Electrical engineers focus on the controlled application of electricity to solve problems in areas ranging from tiny consumer electronic devices, medical equipment, and computers to automobiles and the massive power-generating apparatus used by utility companies. Electrical engineers apply electrical, electronic, and magnetic theory to the development, design, and operation of electrical hardware and software, control systems, electrical machines, and communications systems. They may also be involved in the manufacture, installation, and sale of electrical and electronic equipment and are employed by a wide variety of organizations that produce, use, or service this equipment.

Why Electrical Engineering at Lawrence Tech?
Lawrence Tech’s emphasis on combining theory and practice means you will have access to co-op programs and industry-sponsored projects that can provide valuable contacts with leading companies and help you to obtain on-the-job experience. Participation in the senior-year capstone course also

The Bachelor of Science in Electrical Engineering at Lawrence Technological University offers three areas of concentration: computer engineering, electronic engineering, and energy engineering, depending on whether you are interested in computer and digital system design, electronic circuit design, or automation, alternative energy, intelligent motion, and power distribution.

Curriculum
Your 132-credit-hour program consists of:

- Basic Science, Communications, Math, Computer Science: 42
- Humanities (with emphasis on leadership): 19
- Electrical Engineering Core: 50
- General Engineering: 13
- Electives: 8
- Total: 132

Each concentration requires an identical core curriculum, three specific concentration courses, two approved technical design electives, and three lab courses associated with the chosen concentration and/or technical elective courses.

Sample Courses
- Circuits and Electronics
- Communication Systems
- Control Systems
- Digital Electronics
- Microprocessors

“Upon receiving my degree, I was immediately ready to enter the work force. During the interview process, I was able to talk about the team projects and practical experiences I received at Lawrence Tech.”

Amy M. Garby, BSEE’93, Electrical Technical Leader, Ford Motor Company
provides valuable hands-on opportunities. Recently, seniors have designed an award-winning hybrid electric car, a thermal monitoring system for the Detroit Zoo’s Reptile House, a photosensitive robot, and a breath analyzer/vehicle disabler interface.

The Electrical Engineering program is accredited by the Accreditation Board for Engineering and Technology. It includes a core of electrical engineering courses and a wide range of technical electives. The senior capstone project spans two semesters and includes the design, construction, and testing of an electrical engineering project.

### Getting Started
For more information, including information for transfer and international students, visit [ltu.edu/engineering/electricalandcomputer/undergrad_ee.asp](http://ltu.edu/engineering/electricalandcomputer/undergrad_ee.asp) or contact Lawrence Tech’s Office of Admissions at 800.CALL.LTU or [admissions@ltu.edu](mailto:admissions@ltu.edu).

#### Graduates with a degree in Electrical Engineering have many career options:
- Automotive electronics
- Aviation electronics
- Bioelectrical devices
- Communications systems
- Computer electronics
- Consumer products
- Electrical equipment
- Entertainment industry
- Industrial robots
- Lighting and wiring
  (vehicles, buildings, and aircraft)
- Power plants