



1891

ELIZABETH CITY STATE UNIVERSITY

Curriculum Guide
for
Bachelor of Science Degree: Computer Science (Data Science)

ASSOCIATE OF ARTS DEGREE: Universal General Education Transfer Component (UGETC)

First two years (Freshman and Sophomore) to be completed at community college.

<u>Community College Course #</u>	<u>Hours</u>	<u>Community College Course Title</u>	<u>Elizabeth City State University Equivalency</u>	<u>Hours</u>	<u>Comments</u>
<u>English Composition</u>	<u>6 SHC</u>	<i>The following two English composition courses are required.</i>			
ENG 111	3 SHC	Writing and Inquiry	ENGL 102 Eng. Comp & Grammar	3 SHC	Required by Univ. Studies.
ENG 112	3 SHC	Writing/Research in the Disciplines	ENGL 103 Eng. Comp & Vocab.	3 SHC	Required by Univ. Studies.
<u>Social/ Behavioral Science</u>	<u>9 SHC</u>	<i>Select three courses from the following from at least two different disciplines.</i>			
HIS 111	3 SHC	World Civilization I	HIST 140 World Civ. I	3 SHC	Must complete HIST 111 or 112 for Univ. Studies SBS Section A requirement.
HIS 112	3 SHC	World Civilization II	HIST 141 World Civ. II	3 SHC	
HIS 131	3 SHC	American History I	HIST 255 American History to 1877	3 SHC	

HIS 132	3 SHC	American History II	HIST 256 American History Since 1877	3 SHC	Remaining 6 Hours will be used for Univ. Studies SBS Section B requirement.
ECO 251	3 SHC	Principles of Microeconomics Principles of Macroeconomics American Government	ECON 201 Prin. of Econ. I	3 SHC	
ECO 252	3 SHC		ECON 202 Prin. of Econ. II	3 SHC	
POL 120	3 SHC		POLS 298 American National Government	3 SHC	
PSY 150	3 SHC	General Psychology Intro. to Sociology	PSY 212 General Psychology	3 SHC	
SOC 210	3 SHC			SOC 201 Intro. to Sociology	3 SHC
<u>Humanities/Fine Arts</u>	<u>9 SHC</u>	<i>Select three courses from the following from at least two different disciplines.</i>			
<u>Communications</u> COM 231	3 SHC	Public Speaking	SPCH 314 Public Speaking	3 SHC	Will be used as HFA Section B Univ. Studies requirement. One option required by Univ. Studies 1 semester hour used as an elective.
<u>Humanities/Fine Arts</u> ART 111	3 SHC	Art Appreciation	ART 130 Art Appreciation	2 SHC	
ART 114	3 SHC	Art History Survey I			
ART 115	3 SHC	Art History Survey II			
ENG 231	3 SHC	American Literature I	ENGL 201 World Literature I	3 SHC	Must complete ENG. 231 or 232 for Univ. Studies HFA Section A requirement. One option required by Univ. Studies 1 semester hour used as an elective.
ENG 232	3 SHC	American Literature II	ENGL 202 World Literature II	3 SHC	
MUS 110	3 SHC	Music Appreciation	MUS 135 Intro. to Music	2 SHC	
MUS 112	3 SHC	Introduction to Jazz			
PHI 215	3 SHC	Philosophical Issues	Social/Behavioral Science Elective	3 SHC	
PHI 240	3 SHC	Introduction to Ethics	BUAD 240 Ethics	3 SHC	

Mathematics	3-4 SHC	<i>Select one course from the following.</i>			
MAT 143	3 SHC	Quantitative Literacy	MATH 114 Mathematics for Liberal Arts	3 SHC	
MAT 152	4 SHC	Statistical Methods I	STAT 251 Basic Statistics	3 SHC	
MAT 171	4 SHC	Pre-calculus Algebra	MATH 115 College Algebra	3 SHC	Will be used as Univ. Studies Math requirement.
Nat. Sciences	4 SHC	<i>(Select one course)</i>			
AST 111/111A	4 SHC	Descriptive Astronomy I/Lab	Natural Science Elective	4 SHC	Any Science/Lab will be used as Univ. Studies Science requirement.
AST 151/151A	4 SHC	General Astronomy I/Lab	Natural Science Elective	4 SHC	
BIO 110	4 SHC	Principles of Biology	BIOL 100/100L Principles of Biological Science/Lab	4 SHC	
BIO 111	4 SHC	General Biology I	BIOL 101/101L General Biology for Majors/Lab	4 SHC	
CHM 151	4 SHC	General Chemistry I	CHEM 101/101L General Chemistry/Lab	4 SHC	
GEL 111	4 SHC	Introduction to Geology	Natural Science Elective	4 SHC	
PHY 110/110A	4 SHC	Conceptual Physics and Lab	PHYS 182/182L General Physics II/Lab	4 SHC	
Total UGETC Hours	31-32 SHC				31 Univ. Studies Credits 1 Free Elective.
Additional General Education Courses	4 SHC				
HEA 110	3 SHC	Personal Health & Wellness	HLTH 185 Health Concepts	2 SHC	Univ. Studies Health & PE requirement. 1 hr. used as Free Elective.
	1 SHC	Physical Education Activity	PE Activity	1 SHC	Univ. Studies Health & PE requirement.

Total General Education Hours Required	45 SHC				34 Univ. Studies Credits 2 Free Electives
Other Required Hours	23 SHC				
MAT 172	4 SHC	Pre-calculus Trigonometry	MATH 118 Pre-calculus	4 SHC	Will be used as Free Elective. Pre-requisite for MATH 165 Calculus I (required course).
MAT 271	4 SHC	Calculus I	MATH 165 Calculus I	4 SHC	Required by Major.
CIS 115	3 SHC	Introduction to Computer Programming & Logic	CSC 114 Intro. to Computer Science	3 SHC	Required by Major.
CSC 134	3 SHC	C++ Programming	CSC 115 Programming I	3 SHC	Required by Major.
CSC 234	3 SHC	Adv. C++ Programming	CSC 215 Programming II	3 SHC	Required by Major.
	3 SHC	Java Programming	CSC 230 Object Oriented Programming	3 SHC	Required by Major.
	3 SHC	Free Elective	Free Elective	3 SHC	Free Elective.
Academic Transition	1 SHC	<i>The following course is required.</i>			
ACA 122	1 SHC	College Transfer Course	UNIV. 100 Freshman Seminar	1 SHC	Required by CAA.
Total Semester Hours in Program	60 SHC				

The Junior and Senior years will be completed at Elizabeth City State University.

<u>Community College Course #</u>	<u>Hours</u>	<u>Community College Course Title</u>	<u>Elizabeth City State University Equivalency</u>	<u>Hours</u>	<u>Comments</u>
			<i>Semester 5: (15-16 credit hours)</i>		
			CSC 218 Data Structures	3 SHC	Major Requirement.
			MATH 351 Linear Algebra	3 SHC	Related Area Requirement.
			CSC 335 Introduction to Web Design	3 SHC	Major Requirement.
			CSC 318 Algorithms	3 SHC	Concentration Core Requirement.
			Concentration Elective 1	3-4 SHC	Concentration Elective.
			<i>Semester 6: (14 credit hours)</i>		
			CSC 305 Bioinformatics	3 SHC	Concentration Core Requirement.
			CSC 325 Database Systems	3 SHC	Major Requirement.
			CSC 314 Comp. Architecture and Org.	3 SHC	Major Requirement.
			MATH 262 Discrete Mathematics	3 SHC	Related Area Requirement.
			CSC 260 Sophomore Seminar in CS	1 SHC	Major Requirement.
			CSC 160 Major Orientation	1 SHC	Major Requirement.
			<i>Semester 7: (15-16 credit hours)</i>		
			CSC 410 Net-Centric Comp.	3 SHC	Major Requirement.
			CSC Core Elective 1	3 SHC	Major Requirement.
			Concentration Elective 2	3-4 SHC	Concentration Elective.

<u>Community College Course #</u>	<u>Hours</u>	<u>Community College Course Title</u>	<u>Elizabeth City State University Equivalency</u>	<u>Hours</u>	<u>Comments</u>
			Free Elective	3 SHC	Free Elective.
			Free Elective	3 SHC	Free Elective.
			<i>Semester 8: (15 credit hours)</i>		
			CSC 414 Python Programming & Visualization	3 SHC	Concentration Core Requirement.
			CSC 401 Data Mining & Machine Learning	3 SHC	Major Requirement.
			CSC 460 Senior Seminar in CS	2 SHC	Major Requirement.
			CSC Core Elective 2	3 SHC	Major Requirement.
			CSC 451 Numerical & Symbolic Computing	3 SHC	Concentration Core Requirement.
			Free Elective	1 SHC	Free Elective.
			<u>Total ECSU Semester Credit Hours Completed</u>	<u>60 SHC</u>	
			<u>Total Semester Credit Hours Completed for Degree</u>	<u>120 SHC</u>	
			Reviewed by: Prof. Antonio Rook Dr. Kenneth L. Jones		Completed 2/4/2018