

CURRICULUM GUIDE
Computer Science, B.S. (General Concentration)
2023-2024

Website: www.csit.eku.edu

Email Contact: kuangnan.chang@eku.edu

Department of Computer Science and Information Technology

521 Lancaster Ave.

417 Wallace Bldg.

Richmond, KY 40475

859-622-2398

The schedule below is an **EXAMPLE** of how you can arrange your class schedule.

Please consult your advisor for specific changes that may need to be made.

	Fall Semester		Spring Semester	
Freshman Year	SCO 1001	1	CSC 191	3
	CSC 185	3	CSC 195	3
	CSC 190	3	MAT 244	4
	^a *MAT 234 (fulfills Gen. Ed. 2)	4	Gen. Ed. 1B (ENG 102)	3
	Gen. Ed. 1A (ENG 101)	3	Gen. Ed. 3A (Arts)	3
	TOTAL	14	TOTAL	16
Sophomore Year	CSC 310	3	CSC 320	3
	CSC 311	3	CSC 340	3
	MAT 239	3	EET 252	3
	CSC 313	3	Gen. Ed. 1C (Oral Comm.)	3
	[†] ^a Physical Science restricted elective (fulfills Gen. Ed. 4)	3-4	Free Elective	3
	TOTAL	15-16	TOTAL	15
Junior Year	CSC 440	3	CSC 360	3
	CSC 308	3	[‡] CSC (restricted) Elective	3
	STA 270	4	Gen. Ed. 5A (History)	3
	[§] ^a Physical Science restricted Elective (fulfills Gen. Ed. 4)	4-5	Gen. Ed. 5B (Soc. & Behav. Sci.)	3
	CSC 338	3	Free Elective	3
	TOTAL	17-18	TOTAL	14-16
Senior Year	CSC 400	3	CSC 460	3
	CSC 494, 495, <u>or</u> 496	1	CSC 499	1
	CSC 541	3	CSC 545	3
	Gen. Ed. 3B (Humanities)	3	Gen. Ed. 6 (Diversity)	3
	Gen. Ed. 6 (Diversity)	3	Free Elective (upper division)	3
	Free Elective (upper division)	3		
	TOTAL	16	TOTAL	13
TOTAL HOURS TO DEGREE COMPLETION				120

Course Number	Course Name
GENERAL EDUCATION & UNIVERSITY REQUIREMENTS (37)	
SCO 1001	Student Success Seminar for Computer Science (1)
CORE COURSE REQUIREMENTS (28)	
CSC 185	Intro to Computer Concepts (3)
CSC 190	Object-Oriented Programming I (3)
CSC 191	Object-Oriented Programming II (3)
CSC 195	Intro to Discrete Structures (3)
CSC 308	Mobile App Dev for 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	Computer Science Career Preparation (1)
COMPUTER SCIENCE (GENERAL) CONCENTRATION REQUIREMENTS (25)	
CSC 311	Algorithms I (3)
CSC 320	Introduction to Algorithms (3)
CSC 360	Computer Org and 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)
PLUS ONE (1) HOUR selected from:	
CSC 494	Innovative Problem Solving (1-3)
CSC 495	Independent Work (1-3)
CSC 496	Senior Seminar (1)
COMPUTER SCIENCE (GENERAL) CONCENTRATION SUPPORTING COURSE REQUIREMENTS (16-18)	
EET 252	Digital Electronics (3)
^a * MAT 234	Calculus I (4)
* MAT 239	Linear Algebra & Matrices (3)
* MAT 244	Calculus II (4)
* STA 270	Applied Statistics I (4)
[†] Choose TWO courses with different prefixes from the following (physical science restricted elective):	
^a BIO 111	Cell and Molecular Biology (4)
^a BIO 112	Ecology and Evolution (4)
^a CHE 111 and CHE 111L	Gen. Chemistry I (3)
^a CHE 111L	Gen. Chemistry Lab I (1)
^a GLY 108	Earthquakes and Volcanoes (3)
^a GLY 109	Great Moments in Earth History (3)
^a PHY 201	University Physics I (5)
FREE ELECTIVES (12-14)	

^a Denotes that 3 credit hours from this course are/can be applied to fulfill a Gen. Ed. requirement. Courses used to fulfill Gen. Ed. 4 must have different prefixes.

* **PREREQUISITES:** Consult with your advisor and/or the University catalog regarding prerequisites for upper division CSC courses. MAT 108, 109, 124, 125 and/or 261; CHE 111/111L; PHY 201. See University catalog for details.

❖ If PHY sequence is chosen, ONE (1) Gen. Ed. Element **MUST** be upper division to fulfill 42 hours of upper division courses.

Upper division courses: All students are required to have a minimum of 42 hrs. upper division (300-level or above) courses distributed throughout Major/Supporting/Gen Ed/Free Electives categories. If 300-level classes are taken for Gen. Ed., they can be used to fulfill the 42 hours instead of upper division free electives.

Refer to the University Catalog at <http://www.catalogs.eku.edu/> regarding University and General Education Requirements.