DEGREE(S)

+ Bachelor of Science (B.S.) in mechanical engineering

ABOUT THE FACULTY

The department’s dedicated full-time faculty members, who have diverse areas of expertise and backgrounds, are committed to the highest standards of teaching, research and service. They are broadening engineering and technological innovations, teaching students to be the engineers and leaders of the 21st century.

CURRICULUM

Students of the mechanical engineering program at Parks College will gain a solid foundation in the fundamental engineering sciences before progressing towards traditional mechanical engineering courses. The program offers technical electives in broader areas of structures, thermal fluids, and design engineering to provide opportunities for students to gain greater depth of understanding.

These engineering fundamentals and mechanical topics are then integrated into a sequence of two capstone design courses during senior year that provide greater depth in design. Students will learn the importance of design decisions not only on product design but on society as a whole. Well-equipped laboratory facilities emphasize measurement techniques and experimental methods that allow the student to verify the theory learned in the classroom.

The curriculum is designed to prepare students for professional careers in several fields of mechanical engineering involving product development and manufacturing. The curriculum also provides excellent preparation for graduate studies.

PROGRAM OVERVIEW

The mechanical engineering curriculum provides hands-on experiences that complement theoretical knowledge. Faculty members incorporate innovative engineering experiences in the classroom that shape the mindset so students become thought leaders and change agents in the society. Working with fluids, thermal, material, structural testing, mechatronics and robotics equipment provide an excellent opportunity to integrate theory with real-world applications. Students learn computer aided manufacturing methods using a number of rapid prototype machines along with a high-speed machining center. State-of-the-art computer laboratories along with advanced software such as Creo, MathCAD, MATLAB, STK, SC/Tetra CFD, CES Material Selector, and Abaqus are available for design, modeling, simulation and analysis.

Additionally, students have several extracurricular opportunities to participate in national and international competitions and activities organized by ASME, SAE, NASA and RoboGames and are involved in the activities of student chapters of ASME, SAE, SME and SLU Robotics. Innovative programs like Weekly Innovation Challenge, Tinker Camp, Speakers Pioneering Innovation, Creativity, and Entrepreneurship (SPICE) and iScholars help student acquire leadership skills and business acumen.

All students in the mechanical engineering program are exposed to entrepreneurship and the entrepreneurial mindset through the curriculum and extracurricular opportunities.

The mechanical engineering program is professionally accredited by the Engineering Accreditation Commission of the Accreditation Board for Engineers and Technology (ABET).
ADMISSION REQUIREMENTS

In addition to the general admission and matriculation requirements of the University, Parks College engineering programs have the following additional requirements:

+ GPA: Minimum cumulative 3.00 high school GPA for freshmen applicants and 2.70 college GPA for transfer applicants.
+ ACT/SAT: ACT composite score of 24 or higher, or SAT composite score of 1100 or higher. ACT sub scores minimums of 22 in English, 24 in Mathematics, 22 in Reading Comprehension and 22 in Scientific Reasoning, or SAT Math sub score of 600.
+ Coursework: Fifteen total units of high school work are required: three or four units of English; four or more units of mathematics including algebra I and II, geometry and precalculus; three or four units of science including general science, introduction to physical science, earth science, biology, physics or chemistry; two or three units of social sciences including history, psychology or sociology; and three units of electives.

WHY CHOOSE THIS PROGRAM?

+ Mechanical engineering students are given a well-rounded education and taught not just technical skills but how to be innovative engineers and entrepreneurs in their fields.
+ Students have tremendous opportunities to participate in hands-on activities and networking events with industry professionals through a range extra curricular clubs and activities, including the American Society of Mechanical Engineers, the Parks Racing Club, and the Society of Women Engineers.
+ Students have a unique opportunity to work directly alongside faculty members on research projects.

Benefits of the mechanical engineering program also include several internship and career opportunities. Summer internships and cooperative education programs are available with industry in the St. Louis region as well as nationwide.

Funded undergraduate and graduate research opportunities are available with faculty members of the department. Funded research grants ranging from private industries to federal government research laboratories are available for qualified students.

Industry and government agencies have long recognized the quality of mechanical engineering graduates from Saint Louis University's Parks College. Our successful alumni have found employment at corporations and government agencies such as:

+ Boeing
+ General Dynamics
+ General Electric
+ NASA
+ Nooter/Eriksen
+ Textron Systems

SCHOLARSHIPS AND FINANCIAL AID

There are two principal ways to help finance a Saint Louis University education:

+ Scholarships: awarded based on academic achievement, service, leadership and financial need.
+ Financial Aid: provided in the form of grants and loans, some of which require repayment.

For priority consideration for merit-based scholarships, applicants should apply for admission by Dec. 1 and complete a Free Application for Federal Student Aid (FAFSA) by March 1.

For information on other scholarships and financial aid, visit the student financial services office online at finaid.slu.edu.