

CURRICULUM GUIDE
Computer Science, B.S. (General Concentration)
2019-2020

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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	CSC 191
	CSC 185	CSC 195
	CSC 190	MAT 244
	⁶ *MAT 234 (fulfills Gen. Ed. 2)	Gen. Ed. 1B (ENG 102)
	Gen. Ed. 1A (ENG 101)	Gen. Ed. 3A (Arts)
TOTAL	14	16
Sophomore Year	CSC 310	CSC 320
	CSC 311	CSC 340
	MAT 239	EET 252
	CSC 313	† Physical Science Sequence
	† ⁶ Physical Science Sequence (fulfills Gen. Ed. 4)	Gen. Ed. 1C (Oral Comm.)
TOTAL	15-17	15-17
Junior Year	CSC 440 (ACCT)	CSC 360
	CSC 308	‡ CSC (restricted) Elective
	STA 270	§ Physical Science (restricted) Elective
	§ ⁶ Physical Science (restricted) Elective (fulfills Gen. Ed. 4)	Gen. Ed. 5B (Soc. & Behav. Sci.)
	Gen. Ed. 5A (History)	
TOTAL	16-18	12-14
Senior Year	CSC 400	CSC 460
	CSC 494, 495, <u>or</u> 496	CSC 499
	CSC 541	CSC 545
	Gen. Ed. 3B (Humanities)	Gen. Ed. 6 (Diversity)
	Gen. Ed. 6 (Diversity)	Free Elective (upper division)
	Free Elective (upper division)	
TOTAL	13-17	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 (25)	
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 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 (23-27)	
EET 252	Digital Electronics (3)
⁶ * MAT 234	Calculus I (4)
* MAT 239	Linear Algebra & Matrices (3)
* MAT 244	Calculus II (4)
⁶ * STA 270	Applied Statistics I (4)
† PLUS ONE (1) of the following bracketed Physical Science sequences:	
(⁶ BIO 111 <u>and</u> ⁶ BIO 112)	Cell and Molecular Biology (4) Ecology and Evolution (4)
<u>OR</u>	
(⁶ CHE 111 <u>and</u> CHE 111L <u>and</u> CHE 112 <u>and</u> CHE 112L)	Gen. Chemistry I <u>and</u> Gen. Chemistry Lab I (1) Gen. Chemistry II <u>and</u> Gen. Chemistry Lab II (1)
<u>OR</u>	
(⁶ GLY 108 <u>and</u> ⁶ GLY 109)	Plate Tectonics: The Active Earth (3) Great Moments in Earth History (3)
<u>OR</u>	
(⁶ PHY 201 <u>and</u> ⁶ * PHY 202)	University Physics I (5) University Physics II (5)
§ PLUS TWO (2) additional courses from the above list not taken as part of the selected sequence. (Physical Science Restricted Elective)	
FREE ELECTIVES (3-7)	

* **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 in order to fulfill 42 hours of upper division courses.

⁶ 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.

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. All baccalaureate degree seeking students who enter the University are required to successfully complete one writing intensive course following completion of the ENG 102, ENG 105, or HON 102/103. Writing intensive courses are designated with the suffix "W" following the course prefix and number (e.g. HUM 300W).

Applied Critical & Creative Thinking (ACCT) Requirement: Computer Science majors will fulfill ACCT with CSC 349, 440, 491, 549, or 495 with a program-approved topic. (Credit hours are incorporated into program requirements.)