ELECTRICAL AND COMPUTER ENGINEERING

AUBURN
GINN ENGINEERING

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.**

NOTABLE

- 556 undergraduate and 117 graduate students enrolled in fall 2024
- 30 full-time faculty members

RESEARCH, LABS, AND CENTERS

The Department of Electrical and Computer Engineering provides opportunities to perform cutting-edge research through:

- Alabama Micro/Nano Science and Technology Center (AMNSTC)
- Auburn University Neuroimaging Center
- Wireless Engineering Research and Education Center (WEREC)

TEAMS & 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**

UNDERGRADUATE PROGRAMS

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. If desired, additional depth may be gained by choosing one of the three degree specializations: power engineering, pulp and paper engineering or wireless engineering.

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.

GRADUATE PROGRAMS

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.

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.

Recent employers include Mercedes-Benz, Intel, National Instruments, Procter and Gamble, Southern Company, the Strategic Missile and Defense Command, ExxonMobil, NASA, Walt Disney Imagineering , Suzuki, BMW, NSA, AT&T, CIA, Briggs & Stratton, Hewlett- Packard, Northrop Grumman, Motorola, ChevronTexaco, Honda, ADTRAN, CharBroil, Neptune, TSC, Harris, International Paper, Michelin, Southwire, National Instruments and Dynetics.

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**

CONTACT US

Mark Nelms, Department Chair
Elizabeth Gowan, Coordinator
200 Broun Hall
Auburn, AL 36849
334.844.1825
efg0001@auburn.edu
www.eng.auburn.edu/elec

Office of Engineering Student Services
1161 Brown-Kopel Student Achievement Center
Auburn, AL 36849
334.844.4310
engineering@auburn.edu
www.eng.auburn.edu/ess

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