



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.

Requirement	Course Options	Credits
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 & Environ II - PLSC ??? People Politics & Environ II - ENVI 206 Geospatial Sensing FRI - ENVI/GEOL 234 Biogeochemistry FRI	4
F. One lower-level course related to environmental science (BIOL, GEOG, GEOL, PHYS, or other)	Students are <u>strongly</u> encouraged to take either ENVI 140 or CHEM 104 <i>with CHEM 106 lab</i> 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/GEOL 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