

COMPUTER SCIENCE, BACHELOR OF SCIENCE WITH A CONCENTRATION IN COMPUTER TECHNOLOGY (B.S.)

Program Objectives

The mission of the Bachelor of Science in Computer Science program is to provide students with an education that will prepare them to develop a career in the fields of computer science or computer forensics.

Program Requirements

CIP Code: 11.0101

Summary Checklist for General Education

Code	Title	Hours
Element 1		
A:	Written Communication (http://catalogs.eku.edu/undergraduate/general-academic-information/general-education-requirements/element-1/)	3
B:	Written Communication (http://catalogs.eku.edu/undergraduate/general-academic-information/general-education-requirements/element-1/)	3
C:	Oral Communication (http://catalogs.eku.edu/undergraduate/general-academic-information/general-education-requirements/element-1/)	3
Element 2		
	Quantitative Reasoning (http://catalogs.eku.edu/undergraduate/general-academic-information/general-education-requirements/element-2/)	3
Element 3		
A:	Arts (http://catalogs.eku.edu/undergraduate/general-academic-information/general-education-requirements/element-3/)	3
B:	Humanities (http://catalogs.eku.edu/undergraduate/general-academic-information/general-education-requirements/element-3/)	3
Element 4		
	Natural Sciences (http://catalogs.eku.edu/undergraduate/general-academic-information/general-education-requirements/element-4/)	6
Element 5		
A:	Historical Science (http://catalogs.eku.edu/undergraduate/general-academic-information/general-education-requirements/element-5/)	3
B:	Social Behavioral Science (http://catalogs.eku.edu/undergraduate/general-academic-information/general-education-requirements/element-5/)	3
Element 6		
	Diversity of Perspectives Experiences (http://catalogs.eku.edu/undergraduate/general-academic-information/general-education-requirements/element-6/)	6
Total Hours		36

Students are expected to complete Elements 1 and 2 within their first 60 hours of college credit.

Major

Code	Title	Hours
University Graduation Requirements		
General Education		36
<i>Student Success Seminar</i>		
SCO 100I	Student Success Seminar in Computer Science (waived for transfers with 30+ hrs.)	1
Upper division courses (42 hrs. distributed throughout Major/Supporting/Gen Ed/Free Electives categories)		
Major Requirements		
<i>Core Courses</i>		
CSC 185	Discrete Structures I ¹	3
CSC 190	Object- Oriented Programming I ¹	3
CSC 191	Object-Oriented Programming II	3
CSC 195	Discrete Structures II	3
CSC 308	Mobile App Development for Apple iOS	3
CSC 310	Data Structures	3
CSC 313	Database Systems	3
CSC 338	Fundamentals of Cybersecurity	3
CSC 340	Ethics & Software Engineering	3
CSC 499	CS Career Preparation	1
Concentrations		
Students must select one of the following Concentrations:		
Computer Science (General)		
Computer Technology		45-46
Interactive Multimedia		
Artificial Intelligence in Data Science		
<i>Free Electives</i>		
Choose from 9-10 hours of free electives		9-10
Total Hours		120

¹

Students without a 25 ACT or 590 SAT will be advised to take CSC 170 Intro to Game Programming as preparation for CSC 185 Discrete Structures I and CSC 190 Object- Oriented Programming I.

Concentration

Code	Title	Hours
Concentration Courses		
CSC 360	Computer Org & Architecture	3
CSC 440	Applied Software Engineering	3
CSC 460	Computer Network & System Administration	3
CSC 545	Theory of Database Systems	3
CSC 349	Applied Learning in Computer Science ¹	3
CSC 330	System Environments & Networks	3
or CSC 544	Database Admin and Security	
Choose from one three credit CSC course at 300-level or above ²		3
Choose from one hour of the following:		1
CSC 494	Innovative Problem Solving	
CSC 495	Independent Work	
CSC 496	Senior Seminar	

Supporting Course Requirements

EET 252	Digital Electronics	3
NET 302	PC Troubleshooting & Construction	3
NET 303	LANs & PC Communications	3
NET 343	Network Switches & Routers	3
NET 344	Advanced Network Devices	2-3
or NET 395	Special Topics in NET	
NET 354	Microcomputer & Network Security	3
NET 403	Advanced LANSs and PC Communication	3
NET 454	Wireless/WAN Security	3
Choose from one of the following:		
MAT 234	Calculus I (Element 2) ^G	
MAT 211	Applied Calculus (Element 2) ^G	
Total Hours		45-46

1

Under special circumstances, a student may seek an administrative waiver of the CSC 349 Applied Learning in Computer Science requirement from the Computer Science Curriculum Committee and the department chair. Waiver recipients are required to complete three semester hours of additional course work approved by the Computer Science Curriculum Committee.

2

Except CSC 349 Applied Learning in Computer Science

G

Course also satisfies a General Education element. Hours are included within the 36 hr. General Education requirement above.