

## What Should a First-Year Student in the School of Science and Engineering Take?

The courses listed below for each of the majors in the School of SS&E are what an average-to-well prepared freshman should take in order to be able to graduate in four years. Most SSE major plans have significant prerequisite chains so it is critical for Freshmen to start in the major right away. They cannot spend a year just taking GE courses and expect to graduate on time. If a student wishes to explore, they should at least take the introductory course in the major and start their math. These courses usually satisfy GE requirements as well. Note that for students interested in secondary education, there is no difference in what they should take in their first year.

### Astronomy

PHY193 Physics Seminar (1 cr)  
PHY205 Exploring the Solar System  
General Chemistry 1 with lab (MPL  $\geq$  4)  
Math – Highest level prepared for in the Calculus sequence.

### Biology

If:  
MPL is  $\leq$  3, take highest math course possible in the Calculus sequence.  
MPL = 4, then: General Biology 1 plus PreCalc  
MPL  $\geq$  5 then: General Biology 1, plus General Chemistry 1 with Lab, plus Calc 1 or Calc 2

### Biochemistry

General Biology 1 (if MPL  $\geq$  4)  
General Chemistry 1 with Lab (MPL  $\geq$  4)  
Math – Highest level prepared for in the Calculus sequence.

### Chemistry

General Chemistry 1 with Lab (MPL  $\geq$  4)  
Math – Highest level prepared for in the Calculus sequence.

### Engineering (all major tracks) \*

If:  
MPL  $\geq$  4, Gen Chem 1 with lab plus MATH  
MPL  $\geq$  5 Introduction to Engineering plus MATH  
Math – Highest level prepared for in the Calculus sequence.

### Computer Science

Computer Science 1 (MPL  $\geq$  4)  
Math – Highest level prepared for in the Calculus sequence.  
General Biology I or General Chemistry 1 with Lab (MPL  $\geq$  4) or General Physics 1 with Lab (MPL = 6) or Physical Geology with Lab.

### Environmental Geochemical Science

Physical Geology  
General Chemistry 1 with Lab (MPL  $\geq$  4)  
Math – Highest level prepared for in the Calculus sequence.

### Geology/Earth Science

Physical Geology  
General Chemistry 1 with Lab (MPL  $\geq$  4)  
Math – Highest level prepared for in the Calculus sequence.

### Mathematics

If:  
MPL < 3, highest math course possible in the Calculus track.  
MPL = 4, PreCalc  
MPL = 5, Calculus 1  
MPL = 6, Calculus 2 and Introduction to Proof  
MPL > 6, Introduction to Proof

### Physics

PHY193 Physics Seminar (1 cr)  
General Physics 1 with lab (MPL > 5)  
General Chemistry 1 with lab (MPL  $\geq$  4)  
Math – Highest level prepared for in the Calculus sequence.

\*Engineering Students are not required to meet the GE4 Foreign Language requirements.