Earth Systems Specialization – BA (major code 465)
(for majors declared Fall 2021 onwards)

- Courses can only be used to fulfill one requirement, even if the course is listed as an option for multiple requirements.
- Many upper level courses have prerequisites. Make sure you plan accordingly for the path you want to take.

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Course Options</th>
<th>Credits</th>
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</table>
| **A. ENVI 101 – Humans & Ecological Environment** | - ENVI 101  
- AP Envi Exam score of 3, 4, or 5  
- ENVI 105 - People, Politics, & Environment (Source Project Students only)  
- PLSC 180A - People, Politics, & Environment (Source Project Students only) | 4 |
| **B. ENVI 201 – Humans & Physical Environment** | - ENVI 201  
- or AP Envi Exam score of 5 (excludes AP test taken in 2020) | 4 |
| **C. One introductory environmental policy course** | - ENVI/PHIL 149 Environmental Ethics  
- ENVI 230 Intro to Environmental Policy  
- ENVI/GEOG 239 Envi Plng & Policy  
- ENVI 280B Intro Int’l Envi Policy (Starting in Fall 2024, this course will be renumbered to ENVI 225.)  
- PLSC 282 Intro to Environmental Policy | 4 |
| **D. One introductory economics course** | - ECON 160 Microeconomics  
- ECON 162 Macroeconomics | 4 |
| **E. One introductory methods course** | - GEOG 160 or 260 or 360 GIS/Spatial Analysis  
- MATH 147 Statistics  
- MATH 148 Statistics for Biologists  

The following classes are only for FRI and Source Project students:  
- BIOL 241 Ecological Genetics FRI  
- ENVI 205 People Politics & Environment II  
- PLSC ??? People Politics & Environment II  
- ENVI 206 Geospatial Sensing FRI  
- ENVI/GEOG 234 Biogeochemistry FRI | 4 |
| **F. One lower-level course related to environmental science (BIOL, GEOG, GEOL, PHYS, or other)** | Students are strongly encouraged to take either ENVI 140 or CHEM 104 with CHEM 106 lab as these are prerequisites for upper-level courses.  
- ENVI 140 Intro Enviro Chem (Lec)  
- CHEM 104 General Chem I (Lec)  

Allowed  
- BIOL 105 Evol for Everyone  
- ENVI 140 Intro Enviro Chem (Lec)  
- ENVI 250 Farm to Table  
- ENVI 236/ANTH 236 Farming Thru Time  
- GEOL 111 Planet Earth  
- GEOL 112 Oceanography  
- GEOL 113 Geol of the Parks  
- GEOL 115 Global Change: Geol Perspt  
- GEOL 116 Geological Hazards  
- GEOL 120 Energy and the Earth  
- ENVI/GEOG 170 Environmental Geology  
- GEOG 120 Weather & Climate  
- GEOG 221 Global Climate Change | 4 |
| G. One 100-level geology course | - GEOL 102 Geol of the Solar System  
- GEOL 105 Earthquakes & Volcanoes  
- GEOL 111 Planet Earth  
- GEOL 112 Oceanography  
- GEOL 113 Geol of the Parks  
- GEOL 115 Global Change: Geologic Perspt  
- GEOL 116 Geological Hazards  
- GEOL 120 Energy and the Earth  
- GEOL/ENVI 170 Environmental Geology | 4 |
| H. One upper-level surface geology course | - GEOL 311 Earth’s Surface Processes  
- ENVI/GEOL 342 Environmental Hydrology | 4 |
| I. One upper-level course in environ. chemistry or hydrology | - ENVI/GEOL 304 Intro Envi Geochem  
- ENVI/GEOL 342 Environmental Hydrology  
- ENVI 346 Envi Chem Community Water Syst | 4 |
| J. Three upper-level courses in Earth Systems (GEOG, ENVI, or other related fields) | - GEOL 301 Rock Record & Earth History  
- GEOL 303 Earth Materials  
- GEOL 304 Intro Envi Geochem, if not used elsewhere  
- ENVI/GEOL 306 Geospatial Sensing – Part 2, if class topic relates to earth systems, FRI students only  
- GEOL 326/ENVI 343 Nonrenewable Natural Resources  
- GEOL 330 Earth Systems Statistics, if not used elsewhere  
- ENVI/GEOL 334 Biogeochem FRI – Part II (FRI students only)  
- GEOL/ENVI 342 Envi Hydrology, if not used elsewhere  
- ENVI 346 Envi Chem Community Water Syst, if not used elsewhere  
- ENVI 347 Environ Pollution: Sci & Policy  
- ENVI 382U Food Energy Water Nexus (F22, F23)  
- GEOL 411 Adv Geomorphology  
- GEOL 414 Climate & Paleoclimate  
- GEOL 423 Igneous & Metamorphic Petrology  
- GEOL 436 Sediment Environments & Facies  
- GEOL 453 Environmental Geophysics  
- ENVI/GEOG 423 Soils  
- ENVI 454 Envi application in GIS, if Earth Syst topic | 12 |
| L. One upper-level research, teaching, and/or applied course in Earth Systems | - GEOL 460 Geomicrobiology  
- GEOL 465 Environmental Measurements  
- GEOL 470 Geochemistry  
The following require department permission.  
- ENVI 397 Independent Study  
- ENVI 491 Undergraduate Teaching  
- ENVI 495 Environ Internship | 4 |
| M. One upper-level capstone course | - ENVI 413 Environ Studies Capstone  
- ENVI 382F Integrating Sustain. Science & Innovation  
The following require department permission.  
- ENVI 498 Senior Thesis  
- ENVI 499 Honors Thesis | 4 |
| **Total Credits:** | **56** |