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 >= 4)
- Math – Highest level prepared for in the Calculus sequence.

**Biology**
If:
- MPL is <= 3, take highest math course possible in the Calculus sequence.
- MPL = 4, then: General Biology 1 plus PreCalc
- MPL >= 5 then: General Biology 1, plus General Chemistry 1 with Lab, plus Calc 1 or Calc 2

**Biochemistry**
- General Biology 1 (if MPL >=4)
- General Chemistry 1 with Lab (MPL >= 4)
- Math – Highest level prepared for in the Calculus sequence.

**Chemistry**
- General Chemistry 1 with Lab (MPL >= 4)
- Math – Highest level prepared for in the Calculus sequence.

**Engineering (all major tracks)** *
If:
- MPL >= 4, Gen Chem 1 with lab plus MATH
- MPL >= 5 Introduction to Engineering plus MATH
- Math – Highest level prepared for in the Calculus sequence.

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

**Computer Science**
- Computer Science 1 (MPL >= 4)
- Math – Highest level prepared for in the Calculus sequence.
- General Biology I or General Chemistry 1 with Lab (MPL >= 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 >= 4)
- Math – Highest level prepared for in the Calculus sequence.

**Geology/Earth Science**
- Physical Geology
- General Chemistry 1 with Lab (MPL >= 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 >= 4)
- Math – Highest level prepared for in the Calculus sequence.

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