### 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: 3 hours
  - POLI 1113 American Government: 3 hours

- **Humanities Courses**
  - Electives: 6 hours

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

- **Science Courses**
  - CHEM 1515 Chemistry for Engineers: 5 hours
  - PHYS 2014 Engineering Physics I: 4 hours

- **Computer Science Courses**
  - CMSC 1013 Visual BASIC: 3 hours
  - (or other approved computer course)

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

- **General Education Elective Courses**
  - 3 hours

- **Recommended Program Elective Courses - 7 Total Hours**
  - **ENGR 2443 Thermodynamics**: 3 hours
  - **PHYS 2414 Engineering Physics II**: 4 hours
  - **MATH 2164 Calculus II**: 4 hours
  - **MATH 2154 Calculus II**: 4 hours
  - **BIOL 1414 General Zoology**: 4 hours
  - **PHIL 2223 Business Ethics**: 3 hours

**Total Credit Hours**: 60 hours

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### Suggested Course Sequence:

**First Semester**

- **ENGL 1113 English Composition I**: 3 hours
- **CHEM 1515 Chemistry for Engineers**: 5 hours
- **ORNT 1101 Freshman Orientation**: 1 hour
- **MATH 1513 Algebra for STEM** (if score requires): 3-4 hours
- **MATH 1613 Plane Trigonometry**: 3 hours

**Second Semester**

- **ENGL 1213 English Composition II**: 3 hours
- **MATH 2144 Calculus I**: 4 hours
- **PHYS 2014 Engineering Physics**: 4 hours
- **Computer Science Course**: 3 hours
- **HIST 1483 Amer. History to 1877**: 3 hours

**Third Semester**

- **ENGR 2443 Thermodynamics**: 3 hours
- **MATH 2154 Calculus II**: 4 hours
- **PHYS 2114 Engineering Physics II**: 4 hours
- **Humanities Elective**: 3 hours

**Fourth Semester**

- **ENGR 2113 Statics** (or) **MATH 2613 Differential Equations**: 3-4 hours
- **MATH 2164 Calculus III**: 4 hours
- **Program Elective Recommended**: 3-4 hours
- **POLI 1113 American Government**: 3 hours

**Suggested NOC courses for specific engineering disciplines:**

- **ENGR 2123 Dynamics**: 3 hours
- **BIOSYSTEMS AGRICULTURAL**: 4 hours
  - BiOL 2124 Meteorology
  - BiOL 1414 General Zoology

**Career Opportunities**

- Architect/Designer
- Aerospace
- Agriculture
- Biosystems Engineer
- Chemical Engineer
- Construction Technology
- Civil Engineer
- Electrical Engineer
- Environmental Engineer
- Mechanical Engineer
- Meteorology
- Metallurgical Engineer
- Petroleum Engineer

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.

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