

# COMPUTER ENGINEERING

Computer engineers are the driving force behind the world's most significant technological changes. From integrated circuits to the internet to smartphones to artificial intelligence, computer engineering turns science fiction into science, and then puts it right in the palm of your hand. Whether they are strengthening cybersecurity, creating autonomous vehicles or making biomedical devices smarter, computer engineers work at the intersection of hardware and software, enhancing, enabling, empowering and elevating all technologies.

## PURSuing COMPUTER ENGINEERING AT UK

Computer engineering students learn how today's technologies work so that they can imagine and create the innovations of tomorrow. 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 COMPUTER ENGINEERING

A degree in computer engineering opens the door to a wealth of career opportunities. Computer engineers work in nearly every industry: robotics, aerospace, autonomous & intelligent systems, biomedical technology, gaming and entertainment, IoT devices and cybersecurity. With the U.S. Bureau of Labor Statistics predicting that computer-related occupations will represent over half of all job openings in the next 10 years, computer engineers are in high demand.

## UNDERGRADUATE RESEARCH IN COMPUTER ENGINEERING

Students in computer engineering participate in a wide variety of compelling, hands-on research projects with expert faculty members. Recent projects have included virtual reality systems, new methods for computational photography, multi-core computer architectures and deep learning for image processing.

## 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:** 187

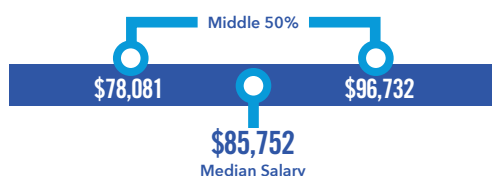
**Common Minors:** Computer Science, Mathematics and Physics

#### Student Organizations:

IEEE, ACM, 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
- Artificial Intelligence
- Consumer Electronics
- Wireless Communications

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## Curriculum Synopsis

This list is a synopsis of classes a student will take to pursue a degree in computer engineering. As part of the computer 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 computer engineering degree. Consult the departmental website for details on specific paths.*

Major-specific
Other
Science
Math
General Education

YEAR ONE	YEAR TWO	YEAR THREE	YEAR FOUR
Engineering Exploration I and II	Circuits I	AC Circuits	Capstone Design I and II
Fundamentals of Engineering Computing	Computer Engineering Sophomore Seminar	Advanced Computer Architecture	Hardware Elective
Introduction to Program Design	Digital Logic Design	Algorithm Design and Analysis	Software Elective
Chemistry I	Discrete Mathematics	Computer Organization	Three Computer Engineering Electives
Physics I and Lab	Introduction to Embedded Systems	Introduction to Electronics	Technical Electives
Calculus I and II	Introduction to Software Engineering	Signals and Systems	UK Core Courses
Composition and Communication I and II	Systems Programming	Technical Elective	
	Physics II and Lab	Engineering Statistics	
	Calculus III and IV	UK Core Courses	

### TAKING CO-OPS?

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

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

The University of Kentucky's computer 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.enr.uky.edu](http://www.enr.uky.edu).