

**MATHEMATICS AND PHYSICAL SCIENCE – ASTRONOMY 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 Associate in Science degree in Mathematics and Physical Science is designed to prepare students to transfer to a four-year university to pursue a bachelor's degree. Students should consult the catalog from the institution to which they are planning to transfer to complete the bachelor's degree.
	Credit Hours		Credit Hours	
GENERAL EDUCATION COURSES	37 TOTAL HOURS	FIRST SEMESTER	17 TOTAL HOURS	<p>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.</p>
ENGLISH COMPOSITION COURSES		ENGL 1113 English Composition I	3 hours	
ENGL 1113 English Composition I	3 hours	ORNT 1101 Freshman Orientation	1 hour	
ENGL 1213 English Composition II	3 hours	MATH 1513 College Algebra	3 hours	
HISTORY AND GOVERNMENT COURSES		MATH 1613 Plane Trigonometry	3 hours	
HIST 1483 American History to 1877 (OR) HIST 1493 American History Since 1877	3 hours	ESCI 1214 Earth Science	4 hours	
POLI 1113 American Government	3 hours	Humanities Elective	3 hours	
HUMANITIES COURSES		SECOND SEMESTER	14 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.		MATH 2145 Calculus I	5 hours	
MATHEMATICS COURSES		BSAD 1113 Digital/Financial Literacy	3 hours	
MATH 1513 College Algebra	3 hours	ASTR 1523 Planetary Science	3 hours	
SCIENCE COURSES		THIRD SEMESTER	15 TOTAL HOURS	
ESCI 1214 Earth Science	4 hours	POLI 1113 American Government	3 hours	
CHEM 1314 Chemistry I	4 hours	CHEM 1314 Chemistry I	4 hours	
COMPUTER SCIENCE COURSES		Humanities Elective	3 hours	
BSAD 1113 Digital/Financial Literacy (or other approved computer course)	3 hours	MATH 2155 Calculus II	5 hours	
ORIENTATION COURSES		FOURTH SEMESTER	14 TOTAL HOURS	
ORNT 1101 Freshman Orientation	1 hour	HIST 1483 American History to 1877 (OR) HIST 1493 American History Since 1877	3 hours	
GENERAL EDUCATION ELECTIVE COURSES	4 hours	ASTR 2513 Observatory Methods Program/General Education	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.)		Electives (2-3 courses)	8 hours	
PROGRAM REQUIREMENT COURSES	16 TOTAL HOURS			
**ASTR 1523 Planetary Science	3 hours	This is a suggested sequence timeline only. A student may require more than four semesters to complete an Associate in Science degree.		
ASTR 2513 Observatory Methods	3 hours	**These program courses are typically offered only once a year. See course descriptions for fall or spring designations and plan accordingly.		
**MATH 2145 Calculus I	5 hours			
**MATH 2155 Calculus II	5 hours			
RECOMMENDED PROGRAM ELECTIVE COURSES	7 TOTAL HOURS			
ASTR 1014 Survey of Astronomy	4 hours			
** ASTR 1533 Search for Life in the University	3 hours			
**ASTR 2563 Galaxies & Cosmology	3 hours			
GEOL 1114 Physical Geology	4 hours			
**PHSY 1114 Physics I	4 hours			
<b>TOTAL CREDIT HOURS</b>	<b>60</b>			