

**BIOLOGICAL SCIENCES, PRE-PHARMACY OPTION**

(Note: Program requirements for this degree are offered on NOC Enid and NOC Tonkawa campus only. At the beginning of each course listing, the four letter abbreviation indicates the department and the four digits indicate the course code used for enrollment. The total course hour value follows each.)

PROGRAM REQUIREMENTS		SUGGESTED COURSE SEQUENCE		<p><b>This Associate in Science degree program prepares students to transfer to a four-year university to pursue the Bachelor's degree in Pharmacy.</b></p> <p><b>Students transferring should consult catalog from the institution to which they are planning to transfer to and carefully select courses that will meet the requirements to complete their bachelor's degree.</b></p> <p><b>Career Opportunities</b></p> <ul style="list-style-type: none"> <li>• <b>Pharmaceutical Research</b></li> <li>• <b>Pharmacy</b></li> <li>• <b>Pharmaceutical Sales</b></li> </ul>
	Credit Hours		Credit Hours	
<b>GENERAL EDUCATION COURSES</b>	<b>37 TOTAL HOURS</b>	<b>FIRST SEMESTER</b>	<b>15 TOTAL HOURS</b>	
<b>ENGLISH COMPOSITION COURSES</b>		ENGL 1113 English Composition I	3 hours	
ENGL 1113 English Composition I	3 hours	MATH 1513 College Algebra	3 hours	
ENGL 1213 English Composition II	3 hours	ORNT 1101 Freshman Orientation	1 hour	
<b>HISTORY AND GOVERNMENT COURSES</b>		BISI 1124 Biology for Majors	4 hours	
HIST 1483 American History to 1877		CHEM 1314 General Chemistry I	4 hours	
(OR) HIST 1493 American History Since 1877	3 hours	<b>SECOND SEMESTER</b>	<b>16 TOTAL HOURS</b>	
POLI 1113 American Government	3 hours	ENGL 1213 English Composition II	3 hours	
<b>HUMANITIES COURSES</b>		HIST 1483 American History to 1877		
Electives	6 hours	(OR) HIST 1493 American History Since 1877	3 hours	
One 3 hour course to be chosen from those listed with the International Dimension and 3 hours of humanities electives.		BSAD 1113 Digital/Financial Literacy	3 hours	
<b>MATHEMATICS COURSES</b>		CHEM 1414 General Chemistry	4 hours	
MATH 1513 College Algebra	3 hours	MATH 2103 Elementary Calculus	3 hours	
<b>SCIENCE COURSES</b>		<b>THIRD SEMESTER</b>	<b>14 TOTAL HOURS</b>	
BISI 1124 Biology for Majors (OR)		POLI 1113 American Government	3 hours	
BISI 1114 General Biology	4 hours	Humanities Elective	3 hours	
CHEM 1314 General Chemistry I	4 hours	PHYS 1114 General Physics I	4 hours	
<b>COMPUTER SCIENCE COURSES</b>		BISI 2104 Human Anatomy	4 hours	
BSAD 1113 Digital/Financial Literacy (or other approved computer course)	3 hours	<b>FOURTH SEMESTER</b>	<b>15 TOTAL HOURS</b>	
<b>ORIENTATION COURSES</b>		Humanities Elective	3 hours	
ORNT 1101 Freshman Orientation	1 hour	BISI 2124 Microbiology	4 hours	
<b>GENERAL EDUCATION ELECTIVE COURSES</b>	<b>4 TOTAL HOURS</b>	SPCH 1713 Intro to Oral Communications	3 hours	
Select courses from: Language Arts, Natural Sciences, Foreign Languages, Fine Arts, Humanities, Mathematics, Behavioral Science or Social Sciences.		*Program/Gen Ed Electives (2 courses)	5 hours	
<i>It is advised that if a student takes a three credit hour course to apply to this requirement, the fourth credit hour may be counted from the overage hours taken from the Recommended Program electives below.</i>				
<b>PROGRAM REQUIREMENT COURSES</b>	<b>19 TOTAL HOURS</b>			
BISI 2104 Human Anatomy	4 hours			
BISI 2124 Microbiology	4 hours			
CHEM 1414 General Chemistry II	4 hours			
**MATH 2103 Elementary Calculus	3 hours			
**PHYS 1114 General Physics I	4 hours			
Substitutions may be made with prior approval.				
<b>RECOMMENDED PROGRAM ELECTIVE COURSES</b>	<b>4 TOTAL HOURS</b>			
ECON 2113 Macroeconomics	3 hours			
MATH 2023 Elementary Statistics	3 hours			
SPCH 1713 Intro to Oral Communications	3 hours			
PSYC 1113 General Psychology	3 hours			
<b>TOTAL CREDIT HOURS</b>	<b>60</b>			

This is a suggested sequence timeline only. A student may require more than four semesters to complete an Associate in Science degree.

\* Hours from recommended program electives and general education electives in Science may be combined for final 6 hours required to graduate.

\*\*These program courses are typically offered only once a year. See course descriptions for fall or spring designations and plan accordingly.

NOC evaluates students for placement into either foundational or college-level courses, whichever will lead to the greatest possibility of student success. Academic placement is determined either by A.C.T. test scores or by Accuplacer test scores. These tests are administered in the Testing Center at NOC. Based upon the scores, students may be required to take one or more courses for remediation in English, Math, or Reading, either prior to or concurrent with credit courses. See the NOC testing web page by clicking on the following link: ACT | Northern Oklahoma College (<http://www.noc.edu/act>) for placement guidelines.