Electrical engineers have been uniquely responsible for developing many of the innovations that have brought us modern life, and are urgently needed today to help solve a variety of global problems, including challenges related to energy, communications, health care, global warming, and national security.

Electrical engineering underpins many other engineering disciplines, encompassing biomedical devices technology, microelectronics, information systems, wireless communications and signal processing, power systems, lasers and optics, electronic devices, computer software–hardware integration, and control systems.

Electrical engineering students at Clemson learn about circuits and electronics, digital logic, computer organization, signal processing, power systems, electromagnetics, communications, and control. They also choose among technical electives in areas including computer systems, biomedical systems, communication networks, instrumentation, knowledge engineering, embedded computing, and renewable energy.

clemson.edu/ece
ELECTRICAL ENGINEERING

Program Details:

Electrical engineers design, develop, test, and supervise the deployment of countless types of electrical systems and electronic devices.

Laboratories and Facilities for Hands-On Training

Electrical Engineering labs are hands-on and lab space is primarily housed in Riggs Hall. Undergraduate students participating in Creative Inquiry or other research projects may also use the clean room and MicroFabrication facilities at the Clemson University Advance Materials Research Park.

Clubs and Organizations

- IEEE Student Branch – Institute of Electrical and Electronics Engineers
- HKN – Eta Kappa Nu (IEEE honor society)
- IEEE PES Student Chapter – Power Engineering Society
- CLUG – Clemson Linux Users and GNU
- SHPE – Society of Hispanic Prof. Engineers
- Amateur Radio Club
- TBP – Tau Beta Pi (honor society)
- Theta Tau – co-ed engineering fraternity
- WISE - Women in Science and Engineering
- NSBE – National Society of Black Engineers

Global Engagement

While students are encouraged to take part in Clemson study abroad opportunities, it can be difficult to complete required engineering courses through study abroad opportunities. Instead, students often study abroad to meet general education requirements, or courses associated with a minor. Our academic advisors can help the student identify specific opportunities that match and can be fit within the ECE curriculum.

Graduate and Professional School Opportunities

Roughly 32% of ECE students plan to attend graduate school. Many of these students continue their graduate education at Clemson, taking advantage of our BS-to-Grad program. Others attend a range of graduate programs such as Michigan State University, Georgia Institute of Technology, NC State, or University of Colorado Boulder.

Undergraduate Research

The Holcombe Department of Electrical and Computer Engineering has multiple research opportunities that undergraduate students can participate in, including:
- Senior Honors Thesis research projects
- Summer REU programs
- Multiple Creative Inquiry options

Co-ops and Internships

Roughly 20% of students in the Electrical and Computer Engineering department participate in a co-op and/or internship experience while at Clemson. Recent companies our students have worked with include IBM, Michelin, Boeing, Itron, GE, Duke Energy, BMW, Cisco, Texas Instruments, Intel, Exxon Mobil, and many others.

Employers

Over 70% of our undergraduate students have multiple job offers in hand before graduation. Frequent and recent employers:
- Amazon
- IBM
- Michelin
- Facebook
- Google
- Boeing
- Itron
- GE
- Duke Energy
- BMW
- Cisco
- Texas Instruments
- Intel
- Exxon Mobil

More info at: clemson.edu/cecas/psu