Students entering a secondary science teacher preparation program will earn a primary endorsement in their field of study (Biology, Chemistry, Earth and Space Science, Environmental Science or Physics). This means that they can teach that science discipline at any level including honors and AP. They also can teach any other area of science at the regular or lower levels. Students that wish to receive a second endorsement in another area of science (Biology, Chemistry, Earth and Space Science, Environmental Science or Physics) must have 12 hours of coursework in that science and take and pass the content test for that subject. We highly recommend that students earn a second endorsement.

The coursework that would be required for an additional endorsement for each of the science disciplines is indicated below:

**Biology:**
- BIOS 208 Fundamentals of Biology 1, including lab (4hrs)
- BIOS 209 Fundamentals of Biology 2, including lab (4hrs)
- BIOS 316 General Ecology (4hrs)

**Chemistry:**
- CHEM 210/212 General Chemistry I, including lab (4hrs)
- CHEM 211/213 General Chemistry II, including lab (4hrs)
- CHEM 330 or 336 Organic Chemistry 1 (3hrs)
- CHEM 332 Organic Chemistry I lab (1hr)

**Earth and Space Science:**
- GEOL 120/121 Introductory Geology +Lab (3+1hrs)
- GEOG 105/106 Introduction to the Atmosphere +Lab (3+1hrs)
- PHYS 162 Introduction to Astronomy (3hrs)
- GEOL 494 Special Topics (1hr)

**Environmental Science:**
- ENVS 301 Environmental Science I: Physical Systems (3hrs)
- ENVS 302 Environmental Science II: Biological Systems (3hrs)
- Pick 2 of ENVS 303, 304, 305 (6hrs total)

**Physics:**
- PHYS 253 Fundamentals of Physics 1: Mechanics (4hrs)
- PHYS 273 Fundamentals of Physics 2: Electromagnetism (4hrs)
- PHYS 283/284 Intermediate Quantum Physics and lab (4hrs)

**Physics second option for those who start with the non-calculus general physics sequence:**
- PHYS 210 General Physics 1, including lab (4hrs)
- PHYS 211 General Physics 2, including lab (4hrs)
- PHYS 252 Intermediate General Physics (3hrs)
- PHYS 283 Fundamentals of Physics 3: Quantum Phys. (3hrs)