

College Of Engineering

General Information

College of Engineering Administrative Staff	(251) 460-6140
Dean	John Usher
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Associate Dean, Research and Graduate Affairs	Clive Woods
Director of Graduate Studies	Robert Cloutier

College of Engineering website
<https://www.southalabama.edu/colleges/engineering/>

Degree Programs Offered The College of Engineering offers programs of study leading to the following degrees:

- Bachelor of Science in Chemical Engineering
- Bachelor of Science in Civil Engineering
- Bachelor of Science in Computer Engineering
- Bachelor of Science in Electrical Engineering
- Bachelor of Science in Mechanical Engineering
- Master of Science in Chemical Engineering
- Master of Science in Civil Engineering
- Master of Science in Electrical Engineering
- Master of Science in Mechanical Engineering
- Master of Science in Systems Engineering
- Doctor of Philosophy (Ph.D.) in Systems Engineering

Mission Statement

The mission of the College of Engineering is to provide students with quality accessible undergraduate and graduate engineering education, to prepare graduates for professional careers and lifelong learning, to promote the creation and dissemination of knowledge, to serve society through professional practice and community outreach and to act as a catalyst for economic and technological development of the Gulf Coast region, the State of Alabama and the Nation.

Honors Program In Engineering

To receive a designation of "Departmental Honors" students must have at least a 3.5 GPA at the time of graduation and complete an Honors Senior Project in their major. The Honors Senior Project requirement may be satisfied in either of two ways.

1. By completing an Honors Senior Project course that requires completion of a research project under the guidance of a faculty mentor.
2. By completing a special honors design project as part of the capstone engineering design requirement under the guidance of a faculty mentor.

It is required that there be both a written report and an oral presentation of the results of the Honors Senior Project.

Students participating in "Departmental Honors" may also elect to take the University Honors Seminar and participate in other University Honors Activities upon recommendation of their major advisor.

Undergraduate Admission

All students, whether domestic or international, are strongly encouraged to submit standardized test scores, either ACT or SAT.

Computer Ownership Policy

All College of Engineering undergraduate students are required to own a personal laptop computer that conforms to the current college minimum standards at the time they enter engineering level courses. For more information, consult the Laptop Policy at www.southalabama.edu/colleges/engineering/currentstudents/academicpolicies.html.

Requirements For Minors In Disciplines Other Than Engineering

Engineering students may complete a minor in disciplines other than engineering. Students desiring to do so must complete the published requirements for that discipline.

Choice Of Bulletin For Undergraduate Degree Requirements

After an absence of one calendar year or when transferring into an engineering program, students must use the Bulletin in effect at the time of readmission or transfer, or a later version. No student may use a Bulletin older than six years from the date of graduation.

Cooperative Education Program

The College of Engineering also offers an attractive five year cooperative Education Program. This program allows students to gain valuable engineering experience as they pursue their degree. The freshman year is spent as a full-time student at the university. During the sophomore and junior years the students alternate working full time with an excellent salary for one semester and taking full-time course work the next semester. Students return to study full time for the senior year.

This program offers many advantages for students. Interested students should consult with either the Career Services Center or the College of Engineering Deans Office.

Master's Program

The College of Engineering offers programs leading to degrees of Master of Science in Chemical, Civil, Electrical, Mechanical, and Systems Engineering.

The programs of study are designed to provide knowledge of modern engineering concepts and practices; to prepare the graduate for the practice of engineering at a higher level of proficiency than attainable with the bachelor's degree; and to prepare the graduate for further study toward the doctoral degree should the graduate so desire. The programs comprise course work and directed theoretical and experimental inquiry in thesis or project research.

Three plans of study are offered: thesis option, project option, and coursework only option. The difference between the thesis option and the project option is that a thesis is usually oriented toward engineering applications. The coursework only option, while available to all graduate students, is particularly attractive to full-time employed engineers who are interested in augmenting and enhancing their engineering skills as part-time students. Courses are available in the evening to accommodate employed students.

Admission To Graduate Programs

The following criteria supplement the Graduate School criteria (see Categories of Admission) and are required for admission to all College of Engineering Master Programs:

- I. Regular Admission
 - A. A Bachelor's degree in engineering in a relevant field from an ABET accredited program.
 - B. A grade-point average of 3.0 or greater (A=4.0) on all undergraduate work.
 - C. A minimum GRE Quantitative score of 151 and a minimum GRE Verbal score of 141.
 - D. For applicants whose native language is not English, a minimum score of 550 on the written Test of English as a Foreign Language (TOEFL) or a 79 score on the Internet-based TOEFL exam, or a minimum score of Band 6.5 on the International English Language Testing System (IELTS) test is required.

II. Provisional Admission

- A. A Bachelor's degree in engineering or in a field acceptable to the departmental Graduate Admissions Committee is required. Depending on the student's background additional undergraduate preparatory courses may be required. These courses will not count toward the Master's degree.
- B. A minimum grade-point average of 2.5 (A=4.0) on all undergraduate work including a minimum grade-point average of 2.5 over the last 64 course hours of undergraduate work is required. Alternatively, a minimum grade-point average of 2.75 over the last 64 course hours of undergraduate work is required.
- C. For applicants whose native language is not English, a minimum score of 525 on the written Test of English as a Foreign Language (TOEFL) or a 71 score on the Internet-based TOEFL exam, or a minimum score of Band 6.0 on the International English Language Testing System (IELTS) test is required.

III. Non-degree Admission

- A. Non-degree admissions are accepted in accordance with Graduate School requirements. Each applicant will be reviewed by the Admissions Committee of the appropriate department which may reserve the right to evaluate additional credentials, such as, but not limited to, course work taken, and letters of recommendation.

The above are minimum requirements for admission. Specific requirements for admission differ for each department. For details, see the Master of Science in Chemical Engineering, Master of Science in Civil Engineering, Master of Science in Electrical Engineering and Master of Science in Mechanical Engineering program requirements.

Change Of Status From Provisional To Regular Standing Within The Master's Programs

The following requirements are in addition to the Graduate School requirements for change of status:

Students required to complete additional undergraduate course work in partial fulfillment of the requirements to advance from Provisional Admission to Regular Admission must obtain a minimum grade-point average of at least 3.00 on the total of all such required courses with a grade of at least "C" in each course.

Doctor Of Philosophy (Ph.D.) In Systems Engineering

The Doctor of Philosophy (Ph.D.) in Systems Engineering offers students a holistic approach and vantage point to the design and understanding of complex systems. NASA defines the interdisciplinary field of systems engineering as "a holistic, integrative discipline, wherein the contributions of technical domains such as structural engineers, electrical engineers, mechanism designers, power engineers, human factors engineers, and many more disciplines are evaluated and balanced, one against another, to produce a coherent whole that is not dominated by the perspective of a single discipline." The main objectives of the Ph.D. program are to 1) provide our graduates with the ability to approach all systems (engineered, biological, social/organizational, etc.) with the ability to understand the entire system lifecycle in a manner that meets the needs of industry, and 2) prepare our graduates for leadership positions requiring applied research along with critical and creative thinking. This program is appropriate for students who want to pursue research-based careers in industry, government, or academia. The program requires coursework across multiple engineering disciplines, and specific, validated systems research resulting in a publicly defended doctoral thesis.

Requirements For Admission: (With Master's Degree)

In addition to meeting Graduate School requirements, the requirements for admission to the Ph.D. Program are as follows:

1. A written statement of the applicant's professional goals and commitment to completing the degree requirements through the applicants Statement of Purpose.
2. Three letters of recommendation from individuals familiar with the student's academic and technical abilities.
3. A M.S. degree in a discipline related to engineering (e.g. civil, computer, chemical, electrical, industrial, mechanical, etc.).
4. A grade point average of 3.0 or greater (on a scale of 4.0) on all graduate coursework.
5. A minimum score of 151 in the Verbal portion and a minimum score of 151 in the Quantitative portion of the Graduate Record Examination (GRE). If the applicant has a current P.E. license, or has an M.S. degree in a discipline related to engineering (e.g. civil, computer, chemical, electrical, industrial, mechanical), may request the GRE requirement be waived.
6. For international students whose native language is not English, a minimum score of 79 on the Internet-based TOEFL, 213 on the computer-based TOEFL, or a minimum score of band 6.5 on the IELTS are required.
7. Transcripts from all colleges and universities attended by the applicant

Admission may be granted by the Director of Graduate Studies, in special cases where a holistic evaluation of the credentials is appropriate.

Requirements For Regular Admission (With Bachelor'S Degree)

Those students who have not yet obtained a Master's degree may apply to the Ph.D. program.

In addition to meeting Graduate School requirements, the requirements for acceptance without a Master's degree are as follows:

1. A Bachelor degree in a discipline related to engineering (e.g. civil, computer, chemical, electrical, industrial, mechanical, etc.). [The Ph.D. Admission Committee reserves the right to review the coursework at the B.S. level before making any admission decision, particularly if the degree is from a non-US university or a university with non-accredited programs]
2. A grade point average of 3.0 or greater (on a scale of 4.0) on all undergraduate coursework.
3. A grade of B or higher for all graduate courses to be considered as transfer credits from previous institutions attended. Only graduate credits that have not been applied to another degree can be considered for transfer.
4. Transcripts from all colleges and universities attended by the applicant.
5. A minimum score of 151 in the Verbal portion and a minimum score of 151 in the Quantitative portion of the Graduate Record Examination (GRE).
6. For international students whose native language is not English, a minimum score of 79 on the Internet-based TOEFL, 213 on the computer-based TOEFL, or a minimum score of band 6.5 on the IELTS is required.

Departments Of Instruction

[Chemical and Biomolecular Engineering](#)
[Civil, Coastal, and Environmental Engineering](#)
[Electrical and Computer Engineering](#)
[Mechanical, Aerospace and Biomedical Engineering](#)
[Systems Engineering](#)