

# COMPUTER SCIENCE, BACHELOR OF SCIENCE WITH A CONCENTRATION IN INTERACTIVE MULTIMEDIA (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
<b>Element 1</b>		
A:	Written Communication ( <a href="http://catalogs.eku.edu/undergraduate/general-academic-information/general-education-requirements/element-1/">http://catalogs.eku.edu/undergraduate/general-academic-information/general-education-requirements/element-1/</a> )	3
B:	Written Communication ( <a href="http://catalogs.eku.edu/undergraduate/general-academic-information/general-education-requirements/element-1/">http://catalogs.eku.edu/undergraduate/general-academic-information/general-education-requirements/element-1/</a> )	3
C:	Oral Communication ( <a href="http://catalogs.eku.edu/undergraduate/general-academic-information/general-education-requirements/element-1/">http://catalogs.eku.edu/undergraduate/general-academic-information/general-education-requirements/element-1/</a> )	3
<b>Element 2</b>		
	Quantitative Reasoning ( <a href="http://catalogs.eku.edu/undergraduate/general-academic-information/general-education-requirements/element-2/">http://catalogs.eku.edu/undergraduate/general-academic-information/general-education-requirements/element-2/</a> )	3
<b>Element 3</b>		
A:	Arts ( <a href="http://catalogs.eku.edu/undergraduate/general-academic-information/general-education-requirements/element-3/">http://catalogs.eku.edu/undergraduate/general-academic-information/general-education-requirements/element-3/</a> )	3
B:	Humanities ( <a href="http://catalogs.eku.edu/undergraduate/general-academic-information/general-education-requirements/element-3/">http://catalogs.eku.edu/undergraduate/general-academic-information/general-education-requirements/element-3/</a> )	3
<b>Element 4</b>		
	Natural Sciences ( <a href="http://catalogs.eku.edu/undergraduate/general-academic-information/general-education-requirements/element-4/">http://catalogs.eku.edu/undergraduate/general-academic-information/general-education-requirements/element-4/</a> )	6
<b>Element 5</b>		
A:	Historical Science ( <a href="http://catalogs.eku.edu/undergraduate/general-academic-information/general-education-requirements/element-5/">http://catalogs.eku.edu/undergraduate/general-academic-information/general-education-requirements/element-5/</a> )	3
B:	Social Behavioral Science ( <a href="http://catalogs.eku.edu/undergraduate/general-academic-information/general-education-requirements/element-5/">http://catalogs.eku.edu/undergraduate/general-academic-information/general-education-requirements/element-5/</a> )	3
<b>Element 6</b>		
	Diversity of Perspectives Experiences ( <a href="http://catalogs.eku.edu/undergraduate/general-academic-information/general-education-requirements/element-6/">http://catalogs.eku.edu/undergraduate/general-academic-information/general-education-requirements/element-6/</a> )	6
<b>Total Hours</b>		<b>36</b>

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

## Major

Code	Title	Hours
<b>University Graduation Requirements</b>		
General Education		36
<i>Student Success Seminar</i>		
SCO 100	Student Success Seminar	1
Writing Intensive Course (Hrs. incorporated into Major/Supporting/Gen Ed/Free Electives category)		
Upper division courses (42 hrs. distributed throughout Major/Supporting/Gen Ed/Free Electives categories)		
ACCT - Computer Science majors will fulfill ACCT with the following. (Credit hours may be incorporated into Major or Supporting requirements)		
Choose from one of the following:		
CSC 349	Applied Learning in Computer Science	
CSC 440	Applied Software Engineering	
CSC 491	Game Design Capstone	
CSC 549	Computer Forensics Capstone	
CSC 495	Independent Work (with a program-approved topic)	
<b>Major Requirements</b>		
<i>Core Courses</i>		
CSC 185	Discrete Structures I <sup>1</sup>	3
CSC 190	Object- Oriented Programming I <sup>1</sup>	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
<b>Concentrations</b>		
Students must select one of the following Concentrations:		
Computer Science (General)		
Computer Technology		
Interactive Multimedia		47
<i>Supporting Course Requirements</i>		
Choose from 16-34 hours of supporting courses		
16-18 hours of Computer Science (General)		
24-25 hours of Computer Technology		
25-28 hours of Interactive Multimedia		
30-34 hours of Artificial Intelligence in Data Science		
<i>Free Electives</i>		
Choose from 14 hours of free electives		14
<b>Total Hours</b>		<b>120</b>

<sup>1</sup>

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**

<b>Code</b>	<b>Title</b>	<b>Hours</b>
<b>Concentration Courses</b>		
CSC 140	Introduction to Computer Game Design	3
CSC 315	3D Modeling	3
CSC 316	3D Game Engine Design	3
CSC 550	Graphics Programming	3
CSC 520	Multimedia System and Forensics	3
or CSC 555	Topics in Multimedia:___	
CSC 491	Game Design Capstone	6
One CSC course at 300-level or above <sup>1</sup>		3
Choose from one hour of the following:		1
CSC 494	Innovative Problem Solving	
CSC 495	Independent Work	
CSC 496	Senior Seminar	
<i>Supporting Course Requirements</i>		
BEM 200	Mass Media and Society (Element 5B) <sup>G</sup>	
EET 252	Digital Electronics	3
INF 123	Exploring Virtual Worlds	3
INF 391	Game Level Design for ____	3
MAT 234	Calculus I (Element 2) <sup>G</sup>	
MAT 239	Linear Algebra and Matrices	3
MAT 244	Calculus II	4
MUS 290	Film Scoring	2
PHY 201	University Physics I (Element 4) <sup>G</sup>	
STA 270	Applied Statistics	4
ART 100	Drawing I (Element 3A) <sup>G</sup>	
or ART 200	Art Appreciation: Orientation	
<b>Total Hours</b>		<b>47</b>

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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.