

SPECIAL PROGRAMS

Premedical Studies in Engineering

Physicians and engineers find themselves working together more and more in research, development, and the modeling of human systems. Graduates with an engineering background can participate in this association in one of two ways: by becoming an engineering member of a medical/engineering team (see biomedical engineering) or by using the engineering background as a basis for a medical education.

For example, the admission requirements at Tulane's School of Medicine are: a minimum of three years of college or 90 credits including two semesters of biology with lab; two semesters of inorganic chemistry with lab; two semesters of organic chemistry with lab; two semesters of general physics; and 6 credits of English.

These entrance requirements can be easily met by engineering undergraduates in one of the following ways:

- In biomedical engineering in three years, with a proper selection of electives.
- In engineering science in three years because of the high degree of flexibility.
- In chemical engineering in three years, using biology for technical electives.
- In electrical or mechanical engineering in four years, using biology as a technical elective and taking organic chemistry during one summer.
- In environmental engineering in three years using Biology for technical electives.

The engineering student entering a premedical program should study the requirements of the particular medical schools in which he or she is interested. The premedical program in engineering at Tulane can be modified to permit the student to prepare for the specific requirements of the schools that have been selected.

While the medical school entrance requirements may be met in three years, it is common that students complete the engineering degree program in four years prior to entering medical school. As a service to engineering premedical students, the School of Engineering provides the following:

1. application packets from the American Medical College Application Service.
2. application forms for the Medical College Admissions Test which is administered twice a year, usually in April and October.
3. a composite faculty appraisal (a copy will be sent to each medical school to which a student has applied), and
4. a current copy of Medical School Admission Requirements.

Premedical Early Acceptance Program

Particularly well motivated and well qualified sophomores in the school may apply to the Tulane School of Medicine through the Premedical Early Acceptance Program. Successful candidates complete the full four years of the normal baccalaureate program but are guaranteed admission to the School of Medicine upon graduation and enjoy special opportunities for study with its faculty while still undergraduates. Students are expected to follow an academically rigorous program while maintaining a high level of academic performance throughout their college careers. Only sophomores who complete both freshman and sophomore years at Tulane are eligible.

To be considered, students must complete the following courses at Tulane during the regular academic freshman and sophomore years: biology (6 credits and 2 credits of laboratory); general chemistry (6 credits and 2 credits of laboratory); organic chemistry (6 credits and 2 credits of laboratory); physics (8 credits with laboratory); and a total of at least 64

undergraduate credits with a cumulative grade point average of 3.6 or better. The Medical College Admissions Test is waived for early acceptance applicants.

Honors Program

Through the School of Engineering Honors Program, a student may earn a Bachelor of Science in Engineering or Computer Science with Latin honors. Latin honors are awarded to students who have attained a certain grade point average at the time of graduation.

Summa Cum Laude

This honor is awarded to a student who has a grade point average of 3.800 or better at the time of graduation. A minimum of six semesters or three-quarters of the requirements for graduation must be performed at Tulane University.

Magna Cum Laude

This honor is awarded to a student who, at the time of graduation, has a grade point average between 3.600 and 3.799. A minimum of six semesters or three-quarters of the requirements for graduation must be performed at Tulane University.

Cum Laude

This honor is awarded to a student with a grade point average between 3.400 and 3.599 at the time of graduation. A minimum of four semesters or one-half of the requirements for graduation must be performed at Tulane University. A student who meets the grade point average requirement for magna or summa but who has between four and six semesters at Tulane will receive this honor.

Departmental Honors

This honor is awarded to a student who submits a satisfactory thesis to the Departmental Honors Committee while maintaining a grade point average of 3.0 or better at the time of graduation. Departmental and other honors designations are not mutually exclusive, i.e., a student's diploma could read; "Magna Cum Laude, with Honors in Mechanical Engineering." In addition to recognizing the superior academic achievements of outstanding students, the departmental honors program gives candidates who desire it the opportunity to do creative work in the form of an honors project while they are still undergraduates. A student who expects to have a grade point average of 3.0 or better at the end of the junior year should contact the department chair for more information.

Note: A guide for preparing an honors thesis is available in each departmental office.

Bachelor's/Master's Combined Degree Program

Students who choose to participate in the departmental honors program may also be eligible to continue their studies as part of the 5-year Bachelor's / Master's Degree program. This program is designed to allow students to further develop their undergraduate honors research project into master's level work while completing an additional year of graduate course work toward the master's degree. Eligibility will be subject to departmental requirements and resource availability, and requires the timely completion of the admission process through the Graduate Division of the School of Engineering. A student may participate in the 5-year BSE/MSE degree program only upon approval by the Graduate Division.

A letter of intent to participate in the program must be submitted to the departmental chair within the first three weeks of the senior year. The letter of intent is to include the research topic, a letter of support from the advisor, and a description of the program to be followed toward the master's degree. Candidacy to the program is contingent upon departmental resources and faculty approval based on this letter of intent. Accompanied by a letter of recommendation from the department, a complete admission application package to the Graduate Division of the School of Engineering must be filed by February 1 of the senior year for fall enrollment, and November 1 for spring enrollment. Students who do not complete the requirements for departmental honors forfeit their eligibility to participate in the 5-year combined degree program.

The combined degree will be awarded at the end of the fifth year or upon completion of the master's degree requirements should additional time be required. However, departments may elect to award the bachelor's portion of the combined degree after four years under the condition that all requirements for the bachelor's degree have been met, including satisfactory completion of the honors thesis.

Students will receive a tuition scholarship from the School of Engineering equal to 65% of the full graduate tuition in the fifth year. They will be responsible for the remaining 35% of tuition cost and all mandatory university fees. Students are advised to request need-based aid through the Financial Aid Office for the fifth year. Financial need is most often met in the form of low-interest student loans.

Honor and Professional Societies

Various honor societies have been formed on the national level to recognize excellence in academic and leadership areas. Students in the School of Engineering are eligible for the following:

Phi Eta Sigma	(Freshman)
Omicron Delta Kappa	(Leadership)
Tau Beta Pi	(Engineering)
TECHS Society	(Engineering and Computer Science)
Sigma Xi	(Research)
Alpha Eta Mu Beta	(Biomedical Engineering)
Omega Chi Epsilon	(Chemical Engineering)
Eta Kappa Nu	(Electrical Engineering)
Pi Tau Sigma	(Mechanical Engineering)
Upsilon Pi Epsilon	(Computing Sciences)

Professional societies exist in many areas of engineering and each department has student chapters of those for that discipline. In addition, there are several student professional organizations that are open to all engineering students:

- Association for Computing Machinery
- National Society of Black Engineers
- Society of Women Engineers

Engineering-Architecture

A combined Engineering-Architecture Degree is also available. This degree program is normally setup through Architecture and the Department of Civil Engineering and usually requires six years to complete. (Additional information is available in the dean's office of either school.)

Engineering-Master of Business Administration

Many students who plan a career in management realize that a technical background is desirable for certain industries. For those students, the School of Engineering and the A. B. Freeman School of Business offer a program which results in a B.S. in Engineering Science and an MBA in five years rather than the traditional six. In order to be eligible for the program, a student must have:

- completed three full years of college work.
- a cumulative grade point average at or above the MBA class average.
- a score on the Graduate Management Admission Test that is at or above the MBA class average.

Generally, the first 30 credits of course work in the MBA program are in preparation for the final year of specialization in accounting, organizational behavior, finance, information systems, international business, management, or marketing. The MBA courses serve as the special option in the Engineering Science Program. Then during the fifth year in the Freeman School, the student completes the requirements for the Master of Business Administration. Additional information is available in the Office of the Dean of Engineering.