

ELECTRICAL ENGINEERING



Electrical engineers harness energy to power change, imagining and driving technological innovation that makes 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 empower solutions to the world's biggest challenges.

FOR MORE INFORMATION, VISIT THESE WEBSITES:

Electrical Engineering: www.engr.uky.edu/ece

College of Engineering: www.engr.uky.edu

Visit Engineering: www.engr.uky.edu/visit

University of Kentucky: www.uky.edu

Admissions: www.uky.edu/admissions

Scholarships: www.uky.edu/scholarships

Electrical Engineering Curriculum Sample

This is a sample list 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 sample represents one of several paths to an electrical engineering degree. Consult the departmental website for details on specific paths.

Freshman Year

Engineering Exploration I and II	3
Fundamentals of Engineering Computing	2
Calculus I and II	8
Chemistry I and Physics I and Lab	9
Composition & Communication I and II	6
Introduction to Program Design	4
Total hours	32

Sophomore Year

Calculus III and IV	7
Physics II and lab	5
Circuits I	4
AC Circuits	4
Digital Logic Design	4
Introduction to Embedded Systems	4
UK Core Course	6
Total hours	34

Junior Year

Electromechanics	3
Signals and Systems	3
Intro to Electronics	3
Intro to Probability or Engineering Stats	3
Intro to Engineering Electromagnetics	4
Elective EE labs	4
Engineering/Science Elective	3
Technical Electives	6
UK Core Course	3
Total hours	32

Senior Year

EE Capstone Design I and II	6
EE Technical Electives	12
Math/Statistics Elective	3
Engineering/Science Elective	3
UK Core Courses	6
Total hours	30

Pursuing Electrical Engineering at UK

Electrical engineering students at UK 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 prototyping tools. Students put this knowledge into practice through outstanding student organizations, undergraduate research opportunities and a robust co-op and internship program that works with industry partners in Kentucky and across the country.

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. Electrical engineers understand how to design and make the newest intelligent tools and machines smarter, smaller, cheaper, faster and safer. When radical new technologies appear that will dramatically change our technological landscape, one thing is certain: they will come from the imaginations of electrical engineers.

Undergraduate Research in Electrical Engineering

Our faculty's diverse range of 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.

The University of Kentucky's electrical engineering program is accredited by the Engineering Accreditation Commission of ABET, www.abet.org.

Revised August, 2019. Information subject to change. For the most up-to-date information on the UK College of Engineering, visit www.engr.uky.edu.