Electrical Engineering

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https://engineering.temple.edu/academics/departments/electrical-computer-engineering-department

The Electrical Engineering program is accredited by the Engineering Accreditation Commission (EAC) of ABET, https://www.abet.org.

Program Goals, Objectives & Design Integration

The objective of the Electrical Engineering program is to prepare students for careers as practicing engineers in areas such as digital systems, embedded processor applications, digital communications, control systems, sensor networks, biomedical signal processing, microelectronics, computer security, and power networks. These careers are in applications, development, research, and design of electric and electronic systems and devices. Electrical Engineers are involved in the design and development of telecommunications networks, cellular telephones, computer and other microprocessor-based devices, consumer electronics, control systems for space vehicles and robots, and in many aspects of the power and automotive industries.

The Department offers a concentration in Computer Engineering. The objective of the computer engineering concentration is to prepare students for a career in the area of Computer Engineering as it relates to the design of integrated software/hardware systems with both high- and low-level computer systems programming and applications to electrical systems. Computer engineers are responsible for the design, implementation, and application of computers and digital systems. The field covers hardware, software, and the interaction between them. The Computer Engineering concentration integrates courses on computer science fundamentals from the Department of Computer and Information Sciences of Temple University into the curriculum.

The Department also offers a concentration in Bioelectrical Engineering. The objective of the Bioelectrical Engineering concentration is to prepare students for careers in the emerging areas of biomedical signal and image processing, assistive devices for the impaired, and bioelectronics. The Bioelectrical Engineering concentration utilizes courses in Biology, and Mammalian Anatomy and Physiology from the Department of Kinesiology at Temple University as part of the curriculum.

The Electrical Engineering degree program is accredited by ABET. The curriculum features required courses in Mathematics, Chemistry, Physics, General Education, and the fundamentals of Electrical and Computer Engineering. The ABET minimum requirement for graduation is 128 semester hours, and students must satisfy the minimum requirement in each category. "Approved Elective" courses include elective electrical engineering courses, and a selection of math, science, engineering, and computer science courses as approved by the department chair. Students should consult the department chair or their academic advisor for any questions concerning the credit distribution.

Cooperative Education Program

A Cooperative Education (Co-op) is an optional program available at the College of Engineering where you have the opportunity to gain professional work experience before graduation. It is designed to give you the chance to apply the knowledge learned in the classroom to real life problems. You will be exposed to the latest technology and new ideas at a worksite helping you understand your field of work more extensively. During the Co-op, you will make valuable connections with professionals in your field. A cooperative education can enhance and strengthen you academically, professionally and personally.

Programs

- Bachelor of Science in Electrical Engineering
- Bachelor of Science in Electrical Engineering - Bioelectrical Engineering Concentration
- Bachelor of Science in Electrical Engineering - Bioelectrical Engineering Concentration with Co-op
- Bachelor of Science in Electrical Engineering - Computer Engineering Concentration
- Bachelor of Science in Electrical Engineering - Computer Engineering Concentration with Co-op
- Bachelor of Science in Electrical Engineering with Co-op