BACHELOR OF SCIENCE IN
ELECTRICAL ENGINEERING

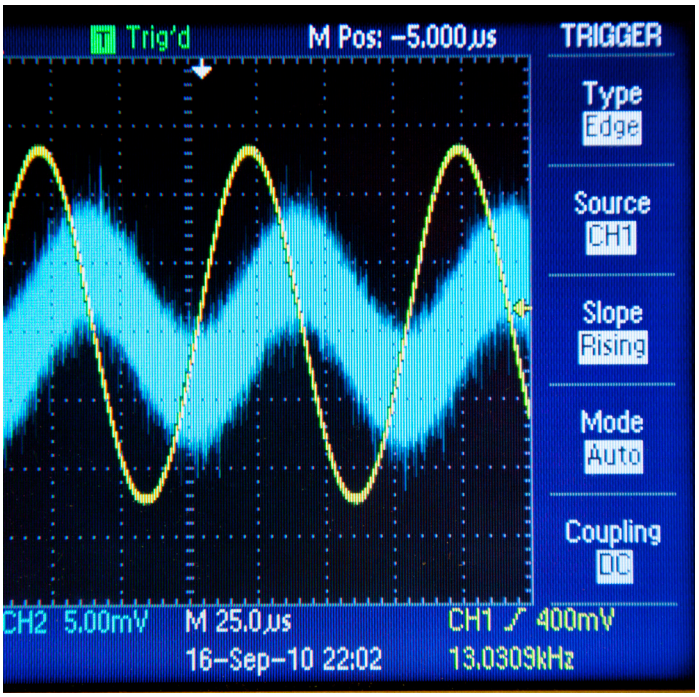
ENGINEERING IS THE PROCESS OF SOLVING REAL-WORLD PROBLEMS IN ALL REALMS OF LIFE.

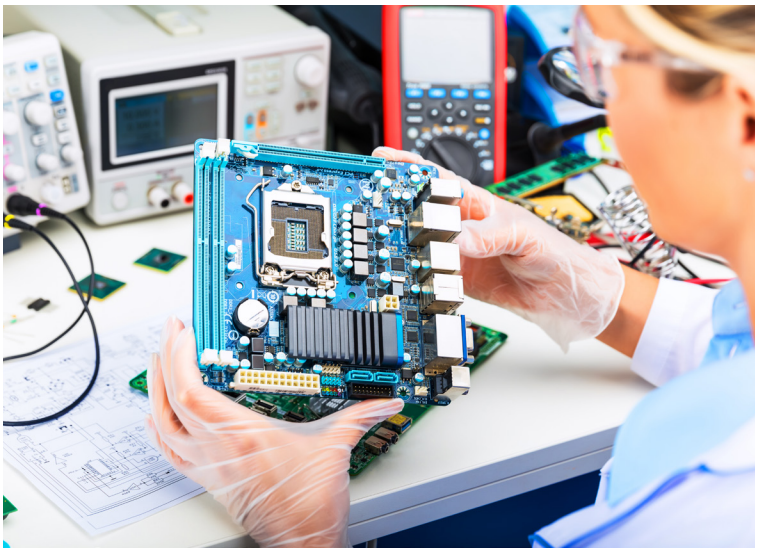
Electrical Engineering is one specialty of Engineering. People often think that the job of an electrical engineer is to design and develop new electrical systems but they can do so much more.

In the big picture, they study and apply the physics and mathematics of electricity, electromagnetism and electronics to a variety of systems in order to solve many real-life issues in this technological world. They are involved in design and construction of faster and "smarter" computer systems, optimizing the efficiency of large scale power grids, design and construction of the power system and the electronics of electric automobiles, operation and placement of cell phone towers and the whole phone network, and many more things.

The tools of the engineer are science and mathematics, but engineering also involves creativity and art, making models, and using approximations.

AT EIU WE WILL PREPARE ELECTRICAL ENGINEERS TO MAKE A DIFFERENCE IN THE WORLD THROUGH THEIR TECHNICAL ABILITIES, KNOWLEDGE, AND CREATIVITY.





FAST FACTS

+ SMALL CLASSES

Introductory science and math classes in the Electrical Engineering program typically have about 25 students and advanced courses in Physics and Engineering will typically have about 12 students.

+ QUALIFIED FACULTY

The faculty of the Electrical Engineering program are committed to undergraduate education. All of the faculty in the Electrical Engineering program hold PhDs in Engineering or Physics. The classes and labs are almost all taught by faculty, not graduate students. You will have ample opportunity to interact directly with faculty who are committed to your education.

+ EXCELLENT FACILITIES

EIU has research and teaching facilities for Electrical Engineering that are designed for student success. The electronics lab is fully integrated for a wide range of measurement capabilities. Students can fabricate electronic devices. We have a variety of research projects available that give students experience solving real world problems and pushing the frontiers of science.

+ INTERNSHIPS

EIU has partnered with nearby companies to offer internships that will give our students direct experience in the field. The internship is a capstone experience for Electrical Engineers to help them mature into professionals in the field.

EASTERN ILLINOIS UNIVERSITY

FOR MORE INFORMATION. PLEASE CONTACT:

DR. STEVEN DANIELS
PHYSICS DEPARTMENT CHAIR & ELECTRICAL ENGINEERING COORDINATOR
E-MAIL: SWDANIELS@EIU.EDU

BACHELOR OF SCIENCE IN
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THE EIU ELECTRICAL ENGINEERING CURRICULUM

The Electrical Engineering curriculum is designed to develop your core skills in science, math, and engineering needed to prepare you for a successful and rewarding career in an ever changing technical world.

The Electrical Engineering program consists of basic science, mathematics, and engineering as well as Gen Ed courses. The upper level will give the students hands on experiences and a solid grounding in the details of several branches of electrical engineering. The breadth and depth of the program is designed to be consistent with ABET accreditation practices.

Students start off with the lower level math and science for their first two years. At the upper levels students take such subjects as Digital Systems and Design, Introduction to Control Systems, and Senior Design. The Senior Design course is a capstone experience that will bring together all that has been learned by working in teams to design and construct an engineering project from concept to prototype.

INNOVATIONS BY ELECTRICAL ENGINEERS

+ The smartphone in your pocket is a masterpiece of electrical engineering design

+ Robots have many components such as sensors, actuators, microprocessors and sophisticated feedback control systems and all of these are designed, tested, and implemented by electrical engineers!

+ LED and conventional lighting systems, power generation and storage networks, imaging and image analysis systems – all of these are products of work by electrical engineers.

+ Doctors and hospital personnel do extensive tests such as CT scans, MRI and PET imaging, ECG and EEG traces and many more diagnostic processes. This medical equipment and much more is designed and built using the principles of electrical engineering.