

CURRICULUM GUIDE
Computer Science, B.S. (Artificial Intelligence in Data Science 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		Course Number	Course Name
Freshman Year	SCO 100I	1	CSC 191	3	GENERAL EDUCATION & UNIVERSITY REQUIREMENTS (37)	
	CSC 185	3	CSC 195	3	SCO 100I	Student Success Seminar for Computer Science (1)
	CSC 190	3	MAT 244	4	CORE COURSE REQUIREMENTS (25)	
	STA 270	4	Gen. Ed. 1A (ENG 101)	3	CSC 185	Intro to Computer Concepts (3)
	⁶ MAT 234 (fulfills Gen. Ed. 2)	4	Gen. Ed. 3A (Arts)	3	CSC 190	Object-Oriented Programming I (3)
	TOTAL	15	TOTAL	16	CSC 191	Object-Oriented Programming II (3)
Sophomore Year	CSC 310	3	CSC 340	3	CSC 195	Intro to Discrete Structures (3)
	CSC 313	3	CSC 499	1	CSC 308	Mobile App Dev for iOS (3)
	STA 340	3	STA 380	3	CSC 310	Data Structure (3)
	STA 375	3	Gen. Ed. 1C (Oral Comm.)	3	CIS 313	Database Systems (3)
	Gen Ed. 1B (ENG 102)	3	Gen. Ed. 3B (Humanities)	3	CSC 340	Ethics & Software Engineering (3)
			Gen. Ed. 5B (Soc. & Behav. Sci.) (ECO 230 or 231 recommended if ECO sequence is taken)	3	CSC 499	Computer Science Career Preparation (1)
TOTAL	15	TOTAL	16	ARTIFICIAL INTELLIGENCE IN DATA SCIENCE CONCENTRATION REQUIREMENTS (22)		
Junior Year	CSC 308	3	CSC 320	3	CSC 311	Algorithms I (3)
	CSC 311	3	CSC 581	3	CSC 320	Intro. To Algorithms (3)
	CSC 546	3	Gen. Ed. 4 (Nat. Sci.)	3	CSC 545	Theory of Database Systems (3)
	Gen. Ed. 4 (Nat. Sci.) (Bio 111 or 112 recommended if BIO sequence taken)	3-(4)	Gen. Ed. 6 (Diversity)	3	CSC 546	Artificial Intelligence (3)
	Gen. Ed. 5A (History)	3	Free Elective (MUST fulfill ACCT)	3	CSC 581	Machine Learning (3)
	TOTAL	15-16	TOTAL	15	CSC 582	Big Data (3)
Senior Year	CSC 494, 495, or 496	1	CSC 545	3	CSC 583	Data Visualization (3)
	CSC 582	3	CSC 583	3	PLUS ONE (1) HOUR selected from the following:	
	STA 575	3	STA 580	3	CSC 494	Innovative Problem Solving (1-3)
	Supporting Course Sequence (Class 1)	3-4	STA 585	3	CSC 495	Independent Work (1-3)
	Gen. Ed. 6 (Diversity)	3	Supporting Course Sequence (Class 2)	3	CSC 496	Senior Seminar (1)
	TOTAL	13-14	TOTAL	15	ARTIFICIAL INTELLIGENCE IN DATA SCIENCE CONCENTRATION SUPPORTING COURSE REQUIREMENTS (33-36)	
TOTAL HOURS TO DEGREE COMPLETION				120		

* **Prerequisite:** Consult with your advisor and/or the University catalog regarding prerequisites for upper division CSC courses. AEM 202; AGR 216; BIO 111, 112, and/or 315; CSC 160, 175, 177, 190, 322, 332 and/or 400; ECO 220, 230, 231 and/or 320; GEO 100, 210, and/or 220; GLY 102, 107, and/or 108; RMI 370; MAT 239, 254, and/or 520; STA 215, 270, 320, 340 and/or 520. See University catalog for details.

‡ Supporting Course sequence (class 1), if Biology sequence is selected will be 4 credits.

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.

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.)

⁶ Denotes that 3 credit hours from this course are/can be applied to fulfill a Gen. Ed. requirement.