**PRE ENGINEERING**

**Advisors**

Promod Pratap, Associate Professor, Department of Physics and Astronomy

The following two-year pre-engineering curriculum offers preparation for students who plan to transfer to engineering programs in other institutions. This program has been approved by the Subcommittee on Engineering Transfer for transfer to the engineering programs at North Carolina A&T State University, North Carolina State University, and the University of North Carolina at Charlotte. Students interested in engineering should contact the advisors above as soon as possible.

See the designated General Education requirements and approved course listings. Recommended are a beginning course in literature, history (200 level), history or philosophy of science, and communications*. Some engineering programs require proficiency in a foreign language through the level of the first year (101–102). Students should make appropriate selections after consultation with an advisor. More information may be found on the Web at [https://physics.uncg.edu/undergraduate-program/pre-engineering-at-uncg/](https://physics.uncg.edu/undergraduate-program/pre-engineering-at-uncg/).

Note that the one-hour Kinesiology activity courses may be taken in any semester; most engineering schools require at least two PE credits.

### Requirements

#### Course Title Credit Hours

**Freshman**

First Semester

- ENG 101 Exploring Writing in College Contexts* 3
- CHE 111 General Chemistry I 3
- CHE 112 General Chemistry I Laboratory 1
- MAT 190 or MAT 196 Precalculus or Calculus A 4
- Select 6 credits from GEC Categories 6
- Select 1 credit from Kinesiology activity courses 1

**Credit Hours** 18

Second Semester

- ENG 102 Academic Research and Writing* 3
- CHE 114 General Chemistry II 3
- CHE 115 General Chemistry II Laboratory 1
- MAT 196 or MAT 296 Calculus A or Calculus B 4
- PHY 291 General Physics I with Calculus (If student is registered for MAT 196 concurrently, PHY 291 can be taken with permission of instructor.) 4
- Select 1 credit from Kinesiology activity courses 1

**Credit Hours** 16

**Sophomore**

**Summer Session II**

If student has not taken MAT 296 in the spring of freshman year.

- MAT 296 Calculus B 4

**Credit Hours** 4

First Semester

- MAT 396 Calculus C 4
- PHY 292 General Physics II with Calculus 4
- Select 3 semester hours from GEC Categories 3
- ECO 201 Principles of Microeconomics 3
- CSC 120 Introduction to Computer Programming for Non-Majors 3

**Credit Hours** 17

Second Semester

- MAT 390 Ordinary Differential Equations 3
- Select 9-12 credits from GEC Categories, including a GenEd Social Sciences (UNCG GSB Attribute) 9-12

**Credit Hours** 12-15

**Total Credit Hours** 67-70

* This requirement may be exempted.