

**MATHEMATICS AND PHYSICAL SCIENCE – CHEMISTRY/PHYSICS 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		The Chemistry/Physics degree option prepares students to transfer to a four-year university to pursue a bachelor's degree. The program is an excellent starting place for students considering careers in research, medicine, or academia.
	Credit Hours		Credit Hours	
GENERAL EDUCATION COURSES	37 TOTAL HOURS	FIRST SEMESTER	17 TOTAL HOURS	Students transferring should consult the catalog from the institution to which they are planning to transfer to carefully select courses that will meet requirements to complete their bachelor's degree.
ENGLISH COMPOSITION COURSES		ENGL 1113 English Composition I	3 hours	
ENGL 1113 English Composition I	3 hours	ORNT 1101 Freshman Orientation	1 hour	Career Opportunities
ENGL 1213 English Composition II	3 hours	MATH 1513 College Algebra (Pre-Calculus)	3 hours	
HISTORY AND GOVERNMENT COURSES		MATH 1613 Plane Trigonometry	3 hours	<ul style="list-style-type: none"> <li>• Entry-Level Scientist</li> <li>• High School Science</li> <li>• Teacher</li> <li>• Meteorologist</li> <li>• Geologist</li> <li>• Laboratory Chemist</li> </ul>
HIST 1483 American History to 1877 (OR) HIST 1493 American History Since 1877	3 hours	CHEM 1314 General Chemistry I	4 hours	
POLI 1113 American Government	3 hours	Humanities Electives	3 hours	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 ( <a href="http://www.noc.edu/act">http://www.noc.edu/act</a> ) for placement guidelines.
HUMANITIES COURSES		SECOND SEMESTER	15 TOTAL HOURS	
Electives	6 hours	ENGL 1213 English Composition II	3 hours	
One 3 hour course to be chosen from those listed with the International Dimension and 3 hours of humanities electives.		HIST 1483 American History to 1877 (OR) HIST 1493 American History Since 1877	3 hours	
MATHEMATICS COURSES		CHEM 1414 General Chemistry II	4 hours	
MATH 1513 College Algebra	3 hours	MATH 2145 Calculus I	5 hours	
SCIENCE COURSES		THIRD SEMESTER	15 TOTAL HOURS	
One Biological Science with Lab	4 hours	BSAD 1113 Digital/Financial Literacy	3 hours	
CHEM 1314 Chemistry I	4 hours	MATH 2155 Calculus II	5 hours	
COMPUTER SCIENCE COURSES		BISI 1114 General Biology (OR)		
BSAD 1113 Digital/Financial Literacy (or other approved computer course)	3 hours	BISI 1414 General Zoology	4 hours	
ORIENTATION COURSES		Humanities Electives	3 hours	
ORNT 1101 Freshman Orientation	1 hour	FOURTH SEMESTER	13 TOTAL HOURS	
GENERAL EDUCATION ELECTIVE COURSES	4 hours	POLI 1113 American Government	3 hours	
(3 of 4 hours for these electives are designated for MATH 1613 Plane Trigonometry; 1 hour can be combined with requirement for recommended electives below, or selected from course in Language Arts, Natural Science, Foreign Languages, Fine Arts, Humanities, Mathematics, Behavioral, or Social Sciences.)		PHYS 2014 Engineering Physics I	4 hours	
PROGRAM REQUIREMENT COURSES	18 TOTAL HOURS	*Program/Gen Ed Electives (2 courses)	6 hours	
**CHEM 1414 General Chemistry II	4 hours	This is a suggested sequence timeline only. A student may require more than four semesters to complete an Associate in Science degree.		
**PHYS 2014 Engineering Physics I	4 hours			
**MATH 2145 Calculus I	5 hours			
**MATH 2155 Calculus II	5 hours			
RECOMMENDED PROGRAM ELECTIVE COURSES	5 TOTAL HOURS	* Hours from recommended program electives and general education electives in Science may be combined for final 6 hours required to graduate.		
**MATH 2613 Differential Equations	3 hours			
**PHYS 2114 Engineering Physics II	4 hours	**These program courses are typically offered only once a year. See course descriptions for fall or spring designations and plan accordingly.		
**PRDV 2321 Professional Development	1 hour			
BISI 1214 Environmental Science	4 hours			
<b>TOTAL CREDIT HOURS</b>	<b>60</b>			