# **Nutrition**

# In the College of Health and Human Services

# **OFFICE: Exercise and Nutritional Sciences 351** TELEPHONE: 619-594-5541

http://ens.sdsu.edu

Didactic Program in Dietetics is accredited by the Commission on Accreditation for Dietetics Education - American Dietetic Association.

Emeritus: Boggs, Cooke, Dickerson, Josephson, Spindler

Director: Kolkhorst

Professor: Kern

Associate Professors: Beshgetoor, Hong Assistant Professor: Hooshmand-Yazdi

Lecturers: Lane, Rupp

#### Offered by the School of Exercise and **Nutritional Sciences**

Master of Science degree in nutritional sciences.

Master of Science degree in nutritional science and Master of Science degree in exercise physiology (concurrent program).

Major in foods and nutrition with the B.S. degree in applied arts and sciences.

# The Major

The major in foods and nutrition offers a comprehensive multidisciplinary study of the nature and quality of the food supply and the nutritional requirements for health in people. Students take core sequences of coursework in the areas of nutrition, food science, and food management founded on prerequisite courses in chemistry, biology, biochemistry, physiology, accounting, management, and the behavioral and social sciences. Course emphasis in the major is placed upon the composition, properties, quality, and safety of foods and food ingredients; the relationships of metabolism and utilization of nutrients in food by the human body to health and disease states; influences of exercise and fitness; the physiological basis for diet therapy; nutrition problems in the community; and organization,

management and operation of food service facilities.

This major is planned for students interested in qualifying professionally for diverse careers in the fields of dietetics, food service professionally for diverse careers in the fields of dietetics, food service management, and food industries. The accredited didactic program in foods and nutrition allows students eligibility for membership in the American Dietetic Association (ADA) and for post-baccalaureate dietetic internships or preprofessional practice programs. Students must be admitted to and complete satisfactorily a post-baccalaureate program and pass the ADA Registration Examination prior to qualifying for registration as dietitians.

Professional careers in dietetics include administrative

Professional careers in dietetics include administrative, therapeutic, teaching, research, and public service positions in hospitals, schools, clinics, and other public and private organizations and institutions. Graduates may also qualify as food science technical specialists within food companies, governmental agencies, and laboratories; as food service managers; and as specialists in advertising, sales, or marketing of foods and nutritional products and

# Impacted Program

The foods and nutrition major is an impacted program. To be admitted to the foods and nutrition major, students must meet the following criteria:

- a. Complete the following courses (or their equivalents): Nutrition 201, 203, 205; Biology 100, 100L, 211, 211L, 212; Chemistry 100, 130, 160; Economics 201 (or Statistics 250); Exercise and Nutritional Sciences 200; Psychology 101; Sociology 101. A grade of C or higher must be earned in Chemistry 100 and 130. These courses cannot be taken for credit/no credit (Cr/NC);
- b. Have a cumulative GPA of 2.70 or higher.

To complete the major, students must fulfill the degree requirements for the major described in the catalog in effect at the time they are accepted into the premajor at SDSU (assuming continuous enrollment).

# Major Academic Plans (MAPs)

Visit <a href="http://www.sdsu.edu/mymap">http://www.sdsu.edu/mymap</a> for the recommended courses needed to fulfill your major requirements. The MAPs Web site was created to help students navigate the course requirements for their majors and to identify which General Education course will also fulfill a major preparation course requirement.

# Foods and Nutrition Major

With the B.S. Degree in Applied Arts and Sciences (Major Code: 13061) (SIMS Code: 552931)

All candidates for a degree in applied arts and sciences must complete the graduation requirements listed in the section of this catalog on "Graduation Requirements."

A minor is not required with this major.

**Preparation for the Major.** Nutrition 201, 203, 205; Biology 100, 100L, 211, 211L, 212; Chemistry 100, 130, 160; Economics 201 (or Statistics 250); Exercise and Nutritional Sciences 200; Psychology 101; Sociology 101. (43 units)

These prerequisite courses may not be taken Cr/NC. A grade of C or higher must be earned in Chemistry 100 and 130.

Graduation Writing Assessment Requirement. Passing the Writing Placement Assessment with a score of 10 or completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better. See "Graduation Requirements" section for a complete listing of requirements.

International Experience. Foods and nutrition majors are required to participate in an international experience to increase awareness of cross-cultural issues, global health, economic, political, cultural, social services, and health challenges experienced by local populations in international environments. Students participate in residence for two or more weeks (exceptions must be approved by the dean of the college for students who, because of serious and compelling life events or physical limitations, cannot meet this requirement). Specific details can be found on the college Web site at http://www.chhs.sdsu.edu/international.

Major. A minimum of 40 upper division units to include Nutrition 301, 302, 302L, 303, 304, 404, 405, 406, 408; Biology 336; Exercise and Nutritional Sciences 304, 434; and seven units selected with the approval of the adviser from Nutrition 309, 312, 407, 409, 499, 510; Biology 315, 326; Communication 307\*, 371; Counseling and School Psychology 310\*, 320, 400; Management 350\*, 352\*; Nursing 350; Psychology 319\*; Public Health 301\*, 302\*, 303\*, 305\*, 362. Biology 336 will also satisfy three units of the General Education requirement in Explorations of Human Experience IV.A. Natural Sciences.

<sup>\*</sup> Additional prerequisites required.

# Courses (NUTR)

Refer to Courses and Curricula and University Policies sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

#### **LOWER DIVISION COURSES**

#### NUTR 101. Professional Issues: Foods and Nutrition (1)

Prerequisite: Rhetoric and Writing Studies 100

Philosophical basis of foods and nutrition and relations of its specialties to the field as a whole.

#### **NUTR 201. Fundamentals of Nutrition (3)**

Prerequisites: Biology 100; Chemistry 100 or 200. Proof of completion of prerequisites required: Copy of transcript.

Role of nutrition in health promotion and disease prevention. Current concepts, controversies, and dietary recommendations from a scientific perspective.

#### NUTR 203. Cultural Aspects of Food and Nutrition (2)

Prerequisite: Completion of a General Education course in 1) Oral Communication, 2) Composition, or 3) Intermediate Composition and Critical Thinking

Food habits and health beliefs about foods and nutrition. Regional and ethnic influences.

#### NUTR 205. Introduction to Science of Food (4)

Two lectures and six hours of laboratory.

Prerequisites: Exercise and Nutritional Sciences 200; grade of C or better in Chemistry 100 and 130 (or concurrent registration in Chemistry 232). **Proof of completion of prerequisites required:** Copy of transcript.

Composition, preparation, preservation, sensory and consumer evaluation of foods.

#### NUTR 296. Experimental Topics (1-4)

Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

# **UPPER DIVISION COURSES** (Intended for Undergraduates)

#### NUTR 301. Advanced Science of Food (3)

Prerequisites: Nutrition 205 and Biology 211, 211L. Proof of completion of prerequisites required: Copy of transcript.

Physical, chemical, nutritional, and functional properties and quality attributes of foods and food additives; food handling, changes and interactions of food components induced by processing and storage; food laws, regulations, legislation, and food safety issues.

## **NUTR 302. Advanced Nutrition (3)**

Prerequisites: Nutrition 201, Biology 336, and one course in biochemistry. Concurrent registration in Nutrition 302L. Proof of completion of prerequisites required: Copy of transcript.

Integration of cellular, physiological, and biochemical relationships with human nutrient requirements.

# **NUTR 302L. Advanced Nutrition Laboratory (2)**

Six hours of laboratory.

Prerequisites: Nutrition 201, Biology 336, and one course in biochemistry. Concurrent registration in Nutrition 302. **Proof of** completion of prerequisites required: Copy of transcript.

Application and evaluation of techniques used to assess nutritional status, including basic methods, experimental animal and human studies.

# **NUTR 303. Quantity Food Production (2)**

Prerequisite: Nutrition 205 or Management Information Systems 302.

Quantity food production service delivery systems. Skills for food safety, recipe standardization, menu planning, purchasing, production operations, and quality standards. Intended for majors in foods and nutrition and hospitality and tourism management.

# **NUTR 303L. Quantity Food Production (1)**

Three hours of laboratory.
Prerequisites: Nutrition 205 or Management Information Systems 302. Concurrent registration in Nutrition 303.

Practical applications of quantity food production systems and methods with emphasis on food safety (HACCP), menu planning, purchasing, facilities and equipment, and food quality. Intended for majors in foods and nutrition and hospitality and tourism management.

#### NUTR 304. Nutrition Throughout the Life Span (3)

Prerequisite: Nutrition 201

Factors affecting nutrient needs and ways to meet nutrient requirements across the life span. Not open to students with credit in Nutrition 208.

#### NUTR 309. Eating Disorders and Weight Control (2)

Prerequisites: Nutrition 201 and Psychology 101

Obesity and other eating disorders. Review of etiology, incidence, socioeconomic influences, pathogenesis and treatments. Treatment techniques practiced include modification of diet, activity and behavior. Of interest to those wishing to do weight control counseling.

#### **NUTR 312. Nutrition for Athletes (3)**

Prerequisite: Nutrition 201.

Influence of exercise on nutritional status and dietary requirements. Current theories and practices related to nutrition and athletic performance

#### NUTR 313. Contemporary Nutrition (3) [GE]

Prerequisite: Completion of the General Education requirement in Foundations of Learning II.A., Natural Sciences and Quantitative Reasoning.

Food and nutrient classifications, functions, requirements, and recommendations. Relationship of nutrition to health, fitness, performance, and disease. Menus and recipes, food packaging labels, nutrition literature.

# NUTR 398. Supervised Field Experience (1-3)

Three hours per week for 15 weeks per unit of course credit.

Prerequisites: Upper division standing; limited to foods and nutrition majors.

Supervised practical experience in areas of food and nutrition. Maximum credit six units

# NUTR 404. Food Systems Management (3)

Prerequisite: Nutrition 303

Managerial functions in food service systems.

#### **NUTR 405. Experimental Food Science and Technology** Laboratory (2)

Six hours of laboratory

Prerequisite: Nutrition 301. Proof of completion of prerequisite required: Copy of transcript.

Application of principles and methods of physical and sensory evaluation and food component analysis to conventional and fabricated foods; effects of additives and ingredient variations; project studies; data interpretation and report writing.

# NUTR 406. Medical Nutrition Therapy I (3)

Prerequisites: Nutrition 302 and 302L. Proof of completion of prerequisites required: Copy of transcript.

Nutrition assessment, diagnosis, pathophysiology, and medical nutrition therapy for chronic diseases.

# NUTR 407. Medical Nutrition Therapy I Laboratory (1)

Two hours of laboratory.

Prerequisites: Admission to SDSU Didactic Program in Dietetics, Nutrition 302, 302L, and concurrent registration in Nutrition 406.

Required for Didactic Program in Dietetics competencies established by the American Dietetic Association. Builds multi-level skills for dietetic practice to assess nutritional status and to develop care plans for patients.

# NUTR 408. Medical Nutrition Therapy II (3)

Prerequisite: Nutrition 406.

Concepts and principles of disease pathophysiology, nutrition assessment and medical nutrition therapy for specific diseases and conditions.

NUTR

# NUTR 409. Medical Nutrition Therapy II Laboratory (1)

Two hours of laboratory.

Prerequisites: Admission to SDSU Didactic Program in Dietetics,

Nutrition 406 and credit or concurrent registration in Nutrition 408.

Advanced practical experience in food service and medical nutrition therapy for future dietitians. (Formerly numbered Nutrition 488.)

# NUTR 496. Experimental Topics (1-4)

Selected topics. May be repeated with new content. See Class Schedule for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

# NUTR 499. Special Study (1-3)

Prerequisite: Consent of instructor. Individual study. Maximum credit six units.

#### **UPPER DIVISION COURSES** (Also Acceptable for Advanced Degrees)

# NUTR 510. Nutrition and Community Health (3)

Two lectures and three hours of activity.

Prerequisites: Grade of C or better in Nutrition 302, 302L, Nutrition 203, 304, and consent of instructor.

Nutritional problems in the community with consideration of their resolution. Field placement experience required.

# NUTR 596. Advanced Studies in Nutrition (1-6)

Prerequisite: Nine upper division units in nutrition.

Advanced study of selected topics. May be repeated with new content. See *Class Schedule* for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maximum credit of nine units of 596. No more than six units of 596 may be applied to a bachelor's degree. Credit for 596 and 696 applicable to a master's degree with approval of the graduate adviser.

> **GRADUATE COURSES** Refer to the Graduate Bulletin.

