**Program Requirements**

**General Education Courses - 37 Total Credit Hours**

**English Composition Courses**
- ENGL 1113 English Composition I 3 hours
- ENGL 1213 English Composition II 3 hours

**History & Government Courses**
- HIST 1483 Amer. History to 1877 3 hours
  *(or) HIST 1493 Amer. History Since 1877*
- POLI 1113 American Government 3 hours

**Humanities Courses**

- **Electives** 6 hours
  One 3 hour course to be chosen from those listed with the International Dimension and 3 hours of humanities electives.

**Mathematics Courses**
- MATH 1513 Algebra for STEM 3 hours

**Science Courses**
- ESCI 1214 Earth Science 4 hours
- CHEM 1315 Chemistry I 5 hours

**Computer Science Courses**
- BADM 1113 Digital/Financial Literacy 3 hours
  *(or other approved computer course)*

**Orientation Courses**
- ORNT 1101 Freshman Orientation 1 hour

**General Education Elective Courses**
- 3 hours
  *(To avoid additional coursework, the general elective is designated for MATH 1613 Plane Trigonometry.)*

**Program Requirement Courses - 16 Total Hours**

- ASTR 1014 Survey of Astronomy 4 hours
- **MATH 2144 Calculus I** 4 hours
- **MATH 2154 Calculus II** 4 hours
- **MATH 2164 Calculus III** 4 hours

**Recommended Program Elective Courses - 7-8**

- **ASTR 2513 Observatory Methods** 3 hours
- **PHYS 1114 Physics I** 4 hours
- **PHYS 1214 Physics II** 4 hours
  *(or) ENGR 2114 Engineering Physics II*

**Total Credit Hours** 60 hours

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**Suggested Course Sequence:**

**First Semester 15 Total Credit Hours**

- ENGL 1113 English Composition I 3 hours
- ORNT 1101 Freshman Orientation 1 hour
- MATH 1513 Algebra for STEM 3 hours
- MATH 1613 Plane Trigonometry 3 hours
- CHEM 1315 Chemistry I 5 hours

**Second Semester 15 Total Credit Hours**

- ENGL 1213 English Composition II 3 hours
- MATH 2144 Calculus I 4 hours
- ENGR 1114 Engineering Physics I 4 hours (recommended elective)
- ESCI 1214 Earth Science 4 hours

**Third Semester 18 Total Credit Hours**

- POLI 1113 American Government 3 hours
- BADM 1113 Digital/Financial Literacy 3 hours
- ENGR 2114 Engineering Physics II 4 hours *(recommended elective)*
- MATH 2154 Calculus II 4 hours
- ASTR 1014 Survey of Astronomy 4 hours

**Fourth Semester 13 Total Credit Hours**

- HIST 1483 Amer. History to 1877 3 hours
  *(or) HIST 1493 Amer. History Since 1877*
- MATH 2164 Calculus III 4 hours
- Humanities Elective 6 hours

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

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

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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.

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: [http://www.noc.edu/act](http://www.noc.edu/act) for placement guidelines.