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

<table>
<thead>
<tr>
<th>Middle 50%</th>
<th>Median Salary</th>
</tr>
</thead>
<tbody>
<tr>
<td>$78,081</td>
<td>$96,732</td>
</tr>
</tbody>
</table>

INDUSTRY SECTORS:
- Robotics
- Aerospace
- Biomedical
- Artificial Intelligence
- Consumer Electronics
- Wireless Communications

For more information, visit: engr.uky.edu/explore/computer-engineering
**COMPUTER ENGINEERING**

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.*

<table>
<thead>
<tr>
<th>YEAR ONE</th>
<th>YEAR TWO</th>
<th>YEAR THREE</th>
<th>YEAR FOUR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engineering Exploration I and II</td>
<td>Circuits I</td>
<td>AC Circuits</td>
<td>Capstone Design I and II</td>
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<tr>
<td>Introduction to Program Design</td>
<td>Digital Logic Design</td>
<td>Algorithm Design and Analysis</td>
<td>Software Elective</td>
</tr>
<tr>
<td>Chemistry I</td>
<td>Discrete Mathematics</td>
<td>Computer Organization</td>
<td>Three Computer Engineering Electives</td>
</tr>
<tr>
<td>Physics I and Lab</td>
<td>Introduction to Embedded Systems</td>
<td>Introduction to Electronics</td>
<td>Technical Electives</td>
</tr>
<tr>
<td>Calculus I and II</td>
<td>Introduction to Software Engineering</td>
<td>Signals and Systems</td>
<td>UK Core Courses</td>
</tr>
<tr>
<td>Composition and Communication I and II</td>
<td>Systems Programming</td>
<td>Technical Elective</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Physics II and Lab</td>
<td>Engineering Statistics</td>
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</tr>
<tr>
<td></td>
<td>Calculus III and IV</td>
<td>UK Core Courses</td>
<td></td>
</tr>
</tbody>
</table>

**UK Core Courses**

1. Composition and Communication I and II
2. Digital Logic Design
3. Discrete Mathematics
4. Engineering Statistics
5. Physics I and Lab
6. Calculus I and II
7. Composition and Communication I and II
8. Engineering Statistics
9. Physics I and Lab
10. Calculus I and II

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

**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).

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

**TAKING CO-OPS?**

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