



# COMPUTER SCIENCE

Computer scientists identify and solve computational problems in all areas of modern life. They use technical skills and computational thinking combined with mathematical concepts, science, problem-solving skills and creativity to design and build software, formulate solutions to computing problems and invent new algorithms and better ways of using computers. Computer scientists work in software development companies, telecommunication, manufacturing, transportation, entertainment and e-commerce industries, financial and health care companies, start-up companies, education and government agencies.

## PURSUING COMPUTER SCIENCE AT UK

As a computer science major, you will be taught by professors who are recognized leaders in their respective fields and are available inside and outside the classroom to discuss course material, emerging topics of research and the computing profession. Our faculty members have expertise in computing foundations, algorithms, networking, systems, data mining, software engineering, artificial intelligence and machine learning.

## CAREER PROSPECTS IN COMPUTER SCIENCE

Because of broad applications, needs and methods, the discipline of computer science offers many attractive, challenging, interesting and socially meaningful careers. A broad range of industries, companies, businesses and agencies employ computer scientists. The Office of Labor Statistics projected that employment of computer and information technology professions will grow 12 percent from 2018 to 2028.

## UNDERGRADUATE RESEARCH IN COMPUTER SCIENCE

Multidisciplinary research opportunities with faculty in their labs provide students with additional breadth and depth in computer science theory and practice. Such experience improves a student's competitiveness for national scholarships and honors, professional computing careers, graduate education and professional school education. Our recent graduates have received National Science Foundation Graduate Fellowships, Goldwater Scholarships and Fulbright awards.

## 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:** 747

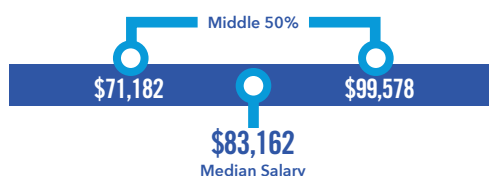
**Common Minors:** Mathematics, Statistics and Physics

#### Student organizations:

Association for Computing Machinery, ACM's Women in Computing

### GRADUATE STARTING SALARIES

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



### INDUSTRY SECTORS:

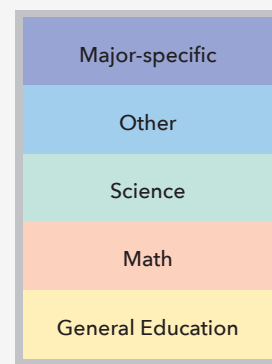
- Software Engineer
- Data Analyst
- Programmer
- Network Architect
- Security Specialist

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## Curriculum Synopsis

This list is a synopsis of classes a student will take to pursue a degree in computer science. As part of the computer science curriculum, students must complete the pre-engineering requirements, major requirements and general education coursework, called UK Core. The minimum number of credits is 128.

*Note: This synopsis represents the path to a computer science degree. Consult the departmental website for specific details.*



YEAR ONE	YEAR TWO	YEAR THREE	YEAR FOUR
Introduction to Program Design	Algorithm Design and Analysis	Four Computer Science Electives	Senior Design Project
Engineering Exploration I and II	Discrete Mathematics	Introduction to Computer Networking	Software Engineering for Senior Project
Fundamentals of Engineering Computing	Intro to Software Engineering	Logic and Theory of Computing	Two Computer Science Electives
Chemistry I	Systems Programming	Technical Elective	Technical Electives
Physics I and Lab	Design of Logic Circuits	Natural Science Elective	Ten Hours of Free Electives
Calculus I and II	Technical Elective	Engineering Statistics	UK Core Course
Composition and Communication I and II	Science Elective	Intro to Numerical Methods or Matrix Algebra & its Applications	
	Calculus III	UK Core Course	
	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-science](http://enr.uky.edu/explore/computer-science)

The University of Kentucky's computer science program is accredited by the Computing 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).