

# UMSL Engineering

## Why UMSL?

- You'll learn from the Washington University engineering faculty, take your upper-level engineering classes at Washington University and work in Washington University's state-of-the-art laboratories. And you'll pay tuition for all your engineering courses and laboratories at UMSL rates.
- You'll be taught and advised by Washington University's engineering professors, who are daily involved in engineering research or advanced engineering practice and who are eager to share those experiences with their students in the classroom.
- You'll find the only opportunity in the St. Louis area to pursue your engineering degree on a full-time or part-time basis, day and evening.
- You can enhance your engineering education with a parallel co-op job, working part-time during the day and taking courses in the late afternoon and evening. We'll help you find an engineering job in your field so you can earn while you learn and have a leg up on finding your first job when you graduate.
- When you graduate, the career centers at both the Washington University engineering school and UMSL are your job-search partners to help you prepare your résumé, sharpen your interviewing skills and connect you with prospective employers.

## Career Outlook

Engineering is one of the few careers in which the bachelor's degree is a professional degree. Students earning a bachelor of science degree in one of the engineering disciplines are well qualified for entry-level engineering positions in a variety of business, industries, consulting firms and government agencies.

Engineers are problem-solvers and inventors. Engineers apply the principles of science and mathematics to address technological problems and to make life better for society. Breakthroughs such as the transistor, laser, space flight and the information superhighway have their origins in engineering. As society becomes increasingly dependent on technology, the outlook for all engineering disciplines becomes increasingly bright. Engineering careers typically rank at, or very near, the top of virtually any published rating of promising jobs for the twenty-first century. Estimates by the U.S. Department of Labor call for an 11% overall growth rate in the number of engineering jobs over the 2006-2016 decade.

Besides tackling challenging technical problems, roughly two-thirds of all engineers will have some level of management responsibility within ten years of receiving their bachelor's degrees. Many practicing engineers will eventually continue their education by pursuing graduate degrees on a part-time basis.

## General Information

The Joint Undergraduate Engineering Program of UMSL and Washington University was approved by the University of Missouri and the Missouri Coordinating Board for Higher Education.

Students who enter the program will take the pre-engineering core of mathematics, physics, chemistry, humanities, social sciences and some engineering subjects — on the campus of UMSL. Upper-level engineering courses and laboratories are taken on the campus of Washington University in the evenings and are taught by Washington University engineering faculty members. This program allows students to choose either a full time or part time schedule. It also permits students to co-op during the day at local engineering firms. Total semester hours required range from 127 to 139.

## Some Specialties Within Engineering

The program offers bachelor of science degrees in civil (with concentrations in construction, structural and environmental engineering), electrical and mechanical engineering. All engineering degrees are granted by the University of Missouri.

Civil engineering — planning, designing and constructing cities, bridges, buildings, public facilities, transportation systems, waterways and environmental waste treatment facilities.

Electrical engineering — using electrical phenomena to solve problems in communications, manufacturing, medicine, defense, the environment and other areas.

Mechanical engineering — working on concerns in energy conversion and machine design, manufacturing, instrumentation, environmental control and biomechanics.

The BSCE, the BSEE and the BSME are accredited by the Engineering Accreditation Commission of the Accreditation Board for Engineering and Technology (ABET), 111 Market Place, Suite 1050, Baltimore, MD 21202-4012 – telephone: (410) 347-7700.

## Admission

Students who meet the general admission requirements of the University of Missouri-St. Louis may enroll in pre-engineering courses. Admission to the upper division program is normally granted to persons who have completed the pre-engineering program with a minimum grade point average of 2.75 over all mathematics, chemistry, physics and introductory engineering courses. Students with less than a 2.75 grade point average, but at least C's in all their science and math courses, may be admitted on a conditional basis.

## Fees

Students register on the UMSL campus and pay UMSL fees plus an engineering fee for both pre-engineering and engineering courses.

## For Further Information

For information about enrolling in this program, please contact the UMSL Joint Undergraduate Engineering Program at 314-516-6800.