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.

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.

Auburn's undergraduate computer engineering curriculum 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.

Auburn's undergraduate wireless engineering curriculum 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
**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](http://www.eng.auburn.edu/scholarships)

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**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.

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**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](http://www.eng.auburn.edu/organizations)

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**CONTACT US**

**Mark Nelms**, Department Chair  
**Elizabeth Gowan**, Academic Advisor  
200 Brown Hall  
Auburn, AL 36849  
334.844.1825  
efg0001@auburn.edu  
[www.eng.auburn.edu/elec](http://www.eng.auburn.edu/elec)

**Office of Engineering Student Services**  
1161 Brown-Kopel Center  
Auburn, AL 36849  
334.844.4310  
engineering@auburn.edu  
[www.eng.auburn.edu/ess](http://www.eng.auburn.edu/ess)

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