Dual Degree Program

Engineering Majors

Bachelor of Science degrees in:

**Biomedical Engineering**

Biomedical engineers have a tremendous impact on the lives of people around the world, as they develop lifesaving cures and improve quality of life. Studying biomedical engineering allows students the opportunity to learn the principles of engineering and biology to solve problems at molecular to whole-body levels. Undergraduate students work with engineering and medical faculty on projects ranging from surgical devices and imaging techniques to bioactive materials and drug delivery systems. Biomedical engineering graduates enter medical school, or pursue advanced engineering degrees or industry careers.

**Chemical Engineering**

As home to the country’s first Department of Energy, Environmental & Chemical Engineering, our programs attract students interested in developing renewable energy sources, alleviating the shortage of clean water, improving air quality, understanding global climate change, and producing novel and superior materials. Chemical engineers are involved in the development and manufacturing of consumer products as well as in design, operation, and control of processes in a variety of industries, such as petroleum, petrochemical, chemical, consumer products, food, and pharmaceutical.

**Computer Science; Computer Engineering**

Computing and computer communication drive innovation in science and medicine, business and industry, and media and entertainment. Students work with faculty to learn, design, and develop hardware and software systems that help us understand the world and improve quality of life. For example, they have developed systems that can detect potential security threats, created brain-computer interfaces allowing people to control robots directly with thoughts, and discovered models and tools for physicians to better understand and treat complex diseases.

**Electrical Engineering; Systems Science & Engineering**

In Systems Science & Engineering, students learn how to design control schemes for high-tech systems, such as fighter planes, missiles, medical robots, cars, and other systems. Students also learn techniques to manage manufacturing and business operations, including financial analysis, supply-chain networks, and operations schedules. In Electrical Engineering, students learn to use electrical phenomena to solve problems in medicine, communications, defense, and other fields that rely on information technology.

**Mechanical Engineering**

Students studying Mechanical Engineering will work with faculty on topics ranging from energy conservation and environmental control to machine design, manufacturing and biomechanics. Our mechanical engineering students are educated about the mechanics of solids and fluids, thermodynamics and heat transfer, as well as the science of materials, and the principles and techniques of mechanical engineering design.

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**Dual Degree Engineering Program**

Washington University in St. Louis (WUSTL) cooperates with a select group of affiliated colleges and universities to offer the opportunity to earn a liberal arts degree (from their current school) and an engineering degree (from WUSTL). Participants are undergraduate students who commonly follow a 3-2 or a 4-2 schedule, entering WUSTL after their junior or senior year.

The Dual Degree Program is an attractive alternative to traditional engineering curricula. Program graduates are “liberally educated engineers,” with strong communication and problem-solving skills, a broad background in the humanities and social sciences, and a high-quality technical education.

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**Dual Degree Program Contact Information:**

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>> engineering.wustl.edu/dualdegree