ELECTRICAL ENGINEERING

Electrical engineering deals with the study and application of electricity, electronics, electromagnetism, power systems and signal processing.
ELECTRICAL ENGINEERING AT SLU

Electrical Engineering students at SLU learn the fundamentals behind modern electronic gadgets. They study electrical engineering from basic principles to analysis and design of circuitry behind smart phones, robots, satellites and consumer electronics. Starting in their freshman year, students get to spend a great deal of time experimenting in the high-tech labs. The program emphasizes applying knowledge to real-world problems, so classroom instruction is complemented with hands-on lab experience.

Design experience is integrated into the program, ending with the senior capstone design project. The projects selected by the students involve conducting research, meeting specifications, development, design and demonstration, all under the guidance of faculty members.

Part of the broad education students receive incorporates community building, leadership, service, spirituality and values, reflecting the Jesuit mission of the Saint Louis University experience.

INDUSTRY INTERACTION

Parks students are prepared to be pioneers in the field, with experience in research, design and operation of electrical and electronic components and systems. They learn the discipline through course work, experiments, independent projects and assisting professors with research.

The department prepares students to pursue careers in industry or government or to continue their education through graduate programs, not only in engineering, but also in law, business or management. Alumni are employed in a variety of organizations from power companies to defense contractors, from consumer electronics manufacturers to software organizations.

The broad education gives students the perspective to solve technical problems dealing with energy needs, communication, medical electronics and defense systems.

PROGRAM FEATURES

Electrical Engineering at SLU is recognized for the following unique program features:

- The Electrical Engineering program at SLU is accredited by ABET.
- The department consists of well-qualified faculty with terminal Ph.D. degrees in electrical and computer engineering fields.
- Well-qualified students can earn their bachelor’s and master’s degrees in five years, then go on to earn their doctorate at Parks.
- Undergraduate students conduct research with faculty members and publish their research findings in professional journals.
- Students can take advantage of mentorship opportunities, pairing with local industry leaders through the St. Louis Regional Business Council or networking with noteworthy alumni at the Parks Leadership Academy series.
- The Summer Undergraduate Research Experience (SURE) allows students to study specific topics of their interest under the direction of a faculty member, while receiving a stipend.
- Independent study can be arranged under the direction of a faculty member, allowing students to pursue individual theoretical or experimental research in well-equipped lab facilities in the department.
- A low student-to-faculty ratio ensures undergraduates the opportunity for meaningful interaction with their professors.
- Students can pursue a bioelectronics concentration within the electrical engineering degree program, which incorporates biology and biomedical engineering. This is a popular pre-med degree option.
- Students can minor in computer science, mathematics and music or pursue a certificate in pre-law or business.
- Graduates typically complete internships and receive their first job offers at companies such as Anheuser-Busch, AT&T, Boeing, Emerson Electric, MIT Lincoln Labs and Rockwell International.
- The program attracts students from other countries such as China, India, Spain and Taiwan.
WHY I CAME TO PARKS

“While most engineers come from strong math and science backgrounds, I actually received my first B.A. in Spanish. Parks is proof that a positive learning environment is best for anyone learning engineering skills. Small class sizes and accessible office hours make learning both fun and challenging. In class we often talk about how our study topics relate to industry trends. Parks College teaches us to apply our knowledge in order to solve real-world problems.

Choosing a college is a difficult decision. For me, Parks was the right choice. Based on what I learned in my first years at Parks, I designed and patented a device that prevents distracted driving. Last spring, the Nashville Metropolitan Transit Authority won a top award for safety for installing my device on their city-wide bus fleet. I now own a business that markets my device to public transit agencies across the United States.

By choosing to attend Parks College, I made the best decision. I am now doing something that helps improve the world I live in, which is something that the SLU Jesuit mission has helped to instill in me, and I am utilizing the skills I have learned in the classroom to accomplish this! Thank you, Parks, for giving me the tools to take my education to the next level!”

-Ginny Foster, electrical engineering major
ABOUT PARKS COLLEGE

Several global challenges have emerged as opportunities for engineering and aviation students of Saint Louis University to make a difference, to apply their education in a context that is technically brilliant, socially responsible and uniquely enterprising, and to ultimately make the world a better, more inclusive place.

As technology alters every facet of our lives, aviation scientists, computer specialists and engineers are more in demand than ever. SLU’s Parks College of Engineering, Aviation and Technology has a worldwide reputation for its aviation and engineering programs. Our alumni have touched every NASA mission, developed patented technology for wind energy and won national and international awards.

“I invite you to make an appointment for a personal tour. Our faculty, staff and students will be delighted to show you around and answer your questions.”

Theodosios Alexander, Sc.D.
Dean

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