



ELIZABETH CITY STATE UNIVERSITY

Curriculum Guide for Bachelor of Science Degree: Pharmaceutical Science

ASSOCIATE OF SCIENCE DEGREE: *Universal General Education 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>
English Composition	6 SHC	<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 Major.
ENG 112	3 SHC	Writing/Research in the Disciplines	ENGL 103 Eng. Comp & Vocab.	3 SHC	Required by Major.
Social/ Behavioral Science	6 SHC	<i>Select two courses from the following from at least two different disciplines.</i>			
HIS 111	3 SHC	World Civilizations I	HIST 140 World Civ. I	3 SHC	Must Complete HIST 140 or HIST 141 Required by Major.
HIS 112	3 SHC	World Civilizations 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	

ECO 251 ECO 252 POL 120	3 SHC 3 SHC 3 SHC	Principles of Microeconomics Principles of Macroeconomics American Government	ECON 201 Prin. of Econ. I ECON 202 Prin. of Econ. II POLS 298 American National Government	3 SHC 3 SHC 3 SHC	Required by Major. Required by Major.
PSY 150 SOC 210	3 SHC 3 SHC	General Psychology Intro. to Sociology	PSY 212 General Psychology SOC 201 Intro. to Sociology	3 SHC 3 SHC	
Humanities/Fine Arts	6 SHC	<i>Select two 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	Required by Major. (Take either ART 111 or MUS 110) 1 hr. used as an elective.
<u>Humanities/Fine Arts</u> ART 111 ART 114 ART 115	3 SHC 3 SHC 3 SHC	Art Appreciation Art History Survey I Art History Survey II	ART 130 Art Appreciation	2 SHC	
ENG 231 ENG 232	3 SHC 3 SHC	American Literature I American Literature II	ENGL 201 World Literature I ENGL 202 World Literature II	3 SHC 3 SHC	Required by Major.
MUS 110 MUS 112	3 SHC 3 SHC	Music Appreciation Introduction to Jazz	MUS 135 Intro. to Music	2 SHC	Required by Major. (Take either ART 111 or MUS 110) 1 hr. used as an elective.
PHI 215 PHI 240	3 SHC 3 SHC	Philosophical Issues Introduction to Ethics	Social/Behavioral Science Elective	3 SHC	
Mathematics	8 SHC	<i>Select two courses from the following:</i>			
MAT 171	4 SHC	Pre-calculus Algebra	MATH 115 College Algebra	3 SHC	
MAT 172	4 SHC	Pre-calculus Trigonometry	MATH 118 Pre-calculus	3 SHC	Required by Major.
MATH 263	4 SHC	Brief Calculus	MATH 153 Applied Calculus	3 SHC	
MATH 271	4 SHC	Calculus I	MATH 165 Calculus in Single Variable	4 SHC	Required by Major.

<u>Natural Sciences</u>	<u>8 SHC</u>	<i>Select 8 SHC from the following courses:</i>			Note: Biology, Chemistry, and Physics courses must be taken in sequence.
BIO 110	4 SHC	Principles of Biology	BIOL 155/155L Principles of Biological Science/Lab	4 SHC	
BIO 111	4 SHC	General Biology I	BIOL 101/L General Bio. I	4 SHC	Required by Major.
BIO 112	4 SHC	General Biology II	BIOL 102/L General Bio. II	4 SHC	Required by Major.
GEL 111	4 SHC	Introduction to Geology	Natural Science Elective	4 SHC	
PHY 110 and PHY 110A	3 SHC and 1 SHC	Conceptual Physics and Conceptual Physics Lab	PHYS 182/182L General Physics II/Lab	4 SHC	
PHY 151 and PHY 152	4 SHC and 4 SHC	College Physics I and College Physics II	PHYS 191/Lab University Physics I and PHYS 192/Lab University Physics II	4 SHC and 4 SHC	
PHY 251	4 SHC	General Physics I	PHYS 181/181L General Physics I/Lab	4 SHC	Required by Major.
PHY 252	4 SHC	General Physics II	PHYS 182/182L General Physics II/Lab	4 SHC	
CHM 151	4 SHC	General Chemistry I	CHEM 101 and 101/Lab	4 SHC	Required by Major.
CHM 152	4 SHC	General Chemistry II	CHEM 102 and 102/Lab	4 SHC	Required by Major.
<i>Total UGETC Hours</i>	<u>37 SHC</u>				
<u>Additional GE Courses</u>	<u>11 SHC</u>				
PE	1 SHC	Physical Activity	Physical Activity	1 SHC	Required by Gen. Ed.
HEA 110	3 SHC	Personal Health and Wellness	HLTH 185 Health Concepts	2 SHC	Required by Gen. Ed.
PHY 251	4 SHC	General Physics/Lab	PHYS 181/181L General Physics I and Lab	4 SHC	Required by Major.
	3 SHC	Elementary Spanish	SPAN 101 Elementary Spanish	3 SHC	Required by Major.

Total General Education Hours Required	<u>48</u> SHC				
Other Required Hours	<u>11</u> SHC				
	8 SHC	Natural Sciences (See Required by Major Course Designations Listed)	Natural Sciences (See Required by Major Course Designations Listed)	12 SHC	Required by Major.
	3 SHC	FREE ELECTIVES	FREE ELECTIVES	3 SHC	Required by Major.
Academic Transition	<u>1</u> SHC	<i>The following course is required.</i>			
ACA 122	1 SHC	College Transfer Course	UNIV 110 Freshman Seminar	1 SHC	Required by CAA.
Total Semester Hours in Program	<u>60</u> SHC				

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

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			<i>Semester 5: (15 credit hours)</i>		
			PHSC 200 Foundations of Pharmaceutical Science	3 SHC	Major Requirement.
			BIOL 215 Anatomy Physiology I	4 SHC	Major Requirement. (Pre-requisite for Major Course Requirement).
			BIOL 341 Microbiology	4 SHC	Major Requirement. (Relevant for graduate/Professional Program).
			CHEM 301/L Organic Chemistry I/Lab	4 SHC	Major Requirement. (Pre-requisite for Major Course Requirement).
			<i>Semester 6: (16 credit hours)</i>		
			PHSC 320 Pharmaceutical Analysis/L	4 SHC	Major Requirement.
			PHSC 300 Principles of Pharmacology	3 SHC	Major Requirement.
			CHEM 302/L Organic Chemistry II/Lab	4 SHC	Major Requirement. (Pre-requisite for Major Course Requirement).
			PHSC 300/400 Level Elective	5 SHC	Major Requirement.

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			<i>Semester 7: (15 credit hours)</i>		
			CHEM 430 Intro. Medicinal Chemistry	3 SHC	Major Requirement. (Relevant for graduate/Professional Program).
			CHEM 401L Biochemistry I Lab	1 SHC	Major Requirement. (Relevant for graduate/Professional Program).
			PHSC 421 Methods in Biotechnology/L	4 SHC	Major Requirement.
			PHSC 380 Drug Discovery, Development & Design	4 SHC	Major Requirement.
			PHSC 403 Pharmaceutical Biochemistry I	3 SHC	Major Requirement. (Pre-requisite CHEM 301).
			<i>Semester 8: (14 credit hours)</i>		
			PHSC 499 Capstone Seminar	3 SHC	Major Requirement.
			BIOL 487 Statistical Applications in the Sciences	3 SHC	Major Requirement.
			PHSC 421 Methods in Biotechnology	3 SHC	Major Requirement
			PHSC 404 Pharmaceutical Biochemistry II	3 SHC	Major Requirement. (Pre-requisite PHSC 403).
			Free Elective	2 SHC	Major Requirement
			<u>Total ECSU Semester Credit Hours Completed</u>	<u>60 SHC</u>	

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			<i>Total Semester Credit Hours Completed for Degree</i>	<i>120 SHC</i>	
			Reviewed by: Dr. Dolapo Adedeji		
			Dr. Gloria E. Payne		Approved 02/06/2018