COMPUTER SCIENCE, BACHELOR OF SCIENCE WITH A CONCENTRATION IN COMPUTER SCIENCE (GENERAL) (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 Educational Objectives/Goals for General Computer Science Concentration

1. Our graduates will be productive professionals in the computing field.
2. Our graduates will develop professionally through continued formal education and/or professional activities.
3. Our graduates will demonstrate leadership skills at work.
4. Our graduates will contribute to community as computing professionals.

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
Student Success Seminar		
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		
Core Courses		
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)		39
Computer Technology		
Interactive Multimedia		
Artificial Intelligence in Data Science		
Free Electives		
Choose from 16 hours of free electives		16
Total Hours		**120**

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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

Accredited by the Computer Science Accreditation Commission of ABET, http://www.abet.org

Code	Title	Hours
Concentration Courses		
CSC 311	Algorithms I	3
CSC 320	Algorithms II	3

CSC 360	Computer Org & Architecture	3
CSC 400	Operating Systems	3
CSC 440	Applied Software Engineering	3
CSC 460	Computer Network & System Administration	3
CSC 541	Software Testing	3
CSC 545	Theory of Database Systems	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
MAT 234	Calculus I (Element 2) [G]	
MAT 239	Linear Algebra and Matrices	3
MAT 244	Calculus II	4
STA 270	Applied Statistics	4
Choose two courses with different prefixes of the following:		
BIO 111	Cell and Molecular Biology (Element 4) [G]	
BIO 112	Ecology and Evolution (Element 4) [G]	
CHE 111 & 111L	General Chemistry and General Chemistry Lab I (Element 4) [G]	
GLY 108	Earthquakes and Volcanoes (Element 4) [G]	
GLY 109	Great Moments in Earth History (Element 4) [G]	
PHY 201	University Physics I (Element 4) [G]	
Total Hours		**39**

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