



# ELECTRICAL ENGINEERING

Electrical engineers harness energy to power change, and to imagine and drive technological innovations that make the world a better place. Rapidly growing fields such as autonomous systems & robotics, biomedical devices, artificial intelligence, cybersecurity and renewable energy depend on the expertise of electrical engineers. They engineer everything from the smallest components to the most complex systems, and master the power of energy, light, circuits and systems to create solutions to the world's biggest challenges.

## PURSuing ELECTRICAL ENGINEERING AT UK

Electrical engineering students learn to envision, imagine and create the technologies that power the world. Our faculty members bring their cutting-edge research in robotics, artificial intelligence, cybersecurity, aerospace, nanotechnology and renewable energy directly into the classroom, where students get hands-on experience in state-of-the-art laboratory facilities. In the ECE Engineering Prototype and Innovation Center (EPIC), students use advanced fabrication, 3D printing and circuit prototyping tools.

## CAREER PROSPECTS IN ELECTRICAL ENGINEERING

Electrical engineering is consistently one of the highest-paid and most in-demand careers. Nearly every industry relies on electrical engineers to create both the underlying power and communications infrastructures for the consumer products that power our lives. When radical new technologies appear one thing is certain: they will come from the imaginations of electrical engineers.

## UNDERGRADUATE RESEARCH IN ELECTRICAL ENGINEERING

Our faculty's diverse research expertise opens the door for undergraduate students to participate in exciting and impactful research projects. Undergraduate research opportunities include all fields of study: robotics, artificial intelligence, cybersecurity, aerospace, nanotechnology, renewable energy and more.

## CO-OPS

UK provides opportunities to co-op with many companies. Students can co-op during the fall, spring or summer terms. Those who complete three co-op rotations will receive formal recognition upon graduation with a special cord (beginning with May '23 graduates). Students work with the co-op director and their academic advisor to determine the best timing for their co-op experiences.

### PROGRAM FACTS

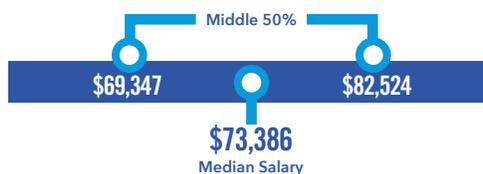
**Enrollment:** 227

**Common Minors:** Computer Science and Mathematics

**Student Organizations:** IEEE, Solar Car and Kentucky Organization of Robotics and Automation

### GRADUATE STARTING SALARIES

Median full-time starting salary info for 2021 new college graduates  
National Association of Colleges and Employers - Summer 2022



### INDUSTRY SECTORS:

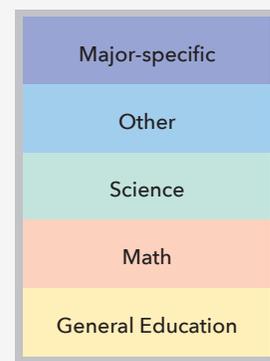
- Robotics
- Aerospace
- Biomedical
- Renewable Energy
- Consumer Electronics
- Wireless Communications

# ELECTRICAL ENGINEERING

## Curriculum Synopsis

This list is a synopsis of classes a student will take to pursue a degree in electrical engineering. As part of the electrical engineering curriculum, students must complete the pre-engineering requirements, major requirements and general education coursework, called UK Core.

*Note: This synopsis represents one of several paths to an electrical engineering degree. Consult the departmental website for details on specific paths.*



YEAR ONE	YEAR TWO	YEAR THREE	YEAR FOUR
Engineering Exploration I and II	AC Circuits	Electromechanics	Electrical Engineering Capstone Design I and II
Fundamentals of Engineering Computing	Circuits I	Introduction to Electronics	Four Electrical Engineering Technical Electives
Introduction to Program Design	Digital Logic Design	Introduction to Engineering Electromagnetics	Engineering/Science Elective
Chemistry I	Introduction to Embedded Systems	Signals and Systems	Math/Statistics Elective
Physics I and Lab	Physics II and Lab	Two Electrical Engineering Laboratory Electives	UK Core Courses
Calculus I and II	Calculus III and IV	Engineering/Science Elective	
Composition and Communication I and II	UK Core Courses	Two Technical Electives	
		Introduction to Probability or Engineering Statistics	
		UK Core Course	

### TAKING CO-OPS?

When you participate in semester co-ops, the above schedule can adjust.

Detailed Curriculum Information: [engr.uky.edu/explore/electrical-engineering](http://engr.uky.edu/explore/electrical-engineering)

The University of Kentucky's electrical engineering program is accredited by the Engineering Accreditation Commission of ABET, [www.abet.org](http://www.abet.org).

**Revised August 2022.** Information subject to change. For the most up-to-date information on the UK College of Engineering, visit [www.engr.uky.edu](http://www.engr.uky.edu).