



**Student Handbook** 

# Your Handy Guide TO OLE MISS ENGINEERING

Welcome to the School of Engineering! You'll find most information you need online at <u>engineering.olemiss.edu</u>, but this guide gives you a quick overview to help you on your journey with us.

Our mission and vision	3	
Dean's Office - contact details	4	
Departments - contact details	5	
Student organizations	6	
Academic organizations	8	
Academic integrity	10	
Diversity	11	
Advising	12	
Tutoring	12	
Co-ops	13	
Career support	13	
Course requirements	14	
Course changes and requests	16	
Professional licensure	16	
Graduation requirements	17	

### **Mission and Vision**

#### **OUR MISSION**

The School capitalizes on its engineering science tradition, a low student to faculty ratio, and a rich liberal arts environment to give future professionals deep technical abilities, the capacity to adapt to the rapid changes in engineering, and the interdisciplinary background and aptitude for innovation that sets them apart from graduates of other engineering schools.

#### **OUR VISION**

The School will positively transform lives and communities through innovative engineering education and discovery.

#### **OUR GOALS**

- To provide an environment conducive to learning, teaching and research.
   This includes a diverse and multicultural first-rate faculty, staff and students, and state-of-the-art facilities.
- To provide a top-quality ABET accredited undergraduate program suitable for the 21st century.
- To foster a vibrant graduate program and perform quality research in line with national trends and achieve national recognition in selected areas.
- To establish strong partnerships and lasting relationships with industry, government, professional societies, alumni and academia.
- To make significant contribution to the technological and economic development of the State of Mississippi and the region through education, research and service.
- To increase the visibility of the School of Engineering locally and nationally.

### **Dean's Office**

#### David Puleo, Ph.D.

Dean 229 Brevard 662-915-7407 dpuleo@olemiss.edu

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Assistant Dean, Admissions 207 Brevard 662-915-1849 amdjock@olemiss.edu

#### **Isabella Watt**

Academic Common Market Manager 202 Brevard 662-915-2952 iwatt@olemiss.edu

### **Departments**

### BIOMEDICAL ENGINEERING

Chair: Dwight Waddell, Ph.D. Office Contact: Andrew Stapp

 302 Brevard
 303 Brevard

 662-915-2623
 662-915-3126

 waddell@olemiss.edu
 pastapp@olemiss.edu

#### CHEMICAL ENGINEERING

Chair: Adam Smith, Ph.D.

134 Anderson
662-915-5350
662-915-7023
aes@olemiss.edu
Office Contact: Anne Pringle
134 Anderson Hall
662-915-7023
abpringl@olemiss.edu

#### CIVIL ENGINEERING

Chair: Yacoub Najjar, Ph.D.

Office Contact: Lynne Trusty

106 Carrier Hall

662-915-7191

ymnajjar@olemiss.edu

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106 Carrier Hall

662-915-7191

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#### COMPUTER AND INFORMATION SCIENCE

Chair: Dawn Wilkins, Ph.D.

Office Contact: Jennifer Vaughn
203 Weir Hall
662-915-7309

dwilkins@cs.olemiss.edu

Office Contact: Jennifer Vaughn
201 Weir Hall
662-915-7396
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#### ELECTRICAL AND COMPUTER ENGINEERING

Chair: Ramanarayanan Viswanathan, Ph.D.

302 Anderson Hall

662-915-5353

viswa@olemiss.edu

Office Contact: Stefanie Delmastro
302 Anderson Hall
662-915-7231

sdelmast@olemiss.edu

#### GENERAL ENGINEERING

Director: Adam Smith, Ph.D.

134 Anderson
662-915-5350
662-915-7023
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Office Contact: Anne Pringle
134 Anderson Hall
662-915-7023
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#### GEOLOGICAL ENGINEERING AND GEOLOGY

Chair: Gregg R. Davidson, Ph.D.

120 Carrier Hall

662-915-5824
davidson@olemiss.edu

Office Contact: Sherra Jones
120 Carrier Hall
662-915-7498
sdj1@olemiss.edu

#### MECHANICAL ENGINEERING

Chair: A.M. Rajendran, Ph.D.

229A Carrier Hall

662-915-5770

raj@olemiss.edu

Office Contact: Terence Williams
229 Carrier Hall
662-915-7219
tcwilli3@olemiss.edu

### **Student Organizations**

You can join our engineering groups to deepen your connections within the school or to help communities in the U.S. and abroad.

#### **ENGINEERING STUDENT BODY**

The Engineering Student Body (@olemissesb) oversees mentoring and tutoring programs, assists in the running of school-wide events and participates in community service projects.

Advisor: Megan Miller 662-915-5699 megan2@olemiss.edu

#### **ENGINEERS WITHOUT BORDERS**

EWB-USA works to empower communities to meet their basic human needs and to solve the world's most pressing challenges through engineering projects. Our local chapter is helping to bring clean water to a village in Ecuador.

Advisor: Lance Yarbrough, Ph.D. ldyarbro@olemiss.edu

#### NATIONAL SOCIETY OF BLACK ENGINEERS

National Society of Black Engineers (@olemissnsbe) promotes the academic and professional success of African-American engineers and engineering students.

Advisor: Tyrus McCarty, Ph.D. mccarty@olemiss.edu

#### **ROCKET TEAM**

The University of Mississippi Rocket Team (@rocketrebels) gives students hands-on experience in the rocket build, test and launch activities used by NASA and space industry engineers.

Advisor: Darin Van Pelt dvp@olemiss.edu

## **Student Organizations**

#### SOCIETY OF WOMEN ENGINEERS

The Society of Women Engineers (@sweolemiss) empowers women in engineering as exceptional leaders and professionals.

Advisor: Elizabeth Ervin, Ph.D. eke@olemiss.edu

#### SOCIETY OF AMERICAN MILITARY ENGINEERS

The Society of American Military Engineers (@sameolemiss) works to develop multi-disciplined solutions – engineering, cyber security, project planning and more – to national security challenges.

Advisor: Ned Mitchell, Ph.D. kenneth.n.mitchell@usace.mil

#### TAU BETA PI

The Tau Beta Pi honor society brings together high academic achievers in their junior and senior years to participate in tutoring projects and foster professionalism among students.

Advisor: Marni R. Kendricks 662-915-5373 mckendri@olemiss.edu

## **Academic Organizations**

You can enhance your personal and professional skills by joining your discipline's society. This gives you access to students, alumni, training and competitions beyond your studies.

#### BIOMEDICAL ENGINEERING

BIOMEDICAL ENGINEERING SOCIETY Advisor: NiKki Reinemann, Ph.D. 662-915-8973 dnreinem@olemiss.edu

#### CHEMICAL ENGINEERING

AMERICAN INSTITUTE OF CHEMICAL ENGINEERS
Advisor: Brenda Prager, Ph.D.

662-915-2184 bhprager@olemiss.edu

#### CIVIL ENGINEERING

AMERICAN SOCIETY OF CIVIL ENGINEERING

Advisor: Grace Rushing 662-915-7191 gemcmahe@olemiss.edu CHI EPSILON National Honor Society

Advisor: Cris Surbeck, Ph.D. 662-915-5473 csurbeck@olemiss.edu

#### COMPUTER AND INFORMATION SCIENCE

ASSOCIATION FOR COMPUTING MACHINERY

Advisor: Charlie Walter, Ph.D. cwwalter@olemiss.edu

UPSILON PI EPSILON National Honor Society

Advisor: Joseph Carlisle 662-915-7784

jcarlis1@olemiss.edu

## **Academic Organizations**

#### ELECTRICAL AND COMPUTER ENGINEERING

INSTITUTE OF ELECTRICAL & ELECTRONIC ENGINEERS

Advisor: Paul Goggans, Ph.D.

662-915-5379

goggans@olemiss.edu

ETA KAPPA NU National Honor Society

Advisor: W. Elliot Hutchcraft, Ph.D.

662-915-6934

eeweh@olemiss.edu

#### GEOLOGY & GEOLOGICAL ENGINEERING

AMERICAN ASSOCIATION OF PETROLEUM GEOLOGISTS

Contact: Sherra Jones 662-915-7498 sdj1@olemiss.edu

SIGMA GAMMA EPSILON

National Honor Society Advisor: Jennifer Gifford Ph.D. 662-915-2079 ingiffor@olemiss.edu ASSOCIATION OF ENGINEERING GEOLOGISTS

Advisor: Gregory L. Easson, Ph.D. 662-915-5995 geasson@olemiss.edu

#### MECHANICAL ENGINEERING

AMERICAN SOCIETY OF MECHANICAL ENGINEERS

Advisor: P.R. Mantena, Ph.D. 662-915-5990

meprm@olemiss.edu

SOCIETY OF AUTOMOTIVE ENGINEERS

Advisor: T. Pandya, Ph.D. 662-915-5378 tspandya@olemiss.edu

### **Academic Integrity**

Integrity and honesty are essential for success in your studies and career. It's a question of respecting your peers, professors and others by following established ethical values.

The School of Engineering honor system seeks to instil in each student the highest standard of personal integrity and professional responsibility. Unacceptable behavior includes:

- Plagiarism
- · Using someone's work
- Knowingly allowing someone else to represent your work as his/her own
- · Gaining or attempting to gain an unfair advantage
- · Disruptive behavior
- Harm to the facilities that support the academic environment

#### HONOR PLEDGE

Our students are asked to adhere to the university's honor pledge:

"I pledge myself to uphold the highest standard of honesty in my university life and I will not tolerate dishonesty on the part of others."

#### ACADEMIC MISCONDUCT

#### First instance of misconduct

The relevant professor will apply a sanction such as a repeat assignment, fail or reduced grade.

#### Second instance of misconduct

The Dean or other school representative will meet with the student to discuss the seriousness of academic misconduct and attempt to identify the cause. They can decide to place an increased sanction such as disciplinary probation, suspension, expulsion, non-renewal of scholarships, non-eligibility for awards or course failure.

## **Diversity**

We at the School of Engineering are committed to promoting a culture of diversity, equity and inclusion throughout our constituencies.

Our chapters of the National Society of Black Engineers and Society for Women Engineers help promote academic and professional success. This includes activities such as community outreach and alumni sharing their experience.

Thanks to supportive alumni, we offer scholarships for students who demonstrate a commitment to the advancement of women and minorities in engineering and computer science.

We are putting in place a targeted equity-in-action plan to create diverse workforce pipelines toward engineering careers. For our students, that includes activities such as:

- Tutoring and mentoring programs for success in and out of the classroom
- · Hands-on experience with internships and research opportunities
- Greater alignment with the university's Improving Minority Access to Graduate Education (IMAGE) program
- Networking opportunities, information sessions and technical talks with industry partners to encourage a diverse workforce

Find out more at engineering.olemiss.edu/diversity

"The innovation and creativity fostered through diverse teams representing different backgrounds, perspectives and life experiences are needed to address engineering challenges of the 21st century and to advance our state."

- Dave Puleo Dean, School of Engineering

## **Advising**

You'll have academic advisory support every step of the way – from your freshman year to graduation.

As part of orientation, we'll give you help in registering for your first classes at Ole Miss. Throughout the rest of your freshman year, the Center for Student Success and First Year Experience will provide academic advising and the necessary resources.

Each semester, you meet with a department advisor to help schedule your courses and discuss your longer-term plans. You should review the course advising sheet for your degree before meeting your advisor. That way, you'll have an idea what courses you should take the following semester.

You can find out who your advisor is in myOleMiss. Just click on Academics in the top row of links, then select Advisors which will lead to the My Advisors option. If you have questions about this or if an advisor's name is not listed following orientation, please contact your department secretary (see page 5). You can also fill out the online form to request help with an advisor.

Find the course requirements for your major at engineering.olemiss.edu/advising

## **Tutoring**

Engineering requires work, ingenuity, passion and persistence. Ole Miss wants you to succeed: our tutors can help you better understand core engineering topics.

Tutoring is available for a variety of STEM subjects. This could be free help sessions or individual paid tutoring.

find out more at engineering.olemiss.edu/tutor

Contact information - for tutoring and advisory services

### Oana Najjar

Transfer Equivalency /Data Analyst 204 Brevard 662-915-1983 ocnajjar@olemiss.edu

### Co-ops

Cooperative education, or co-op, provides you with the unique opportunity of working in a professional capacity for several months during your time as an undergraduate student. Our students have recently been on co-op placements at Dupont, International Paper, Medtronic, Tesla, Toyota, Viking Range and more.

With a co-op, you will take a semester (or more) off from classes and typically work full time for at least 16 weeks. This will be equivalent to a full academic load. The enrolled co-op student is considered full-time for insurance purposes and the deferment of loan repayment.

You are well compensated for your work and you gain relevant engineering experience to add to your resume.

Check out engineering.olemiss.edu/co-op

### **Career Support**

Ole Miss Engineering will help you connect with the 100-plus employers who look to Ole Miss to employ engineering and computer science students for their full-time positions, co-ops and internships. That could be through our bi-annual career fairs, company info sessions and hands-on events.

To prepare for a job, you can take advantage of our wide range of workshops. They cover everything from resume writing to interview skills to networking strategies. And, with our senior course on leadership skills, you'll get guidance from business, academic and military professionals on how to deal with real-world work situations.

### Contact information - for co-ops and careers

### Megan Miller

Assistant Dean, Undergraduate Programs 214 Brevard 662-915-5699 megan2@olemiss.edu

### **Course Requirements**

#### MAJOR-DEFINED REQUIREMENTS

Each major has its own course plan, often to be taken in a set order.

Find out the requirements for your major at <a href="mailto:engineering.olemiss.edu/advising">engineering.olemiss.edu/advising</a>

#### ACCEPTABLE COURSE CREDIT

The School of Engineering recognizes credit earned by:

- · advanced placement classes
- · dual enrollment
- · International Baccalaureate

See the UM catalog for information about credit by exam.

#### TRANSFER CREDIT FROM OTHER INSTITUTIONS

You must get <u>advance approval</u> from your department to receive credit for any courses taken at another institution. See <u>registrar.olemiss.edu/transferequivalencies/</u> to find out whether a course is transferable.

#### HONORS COLLEGE

Honors 101 and 102 can satisfy the First-Year Writing requirement. Or, the credits can be used as 3 hours of humanities and 3 hours of social science.

#### MINOR

The School of Engineering recognizes a minor course of study in a department different from the major. A minor field may be any discipline that offers a minor at the University of Mississippi, except for:

- chemistry for chemical engineering students
- · geology for geological engineering students
- · computer science for computer engineering students

A minor typically consists of 18 hours, with the required courses outlined in the university undergraduate catalog. No more than 8 credit hours cited specifically by course number and title as a requirement for an engineering degree may be used toward fulfillment of the minor requirements.

#### SOCIAL SCIENCES, HUMANITIES & FINE ARTS

The School of Engineering requires 18 hours of SS/H/FA courses.

#### Hours required

- · 6 credit hours in social sciences
- 9 credit hours in humanities and fine arts (with at least 3 hours in each).
- 3 additional credit hours in humanities, social/behavioral science or general education as defined by individual engineering departments.

#### Acceptable courses

#### Social sciences

Anthropology, Economics, Political Science, Psychology and Sociology courses.

#### Humanities

African American Studies, Classics, English Literature, Gender Studies, History, Philosophy, Religion and Southern Studies courses.

#### Fine Arts

Lecture-based courses taken in the history, appreciation and theory of art, dance, music and theatre arts. Studio type courses such as band, acting, dance, drawing, etc. are not applicable for an engineering degree.

#### General education

Select courses in military leadership, chancellor's leadership, business & speech.

#### Major-specific requirements

#### Chemical engineering

- 6 hours of serial work in the humanities.
- 6 hours of serial work in the social sciences
- 3 hours of fine arts
- 3 additional hours of social sciences or humanities

#### Computer science

- 3 hours of sophomore literature (ENGL 221-226)
- 15 hours to satisfy the school's SS/H/FA requirements

#### General engineering

- 18 hours to satisfy the school's SS/H/FA requirements
- 3 additional credit hours of SS/H/FA course work.

### **Course Changes**

Requests to add, change or withdraw from courses, to change your major and to request course forgiveness can be found at <u>engineering.olemiss.edu/resources</u>.

#### COURSE CHANGE REQUESTS

You can use our course change request form to

- Register for a course with time conflict
- Take more than 19 credit hours in fall or spring semester
- Enroll in a course with waiver of pre-requisite or co-requisite requirement(s)
- Enroll in a course that has reached full capacity
- Add an engineering or CME course after the 10th day of classes in the fall or spring semester
- Substitute a course to be used to fulfill a degree requirement
- · Withdraw from a course after drop date

#### CHANGE YOUR MAJOR

Engineering students who would like to switch to another engineering degree program should use this <u>change of major request form</u>.

### **Professional Licensure**

#### Fundamentals of Engineering exam

The Fundamentals of Engineering (FE) exam is the first step in gaining a professional engineer license. It's recognized by employers and clients as a sign of technical competence.

Find out how to register for the FE exam. Ole Miss graduates and current seniors in civil engineering, chemical engineering, electrical engineering, geological engineering or mechanical engineering are eligible to sit for it.

#### Professional licensure

The <u>requirements for professional licensure</u> differ from state to state.

Make sure to find out which Ole Miss engineering degree programs lead to licensure in Mississippi and the guidance for working outside of Mississippi.

### **Graduation Requirements**

#### STEPS TO GRADUATION

There are multiple steps to take to ensure graduating on time.

- Student completes the School of Engineering degree application
- Student and advisor review the degree audit found in myOleMiss
   You can update the <u>catalog year used for your degree audit</u>.
- Department chair approves the degree application
- Dean's office authorizes UM diploma application
- · Student submits UM survey and diploma application in MyOleMiss
- · Dean's Office checks final grades using degree audit and certifies the degree
- UM Registrar records the degree and mails diploma to the new graduate

Check out the detailed instructions at engineering.olemiss.edu/graduation

#### GRADE POINT AVERAGE REQUIREMENTS

The School of Engineering requires, as a minimum, a 2.00 grade point average:

- · for all courses taken at Ole Miss.
- for all college work attempted at all institutions.
- for School of Engineering course work.

The GPA is total quality points divided by hours attempted. Total quality points are calculated by multiplying credit hours by points earned for each class.

#### Quality points by grade

```
4 points
                C+ 2.3 points
A-
    3.7 points
                С
                     2 points
B+ 3.3 points
                C- 1.7 points
    3 points
В
                D
                     1 points
    2.7 points
B-
                F
                     0 points
```

```
Example
ENGR 100
            3-hr credits
                          Α
                                Total quality points:
                                (3*4) + (3*4) + (3*3) + (3*3) + (1*1) + (3*0) = 43
WRIT 101
            3-hr credits A
MATH 261
            3-hr credits
                          В
                                Credit hours attempted:
CHEM 105 3-hr credits
                          В
                                16
CHEM 115 1-hr credits
                          D
                                GPA calculation:
HIS 105
            3-hr credits
                          F
                                43 quality points /16 hours = 2.68
```

### Our students on their teachers:

I look at the amazing things that she has done and her love for her work and it spurs me to push forward | Inspirational leader and teacher | He is super smart and does his best to break down concepts for us | Her pushing helped all of us to grow more than we ever would have thought possible | He knows how to connect with the students I He makes time for students count - extremely intelligent | He is very helpful when you are stuck on a problem and will walk you through the subject in an easy to understand way | He finds a way to make the most seemingly complex ideas understandable | She is great to talk to as a fellow woman in STEM | He gives me some lifelong advice to help me improve not only my grades but also the ability to become a good engineer | I have never met a professor that is as passionate about his areas of expertise | His research is amazing and is inclusive of students from the freshman level to graduate | He gets the best out of his students and really cares for them | She is very helpful when trying to understand a subject | Awesome!

