Scholarships/Financial Assistance

Loan and grant opportunities are available, including:

– Pell grants
– Guaranteed student loans
– Research internships with professors
– Bridging study abroad scholarships
– Departmental scholarships

As students progress, the number of available scholarships and grants increases. Although some consideration is given to financial need, most scholarship awards are based on academic achievement.

www.auburn.edu/student_info/student_affairs/finaid

The Auburn Advantage

Solid academics and a campus with a strong sense of place make Auburn special. Our alumni recall a friendly, safe campus with a sense of family, caring professors, academic variety and challenge, and extracurricular activities that helped them grow into leaders.

– Outstanding instruction
– Hands-on lab projects
– Research opportunities
– Co-op education and internships
– Scholarship opportunities
– Mentoring
– Academic support
– Diversified faculty and student body
– Job search assistance
– Variety of career opportunities
– Resume service for alumni
– Classic college town atmosphere

Contact Us

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At a Glance

If a device plugs into an electrical outlet, or generates its own power, electrical and computer engineers are involved in its design and manufacture. A critical industry shortage for radio frequency/wireless circuit design and network designers — expected to continue increasing over the next two decades — makes electrical and computer engineers a valuable commodity in today's job market. The starting salary range for Auburn and computer engineers is $50,000s to $60,000s.

Electrical, computer or wireless engineers:
- Design digital communication equipment such as modems, fax machines and cellular phones and embed computers in video games, home appliances and automobiles
- Develop data compression and transmission technology used on the Internet, such as MPEG, JPEG and mp3
- Design computer-controlled energy management systems to promote energy conservation
- Develop ready-to-use manufacturing systems for the automotive industry
- Design antennas for satellite broadcasting and cellular communication systems

Electrical and computer engineers are involved in almost every industry, including microelectronics, computers and wireless technology.

Wireless — Electrical and computer engineers are at the heart of wireless technology, designing and building wireless devices from electronics to chips.
- Design low-cost computers in automobiles, cell phones, IV pumps and thousands of other consumer devices.
- Design low-cost chip sets for telecommunications and computers, including mobile phones and pagers.
- Apply low-cost chips for security and antitheft systems and for new electronics, including wireless phones with Internet and e-mail capability.
- Design chip sets to develop wireless hardware such as integrated circuit chips, wireless communication devices and wireless networking equipment.
- Design circuit cards and DVD players to complete systems such as PCs and Internet servers.
- Develop software drivers with applications ranging from devices such as PDAs to complexes such as Web design. In addition, wireless engineers are in demand for computers to embed low-cost computers in automobiles, cell phones, IV pumps and thousands of other consumer devices.
- Design network switching equipment. The curriculum includes courses in circuit analysis, communications, digital systems, electronics, electromagnetics and wireless communications and networks.

At Glance

Undergraduate Curriculum

- Bachelor of Electrical Engineering (with an option in computer engineering)
- Bachelor of Wireless Engineering

Wireless Engineering Options Offered

- Wireless engineering — Auburn's bachelor of wireless engineering program is the first in the nation. It is offered jointly by the Department of Electrical and Computer Engineering and the Department of Computer Science and Software Engineering.

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Wireless Engineering Options Offered

- Wireless electrical engineering (with specializations in hardware and networking) — design wireless hardware such as circuit chips, wireless communication devices and wireless networking equipment.
- Wireless software engineering (with specializations in software and networking) — application software development including server-side, client-side, and embedded applications.

Research Areas

Electrical and computer engineering faculty continually track new and advancing technology and adjust their programs to meet these ever-changing needs. Recent research areas include:
- Digital systems
- Digital signal processing and communication
- Electromagnetic modeling and analysis
- Control systems
- Power systems
- Microelectronics
- Biomedical research
- Image processing
- Wireless engineering

Laboratory Facilities

The research facilities of the Department of Electrical and Computer Engineering offer students an opportunity to develop special skills in emerging technologies. The department is one of only a few in the nation that allows undergraduate students regular access to microelectronics design and manufacturing facilities for courses and senior design projects. Current laboratory includes:
- Alabama Microelectronics Science and Technology Center
- Center for Advanced Vehicle Electronics
- Laboratory for Electronics Assembly and Packaging
- Wireless Research and Education Center

Extracurricular Opportunities

Auburn engineering students can participate in a wide variety of educational activities beyond the classroom, gaining experience with teamwork and project management. In the U.S. Department of Energy's Solar Decathlon national solar house competition, ECE students designed the entire electrical system, including selection of solar panels, inverters, batteries, and electrical appliances. In the American Solar Challenge cross-country solar car race, ECE students design the power monitoring and communication systems.

Electrical and computer engineering students are encouraged to participate in campus chapters such as:
- Tau Beta Pi honor society
- Institute of Electrical and Electronics Engineers
- Eta Kappa Nu honor society
- Society of Women Engineers
- National Society of Black Engineers

www.eng.auburn.edu/organizations

Advising/Support Services

To ensure progress toward completion of degree requirements, an engineering advisor, the department undergraduate program officer, is available to discuss and advise on curriculum choices and requirements.

Auburn Engineering is committed to helping students succeed. The following services are available:
- Study Partners mentoring program
- Mentoring and networking network
- College of Engineering tutoring program
- BellSouth Minority Engineering Program tutors