience**

Professional development utilizing community service, clinic visits and following patients over an extended period of time. Perm of College.
Credit Level: G. Credit Hrs: 1.00

25PHPE715**Longitudinal Practice Experience**

Early clinical practice experience in a variety of patient care settings
Perm of Instructor. Credit Level: G. Credit Hrs: 1.00

25PHPE821**Introductory Full-Time Ambulatory Professional Experience**

Introductory full-time professional experience Perm of College. Credit Level: G. Credit Hrs: 6.00

25PHPE822**Introductory Full-Time Institutional Professional Experience**

Introductory full-time professional experience Perm of College. Credit Level: G. Credit Hrs: 6.00

25PHPE833**Introduction to Advanced Professional Experience**

Focus on clinical skills that develop ability to function independently on advanced professional experience rotations. Students will make case presentations and develop treatment plans. Perm of College. Credit Level: G. Credit Hrs: 2.00

25PHPE901**Medical/Surgical Specialty Advanced Experience**

Advanced Professional Experience rotation that emphasizes professional and general ability- based outcomes of the Center for the Advancement of Pharmaceutical Education (CAPE). Perm of College.
Credit Level: G. Credit Hrs: 6.00

25PHPE902**General Medicine Advanced Experience**

Advanced Professional Experience rotation that emphasizes professional and general ability- based outcomes of the Center for the Advancement of Pharmaceutical Education (CAPE). Perm of College.
Credit Level: G. Credit Hrs: 6.00

25PHPE903**Ambulatory Care/Organized Health Care Advanced Experience**

Advanced Professional Experience rotation that emphasizes professional and general ability- based outcomes of the Center for the Advancement of Pharmaceutical Education (CAPE). Perm of College.
Credit Level: G. Credit Hrs: 6.00

25PHPE904**Ambulatory Care/Community Advanced Experience**

Advanced Professional Experience rotation that emphasizes professional and general ability- based outcomes of the Center for the Advancement of Pharmaceutical Education (CAPE). Perm of College.
Credit Level: G. Credit Hrs: 6.00

25PHPE905**Drug Information/Drug Policy Development Advanced Experience**

Advanced Professional Experience rotation that emphasizes professional and general ability- based outcomes of the Center for the Advancement of Pharmaceutical Education (CAPE). Perm of College.
Credit Level: G. Credit Hrs: 6.00

25PHPE906**Direct Patient Care Selective Advanced Experience**

Advanced Professional Experience rotation that emphasizes professional and general ability- based outcomes of the Center for the Advancement of Pharmaceutical Education (CAPE). Perm of College.
Credit Level: G. Credit Hrs: 6.00

Pharmacy-Professional Experience**25PHPE906****Direct Patient Care Selective Advanced Experience**

Advanced Professional Experience rotation that emphasizes professional and general ability- based outcomes of the Center for the Advancement of Pharmaceutical Education (CAPE). Perm of College.
Credit Level: G. Credit Hrs: 6.00

25PHPE907**Advanced Professional Experience Elective I**

Advanced Professional Experience rotation that emphasizes professional and general ability- based outcomes of the Center for the Advancement of Pharmaceutical Education (CAPE). Perm of College.
Credit Level: G. Credit Hrs: 6.00

25PHPE908**Advanced Professional Experience Elective II**

Advanced Professional Experience rotation that emphasizes professional and general ability- based outcomes of the Center for the Advancement of Pharmaceutical Education (CAPE). Perm of College.
Credit Level: G. Credit Hrs: 6.00

25PHPE909**Advanced Professional Experience Elective III**

Advanced Professional Experience rotation that emphasizes professional and general ability- based outcomes of the Center for the Advancement of Pharmaceutical Education (CAPE). Perm of College.
Credit Level: G. Credit Hrs: 6.00

25PHPE921**Advanced Practice Experience I-NTPD**

Advanced Professional Experience rotation that emphasizes professional and general ability-based outcomes. Perm of College.
Credit Level: G. Credit Hrs: 6.00

25PHPE922**Advanced Practice Experience II-NTPD**

Advanced Professional Experience rotation that emphasizes professional and general ability-based outcomes. Perm of College.
Credit Level: G. Credit Hrs: 6.00

25PHPE923**Advanced Practice Experience III-NTPD**

Advanced Professional Experience rotation that emphasizes professional and general ability-based outcomes. Perm of College.
Credit Level: G. Credit Hrs: 6.00

25PHPE924**Advanced Practice Experience IV-NTPD**

Advanced Professional Experience rotation that emphasizes professional and general ability-based outcomes. Perm of College.
Credit Level: G. Credit Hrs: 6.00

25PHPE925**Advanced Practice Experience V-NTPD**

Advanced Professional Experience rotation that emphasizes professional and general ability-based outcomes Perm of College.
Credit Level: G. Credit Hrs: 6.00

25PHPE926**Advanced Practice Experience VI-NTPD**

Advanced Professional Experience rotation that emphasizes professional and generability-based outcomes. Perm of College. Credit Level: G. Credit Hrs: 6.00

Pharmacy-Pharmacy Practice**25PHRX582****Survey of Natural Medicine**

An introduction to homeopathic, nutritional and herbal medicine along with future applications, current legal status and important considerations for pharmacists to be aware of when advising patients.
BoK: NA. Credit Level: U, G. Credit Hrs: 2.00

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Pharmacy-Pharmacy Practice**25PHRX544****Pharmacy Practice for Geriatric Patients**

Overview of geriatric and long term patient care. Highlights pharmacist's role, major responsibilities, and opportunities available. Credit Level: G. Credit Hrs: 2.00

25PHRX556**Home Infusion Pharmacy**

Therapies specific to Home Care Pharmacy practice will be discussed and compared with other practice settings. Credit Level: G. Credit Hrs: 2.00

25PHRX557**Compounding in Practice**

An in-depth experience with contemporary prescription compounding of extemporaneous products. Credit Level: G. Credit Hrs: 2.00

25PHRX614**Fundamentals of Pharmacy Practice**

An overview of the pharmacy profession, its opportunities and goals. Basic information such as the top 200 drugs, abbreviations, and medical terminology are included, as well as early pharmacy experience rotations. Perm of College. Credit Level: G. Credit Hrs: 4.00

25PHRX626**United States Health Care System**

A study of the components of the health care system and the roles of pharmacists within this system. Perm of College. Credit Level: G. Credit Hrs: 3.00

25PHRX634**Pharmacy Practice Skills Development I**

A competency based course which includes a stepped approach guiding students from introductory material to advanced, and will provide experience in pharmacy informatics and drug information sources, prescription compounding and dispensing, patient counseling, clinical problem solving, physical assessment, and pharmaceutical math skills. Perm of College. Credit Level: G. Credit Hrs: 2.00

25PHRX650**Advanced Pharmaceutical Care Skills-NTPD**

Provide the non-traditional PharmD student with the technology and practice skills that will allow them to function independently and develop pharmaceutical care plans for a variety of patient specific problems. Perm of Instructor. Credit Level: G. Credit Hrs: 2.00

25PHRX682**Medical Ethics and the Movies**

Ethical issues which are the theme of movies and other media will be analyzed by students as they relate to contemporary pharmacy practice. Credit Level: G. Credit Hrs: 2.00

25PHRX683**Professional Development through Association Activities**

Students will develop an understanding of the prominent role of professional organizations in contemporary pharmacy by discussion, presentation and attendance of association meetings. Credit Level: G. Credit Hrs: 1.00-3.00

25PHRX684**History of Pharmacy**

The historical development of Pharmacy in the United States will be examined including professionalization, commercial and industrial growth, Statutory Regulation and changing materia medica, dosage forms and standardization with time. Credit Level: G. Credit Hrs: 2.00

25PHRX685**Interdisciplinary Collaborative Healthcare**

An interdisciplinary course designed to provide hands-on experience in the concepts and rationale for interdisciplinary healthcare. Perm of College. Credit Level: G. Credit Hrs: 3.00

Pharmacy-Pharmacy Practice**25PHRX686****Service Learning In Pharmacy Practice**

Students provide service to area community partner agencies providing care to the underserved of the TriState region. In the process of providing a service, the students reinforce and refine concepts learned in course work, focusing on disease state management and communication skills. Perm of College. Credit Level: G. Credit Hrs: 1.00-3.00

25PHRX714**Pharmacy Practice Skills Development II**

Development of pharmacy practice skills based on learning in required didactic courses. Lab sessions will be coordinated with therapeutics courses. Perm of College. Credit Level: G. Credit Hrs: 2.00

25PHRX726**Drug Literature Evaluation**

Student centered course focusing on the development of critical thinking skills to evaluate medical and pharmaceutical literature. Perm of College. Credit Level: G. Credit Hrs: 1.00

25PHRX727**Pharmacy Ethics**

Guides students in how to think critically and thoughtfully about ethical decisions they face in practice. It will present both western and non-western sources of ethical thought. The course will utilize a unique 6-step decision-making process to provide a framework for making effective decisions. Pharmacy based cases, which will reflect a diversity of practitioners, settings and cultures, will be presented to encourage critical thinking and enforce an interactive approach. Perm of College. Credit Level: G. Credit Hrs: 2.00

25PHRX732**Health Systems Pharmacy Practice**

A study of the expanding roles and responsibilities of pharmacists in the health care system. Perm of Instructor. Credit Level: G. Credit Hrs: 3.00

25PHRX734**Pharmacy Practice Skills Development III**

Pharmacy practice skills development based on learning in other required didactic courses. Perm of College. Credit Level: G. Credit Hrs: 2.00

25PHRX813**Pharmacy Practice Skills Development IV**

Pharmacy practice skills development based on learning in other required didactic courses. Perm of College. Credit Level: G. Credit Hrs: 2.00

25PHRX831**Pharmacy Seminar**

A forum for the development of an in-depth understanding of the opportunities and challenges being faced by pharmacy and the health care system. Guest speakers focus on areas of dynamic change in pharmacy along with student presentations. Perm of College. Credit Level: G. Credit Hrs: 2.00

25PHRX931**Contemporary Pharmacy Practice**

The course provides students with contemporary thinking and information dealing with recent advances in various areas of pharmacy practice. Perm of College. Credit Level: G. Credit Hrs: 6.00

25PHRX965**Clinical Pharmacy Project I**

A problem-based, clinical-related project that requires integration and application of the didactic coursework and experiential training in order to generate a rational solution to a well defined question using established scientific methodologies. Perm of College. Credit Level: G. Credit Hrs: 1.00

25PHRX966**Clinical Pharmacy Project II**

A problem-based, clinical-related project that requires integration and

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Pharmacy-Pharmacy Practice**25PHRX966****Clinical Pharmacy Project II**

application of the didactic coursework and experiential training in order to generate a rational solution to a well defined question using established scientific methodologies. Prereq: 25PHRX965. Credit Level: G. Credit Hrs: 3.00

Pharmacy-Therapeutics**25PHTH556****Dental Problems and the Pharmacist**

An overview of dental health and its relationship with pharmacy. Credit Level: G. Credit Hrs: 1.00

25PHTH581**Evaluation and Selection of Cardiac Drugs**

Students will evaluate pharmacokinetic and/or pharmacodynamic properties of an assigned category of cardiovascular drug based on published literature. Credit Level: G. Credit Hrs: 2.00

25PHTH632**Therapeutics of Inflammatory, Respiratory and Gastrointestinal Diseases**

The course integrates the principles of physiology pharmacology and medicinal chemistry with those of pharmacotherapeutics of selective examples of inflammatory conditions and diseases of the respiratory and gastrointestinal systems. Perm of Instructor. Credit Level: G. Credit Hrs: 5.00

25PHTH649**Critical Literature Evaluation-NTPD**

Reading, understanding and application of information from published literature to solve care problems by the transfer of medical research into clinical practice. Perm of College. Credit Level: G. Credit Hrs: 3.00

25PHTH651**Therapeutics of Cardiovascular Disorders-NTPD**

The chemistry, pharmacology and therapeutic use of drugs to treat a variety of cardiovascular diseases will be covered. Pathophysiology, mechanisms of drug action, pharmacokinetics/ pharmacodynamics, adverse drug effects/drug interactions, and patient monitoring of cardiovascular drugs will be covered. n Perm of College. Credit Level: G. Credit Hrs: 4.00

25PHTH652**Therapeutics of Renal & Electrolyte Disorders-NTPD**

Current approaches to the treatment of selected abnormalities of the exocrine and endocrine functions of the kidney and associated urinary tract structures with an emphasis on the proper use of drugs for or during renal impairment. Perm of College. Credit Level: G. Credit Hrs: 2.00

25PHTH653**Therapeutics of Infectious Diseases-NTPD**

Principles and application of appropriate antimicrobial therapy of various infectious diseases. Host-drug-microbe interactions, mechanisms of drug action and resistance, spectrum of activity, kinetics/dynamics, uses, adverse effects, patient monitoring of anti-infectives will be covered. Perm of College. Credit Level: G. Credit Hrs: 4.00

25PHTH654**Therapeutics of CNS Disorders-NTPD**

Principles and application of appropriate therapy to diseases of the CNS. The medicinal chemistry, pharmacology and pharmacotherapeutics of drugs used to treat CNS diseases, as well as the abuse potential/liability of these agents will Perm of College. Credit Level: G. Credit Hrs: 3.00

25PHTH655**Therapeutics of Hematologic and Oncologic Disorders-NTPD**

The chemistry, pharmacology and therapeutic use of oncology products in various neoplastic diseases. It will include mechanisms of drug action and resistance, pharmacokinetics/dynamic issues, adverse

Pharmacy-Therapeutics**25PHTH655****Therapeutics of Hematologic and Oncologic Disorders-NTPD**

effects and patient monitoring of antineoplastic agents. Perm of College. Credit Level: G. Credit Hrs: 2.00

25PHTH656**Therapeutics of Endocrine, Respiratory, Gastrointestinal and Inflammatory Disorders-NTPD**

Principles and application of appropriate therapy of various endocrine, respiratory, gastrointestinal and inflammatory diseases. Perm of College. Credit Level: G. Credit Hrs: 3.00

25PHTH701**Critical Care Therapeutics**

The pathophysiology, pharmacotherapy, and decision making processes for the treatment of patients who are critically ill. Perm of College. Credit Level: G. Credit Hrs: 2.00

25PHTH713**Therapeutics of Cardiovascular Disorders**

Drug therapy decision making (drug selection, patient monitoring and counseling) in patients with cardiovascular disease. Pathophysiology, pharmacology, medicinal chemistry of agents along with therapeutic applications and patient counseling will be discussed. Perm of Instructor. Credit Level: G. Credit Hrs: 5.00

25PHTH723**Therapeutics of Renal and Electrolyte Disorders**

Drug therapy decision making in patients with renal and urinary tract disorders, pathophysiology pharmacology, medicinal chemistry of agents along with therapeutic applications will be discussed. Perm of Instructor. Credit Level: G. Credit Hrs: 3.00

25PHTH731**Therapeutics of Infectious Diseases**

Principles and application of appropriate antimicrobial therapy of various infectious diseases. Chemistry, structure activity relation- ships, host-drug-microbe interactions, mechanisms of drug action and resistance, spectrum of activity, kinetics/dynamics, uses, adverse effects dose forms, patient counseling and monitoring of anti-infectives. Perm of Instructor. Credit Level: G. Credit Hrs: 5.00

25PHTH733**Therapeutics of Endocrine Disorders**

Treatment of diseases involving the endocrine system. The medicinal chemistry, pharmacology and pharmacotherapeutics of hormones and drugs used to treat these diseases will be discussed in an integrated format. Perm of Instructor. Credit Level: G. Credit Hrs: 4.00

25PHTH811**Therapeutics of Neurological Disorders**

Therapeutics of diseases involving the central nervous system. The medicinal chemistry, pharmacology and therapeutics of drugs used to treat diseases and abuse potential/liability of drugs used to treat these diseases will be discussed in an integrated format. Perm of College. Credit Level: G. Credit Hrs: 5.00

25PHTH832**Therapeutics of Skin and Mucous Membrane Disorders**

Treatment of skin, eye, ears, nose, throat, vaginal tract, anorectal area and other mucous membrane diseases will be discussed with an emphasis on the role of the pharmacist in managing the patient therapy. 3 lec. hrs. per wk. Perm of College. Credit Level: G. Credit Hrs: 3.00

25PHTH834**Therapeutics of Cancer and Hematological Disorders**

This course focuses on the chemistry, pharmacology and therapeutic use of oncology products and therapeutic decision-making. Perm of Instructor. Credit Level: G. Credit Hrs: 4.00

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SCHOOL OF SOCIAL WORK

COURSE DESCRIPTIONS

(21) School of Social Work

2008 - 2009

School of Social Work 1

Social Work

21SW101

Social Work First Year Seminar I: Introduction to UC

This seminar is designed to equip first-year students with the tools needed for success in college. The focus is on familiarizing students with UC and its resources - library, writing center, student activities and leadership development and the wellness center. Other college success skills such as time management and study skills will also be discussed. BoK: NA. Credit Level: U. Credit Hrs: 1.00

21SW102

Social Work First Year Seminar II: Introduction to the Profession

This seminar is designed to complement Introduction to Social Work taken concurrently by first year pre-social work students. Students will explore fields of social work practice through agency visits and contacts with social work professionals. BoK: NA. Credit Level: U. Credit Hrs: 1.00

21SW103

Social Work First Year Seminar III: Introduction to the Community

This seminar is designed to introduce students to the concept of service, a primary value of social work. Through completion of a service learning project, students will explore and develop a commitment to civic responsibility and citizenship. BoK: NA. Credit Level: U. Credit Hrs: 1.00

21SW150

Introduction to the Social Work Profession

This course provides students an opportunity to explore the dynamic richness of the social work profession. Social work's values/ethics, historical development, role in the social service delivery system, and knowledge base will be explored. Potential careers and fields of practice will also be discussed. BoK: SE. Credit Level: U. Credit Hrs: 3.00

21SW250

Families in America

The major goal of this course is to study the family through history with a primary focus on contemporary families in America. Different family structures will be examined and various family life cycles will be studied. BoK: NA. Credit Level: U. Credit Hrs: 3.00

21SW255

Poverty in America

This course explores multiple aspects of poverty including the number of Americans affected, the role of the government in the plight of the poor, and the evolution of the welfare system and welfare reform policies. Groups at highest risk for poverty will be highlighted, including children, single parent households, older adults, and those with chronic illness and disabilities. Social work values of self-reliance, economic security, productiveness, advocacy, and self-determination and their role in finding solutions to poverty will be highlighted. BoK: SE. Credit Level: U. Credit Hrs: 3.00

21SW331

Social Welfare Institutions and the Social Work Profession

This introductory course familiarizes students with the institutions of social welfare and the profession of social work. Topics include the role of knowledge and values in decision-making, the differential distribution of resources and the effect on service delivery structures, and the role of human diversity in decisions about resource allocation. BoK: DC., SE. Credit Level: U. Credit Hrs: 3.00

21SW332

Social Welfare Policy

Policy as an expression of values; policy-making processes; social work roles and policy; major areas of policy and basic legislation; and policy implementation. BoK: DC., SE. Credit Level: U. Credit Hrs: 3.00

Social Work

21SW341

Human Behavior and the Social Environment I

This course focuses on the life states of infancy childhood, and adolescence. The course uses the systems impact model, which assumes a general systems theoretical approach that incorporates concepts from the ecological perspective. The course provides the student with a broad understanding of human behavior theories to enhance the generalist's ability to assess problems and develop comprehensive solutions. Special emphasis is placed on such diverse groups as Women, People of Color, Appalachians, and Gay and Lesbians. BoK: DC., SE. Credit Level: U. Credit Hrs: 3.00

21SW342

Human Behavior and the Social Environment II

This course focuses on the life stages of young adulthood, middle adulthood, and later adulthood. The course uses the systems impact model, which assumes a general systems theoretical approach that incorporates concepts from the ecological perspective. This course seeks to provide the student with a broad understanding of human behavior theories to enhance the generalist's ability to assess problems and develop comprehensive solutions. Special emphasis is placed on such diverse groups as Women, People of Color, Appalachians, and Gay and Lesbians. Prereq: 21SW341. BoK: DC, SE. Credit Level: U. Credit Hrs: 3.00

21SW343

Urban Issues

A survey of issues and policies related to life in the urban community. BoK: DC., SE. Credit Level: U. Credit Hrs: 3.00

21SW350

Human Diversity and Generalist Social Work Practice

This course examines both micro and macro implications for multicultural social work practice with diverse groups - people of color, gays and lesbians, older adults, people with disabilities, and Appalachians. BoK: DC. Credit Level: U. Credit Hrs: 3.00

21SW351

Generalist Social Work Practice I

This course prepares students for entry-level professional social work practice with individuals at the generalist level. The course uses an ecological perspective and incorporates the strengths and resources of individuals when assessing human needs. Emphasis is placed on utilizing interventions and methods based on a holistic conception of the person within the social environment. The helping process is examined in-depth, focusing on the generic knowledge and skills needed for effective engagement, assessment, planning, intervention, evaluation and termination. Attention is given to issues of human diversity, social justice, and populations-at-risk. BoK: SE., DC. Credit Level: U. Credit Hrs: 3.00

21SW352

Generalist Social Work Practice II

This course builds upon Generalist Social Work Practice I by using systems theory and the problem-solving framework for generalist social work practice with groups and families. Human problems are conceptualized as dynamic interchanges between the person and the environment: specifically the family in which one is connected to, and the groups in which they are embedded. Emphasis is placed upon the development of practice skills in the area of self-awareness, communication skills, leadership skills, and the implementation of the problem solving process and conflict resolution with groups and families. Attention is given to issues of human diversity, social justice, and populations-at-risk. Prereq: 21SW351. BoK: SE, DC. Credit Level: U. Credit Hrs: 3.00

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Social Work**21SW353****Generalist Social Work Practice III**

This course uses systems theory and the problem solving framework for generalist social work practice with organizations and communities. Knowledge of the bio-psycho-social model of human development is integrated within an ecological perspective, where human problems are conceptualized as dynamic interchanges between the person and the environment; specifically the organizations to which one is connected, and the communities in which they are embedded. Prereq: 21SW351, 21SW352. BoK: DC, SE. Credit Level: U. Credit Hrs: 3.00

21SW410**Social Work with Adolescents**

This course introduces students to social work practice with adolescents. Development theories and challenges of this stage of development will be examined, including identity formation, gender sexuality, substance use, and other high risk behaviors. Skills in relationship building with adolescents will be emphasized. BoK: NA. Credit Level: U. Credit Hrs: 3.00

21SW441**Research I**

This course introduces the scientific method of inquiry. The research purpose, the identification of variables, the sampling plan, and the development of data collection instruments require careful thought. Students will examine the influence of personal values on conceptualization of research questions and the need to appreciate human diversity when designing research studies. Coreq: 21SW461. BoK: SE, DC. Credit Level: U. Credit Hrs: 3.00

21SW442**Research II**

This course provides the student with an in-depth examination of research methodologies employed in social work practice. In particular, investigation methods used at the Macro and Micro levels of practice will be explored. The influence of personal values, the organizational context, and human diversity on the formulation and implementation of research will be a primary focus. Students will also explore the uses of information technology for the purpose of data collection/analysis, information management, and information retrieval. Prereq: 21SW441. Coreq: 21SW462. BoK: DC, SE. Credit Level: U.

21SW452**Senior Field Seminar I**

The first of a three course sequence focused on integrating knowledge, skills, and values learned in the classroom with experiences in the concurrent field placement. Attention is given to understanding informal and formal structures, policies, and organizational roles affecting the entry-level social worker's practice. Students will understand how the foundations of social work knowledge, including human development diversity issues, and values and ethics, are operationalized within the organizational structure. Students will discuss their experiences in their agency and critically analyze their role in the delivery of services to or on behalf of clients. Coreq: 21SW461. BoK: SE, DC. Credit Level: U. Credit Hrs: 3.00

21SW453**Senior Field Seminar II**

The second of a three course sequence designed to facilitate the integration of classroom learning with the field placement experience. Emphasis is placed on refinement of the generalist practice skills of assessment, goal-setting and contracting and selection and implementation of interventions. The use of research-based knowledge to inform practice will be emphasized. Students will have the opportunity to formally present case plans and to develop skills in peer consultation. Prereq: 21SW452, 21SW461. Coreq: 21SW462. BoK: SE, DC. Credit Level: U. Credit Hrs: 3.00

21SW454**Senior Field Seminar III**

This is the final course of a three course sequence designed to facilitate the integration of classroom learning with the field placement

Social Work**21SW454****Senior Field Seminar III**

experience. Emphasis is placed on refinement of the generalist practice skills of evaluation and termination. Students will have the opportunity to critically examine their development as social workers, demonstrate their understanding of the use of self, personal and professional values, issues of diversity, and the use of theory and knowledge in practice. Prereq: 21SW452, 21SW453. Coreq: 21SW463. BoK: DC, SE. Credit Level: U. Credit Hrs: 3.00

21SW461**Social Work Field Learning I**

In consultation with an agency-based field instructor, a set of learning objectives are identified and activities are planned to achieve these objectives. Requires students to work in an agency two days per week. BoK: DC, SE. Credit Level: U. Credit Hrs: 6.00

21SW462**Social Work Field Learning II**

See 21-058-461. BoK: DC, SE. Credit Level: U. Credit Hrs: 6.00

21SW463**Social Work Field Learning III**

See 21-058-461. BoK: DC, SE. Credit Level: U. Credit Hrs: 6.00

21SW473**Social Work Directed Studies**

Directed studies and tutorial conferences related to specific areas of social work. Prereq.: Perm. BoK: NA. Credit Level: U. Credit Hrs: 1.00-5.00

21SW500**Emotional Abuse: Assessment and Treatment**

This course covers the dynamics of emotional abuse and discusses frameworks for assessment and treatment. Self psychology is one of the theoretical frameworks that will be presented to foster understanding of emotional development. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00

21SW501**Narrative Therapy and Social Work Practice**

How a narrative therapy, post-modern approach opens up new intervention options for social workers and clients. Emphasis on treating the problem as the problem, not the person as the problem. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00

21SW502**Spirituality in Social Work Practice**

This course will focus on how to recognize and appropriately respond to religious and spiritual issues as they emerge in practice. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00

21SW503**Social Work and Psychopharmacology**

Students will learn the therapeutic effects and possible problems that can result from medication intervention. The effects that mental health medications can have on the counseling/helping relationship will also be explored. BoK: SE. Credit Level: U, G. Credit Hrs: 1.00

21SW504**Grant Writing**

This course will help students identify potential funding sources, understand the components of a grant, and learn to write content in compliance with grant directives. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00

21SW505**Post Traumatic Stress Disorder in Children, Adolescents and Adults**

Students will understand the symptomatology of Post Traumatic Stress Disorder, learn the diagnostic process and learn how the disorder impacts individuals, families, and communities. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00

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Social Work**21SW506****Grief Theory and Social Work Practice**

This course examines the central processes involved in grief. Models for counseling clients in grief will be reviewed with an emphasis on identification of unresolved and traumatic grief as well as opportunities for growth during the process of grief. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00

21SW507**Domestic Violence I**

Study of domestic violence with a focus on gay and lesbian relationships. Also, an exploration of how the criminal justice system treats women who kill their abuser. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00

21SW508**Issues of Sexuality**

The course will provide an overview of human sexual development and examine the positive and negative impact of sexual behaviors for individuals, families, and society. Social problems related to human sexuality and the role social workers play in addressing these issues will be a primary focus. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00

21SW509**Documentation**

This course will examine the different types of documentation commonly required of social work practitioners. Legal issues related to documentation will be explored. Attention will be given to the process for conversion of observations into narrative accounts. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00

21SW510**Suicide: Assessment and Prevention**

This course focuses on assessment of clients who may be considering suicide and the development of interventions to prevent suicide. Known risks for suicide will be outlined and ways to identify persons at risk for suicide will be discussed. Emphasis will be on interviewing strategies to use with clients who may be expressing suicidal ideation. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00

21SW511**Adoption**

This course will explore different types of adoptions and the laws that regulate the process. Special attention will focus on infant, special needs, and kinship adoption. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00

21SW512**Transgender**

This course introduces students to the field of transgender studies. Androgyny, transvestism, transsexuality, and other transgender behaviors will be examined as well as social attitudes toward transgender people. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00

21SW513**Attention Deficit Hyperactivity Disorder**

This course is built upon evidence-based research on treatment efficacy of both psychotherapeutic and psychotropic interventions for individuals with ADHD. The course addresses ADHD in children, adolescents, and adults. A specific focus will be upon social work interventions with various systems levels that impact the individual. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00

21SW514**Personal Safety**

This course will examine issues of personal safety in the agency and field work settings. In particular, the course will discuss the signs of potential violence and strategies for de-escalation. The course will also provide a range of techniques designed to prevent interpersonal confrontation. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00

Social Work**21SW515****Conflict Resolution**

This course will explore strategies for managing and resolving conflicts, contributing to understanding, acceptance and change, and enhance adult and professional relationships. Students will learn conflict resolution strategies through didactic and experiential presentations. Special attention given to Mediation Intervention. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00

21SW530**Quantitative Analysis for Social Workers**

This course is designed to help students understand the variety of statistical methods and tests used in behavioral science research. Students will develop a basic understanding of statistical software that can be utilized to evaluate clinical practice. BoK: SE. Credit Level: U, G. Credit Hrs: 3.00

21SW550**Loss and Grief**

This course examines the central processes involved in loss and grief. Theoretical perspectives and loss and grief across the life span will be considered. Gender, cultural, and ethnic/racial variations in grief expression will be explored. BoK: DC. Credit Level: U, G. Credit Hrs: 3.00

21SW551**Family Violence Across the Life Cycle**

The prevalence, dynamics, and theories of various types of family violence, ranging from child abuse to elder abuse will be examined. BoK: DC. Credit Level: U, G. Credit Hrs: 3.00

21SW552**Substance Abuse**

Chemical dependence as a disease is emphasized, however, other etiological perspectives are also surveyed. Physiological aspects of dependence are presented and the role of gender, race, and social conditions in the assessment and intervention of substance abuse are explored. BoK: DC. Credit Level: U, G. Credit Hrs: 3.00

21SW553**Social Work Interviewing**

This course covers the steps for engaging the client in a professional social work interview. From engagement to termination, a major focus is on the use of self in the helping process. Issues of human diversity will be examined in relation to structuring the interview process. BoK: DC. Credit Level: U, G. Credit Hrs: 3.00

21SW554**Child Welfare I**

First course of a two-part series. The course provides students with the knowledge and skills to practice in a public or private child welfare setting. The course focuses on protecting children from physical and sexual abuse and neglect. Special attention is paid to determining immediate and potential risk for maltreatment. BoK: DC. Credit Level: U, G. Credit Hrs: 3.00

21SW555**Child Welfare II**

This course addresses the developmental and permanence needs of children. The effects of maltreatment on the physical, psychological, and social development of the child will be explored. Developmental disabilities, separation trauma, and placement issues will also be discussed. BoK: DC. Credit Level: U, G. Credit Hrs: 3.00

21SW557**Issues in Individual Psychotherapy**

This course focuses on issues in individual psychotherapy such as disclosure, resistance, mutuality, responsibility, boundaries, abandonment, attraction, use of paradox, and termination. BoK: DC. Credit Level: U, G. Credit Hrs: 3.00

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Social Work**21SW558****Child Welfare III**

This is the third course in the Child Welfare sequence. This course examines the developmental and permanence needs of children. Specifically, the course covers effects of child maltreatment, trauma of separation, placement issues, and services available for children with disabilities. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

21SW559**Social Work Practice with GLBT Communities**

This course will examine gay, lesbian, bisexual and transgender people with a focus on historical events, conflicts and current issues. In particular, ethical issues, policies, resources, cultural diversity, and hate crimes will be a primary focus. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

21SW560**Aging in America**

This course introduces students to the field of gerontological social work. Individual concerns of older adults, including biological, psychological, and social factors will be explored. The demographics of aging will be examined along with the implications for public policy and the service delivery system. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

21SW589**CRISIS INTERVENTION**

CRISIS INTERVENTION BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

21SW594**Special Topics in Social Work**

Variable subjects depending upon student and faculty interest. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-3.00

21SW595**Special Topics in Social Work**

See 21-058-594. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

21SW596**Special Topics in Social Work**

See 21-058-594. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

21SW597**Special Topics in Social Work**

See 21-058-594. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

21SW730**Social Welfare Policy, Institutions and Programs**

Analysis of current major social welfare policies and their historical development with an emphasis on the cultural, political, social, and economic forces which shaped them. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

21SW795**Special Topics in Social Work**

Variable subjects based upon student and faculty interest. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-3.00

21SW796**Special Topics in Social Work**

See 21SW795. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-3.00

21SW700**Brief Treatment in Social Work Practice**

This course focuses on differential treatment techniques for different groups. Brief treatment models are evaluated in relation to social work values and their impact on diverse client populations. Credit Level: G. Credit Hrs: 3.00

21SW701**Family Treatment**

The principles and techniques of social work practice with families is explored. Theories and models of family practice are presented with an

Social Work**21SW701****Family Treatment**

emphasis on the family as a social system in transaction within a sociocultural environment. Credit Level: G. Credit Hrs: 3.00

21SW702**Child Mental Health**

The development of knowledge and skills in direct practice with children and adolescents that require mental health services. Approaches to assessment, diagnosis, and intervention are studied. The role of culture, race, gender, and class in the assessment and intervention planning will be carefully examined. Credit Level: G. Credit Hrs: 3.00

21SW703**Social Work Practice in the Schools**

This course prepares social work students to work in educational settings as certified social workers. The course examines issues in American schools, design, delivery and evaluation of school social work services, and legal and ethical issues that may arise in a school setting. Emphasis is placed on truancy, dropping-out of school, violence, and juvenile delinquency. Credit Level: G. Credit Hrs: 3.00

21SW704**Leadership for Social Workers**

This course is designed to enhance student leadership knowledge and skills in both direct practice and administrative social work settings. Credit Level: G. Credit Hrs: 3.00

21SW710**Human Behavior and the Social Environment I: Organizations and Communities**

Introduction to the effect organizations and communities have on people's bio-psycho-social development. Also examines theories on organizational and community structure. Credit Level: G. Credit Hrs: 3.00

21SW711**HBSE II IND**

HBSE II IND Credit Level: G. Credit Hrs: 3.00

21SW712**HBSE III Families**

This course provides knowledge for understanding families in their social context. The family life cycle, intergenerational families, and how families are structured and function will be explored. Diverse family structures will be examined. Credit Level: G. Credit Hrs: 3.00

21SW713**Theories of Personality Development**

Advanced human behavior and social environment course designed for direct practice students. Different theories of human personality development and how these perspectives influence practice decisions will be discussed. Credit Level: G. Credit Hrs: 3.00

21SW714**Human Diversity for Social Work**

Focuses on differences and similarities in the experiences, needs, and beliefs of people. This includes groups distinguished by culture, ethnicity, gender, age, sexual orientation, socioeconomic status, and physical or mental ability. Credit Level: G. Credit Hrs: 3.00

21SW720**Research in Social Work**

Introduction to the scientific method and social science research methods and concepts. Research design and application to social work issues is emphasized. Credit Level: G. Credit Hrs: 3.00

21SW721**Practice Evaluation in Social Work**

Techniques and uses of single system research for monitoring and evaluating individual client outcomes and organizational change. Students learn to define groups and subsystems as single systems and to use data collected over time as control or comparison data from which to make inferences. Credit Level: G. Credit Hrs: 3.00

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Social Work**21SW721****Practice Evaluation in Social Work**

Techniques and uses of single system research for monitoring and evaluating individual client outcomes and organizational change. Students learn to define groups and subsystems as single systems and to use data collected over time as control or comparison data from which to make inferences. Credit Level: G. Credit Hrs: 3.00

21SW722**Planning and Managing Program Evaluation**

This course is designed to help students develop the knowledge and skills required to plan, implement, and manage program evaluation projects. Various program evaluation methods, tools, and monitoring techniques will be explored. How the results of the evaluation can be used to modify interventions and program performance will be discussed. Credit Level: G. Credit Hrs: 3.00

21SW731**Social Policy Analysis**

Evaluation of social policy and its planned and unanticipated impacts are examined. Students are required to apply analytic tools to evaluate the appropriateness and utility of selected policies. Credit Level: G. Credit Hrs: 3.00

21SW740**Social Work Practice with Organizations and Communities**

Introduction to macro practice -- solving social problems and making social changes at the organizational, community, and societal levels. Credit Level: G. Credit Hrs: 3.00

21SW741**Social Work Practice with Individuals and Families I**

Introduction to micro practice with individuals and families. Emphasis is placed on the beginning phases of the helping process. Credit Level: G. Credit Hrs: 3.00

21SW742**Social Work Practice with Individuals and Families II**

The middle and ending phases of the helping process. Credit Level: G. Credit Hrs: 3.00

21SW743**Social Work Practice with Groups**

Developing competencies for direct practice with groups. An examination of various models of group work and development of group intervention skills. Credit Level: G. Credit Hrs: 3.00

21SW744**Assessment and Diagnosis in Social Work Practice**

Concepts of normality, deviance, and psychopathology are presented with particular attention to influence of culture, ethnicity, and gender. Contrasts are made between diagnostic classification and assessment with attention to the DSM IV. Credit Level: G. Credit Hrs: 3.00

21SW761**Introduction to Major Mental Illness**

This course focuses on persons with major mental illnesses. It includes theories of etiology, specific issues in assessment and diagnosis; the range of intervention options and an examination of various subgroups (e.g., minorities, homeless, dually diagnosed, young adults). The course emphasizes the role of the social worker using the biopsychosocial model, collaboration and community support. Social justice and eliminating stigma for persons with mental illness will be a focus. Recovery and consumer operated services and the importance of individual differences in determining interventions will be emphasized. Credit Level: G. Credit Hrs: 3.00

21SW770**Social Work Field Instruction Lab**

This course introduces the field instruction program. Students will learn the policies and procedures for determining a field placement, how to develop a learning contract, and explore the specialized study opportunities. Credit Level: G. Credit Hrs: 1.00

Social Work**21SW771****Field Instruction in Social Work I**

Continuation of instruction from 21SW770. Credit Level: G. Credit Hrs: 4.00

21SW772**Social Work Field Instruction II**

Preparation for entry into student field practicum; introduction to the placement process and field contract; development of basic interviewing and communication skills. Credit Level: G. Credit Hrs: 4.00

21SW773**Summer Field Instruction**

Summer Field Instruction Credit Level: G. Credit Hrs: 1.00-12.00

21SW780**INTRO MENTAL ILL**

INTRO MENTAL ILL Credit Level: G. Credit Hrs: 3.00

21SW781**REHAB MENTAL ILL**

REHAB MENTAL ILL Credit Level: G. Credit Hrs: 3.00

21SW782**COM SUP MENTAL ILL**

COM SUP MENTAL ILL Credit Level: G. Credit Hrs: 3.00

21SW783**FAM MENTAL ILL**

FAM MENTAL ILL Credit Level: G. Credit Hrs: 3.00

21SW785**Theory and Skills for Advanced Practice**

This course is designed as a bridge from the knowledge and skills of the generalist practitioner to that required for advanced practice. Emphasis is placed on enhancing skills in engagement, relationship building, and multi-dimensional assessment. Credit Level: G. Credit Hrs: 3.00

21SW789**DIRECTED STUDIES**

DIRECTED STUDIES Credit Level: G. Credit Hrs: 1.00-15.00

21SW790**Social Work Field Instruction I**

This is the first 9-hour field instruction course. Students will become familiar with their field placement setting and work on their first learning contract. Credit Level: G. Credit Hrs: 2.00

21SW791**Social Work Field Instruction II**

This is the second 9-hour field instruction course. Students will continue working on their foundation year learning objectives. Credit Level: G. Credit Hrs: 2.00

21SW792**Social Work Field Instruction III**

This is the third 9-hour field instruction course. Students will continue working on their foundation year learning objectives. Credit Level: G. Credit Hrs: 2.00

21SW793**Social Work Field Instruction IV**

This is the fourth 9-hour field instruction course. Students continue working on their foundation year learning objectives. Credit Level: G. Credit Hrs: 2.00

21SW799**MSW Field Instruction**

MSW Field instruction provides experience in professional social work practice in administration or in direct practice with individuals, families, and small groups. Individualized learning contracts are jointly developed by the student and the field instructor. This course is designed for

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Social Work**21SW799****MSW Field Instruction**

students who need to make-up field hours from previous quarters or who are completing additional field hours for elective credit. Credit Level: G. Credit Hrs: 1.00-8.00

21SW830**SOC POLCY ANALYSIS**

SOC POLCY ANALYSIS Credit Level: G. Credit Hrs: 3.00

21SW840**Social Welfare Administration Practice Theory and Methods**

Introduction to social welfare administration. An examination of organizations as implementers of social welfare policy. Credit Level: G. Credit Hrs: 3.00

21SW841**Program Planning and Implementation**

Develop skills for planning and implementing social service programs. Credit Level: G. Credit Hrs: 3.00

21SW842**Managing Human and Financial Resources in Social Service Agencies**

This course provides students with the knowledge and skills to manage human and financial resources in social service agencies. The process of recruiting, selecting, developing, and retaining productive staff will be explored. In addition strategies for developing financial plans that support program goals/objectives will be examined. Credit Level: G. Credit Hrs: 3.00

21SW843**Methods of Personnel Administration**

Major issues in personnel management of social welfare organizations: collective bargaining, affirmative action, hiring/firing. Credit Level: G. Credit Hrs: 3.00

21SW845**Theory and Practice of Supervision**

Study of administrative, educational and support functions of social work supervision in human service agencies. Credit Level: G. Credit Hrs: 3.00

21SW846**Methods of Resource Management**

Analysis of budgetary and fiscal management processes unique to non-profit organizations are examined as is the development and preparation of a budget. Credit Level: G. Credit Hrs: 3.00

21SW848**Program Policy and Implementation**

Analysis of reasons for policy decisions/program outcomes. Methods and strategies of implementation planning to minimize problems is emphasized. Credit Level: G. Credit Hrs: 3.00

21SW850**Children and Family Services - Programs and Policies**

Overview of programmatic and policy issues governing services impacting children and families. Welfare reform, managed care and legal procedures will also be explored. Credit Level: G. Credit Hrs: 3.00

21SW851**Assessment: Children, Adolescents and Families**

Interviewing and assessment skills specific to children, adolescents and families. Emphasis on children/adolescents at risk. Credit Level: G. Credit Hrs: 3.00

21SW852**Intervention: Children, Adolescents, & Families**

This course is designed to help students develop advanced knowledge and skills for intervention with children/adolescents and their families. The course begins with an overview of treatment approaches utilized with this population. The remainder of the course looks at the application of these interventions with different types of problems often

Social Work**21SW852****Intervention: Children, Adolescents, & Families**

experienced by children/adolescents and their families. Attention is also given to the role human diversity plays when developing an intervention plan. Credit Level: G. Credit Hrs: 3.00

21SW855**Social Work Practice in Health Care**

Practice in health care settings - hospitals, home health care agencies, hospices, clinics and community based programs. health beliefs, models of health behavior will be explained. Credit Level: G. Credit Hrs: 3.00

21SW856**Social Programs and Policies in Health Care and Gerontology**

An examination of major policies, programs, friends and issues in health care and gerontology. Credit Level: G. Credit Hrs: 3.00

21SW857**Social Work Practice in Gerontology**

This course prepares students for direct practice in a variety of settings serving older adults and their families. Theories of adult development and aging are examined. Emphasis is placed on developing skills for work with older adults experiencing "normal" life transitions, life crises, and special problems. Particular attention is given to the experiences of elderly women, minorities, and populations at risk. Credit Level: G. Credit Hrs: 3.00

21SW860**Advanced Clinical Practice in Mental Health I**

The focus of this course is on working with individuals with major mental illness. Theories of etiology, issues in assessment and diagnosis and a range of intervention options will be explored. Credit Level: G. Credit Hrs: 3.00

21SW861**Advanced Clinical Practice in Mental Health II**

This course focuses on the process of mental health psychosocial treatment, use of theoretical foci, therapeutic processes and relationship development to effect growth and change. Credit Level: G. Credit Hrs: 3.00

21SW862**Policy Implications of Mental Health Practice: Negotiating the System**

This course examines policy, economic, legal, ethical, and political issues that affect social techniques of the worker within the context of several modalities of group intervention are emphasized. Credit Level: G. Credit Hrs: 3.00

21SW870**Field Instruction in Social Work III**

See 21-058-770. Credit Level: G. Credit Hrs: 4.00

21SW871**Field Instruction in Social Work IV**

See 21-058-770. Credit Level: G. Credit Hrs: 4.00

21SW872**Field Instruction in Social Work V**

See 21-058-770. Credit Level: G. Credit Hrs: 4.00

21SW880**Field Seminar**

Opportunity for integration of classroom and field work. Presentations of cases and field work experiences. Credit Level: G. Credit Hrs: 1.00

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H=University Honors course.

BoK (Breadth of Knowledge) Coding. DC: Diversity & Culture. EC: English composition. FA: Fine Arts. HP: Historical Perspectives. HU: Humanities. LT: Literature. NS: Natural Sciences. QR: Quantitative Reasoning. SE: Social & Ethical Issues. SS: Social Sciences.

Social Work**21SW882****Field Integration Seminar**

This seminar offers students the opportunity for classroom and field learning integration. Students present situations from their field work experiences for peer consultation. In addition, students will explore relevant practice issues. Credit Level: G. Credit Hrs: 1.00

21SW885**Advanced Field Instruction**

Advanced Field Instruction is designed to provide a closely supervised and educationally focused learning experience that helps prepare students for competent, accountable, and autonomous practice. Emphasis is placed on integration and application of knowledge gained in the classroom. Credit Level: G. Credit Hrs: 3.00

21SW890**Social Work Field Instruction V**

This is the fifth 9-hour field instruction course. Students begin their advanced year of field placement in one specialized study area. Credit Level: G. Credit Hrs: 2.00

21SW891**Social Work Field Instruction VI**

This is the sixth 9-hour field instruction course. Students continue working on their advanced year learning objectives within a specialized study area. Credit Level: G. Credit Hrs: 2.00

21SW892**Social Work Field Instruction VII**

This is the seventh 9-hour field instruction course. Students continue working on their advanced year learning objectives within a specialized study area. Credit Level: G. Credit Hrs: 2.00

21SW893**Social Work Field Instruction VIII**

This is the eighth 9-hour field instruction course. Students continue working on their advanced year learning objectives within a specialized study area. Credit Level: G. Credit Hrs: 2.00

21SW894**Social Work Field Instruction IX**

This is the ninth 9-hour field instruction course. Students continue working on their advanced year learning objectives within a specialized study area. Credit Level: G. Credit Hrs: 2.00

Social Work Technology**21SWTN175****Social Service Professional Development**

This course is designed to introduce students to the values, principles, and ethics of the Social Work profession in preparation for practice as a Social Work Assistant, as prescribed by the Ohio Counselor and Social Worker licensing law, or transfer to an upper-division social work program. Pedagogical method: lecture, discussion, small group activities. BoK: SS. Credit Level: U. Credit Hrs: 3.00

21SWTN181**Social Service Systems I**

Social Service delivery systems. Emphasis is placed on difference in worker roles and functions. BoK: SS. Credit Level: U. Credit Hrs: 3.00

21SWTN182**Social Service Systems II**

Social services to urban populations. Emphasis placed on housing, transportation, poverty and other in-kind transfer programs. BoK: SS. Credit Level: U. Credit Hrs: 3.00

21SWTN183**Social Service Systems III**

Social services to urban populations. Special emphasis placed upon violence in the urban environment across the life-span, including child abuse, domestic abuse, and elder abuse. BoK: SS. Credit Level: U. Credit Hrs: 3.00

Social Work Technology**21SWTN222****Work With Families and Children**

The focus of this course is upon developing an understanding of family dynamics, the roles of family members, and the rituals of family interaction with emphasis upon single-parent families. BoK: SS. Credit Level: U. Credit Hrs: 3.00

21SWTN231**Work with Individuals**

Introduction to the casework method. Case management, case contracting, and other contemporary models are emphasized. BoK: SS. Credit Level: U. Credit Hrs: 3.00

21SWTN232**Work with Groups**

In this course social service students will begin to develop the skills necessary for effective social work with groups. Focus will be upon leadership in this role. BoK: SS. Credit Level: U. Credit Hrs: 3.00

21SWTN241**Intervention Techniques for Child and Youth Workers**

This course emphasizes the skills necessary for social service work with children and youth living in residential facilities. BoK: SS. Credit Level: U. Credit Hrs: 3.00

21SWTN260**Assessment Information and Referral Skills**

Skill development in assessment, information gathering and referrals. Laboratory practice. BoK: SS. Credit Level: U. Credit Hrs: 3.00

21SWTN262**Advanced Interviewing**

This course introduces students to counseling techniques for work with on-going clients. BoK: SS. Credit Level: U. Credit Hrs: 3.00

21SWTN276**Social Service Interviewing**

Techniques and skills of interviewing. Emphasis is placed on data collection and recording. Prereq: 17SWTN275. BoK: SS. Credit Level: U. Credit Hrs: 3.00

21SWTN277**Social Service Seminar I**

Integration of practice and theory. Runs simultaneously with Social Service Practicum. BoK: NA. Credit Level: U. Credit Hrs: 1.00

21SWTN278**Social Service Internship**

Student on-the-job training in local social service agencies. BoK: NA. Credit Level: U. Credit Hrs: 3.00

H=University Honors course.

BoK (Breadth of Knowledge) Coding. DC: Diversity & Culture. EC: English composition. FA: Fine Arts. HP: Historical Perspectives. HU: Humanities. LT: Literature. NS: Natural Sciences. QR: Quantitative Reasoning. SE: Social & Ethical Issues. SS: Social Sciences.

GENERAL UNIVERSITY INFORMATION



GENERAL UNIVERSITY INFORMATION

THE UNIVERSITY OF CINCINNATI IN BRIEF

The University of Cincinnati traces its origins to 1819, the year of the founding of the Cincinnati College and the Medical College of Ohio. In 1870, the city of Cincinnati established the University of Cincinnati, which later absorbed the earlier institutions. UC became a state university in 1977.

The University of Cincinnati has established a continuing reputation for excellence in graduate and undergraduate education, cultural services and basic and applied research. Since its 1819 founding, UC has been the source of many contributions to society, including the oral polio vaccine, the first program of cooperative education, the first electronic organ, the first safe anti-knock gasoline and the first antihistamine. In recent years, UC has gained international attention for studies on the vibration analysis of structures, the chemistry of surfaces and laser brain surgery.

Located on five campuses, the University of Cincinnati today serves more than 37,000 students through 17 colleges and divisions offering hundreds of degree programs from the associate to the doctoral level.

UC boasts the first – and still one of the nation's largest – cooperative education or "professional practice" program. Established at UC in 1906, co-op allows students to alternate academic quarters of classroom instruction with salaried, on-the-job experience. Today, almost 4,000 UC co-op students work in 34 states and nine foreign countries for 1,500 employers.

The University of Cincinnati is a stimulating environment that has produced some exceptional people. Among past or present faculty and alumni are: President and later Chief Justice William Howard Taft; prima ballerina and ballet director Suzanne Farrell; Nobel Peace Prize recipient Charles G. Dawes; Albert Sabin, developer of the oral polio vaccine; Doris Twitchell Allen, founder of Children's International Summer Village; Cleveland

Abbe, whose work at UC led to the National Weather Service; opera stars Kathleen Battle, Barbara Daniels and Mark Oswald; authors Thomas Berger (*Little Big Man*, *Neighbors*) and Jonathan Valin (*The Lime Pit*, *Final Notice*); Eula Bingham, environmental scientist and head of OSHA; Marilyn Gaston, assistant surgeon general; sports greats Sandy Koufax, Oscar Robertson, Jack Twyman and Tony Trabert; architect Michael Graves; artist Tom Wesselman; Tony Award winner Faith Prince; actor David Canary; and Broadway stars Lee Roy Reams and Michelle Pawk.

UC is accredited by the North Central Association of Colleges and Schools. It is a member of the National Commission on Accrediting and is recognized by the Ohio State Department of Education.

Colleges and Academic Units

College of Allied Health Sciences
 College of Applied Science
 McMicken College of Arts and Sciences
 College of Business
 Clermont College
 College-Conservatory of Music
 College of Design, Architecture, Art and Planning
 College of Education, Criminal Justice and Human Services
 College of Engineering
 The Graduate School
 College of Law
 College of Medicine
 College of Nursing
 College of Pharmacy
 Division of Professional Practice
 Raymond Walters College
 School of Social Work

Board of Trustees and Administrative Officers

Board of Trustees

Listed below are the names of present members of the Board of Trustees of the university, with the date of expiration of each trustee's term.

Phillip R. Cox, 2008
Anant R. Bhati, 2009
Jeffrey L. Wyler, 2010
H.C. Buck Niehoff, 2011
Sandra W. Heimann, 2012
Gary Heiman, 2013
Margaret E. Buchanan, 2014
C. Francis Barrett, 2015
Thomas H. Humes, 2016

Officers of the Board of Trustees

Phillip R. Cox, Chairperson
Jeffrey L. Wyler, Vice Chairperson
Anant R. Bhati, Secretary

Administrative Officers

Nancy L. Zimpher, PhD, *President*
Joseph A. Steger, PhD, LHD, EdD, *President Emeritus*
Henry R. Winkler, PhD, LittD, LHD, LLD, *President Emeritus*
Jane E. Henney, MD, *Senior Vice President and Provost for Health Affairs*
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Anthony J. Perzigian, PhD, *Senior Vice President and Provost for Baccalaureate and Graduate Education*
Monica Rimai, JD, *Senior Vice President for Administration and Finance*
Michael W. Carroll, President, *UC Foundation*
Sandra Degen, PhD, *Vice President for Research*
Mitchel D. Livingston, PhD, *Vice President for Student Affairs and Services*
Frederick H. Siff, PhD, *Vice President for Information Technology and Chief Information Officer*
Michael J. Thomas, MS, *Director of Athletics*
Gregory J. Vehr, BA, *Vice President for Governmental Relations and University Communications*
Mitchell D. McCrate, JD, *Interim General Counsel*

University Mission

The University of Cincinnati is a public comprehensive system of learning and research. The excellent faculty have distinguished themselves worldwide for their creative pedagogy and research, especially in problem solving and the application of their discoveries.

The university system is designed to serve a diverse student body with a broad range of interests and goals. It is a place of opportunity.

In support of this mission, the University of Cincinnati strives to provide the highest quality learning environment, world-renowned scholarship, innovation and community service and to serve as a place where freedom of intellectual interchange flourishes.

ADMISSION

The University of Cincinnati offers admission opportunities in a wide range of academic, professional and career education programs. The university requires that students who graduated from high school in 1986 and thereafter who wish to earn a baccalaureate degree present the following high school units. Additional science and/or math units are required by some programs.

4 units of college-preparatory English
3 units of college-preparatory mathematics
2 units of science
2 units of social science
2 units of a single foreign language
1 unit of fine arts
2 additional units of any of the above

Students who have been admitted with deficiencies in the above requirements will be notified of that fact in acceptance materials sent to them by the Office of Admissions.

Further information regarding admission may be found in the front of this *Bulletin* and the separately published viewbook.

TRANSFER

The Ohio Board of Regents, following the directive of the Ohio General Assembly, developed a statewide policy to facilitate students' ability to transfer credits from one Ohio public college or university to another in order to avoid duplication of course requirements. To learn more about the Ohio Board of Regents Articulation & Transfer Policy, visit www.regents.ohio.gov/transfer/.

Transfer and Lifelong Learning Center

The Transfer and Lifelong Learning Center (TLLC) serves students with diverse educational backgrounds and goals, including:

- degree-seeking students transferring directly from other colleges and universities to complete bachelor's degrees
- professionals enrolling in certificate programs or individual classes to enhance their skills, earn credentials, or maintain licensure in their field
- returning students who postponed college or took a break
- intellectually curious people of all ages, taking college courses for personal growth

Academic advisors in the TLLC are available to help: 513-556-2247 or transfer@uc.edu.

Acceptance of Transfer Credit

Here are some general points to understand about transfer credit:

- In order for transfer credit to be awarded, institutions you have attended must be accredited by one of six national accrediting agencies:
 - Middle States Association of Colleges and Schools
 - North Central Association of Colleges and Schools
 - New England Association of Schools and Colleges
 - Northwest Association of Schools and Colleges
 - Southern Association of Colleges and Schools/Commission on Colleges
 - Western Association of Schools and Colleges
- You can check your school's accreditation online at www.chea.org.
- General education requirements such as math, English, history and so on will usually transfer to a direct equivalent UC course.
- In most cases, a grade of C- or better is required for UC credit to be granted. (Exception: In compliance with Ohio Board of Regents requirements, for courses taken prior to fall 2005, students who have earned an associate of arts (AA) or an associate of science (AS) degree, with a cumulative GPA of 2.00 or higher, will receive credit for transfer courses with a D grade. For courses taken in fall 2005 or later, students will receive credit for all D grades earned.)
- Your GPA from other institutions does not transfer to UC. Your UC GPA is based only on course work completed at UC.
- If you have already earned a great many credits at another institution, you still have to meet UC's residency requirements, which usually means at least two years of course work. To receive a bachelor's degree from UC, around 65 credits must be earned here.
- UC operates on a quarter academic calendar. One semester credit equals 1.5 quarter credits. For example, 10 semester credits transfer as 15 quarter credits.

Responsibilities of Students

In order to transfer with maximum applicability of transfer credit, prospective transfer students must plan a course of study to meet the requirements (both academic and non-academic) of the institution they wish to transfer into. Planning for transfer should begin as early as possible. Delays in developing and following an appropriate plan or changing one's plan (e.g. changing majors) may reduce the applicability of transfer

credit to the degree program ultimately selected. To view the complete list of student responsibilities, visit the transfer Web pages at: www.admissions.uc.edu/transfer. An abbreviated list is provided below.

You can monitor the progress of your course review and print a copy of your Credit Evaluation Report (CER) by visiting the following Web site: www.admissions.uc.edu/cer.

The University of Cincinnati accepts credit for examinations such as Advanced Placement (AP), College-Level Examination Program (CLEP) and International Baccalaureate (IB) when minimum scores, established by UC, are earned for each exam.

The University of Cincinnati accepts military credit based on a course by course evaluation.

If you think your transfer credit evaluation is wrong, contact the Office of Admissions and explain your concern. Occasionally, courses may be evaluated incorrectly due to a lack of information about the course, or because the course content has changed. We may require a copy of the current course description and/or syllabus for re-evaluation.

The prospective transfer student should:

- Seek out program/degree and transfer information and an adviser
- Be aware that a change in major will most likely reduce the number of credits that can be applied to the new major
- Understand the policies and procedures of the transfer institution, including application fees, transfer admission, course transfer, financial aid, scholarship, housing and related deadlines.

Appeals Process

The appeals policy, in compliance with Ohio Board of Regents (OBR) Articulation & Transfer Policy, provides transfer students the ability to appeal, at multiple levels within the university, when disagreement occurs regarding the application of transfer credit toward degree requirements. To view the written policy and appeals form, visit the transfer Web pages at: www.admissions.uc.edu/transfer.

FRESH START POLICY

The purpose of the Fresh Start policy is to permit a student who performed poorly upon initial enrollment at UC to have an opportunity for a fresh cumulative grade point average.

This policy applies to UC undergraduate students who, after completing no more than four quarters, had a cumulative GPA of less than 2.0, and then were readmitted to the university

after an absence of at least three years. These students may petition the deans of their college to have their former courses treated in accordance with the college's advanced standing policy. Upon the approval of a Fresh Start, the student's cumulative grade point average is initiated from the date of reentry. The credit granted for prior work is subject to the age of credit limits and degree requirements established by the student's college at the time of readmission.

A request for a Fresh Start must be submitted within one year of readmission and applies only to courses taken at UC before readmission. Fresh Start will not be reviewed or approved prior to completion of one quarter. An academic Fresh Start is not automatic and it is not guaranteed. Academic units may impose additional criteria, such as requiring a plan of study. The Fresh Start option may be effected only once during a student's academic career.

NOTE: Approval of a Fresh Start will be recorded on the transcript. However, students should be aware that the previous academic record will appear on the transcript and that most graduate and professional schools, as well as potential employers, may average all academic records together.

Applications for a Fresh Start may be obtained from the office of the student's degree-granting unit and will be considered in accordance with procedures and any additional guidelines of that unit. Degree-granting units may not grant a Fresh Start to any student who fails to satisfy the above criteria. If a request for a Fresh Start is denied by the student's college, the student may file an appeal with the University Grading Appeals Panel through the Office of the Registrar. If a request for a Fresh Start is supported by the college but the student fails to meet one or more of the minimum criteria, the college may refer the application to the advisory committee.

UNIVERSITY HONORS SCHOLARS PROGRAM

Designed to emphasize experiential learning, the honors scholars program engages the top 10 percent of University of Cincinnati students in curricular and co-curricular opportunities within the program's four themes:

- leadership
- community engagement
- global studies
- research and creative arts

While following any academic program at the university, students can focus their honors course work and experiential learning projects in one theme or broadly explore all areas. Students can fulfill honors requirements through experiential learning programs with reflective components, such as:

- international study
- research
- creative/arts projects or performances
- internships, clinicals or cooperative education
- service learning or long-term community service
- leadership positions and programs

The first-year experience includes a leadership retreat (prior to the beginning of classes), English composition classes with an emphasis on civic engagement and Honors 101. In Honors 101, students create a personal development plan that will guide their academic and personal growth within the honors program and throughout their college career. Throughout the honors program, students document their learning experiences in an e-portfolio to be shared with peers, faculty, the campus community and potential employers.

All first-time freshmen admitted to a baccalaureate college at the university are automatically considered for admission to the honors scholars program; they do not need to submit a separate application. Current UC or transfer students who are interested in participating should complete the honors scholars application.

Students admitted to honors as freshmen typically have:

- a high school rank in the top 10 percent
- an unweighted high school GPA of 3.8
- an ACT score of 31 or higher
- an SAT score 1360 or higher (combined verbal and math)

When a student completes the requirements of the honors program, the designation *Honors Scholar* is placed on the student's final transcript and diploma.

For information: 513-556-6254; honors@uc.edu; www.uc.edu/honors.

FEES AND FINANCIAL ASSISTANCE

Fees

Fees are assessed on the basis of a student's college and program, the level of the classes (graduate or undergraduate), the student's residence classification and the number of enrolled credit hours. Students registering for fewer than 12 quarter credit hours (10 quarter credit hours for graduate students) will be assessed student fees on a credit-hour basis; those who enroll for 12 quarter credit hours or more (10 hours for graduate students) will be assessed full-time instructional fee. All students will be assessed the general fee, the information technology and instructional equipment (ITIE) fee, and the nonresident surcharge, as applicable. Full-time fees normally cover up to 18

credit hours per quarter, except where the college curriculum specifies an academic load in excess of 18 hours, exclusive of military or air science credit hours. Fees for hours over 18 will be assessed at the part-time credit-hour rate.

Fees are payable at the beginning of each academic quarter. They are published online at www.onestop.uc.edu and are also available from the Office of Admissions, One Stop Student Services and the individual college offices.

Financial Aid

Students who attend the University of Cincinnati are encouraged to apply for financial aid. The Student Financial Aid Office is committed to making education as affordable as possible. Every effort will be made to identify university, federal and state resources to assist both undergraduate and graduate students in fulfilling their educational goals.

The Free Application for Federal Student Aid (FAFSA), available from any high school or UC's One Stop Student Services, is used annually to apply for all work-study, loan and undergraduate grant programs. The Web-based FAFSA, as well as a status check once you apply, is available at www.financialaid.uc.edu. Complete the FAFSA as soon after January 1 as possible. Because some aid programs are awarded on a first-come, first-served basis, an early application receives priority consideration for limited funding sources.

Freshmen with exemplary high school academic records may be eligible to compete in the Cincinnati Scholarship Competition. Information about the competition is available from the Office of Admissions. Students (new, returning and graduate) should review the information in this Bulletin concerning college scholarship programs. Scholarships are also available from the State of Ohio, high schools, churches and civic groups.

Specific information about financial aid programs, a scholarship search and the aid process is available online at www.financialaid.uc.edu. If you need more information, contact:

Student Financial Aid Office
University of Cincinnati
PO Box 210125
Cincinnati, OH 45221-0125

Phone: 513-556-1000 (One Stop Student Services)
Fax: 513-556-9171
E-mail: financeaid@uc.edu
Web site: www.financialaid.uc.edu

ORIENTATION

All students enrolling for the first time are required to attend a New Student Orientation, which allows students to take required placement tests, receive academic advising and register for their first quarter classes. Orientation also provides important information about university resources and opportunities. New students are also required to attend New Student Convocation and College Day activities that are a part of a comprehensive Welcome Week, which begins the week before fall quarter. Details about these programs will be mailed at the appropriate time.

REGISTRATION

To attend classes and receive course credit, students must officially register for classes and must pay all associated tuition and fee charges. Students should register online through the One Stop Student Service Web site at www.onestop.uc.edu. Registration dates and tuition payment deadlines are listed on the Registrar's Office Web site at www.uc.edu/registrar.

Early Registration

Early registration by appointment for continuing students opens in April for the fall quarter, October for the winter quarter and February for the spring quarter. Generate a degree audit and contact your adviser *prior* to early registration.

Enter the One Stop Student Service Web site at www.onestop.uc.edu.

- To obtain your appointment time each quarter, click the designated link under "Announcements and Reminders" and follow the instructions.
- Click "review registration information" for important registration policies and procedures.
- Click "view class offerings" to open the online Schedule of Classes search application. Select the appropriate quarter, enter your preferred class criteria and click "Search." The online Schedule of Classes enables you to search by college and discipline, meeting days and times and by mode of instruction. Search results include class locations and class availability, and will provide links to online course descriptions.
- Once you have recorded a list of potential classes, return to the One Stop Student Service main page. Click "register for classes." Log in to the registration system. Enter your selections.

Open Web Registration

Following early registration, Web registration is open to all students through the One Stop Web site at www.onestop.uc.edu. Class requests are processed while the student is online, and schedules are available online immediately following Web transactions. Students can view their schedule and bill on the One Stop Web site at any time from 6 a.m. until midnight.

In-Person Registration

This is the walk-through phase of registration that begins concurrently with open registration. Registration after calendar day seven of the quarter is possible only with college and instructor permission. Late registration fees are assessed beginning with the first day of the quarter. New students and continuing students who need to register or adjust their schedules should obtain registration forms from their college offices, seek advising on class selection and present their class requests in person in one of the registration offices. The class requests are processed by registration staff members or university service associates, and students know immediately their schedules and fees. Students registering or adjusting their schedules (add/drops) during in-person registration may obtain a schedule/bill as they leave the registration offices.

GENERAL EDUCATION

Integrated Core Learning (ICL)

The phrase "Integrated Core Learning" describes the University of Cincinnati's signature approach to undergraduate education. ICL was developed as the thoughtful integration of all aspects of the undergraduate experience, including the General Education core, major course work, experiential learning, co-curricular activities, and faculty-guided reflection. ICL underscores the University of Cincinnati's strengths and places them within a holistic framework for student learning from the first undergraduate year through graduation. ICL envisions the purposeful weaving of high-impact practices and experiences with high-quality, rigorous instruction.

ICL is built around three touch-points in the undergraduate experience to provide all students with key opportunities to develop, review, and act upon a learning plan for degree completion. It begins with a significant first-year experience as its cornerstone and continues with opportunities for self-reflection and on-going support through mid-collegiate coursework and experiences. Culminating with a senior-year experience, ICL will provide students with the necessary tools to transition to a profession or graduate program and continue to assume ownership for life-long learning, civic engagement, and social responsibility.

ICL relies heavily on experiential education as a way of demonstrating the linkages between the curriculum and inquiry, practice, creativity and social responsibility. Broadly defined, this approach seeks theory-practice integration, contextual complexity, and community engagement to foster learning that is self-directed, integrative, and transformational. From professional development, field projects, and study abroad to service learning and student research, experiential learning permeates every program on campus.

UNDERGRADUATE GRADING SYSTEM

At the end of each academic quarter, the Office of the University Registrar posts an official grade report for each student to the One Stop Student Services Web site. UC uses the following grading system for undergraduate courses:

Grading and Point System

Grade	Description	Grade Points
A	Excellent	4.0000
A-		3.6667
B+		3.3333
B	Good	3.0000
B-		2.6667
C+		2.3333
C	Satisfactory	2.0000
C-		1.6667
D+		1.3333
D	Poor	1.0000
D-		0.6667
F	Fail	0.0000
P	Pass	N/A
U	Unsatisfactory	N/A
T	Audit	N/A
I	Incomplete ¹	0.0000*
I/F	Failure ²	0.0000
W	Withdrawal (Official)	N/A
WX	Withdrawal (Official) – no participation ³	N/A
UW	Unofficial Withdrawal	0.00
X	Unofficial Withdrawal – no participation ⁴	0.00
SP	In Progress – Satisfactory ⁵	N/A
UP	In Progress – Unsatisfactory ⁵	N/A
NP	Not Proficient ⁶	N/A
NG	No Grade Reported (see instructor)	N/A

¹ The I grade does not carry quality points (i.e., none) during the quarter immediately following the quarter in which the I was assigned. Thereafter, the I grade carries zero (0.0000) quality points and is calculated into the cumulative grade point average like the F grade.

²If the *I* grade remains on the student's record at the end of one (1) year following the end of the quarter, the *I* will change to *I/F* (Failure).

³The *WX* grade is displayed as a *W* grade on all grade reports and transcripts.

⁴Instructors will record an *X* for students who never attended classes and did not submit any assigned work. The *X* will appear on the transcript and will carry zero (0.00) quality points. It is calculated into the GPA like the *F* grade.

⁵Courses approved by college committees for extended grading periods are labeled *SP* or *UP*. If the *SP* or *UP* grade for a class remains on a student's record at the end of one year following the end of the quarter, that grade will change to *I/F* (Failure).

⁶The *NP* grade is used only for 103-level and below English courses that both require a level of proficiency to move through the sequence and are approved by the appropriate college committees.

Explanation of Grades

The *P* (Pass) grade is used to indicate passing work in classes graded under the pass/fail system, as well as for non-credit classes.

The *U* (Unsatisfactory) grade is used to indicate failure in noncredit courses. The *F* grade is the appropriate grade to indicate unsatisfactory work in classes graded under the pass/fail system.

The *I* grade is assigned when a class grade has not been finalized and the instructor has contracted with the student for later completion of class requirements. The *I* grade cannot be removed by repeating the class. The *I* grade will carry no quality points for one quarter after it is incurred. Following that period, the *I* grade will carry "0.0000" quality points. An *I* grade automatically will be changed to *I/F* on the permanent record after one year if no other change of grade is submitted.

The *SP* and *UP* grades are temporarily assigned only in courses approved by designated college committees for work to be completed later. These *SP* and *UP* grades automatically will be changed to *I/F* on the permanent record after one year if no other change of grade is submitted.

The *UW* and *X* grades denote unofficial withdrawals. The *UW* grade indicates that the student discontinued class attendance but neglected to withdraw officially from the class by means of either online withdrawal or submission of the paper withdrawal form. Either the faculty member or the Office of the University Registrar may assign this grade. The *X* grade indicates that the student never attended or participated in the class. Both grades carry "0.0000" quality points and are calculated into the grade point average like the *F* grade.

The *W* grade denotes an official withdrawal from the class. Students may "drop" one or more classes through the 15th calendar day of the quarter. Dropped classes are not recorded on the student's permanent academic record. Beginning with the

16th calendar day of the quarter, students can no longer "drop" a class but must officially *withdraw* from that class. Withdrawn classes are recorded on the student's permanent academic record with the *W* grade. Each instructor should include in the class syllabus the his or her policy for withdrawing from that class. A student seeking to withdraw from the class must follow the instructions included on the syllabus. Students may then withdraw from the class either through the registration system housed on the One Stop Student Services Web site at www.onestop.uc.edu/ or by obtaining the instructor's signature on a completed drop/add form and submitting that form to the One Stop Student Service Center (University Pavilion, 2nd floor). For all colleges, the last day to withdraw from a class is the 58th calendar day of the quarter. Students also have the option to request a complete withdrawal, which is a withdrawal from all classes for which the student is enrolled that quarter. A complete withdrawal must be initiated by the student in writing through the college office.

Note: Dropping or withdrawing from classes should not be done lightly. Financial aid funds are intended to assist students in completing course work. Federal aid recipients therefore are subject to refund and repayment obligations that may differ from university withdrawal policies. In addition, a student's receipt of aid is contingent upon proof that the student participated in course work. Upon the student's withdrawal from a class, the class instructor will submit participation information for review by the Office of Financial Aid. Failure to attend/participate in classes can limit the student's aid eligibility. For additional information, consult the Office of Financial Aid Web site at www.financialaid.uc.edu/aid_recalculation.html

The pass/fail option should be indicated at the time of registration. The student cannot change this option after the 7th calendar day of the quarter. If the student fails a pass/fail class, the *F* grade will be recorded, impacting the cumulative grade point average.

The *T* grade (audit) is assigned when a student has registered as an auditor rather than for credit. The faculty member and the student should agree on the conditions of the audit, as the *T* grade may not be awarded automatically.

Grades and transcripts will not be released to a student with a financial obligation to the university.

Computing a Grade Point Average

Each student's UC grade point average (GPA) is determined by dividing the total number of quality points earned by the total number of UC credit hours carried. Classes for which the grades of *W*, *P*, *T*, *SP*, *UP*, *NP*, and *NG* have been earned should be excluded from the calculations. Advanced standing credit is not included in the calculation of the UC cumulative quality point average.

Example: A student completes four courses during the quarter. Each course is allotted three credit hours. The student receives grades of A, B, and C. The student's GPA is calculated as follows:

Step 1. Substitute grades with their assigned values (quality points).

A=4 B=3 C=2

Step 2. Multiply the assigned value of each grade by the credit hours allotted each course, and total them.

$$A = 4 \times 3 = 12$$

$$B = 3 \times 3 = 9$$

$$C = 3 \times 3 = 9$$

$$C = 2 \times 3 = 6$$

$$\text{Total} = 36$$

Step 3. Divide the sum by the number of hours enrolled. $36 \div 12 = 3.0$ GPA

Deadline for Changing Grades

For the first year following the completion of a class, the class instructor alone has the responsibility to change grades reported for that class, even if that year extends beyond the student's certification for graduation. After one year, and for three additional years or until graduation (whichever comes first), the instructor may change undergraduates grades only with college approval. Any grade changes requested after this period requires the approval of a seven-member panel convened by the University Registrar.

Grade Replacement Policy

UC policy requires a student repeating a course to re-register for the course and pay tuition. Instructors may not allow a student to repeat a course without re-registering and later submitting a form to change a grade of I or other grade previously reported. Unless a student completes and submits a grade replacement application to the appropriate college office within the first 58 days of the quarter, the grades awarded for both the original class *and* the repeated class will be calculated into the UC cumulative grade point average.

Undergraduate students may re-enroll in up to five courses (no more than 15 total credit hours) for a recalculated GPA using the most recent registration. The original grade(s) will remain on the student's permanent record with a symbol indicating repeated enrollment.

STUDENT GRIEVANCE POLICY AND PROCEDURES

Philosophy

All members of the University community are expected to interact with civility and respect, recognizing at the same time the unique tradition of the University to provoke thought, stimulate discussion, and examine dissent. The University encourages the resolution of complaints in a fair and collegial manner. This document establishes a policy and process for undergraduate students to request review and resolution of certain complaints.

Complaints may be resolved informally between the individuals or with the aid of their department head, college office, or the University Ombuds. However, the student may proceed through the Formal Resolution stage.

Applicability

This document supersedes all former individual college grievance procedures. It is to be used by any UC student except those who are admitted to and enrolled in a graduate degree, MD, or JD program.

These procedures are applicable when:

1. a student believes that he/she has been subjected to an academic evaluation which is capricious or biased.
2. a student believes he/she has been subjected to other improper treatment.

Exceptions

Allegations described below will be handled as outlined.

1. Complaints alleging violation of privacy. Allegations of a violation of privacy as set forth under the Family Educational Rights and Privacy Act (FERPA) will be handled by the University Registrar in accordance with current practice.
2. Complaints regarding incompetency of instruction. Allegations of incompetent instruction will be handled according to the agreement between UC and the AAUP.
3. Complaints alleging discriminatory treatment. Allegations of discriminatory treatment based on age, race, sex, sex orientation, disability, national origin, or religion will be handled according to the UC Discrimination procedure administered by the Office of Equal Opportunity. If the complaint involves a faculty member, it will be handled according to the agreement between UC and the AAUP. Copies of the process for complaints alleging discriminatory treatment involving a faculty member may be obtained at the Ombuds Office, the Office of the Vice President for Student Affairs and Services, and the Office of Equal Opportunity.

General Guidelines

To use these procedures, a student may initiate an informal complaint in the University Ombuds Office (607 Swift Hall) or the College Office in which the course is offered no later than the end of the quarter following the quarter in which the activity that gave rise to the complaint occurred. A student registered for cooperative education through the Division of Professional Practice will receive an extension of one quarter upon his/her request. All complaints shall be heard without unnecessary delay.

Complaints regarding a course will be in the jurisdiction of the college offering the course. If the course is offered in a different college than the student's home college or school, the complainant's college representative will sit as an ad hoc member of the College Grievance Review Committee (CGRC) (see Step 3).

Two or more students with the same complaint may join in a group action. A single statement of complaint shall be submitted and processed in the manner described herein for individuals, but all those joining in such a group action must sign the statement. The University Ombuds shall determine whether, in fact, all of the students have the same complaint. If it is found that they do not, they will be divided into two or more subgroups. One individual may represent the entire group but all complainants may be required to meet with the University Ombuds or the CGRC.

Procedures

Step 1 – Informal Resolution. The parties involved must first attempt to resolve the complaint informally.

- A. First the student must talk with the faculty member about his/her complaint. A faculty member must be willing to meet with a student for discussion.
- B. If the complaint is not resolved, the student must talk with the faculty member's department or unit head or a college representative designated by the Dean, who will attempt to resolve the complaint.
- C. If the complaint is not satisfactorily resolved through A and/or B, a student may proceed to Step 2, Mediation, or Step 3, Formal Resolution, no later than the end of the following quarter.

Step 2 – Mediation. Mediation shall be requested of and conducted by the Office of the University Ombuds. The University Ombuds (UO) shall consult with the College and shall meet with the individuals separately and/or together to attempt to reach a solution (written) which is agreeable to and signed by all parties to the dispute. All individuals directly involved shall receive a copy of the signed resolution. No written records, other than the final resolution, shall be retained by the UO. Original documents shall be returned to their source or to another site as agreed in the signed resolution. All other notes shall be destroyed. If the complaint is not resolved through mediation, the UO shall immediately notify the Chair of the CGRC in the college in which the dispute originated and inform all affected parties in writing.

Step 3 – Formal Resolution. Following the receipt of the notification that the complaint was not resolved informally through Mediation (Step 2), the student(s) may file a grievance with the Chair of the CGRC. The Chair, who is appointed by the College Dean, shall schedule a grievance review meeting. The CGRC shall be composed of two faculty selected from a pool of four elected from the faculty of the college, two students from a pool of four selected by the College Tribunal or student government, and the Chair.

Any party to the complaint may challenge the participation of any committee member on the grounds of conflict of interest. Challenges must be submitted in writing to the Chair of CGRC within two (2) days after the parties have been notified of the CGRC composition. If the Chair is challenged, the appointing Dean shall determine the validity of the challenge and either replace or retain the Chair. The challenge must specify reasons that would prevent the individual from being unbiased with respect to the grievance. Any faculty member directly involved in the grievance shall not participate as a member of a CGRC.

A student may withdraw a grievance from further consideration at any time by submitting a written statement to the Chair of the CGRC. No reason needs to be given for withdrawal of the grievance. The Chair of the CGRC will notify all individuals involved in writing that the grievance has been withdrawn and that the grievance process is terminated.

Committee Procedures

1. The CGRC shall hold a grievance review meeting at which all parties shall have the opportunity to present to the CGRC any written and/or oral information relevant to the complaint.
2. The CGRC may also request information (within FERPA regulations) from other sources.
3. Copies of written material provided to the Committee shall be made available, upon written request, to persons directly involved in the formal resolution of the grievance.
4. Signed written statements may, when necessary, be submitted by individuals and witnesses if unable to attend.
5. The student and faculty member may elect to have an advisor present who may counsel but not actively participate as a spokesperson or vocal advocate.
6. Either party may request testimony from witnesses. However, the physical presence of witnesses shall be restricted to those invited by the Committee (except as noted above in #5).
7. If the student or faculty member chooses not to attend the meeting, his/her written statements shall be reviewed in their absence.
8. The meetings shall be tape recorded and the tape shall be maintained in accordance with University records policy.

Following the grievance review meeting, the CGRC shall issue a report to the College Dean. The CGRC's report shall contain:

1. relevant information including, but not limited to, documentation of written and oral information presented to the CGRC;
2. relevant University rules and policies;
3. decisions and the reasons therefore.

The College Dean shall notify both parties in writing of the CGRC's decision. Either party may appeal the decision of the CGRC in writing to the College Dean within ten (10) days following notification. Grounds for appeal shall be limited to procedural error or new information not available at the time of the hearing. The College Dean shall have the authority to accept and implement or modify the decisions of the CGRC. If the grievance alleges capricious or biased academic evaluation and the CGRC finds in favor of the grievant, the College Dean may exercise his/her authority to alter the grade. Decisions of the College Dean shall be final.

[Written June 1, 1992]

Please note: There are separate University Grievance Procedures for graduate students and employees. Graduate Student Grievance Procedures are available from the Graduate School. Employee Grievance Procedures are available in union contracts or in the Human Resources Policies & Procedures Manual.

THE UNIVERSITY'S LIBRARIES

University of Cincinnati libraries are nationally ranked, offering access to an outstanding research library collection of over 3.4 million volumes, more than 69,000 serial subscriptions and a wide range of services to help students with their research needs. Libraries at UC include the Walter C. Langsam Library, the archives and rare books library, nine college and departmental libraries, the law library and libraries at Clermont College and Raymond Walters College. The libraries' Web site, at www.libraries.uc.edu, provides access to the university's own resources and serves as a local gateway to OhioLINK, a statewide library consortium that includes a central library catalog of over 46 million items from 90 other library collections across Ohio, as well as thousands of journals, almost 100 databases, and numerous digitized books, images and newspapers.

GRADUATION WITH HONORS

Students who are candidates for a degree and who have met the college's residency requirement may be recognized by award of the following honors based on their university Grade Point Average (GPA).

<i>Cum Laude</i>	3.6000–3.7499
<i>Magna Cum Laude</i>	3.7500–3.8999
<i>Summa Cum Laude</i>	3.9000–4.0000

The university Grade Point Average (GPA) is based on all undergraduate course work taken at the University of Cincinnati. To be eligible for university honors, students must meet all residency requirements for their respective colleges.

STUDENT AFFAIRS

The Division of Student Affairs provides programs and services which complement and support the learning environment of the university and enhance the quality of student life. It traditionally provides campus-wide information and referral for students, faculty and staff.

Details regarding admissions, registration and student financial aid are located separately in this *Bulletin*.

African American Cultural and Research Center

The African American Cultural and Research Center enhances the entire university community by serving as a resource for individuals to become more enlightened about the African American experience. The center also aids in the retention of the African American student population by specifically addressing their academic, social, spiritual and cultural needs.

Career Development Center

The Career Development Center offers career guidance, internship and job search assistance, and referral services to students and alumni. Career fairs, professional development classes, on-campus recruiting and interviewing workshops are among the services offered quarterly. Additionally, the career navigator program specifically assists undecided students with career exploration and special topics in career decision-making classes.

Counseling Center

The Counseling Center offers individual, group and couple's counseling for UC students. We are available Mondays through Fridays 8 a.m. to 5 p.m. for urgent care on a walk-in basis (no appointment necessary). We also provide consultations for faculty, staff, family and friends concerned about a student. Our workshops and other outreach programs are available upon request and include such topics as balancing multiple demands, building and maintaining satisfying relationships, and communication skills. A limited number of assessments for learning disabilities and attention deficit hyperactivity disorder is available only by referral from UC's Disability Services Office. Urgent care, groups, consultation, and outreach are free; for

other counseling we accept Student Health Insurance and some other insurances, and we use a sliding fee scale. Contact us at 513-556-0648.

Disability Services

Students with disabilities who need academic accommodations or other specialized services while attending the university should contact the Disability Services Office, located in Suite 210, University Pavilion. Qualified students will receive reasonable accommodations to meet their individual needs as well as advocacy assistance on disability-related issues. The University of Cincinnati is strongly committed to maintaining an environment that guarantees students with disabilities full access to its educational programs, activities and facilities. In order to ensure timely implementation of academic accommodations, requests for accommodations or services should be made at least eight weeks in advance of the beginning of each quarter or as soon as possible after a disability has been confirmed. Requests for interpreters or real-time captioning for special programs or events should be made at least two weeks prior to the event. Contact the Disability Services Office at 513-556-6823 or (TTY) 513-556-3277.

Ethnic Programs and Services

Ethnic Programs and Services offers cultural and educational programs specifically for and about students of color, as well as financial assistance through the prestigious Darwin T. Turner scholarship program, short-term counseling and academic advising.

Judicial Affairs

The mission of the Office of University Judicial Affairs is to support the mission of the University of Cincinnati, through the implementation of the Student Code of Conduct (the university code of behavior), educational programs/sanctions, intervention programs and a due process judicial system. The Office of University Judicial Affairs is committed to promoting a safe, orderly, civil and just community by utilizing the Student Code of Conduct to hold students accountable for decisions and behavior that impact the university community.

The Office of University Judicial Affairs:

- Adjudicates all alleged violations of the University of Cincinnati Student Code of Conduct
- Promotes students' rights, responsibility and a just community
- Promotes responsibility and ethical behavior by the university community
- Protects the opportunity for students to attain their education
- Protects the physical and mental health, safety and welfare of the university community members
- Protects individual property rights

Contact the Office of University Judicial Affairs at Suite 745 Steger SLC, PO Box 210193, Cincinnati, Ohio, 45221-0193, or 513-556-6814, fax 513-556-1458, e-mail daniel.cummins@uc.edu, Web site: www.uc.edu/studentlife/conduct

McNair Scholars Program

The McNair scholars program provides assistance to disadvantaged or underrepresented students preparing for doctoral studies through a variety of student support, scholarly and research activities.

New Student Orientation Office

The New Student Orientation Office coordinates all orientation and placement testing for incoming first-year and transfer students as they transition into UC.

One Stop Student Services Center

Cross-trained staff in the One Stop Student Services Center provide in-person, Web and phone service for issues related to registration, financial aid and billing.

Pre-Professional Advising Center

The Pre-Professional Advising Center helps students prepare for admission to medical school, law school and other professional schools.

Resident Education and Development

Resident Education and Development (RED) is responsible for the staffing, programming and quality of life in the seven undergraduate residence halls – Calhoun, Campus Recreation Center, Dabney, Daniels, Schneider, Siddall, and Turner. RED staff members include the desk operations staff for service and security features, a resident advisor (RA) for each floor community, an assistant residence coordinators (ARC) for each hall or unit, a public inquiries assistant (PIA), who is a full-time receptionist in each hall or complex, as well as staff members in the central RED administrative office. RED works collaboratively with Housing and Food Services and Physical Facilities to manage and maintain residence hall operations. RED staff advise student organizations in the halls, provide leadership development training, mediate conflicts, support university policies, and assist students and parents in identifying and using other university resources. RED provides activities to complement the in-class experience and enhance student learning, to foster students' adjustment to university life, to encourage a sense of community and connection to campus, and to promote students' growth and independence. For assistance, contact the front desk of any residence hall, or the central RED office in 422 Dabney Hall, 513-556-6476.

Calhoun Hall 556-8596	CRC Hall 558-3031/556-6484
Dabney Hall 556-6484	Daniels Hall 556-0676
Sawyer Hall 556-2022	Schneider Hall 556-3925
Siddall Hall 556-8281	Turner Hall 556-3925

Student Activities and Leadership Development Office

An important resource for UC students who want to be involved, the Student Activities and Leadership Development Office provides leadership and direction for the more than 300 student organizations, as well as a full range of activities and cultural programs for students. Located in the Steger Student Life Center on the 400 and 600 levels, the office provides programs with an educational component, specifically leadership development and citizenship. For more information, call 513-556-6115.

Student Health Insurance

The University of Cincinnati offers an excellent, low-cost, health insurance plan to all eligible students and their eligible dependents. The coverage insures UC students and their insured dependents at home, at school, and while traveling, 24 hours a day, anywhere in the world.

UC policy requires all students who register for six or more credit hours (including co-op students) have health insurance. International students holding *F* and *J* visas are required to have health insurance if they are registered for one or more credit hours.

These students are billed automatically for single student coverage. Students with private insurance wishing to be excluded from UC's student health insurance plan must complete an online insurance waiver form no later than the third Friday of the term or semester. The insurance must be equal to or greater than that offered by the university and must have a U.S.-based claims administrator and a U.S.-based underwriter. Students may also waive coverage through the One Stop Student Services Web site.

Graduate students enrolled in less than six credit hours may purchase coverage and should contact the Student Health Insurance Office for more information regarding the necessary forms and requirements, and due dates.

All insurance transactions, enrollments and waivers, must be received by the Student Health Insurance Office by the close of business on the third Friday of the term or semester. For information regarding benefits, enrollment or waivers, please see the student health insurance newsletter, available at the Onestop Student Services Center, college offices, or call the Student Health Insurance Office at 513-556-6868, Room 112, Varsity Village.

University Health Services

University Health Services clinics, located on the 300 level of Varsity Village and the first floor of the Holmes Building, provide primary care and gynecology and mental health services to all University of Cincinnati students. The clinics are staffed by physicians with specialty boards in internal medicine, family medicine, preventive medicine and occupational medicine; a nurse practitioner; registered nurses; nursing assistants; laboratory and radiology technologists; and pharmacists. Students are seen by appointment for primary care and gynecological services. Students are referred to specialty clinics at UHS or the Health Alliance for dermatology, mental health and other specialty appointments. The UHS pharmacy in Varsity Village on the 300 level offers reduced prices on the pharmaceuticals in its formulary.

Students with UC Student Health Insurance are not charged for their UHS primary care clinic visits: they are charged for vaccines, vaccine titers, orthotics, prescriptions and mental health care. Students with other health insurance may be seen at UHS, but they will be charged for their care.

UC Wellness Center

The UC Wellness Center provides resources and opportunities, disseminates information and educates the university community about health and wellness in order to create an environment that promotes, encourages and supports health decisions, behaviors and lifestyles. The Wellness Center provides workshops, programs and individual sessions free to the entire UC community on a variety of health and wellness issues. The center is located at 675 Steger Student Life Center, and can be reached at 513-556-6124.

UC Women's Center

The UC Women's Center (UCWC), located in 571 Steger Student Life Center (513-556-4401), is dedicated to meeting the diverse needs and interests of women and lesbian/gay, bisexual, transgender and questioning (LGBTQ) students at the University of Cincinnati. The center offers a wide range of programs and opportunities, including:

- Safe Zone – faculty, staff and student leader training on LGBTQ issues
- Women's History Month (March)
- Sexual Awareness Month (April)
- Body Acceptance Week (April)
- Visibility Week (April)
- The C-Ring Award – the highest distinction award for a graduating senior woman
- Student Choice, Woman of the Year Award – awarded to an outstanding female faculty or staff member exemplifying qualities of leadership

The center also offers a peer education and peer advocate program and a library of more than 600 books, videos and publications.

In addition, the UC Women's Center supports a sexual assault response program with trained professionals available to provide 24-hour on-call support, advocacy and referral to survivors of acquaintance and stranger assault, stalking and harassment. The 24-hour crisis line (513-218-9531) provides emergency support and referral to *any* UC student, faculty, staff member or visitor.

JUST COMMUNITY

The University of Cincinnati is a public comprehensive system of learning and research that serves a diverse student body with a broad range of interests and goals. The faculty of the university produces world-renowned scholarship and nurtures innovation in and out of the classroom. Faculty, staff and administration also support an educational setting of excellence, opportunity and service. In embracing our roles within this learning community, we subscribe to the defining purposes, traditions and diversity of the University of Cincinnati. Through our actions, we will strive to make the University of Cincinnati a more caring and just community.

As members of this community we will:

- **Pursue learning and scholarship** by building on successes, learning from mistakes, and pursuing quality in teaching, research and creative endeavors
- **Strive for excellence** by aspiring to achieve our fullest potential in our educational and personal pursuits
- **Celebrate the uniqueness of each individual** by respecting individual differences and promoting common interests
- **Practice civility** by extending to those we meet the same respect, cooperation and caring that we expect from others
- **Embrace freedom and openness** by working to create an environment that is safe and affirming, one that nurtures independent thinking and the free and open expression of ideas
- **Seek integrity** by aspiring to the highest moral and ethical standards
- **Promote justice** by working to build a learning environment that offers everyone an equal opportunity to grow, flourish and contribute
- **Accept responsibility** by striving to build a learning community committed to these common values and principles

UC INTERNATIONAL SERVICES

UC International Services Office is responsible for all international students, faculty and visiting scholars and researchers at the University of Cincinnati. The office is in charge of issuing the Certificate of Eligibility (1-20A-B for F-1 status, or DS 2019 for J-1 status) only to applicants who have submitted all the necessary documents and have been admitted to the university. These services meet the requirements of the Department of Homeland Security, the Department of State and the governments of the countries whose students and faculty come to the University of Cincinnati for study, training and research. The university is authorized under federal law to enroll non-immigrant alien students and scholars as well as visiting faculty through the services of this office.

The staff of UC International Services is available to assist all internationals with their general welfare and guide them in their relations within the university community so that they can pursue their academic goals most successfully. The office provides advising on financial needs, cultural adjustment and personal concerns, as well as information regarding immigration and visa regulations. All international students are required to purchase the University of Cincinnati student health insurance plan unless they have insurance equal to, or greater than, the UC plan. The insurance must be provided by an American insurance carrier. For more information regarding the insurance requirement, see the Student Health Services section of this *Bulletin*. For more information about the university, address correspondence to UC International Services, University of Cincinnati, PO Box 210640, Cincinnati OH 45221-0640, or call 513-556-4278, fax 513-556-2990 or Web site: www.uc.edu/international/services.

RESERVE OFFICERS TRAINING CORPS

Air Force

The Air Force ROTC program prepares you for life after college and duty as an Air Force officer. AFROTC teaches students the basics of leadership as well as teamwork and offers them many outstanding opportunities for personal growth and development. In short, it helps prepare students for life in the "real world." Students with at least two years of college remaining may enroll in the ROTC program. To initially enroll, register for one of the Aerospace Studies courses and the Leadership Laboratory. Course information can be found online on the One Stop Web site (www.onestop.uc.edu/learningopp/qtr.asp) in the McMicken College of Arts and Sciences section, under the disciplinary heading "Aerospace Studies" and "Air Force ROTC."

The introductory classes of the General Military Course (GMC) are offered during the first two years of college. Freshmen and sophomores are not obligated to the military in any way unless they are on scholarship.

Scholarships for undergraduate and limited graduate studies are available on a competitive basis. They range from as low as \$3,000 annually to full tuition, books and associated fees.

Students make the decision to pursue the Professional Officer Course (POC) during their second year. If they choose to continue in the POC they attend summer field training encampment after their second year. Students who complete all the GMC courses have a four-week training encampment; those who start their ROTC program with POC, or who do not complete all the GMC courses, attend a slightly longer session.

All cadets on scholarship, and all in the POC, receive a monthly stipend ranging from \$300–\$500 depending upon year in school. There are no additional costs associated with ROTC classes. Textbooks and uniforms are provided.

In the POC, students concentrate on leadership, management and the United States' defense policy. In addition, they have various positions of responsibility within the corps, enabling them to test and practice the leadership skills they have learned.

Upon graduation, cadets go on active duty as second lieutenants. They will serve four years, gaining invaluable experience along the way. Those in flying careers will have a longer commitment.

There are numerous opportunities available to all types of students in Air Force ROTC, including five-year co-op students. To learn more, call 513-556-2237.

Army

Army ROTC provides great opportunities for leadership education, and military and adventure training, along with numerous possibilities for scholarships and financial incentives. High school seniors through graduate students are eligible to participate in the Army ROTC program and receive scholarships and financial benefits. The scholarships and financial incentives are worth in excess of \$100,000 at the University of Cincinnati. Each scholarship covers tuition, fees, books and stipends ranging from \$300 to \$500 monthly. Additionally, scholarship winners also receive free room and board their freshman year. Special scholarships are available for nurses, Army Reserve and National Guard soldiers, current active duty soldiers, and any individual with a solid background in academics and physical fitness.

Any student in any major is welcome to participate in the Army ROTC program without any military obligation. Those that decide to officially join ROTC can choose to fulfill their military obligation either full time in the active Army or part time in the Reserve components. The Reserve components in conjunction with Army ROTC offer a dual membership program that allows cadets to gain valuable military experience along with substantial financial incentives worth up to approximately \$3,000 monthly.

Enrollment in Army ROTC is no different than enrollment in any UC class. All Army ROTC courses are listed online under the disciplinary heading "Army ROTC" in the McMicken College of Arts and Sciences section (www.onestop.uc.edu/learningopp/qtr.asp). Additional paid educational and training opportunities are available in the summer through the Army ROTC program. Students who are military veterans or members of the Reserve components automatically qualify for advanced standing in the ROTC program.

Changes in Army policies and training philosophy have resulted in a dynamic Army ROTC program that provides young leaders with the skills to serve in the Army or private industry in the 21st century. Students are encouraged to try out the program and gain valuable life skills. Army ROTC can be contacted at 513-556-3664 or on the Web at www.uc.edu/armyrotc.

Note: The ROTC programs at the University of Cincinnati may not fully comply with university nondiscrimination policies due to the selective process of military service. However, the ROTC programs are in compliance with national nondiscrimination policies and the guidance and policies of the respective military services and Department of Defense.

VA EDUCATIONAL BENEFITS

Veterans, Reserve/Guard Members and Dependents of Veterans

The University of Cincinnati is approved for the education and training of veterans, reservists/guard members and dependents of veterans under several assistance laws. The VA will pay a monthly stipend to eligible applicants based on the number of applicable credit hours of enrollment in an approved program. Since these monthly checks are paid to the student after the month has ended, students need to make their own arrangements to cover tuition, books and fees. Disabled veterans authorized by VA for Vocational Rehabilitation (Chapter #31) benefits are the only ones the DVA (Department of Veteran Affairs) will fully cover for educational charges. Receipt of VA Educational Benefits does not necessarily exclude students from receipt of other forms of financial aid, so students are encouraged to apply for those monies.

In order for eligible students to be certified for VA "Chapter" Educational Benefits at UC they must apply for official admission to a UC college and matriculate in an approved degree major within that college. They can only receive these VA benefits for classes that are required for their current official degree program. Students certified for these benefits are responsible for promptly notifying the appropriate university offices of all changes in their status, in compliance with DVA regulations and university policy. They are required to make satisfactory progress, as defined by DVA and their college, toward their degrees in order to continue receiving VA educational benefits. Applicants for VA "Chapter" benefits will have pertinent regulations and policies explained to them at an information session, as part of the initial process, before being certified for VA "Chapter" educational benefits at UC.

For more information concerning eligibility, contact the DVA 1-888-442-4551 with your social security number (or, in the case of dependents, the veteran's social security number). Students eligible for VA "Chapter" educational benefits who have applied to UC for admission should contact the UC Veterans Certification Office 513-556-6811 as early as two to three months before classes begin in order to start the benefit process. Students who have applied online with the VA will also need to complete a university application for benefits.

Dependents of a Deceased Veteran

Dependents of a veteran with a service-connected death prior to 8/13/81 may be eligible for additional VA benefits under the Restored Entitlement Program for Survivors (REPS). The surviving spouse must not be remarried and may apply when their youngest child reaches age 16 and ends when the child reaches age 18. A dependent child may be eligible between the ages 18 and 22 if attending a postsecondary school full time. Obtain an application and more information on the VA Web site: www.gibill.va.gov (form #21-8924), or by phoning the VA at 314-552-9803.

War Orphans

Dependents of disabled veterans may be eligible for a scholarship from the Ohio Board of Regents, located in Columbus, Ohio. For more information and an application, call 888-833-1133.

Standards of Progress for VA Pay Purposes

If a student accumulates more than 15 credit hours of *F*, *Y*, *I*, *X* and *UW* grades (including *IP*, *SP* and *UP* grades at the undergraduate level) on their UC transcript, VA benefits will be interrupted due to "unsatisfactory progress" status. Any student suspended or dismissed from the University of Cincinnati for unsatisfactory conduct or academic reasons will have their VA educational benefits interrupted. If the "unsatisfactory progress"

status or suspension/dismissal occurred at UC prior to receipt of VA benefits or, if the student was reported in "unsatisfactory progress" status to VA by their previous school, additional items are required before the application for VA benefits at UC may be processed.

NONDISCRIMINATION POLICY

The University of Cincinnati actively supports University Rule 3361:10-13. Discrimination on the basis of race, color, religion, national origin, sex, age, sexual orientation, disability, status as a disabled veteran or veteran of the Vietnam era shall not be practiced in any of its programs or activities. Furthermore, where past or present discrimination continues to have an adverse impact upon protected class members such as minority groups, women, disabled, Vietnam-era veterans or disabled veterans, the university will take affirmative action in carrying out its policy of nondiscrimination and equal opportunity for all. Questions concerning this policy should be addressed to the Director, Office of Equal Opportunity, Suite 250, University Hall, University of Cincinnati, PO Box 210214, Cincinnati, OH 45221-0214, 513-556-5503.