Whether it is generating and distributing electrical power, designing advanced medical imaging and diagnostic equipment, creating communication systems to connect the world, or building next-generation robots, electrical engineering is the application and control of electricity. Computer engineering focuses on construction and control of computers and their interface with the outside world. Wireless engineering’s focus is on systems for existing and next-generation wireless communications and applications. Auburn University’s Department of Electrical and Computer Engineering maintains its reputation for success by attracting talented students and providing them with a quality education via a faculty of international standing. As a result, graduates of the department are uniquely qualified to pursue careers in industries as diverse as power distribution and biomedical research.

**Notable**

- 523 undergraduate and 104 graduate students enrolled in fall 2022
- 34 full-time faculty members

**Research, Laboratories and Centers**

- Alabama Micro/Nano Science and Technology Center (AMNSTC)
- Auburn University Magnetic Resonance Imaging (MRI) Research Center
- Wireless Engineering Research and Education Center (WEREC)

**Undergraduate Curriculum**

**Bachelor of Electrical Engineering**
Auburn’s undergraduate electrical engineering curriculum emphasizes seven areas, including circuit analysis, communications, control systems, digital computer design, electronics, electromagnetics and power systems. The bachelor of electrical engineering major, offered by the department for more than a century, is a broad program designed to provide an education that offers graduates the flexibility to pursue a variety of careers.

**Bachelor of Computer Engineering**
Computer engineering focuses on the design of computer systems and networks, including the hardware components (processor, memory, networks, and peripherals) and the associated system software. This curriculum is a thoughtfully constructed plan for providing a firm footing in circuit analysis, digital systems and electronics in preparation for specialized study in computer system design, computer architecture and information networks. Additionally, computer engineers complete a series of software courses giving them the skills necessary to function at the highest level of computer engineering.

**Bachelor of Wireless Engineering**
Wireless engineering addresses the growing needs of the wireless technology industry by producing wireless engineers with the ability to understand all aspects of existing wireless hardware. This includes the study of integrated circuits, communication devices and network switching equipment, while providing the skills and understanding needed to innovate and create the next generation of wireless technology. The curriculum’s foundation rests on a series of courses in circuit analyses, communications, digital computing, electronics and electromagnetics with a specialized component of wireless communication and networks classes.

For information about academic programs and minors, visit [www.eng.auburn.edu/programs](http://www.eng.auburn.edu/programs)
LIFE AFTER GRADUATION

SCHOLARSHIPS

The College of Engineering and the Department of Electrical and Computer Engineering provide scholarship opportunities to students at every stage of their academic career. To be eligible for scholarships at Auburn University, all students must apply through AUSOM.

For information about engineering scholarships, visit www.eng.auburn.edu/scholarships

LIFE AFTER GRADUATION

With the rapid pace of technological development, the Department of Electrical and Computer Engineering strives to educate its graduates to lead the field in careers as design engineers, technical sales engineers, project managers and testing and research engineers. Graduates are prepared to face the future with the ability to address matters such as national security, renewable energy, disaster relief, communication and entertainment.


TEAMS AND ORGANIZATIONS

Students in the department are encouraged to participate in various campus and departmental organizations, including:

- Eta Kappa Nu, electrical engineering international honor society
- Institute of Electrical and Electronics Engineers (IEEE)
- SPARC Robotics Team

For more information on teams and organizations, visit www.eng.auburn.edu/organizations

GRADUATE CURRICULUM

**Master of Science (M.S.) non-thesis option** — requires the successful completion of a set of courses approved by the major professor. The courses may be taken on campus or online.

**Master of Science (M.S.) thesis option** — requires successfully completing a set of courses approved by the advisory committee, carrying out research on a chosen topic and passing the final examination on the thesis. The courses may be taken on campus or online.

**Doctor of Philosophy (Ph.D.)** — requires successful passing of candidacy requirements set by an advisory committee and a general examination covering the major, the preparation of an acceptable dissertation reflecting high achievement in scholarship and independent investigation, and the passing of a final examination on the dissertation and related subjects.

CONTACT US

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