### Freshman Year

#### Fall Semester
- **CH** 101 Chemistry, A Molecular Science\(^1\) 3
- **CH** 102 General Chemistry Lab\(^1\) 1
- **E** 101 Introduction to Engr & Prob Solv\(^2\) 1
- **E** 115 Intro to Computing Environ\(^2\) 1
- **ENG** 101 Academic Writing and Research\(^2\) 4
- **MA** 141 Calculus I\(^*\) 4
- **EC** 205 Economics (or EC 201 or ARE 201)* 3
- **HESF** 10* Fitness & Wellness 1

**Total Credits:** 18

#### Spring Semester
- **CSC** 113 Intro Comp MATLAB 3
- **GC** 120 Foundations of Graphics 3
- **MA** 241 Calculus II\(^*\) 4
- **PY** 205 Physics for Engr & Sc I\(^*\) 3
- **PY** 206 Physics for Engr & Sc I Lab\(^*\) 1
- **E** 102 Engineering in the 21st Cent 2

**Total Credits:** 17

**Semester Total:** 35

### Sophomore Year

#### Fall Semester
- **MA** 242 Calculus III 4
- **MAE** 206 Engineering Statics\(^*\) 3
- **MAE** 250 Introduction to Aerospace Engineering 1
- **MAE** 251 Aero Vehicle Perf\(^3\) 3
- **PY** 208 Physics for Engr & Sc II 3
- **PY** 209 Physics for Engr & Sc II Lab\(^*\) 1

**Total Credits:** 15

#### Spring Semester
- **MA** 341 Applied Differential Eq 3
- **MAE** 208 Engineering Dynamics\(^*\) 3
- **MAE** 214 Solid Mechanics\(^*\) 3
- **MAE** 252 Aerodynamics I 3
- **MAE** 253 Experimental Aerodynamics I 1
- **MAE** 457 Flight Stability & Control or MAE 467 Intro to Space Flight 1
- **MA** 405 Controls Lab 1
- **MAE** 458 Propulsion or MAE 459 Rocket Propulsion 1
- **MAE** 465 Experimental Aerodynamics II 3
- **MAE** 472 Aero Structures II or MAE 430 Applied Finite Element 3

**Total Credits:** 16

### Junior Year

#### Fall Semester
- **MAE** 430 Principles of Automatic Controls 3
- **MAE** 451 Experimental Aerodynamics II 1
- **MAE** 480 Aero Vehicle Design I 3
- **MAE** 457 Flight Stability & Control or MAE 467 Intro to Space Flight 1

**Total Credits:** 16

#### Spring Semester
- **MA** 351 Aerodynamics II 3
- **MAE** 352 Experimental Aerodynamics II 1
- **MAE** 371 Aero Struc I 3
- **MAE** 372 Aero Vehicle Struc Lab 3
- **MAE** *** Ethics (GEP Requirement)\(^*\) 3
- **MAE** *** Engagement Elective\(^*\) 3
- **MAE** *** Propulsion Elective\(^*\) 3
- **MAE** *** Technical Elective\(^*\) 3

**Total Credits:** 15

### Senior Year

#### Fall Semester
- **MAE** Controls Lab 1
- **MAE** 481 Aero Vehicle Design II 3
- **MAE** *** GEP Requirement\(^*\) 3

**Total Credits:** 14

#### Spring Semester
- **MAE** 458 Propulsion or MAE 459 Rocket Propulsion 3
- **MAE** *** GEP Requirement\(^*\) 3
- **MAE** *** GEP Requirement\(^*\) 3

**Total Credits:** 15

**Minimum Total Credit Hours Required for Graduation:** 127

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**Major/Program requirements and footnotes:**

1. Courses required for Change of Degree Audit (CODA): CH 101, 102; MA 141, 241; PY 205, 206 must be completed with C or higher.
2. Minimum grade of C+; E 115 requires satisfactory completion (S).
3. Students must have a 2.0 GPA to enroll in this course.
4. ENG 331 Comm Engr & Technology or other approved course.
5. Select from IDS 201, STS 302, STS 304, STS 320, PH 214, PH/STS 325 or PH 375
6. Flight/Space (3 credit hours) Select either MAE 457 Flight Stability & Control or MAE 467 Intro to Space Flight; Structures (3 credit hours) Select either MAE 472 Aero Structures II or MAE 430 Applied Finite Element; Propulsion (3 credit hours) Select MAE 458 Propulsion or MAE 459 Rocket Propulsion. Open (6 credit hours) Select from approved lists: https://www.mae.ncsu.edu/academics/undergraduate-programs/electives/.
7. Math Elective (3 credit hours) Select either MA 305, MA 405, ST 305, ST 312, ST 370, ST 371, ST 372 or other approved course.

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**General Education Program (GEP) requirements and GEP Footnotes:**

To complete the requirements for graduation and the General Education Program, the following category credit hours and co-requisites must be satisfied.

- University approved GEP course lists for each of the following categories can be found at http://oucc.ncsu.edu/gep-courses.
- Humanities (6 credit hours selected from two different disciplines/course prefixes)
- Social Sciences (6 credit hours selected from two different disciplines/course prefixes)
- Economics (or BC 201 or ARE 201), taken as part of the Major requirements, satisfies 3 credit hours needed to fulfill the GEP Social Sciences requirement.
- Health and Exercise Studies (2 credit hours – must include one HESF 100-level course and one additional HES course)
- Additional Breadth (3 credit hours to be selected from the following University approved GEP course lists)
- Choose from the Humanities/Social Sciences/Visual and Performing Arts Interdisciplinary Perspectives (3-6 credit hours)

Choose from the University approved GEP Interdisciplinary Perspectives course list.

The following Co-Requisites must be satisfied to complete the General Education Program requirements:

1. **U.S. Diversity (USD)**
   - Choose from the University approved GEP U.S. Diversity course list or choose a course identified on the approved GEP course lists as meeting the U.S. Diversity (USD) co-requisite.
2. **Global Knowledge (GK)**
   - Choose from the University approved GEP Global Knowledge course list or choose a course identified on the approved GEP course lists as meeting the Global Knowledge (GK) co-requisite.
3. **Foreign Language proficiency**
   - Proficiency at the FL_102 level is required for graduation.