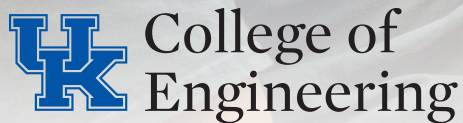
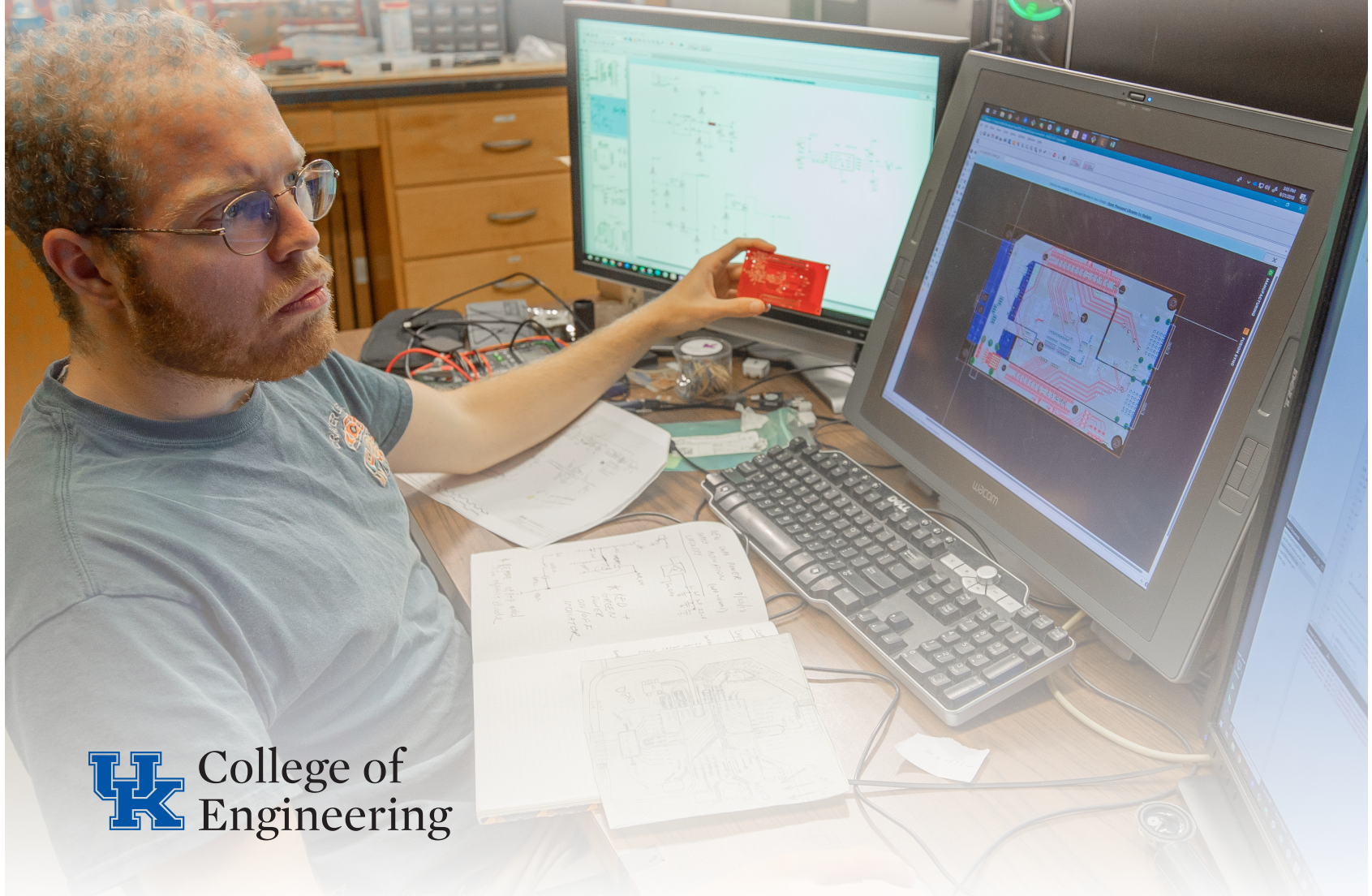


# COMPUTER ENGINEERING



Computer engineers are the driving force behind the most significant technological changes the world has ever seen. 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.

## FOR MORE INFORMATION, VISIT THESE WEBSITES:

**Computer Engineering:** [www.engr.uky.edu/ece](http://www.engr.uky.edu/ece)

**College of Engineering:** [www.engr.uky.edu](http://www.engr.uky.edu)

**Visit Engineering:** [www.engr.uky.edu/visit](http://www.engr.uky.edu/visit)

**University of Kentucky:** [www.uky.edu](http://www.uky.edu)

**Admissions:** [www.uky.edu/admissions](http://www.uky.edu/admissions)

**Scholarships:** [www.uky.edu/financialaid/scholarships](http://www.uky.edu/financialaid/scholarships)



## COMPUTER ENGINEERING CURRICULUM SAMPLE

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

### Freshman Year

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

### Sophomore Year

Computer Engineering Sophomore Seminar	1
Circuits I	4
Digital Logic Design	4
Intro to Embedded Systems	4
Intro to Software Engineering Techniques	3
Systems Programming	3
Discrete Mathematics	4
Calculus III and IV	7
Physics II and lab	5
<b>Total hours</b>	<b>35</b>

### Junior Year

AC Circuits	4
Algorithm Design and Analysis	3
Computer Organization	3
Signals and Systems	3
Intro to Electronics	3
Advanced Computer Architecture	3
Engineering Statistics	3
Technical Elective	3
UK Core Courses	6
<b>Total hours</b>	<b>31</b>

### Senior Year

Capstone Design I and II	6
Computer Engineering Electives	9
Hardware Elective	3
Software Elective	3
Technical Elective	3
UK Core Courses	6
<b>Total hours</b>	<b>30</b>

## PURSuing COMPUTER ENGINEERING AT UK

Computer engineering students at UK 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. 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 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 tremendous 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.

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 2020.** 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).