



Earth Systems Specialization – BS (major code 868) (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.
- For certain requirements, check out the ENVI website for additional course options by semester.
- * = **Fall-only course**, ** = **Spring-only course**. Note that course offerings may change and it is highly advised to consult the Schedule of Classes for exact offerings when possible.

Requirement	Course options	Credits
A. ENVI 101 – Humans & Ecological Environment	- ENVI 101 - AP Envi Exam score of 3, 4, or 5 <i>Source Project students only:</i> - PLSC 180A People, Politics, and the Environment	4
B. ENVI 201 – Humans & Physical Environ.	- ENVI 201 <i>First-Year Research Immersion (FRI) students only:</i> - ENVI/GEOL 234 Biogeochemistry *if not already used for “introductory methods” requirement	4
C. One introductory environmental policy course	- ENVI/PHIL 149 Environmental Ethics - ENVI/GEOG 239 Envi Plng & Policy - ENVI 225 Intro Int’l Envi Policy* <i>Source Project students only:</i> - ENVI 181A/PHIL 180D Climate Justice	4
D. One introductory economics course	- ECON 160 Microeconomics - ECON 162 Macroeconomics	4
E. One introductory methods course	Recommended: - ENVI 220 Researching Sustainability and the Environment Allowed: - MATH 147 Statistics - GEOG 360 GIS/Spatial Analysis - DIDA 110 Database Fundamentals - DIDA 130 Intro to Statistical Thinking - DIDA 260 Data Visualization - ANTH 200 Statistics in Anthropology <i>First-Year Research Immersion (FRI) and Source Project students only:</i> - ENVI/GEOL 234 Biogeochemistry (FRI) *if not already used as a substitute for ENVI 201 - ENVI/GEOL 206 Environmental Visualization (FRI) - BIOL 241 Ecological Genetics (FRI) - PLSC 180B People, Politics, and the Environment (Source Project)	4
F. One lower-level chemistry requirement	Recommended: - CHEM 104 General Chem I (Lec) + CHEM 106 (Lab) Allowed: - CHEM 107 Intro to Chem Prin	6

	- CHEM 111 Chemical Principles	
G. One lower-level course related to environmental science (Biological Sciences, Earth Sciences, Geography)	- ANTH 167 Introduction to Archaeology - BIOL 105 Evolution for Everyone - BIOL 113 Intro to Cell & Molecular Biol - BIOL 114 Intro to Organisms & Population Bio - GEOL 105 Earthquakes and Volcanoes - GEOL 112 Oceanography - GEOL 142 Water - GEOL/ENVI 170 Environmental Geology - GEOG 105 Our Digital Earth - GEOG 120 Weather & Climate - GEOG 121 Physical Geog - GEOG 151 World Regional Geog - GEOG 221 Global Climate Change	4
H. One 100-level GEOL 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 120 Energy and the Earth - GEOL/ENVI 170 Environmental Geology	4
I. One upper-level surface geology course	- GEOL 311 Earth's Surface Processes* - ENVI/GEOL 342 Environmental Hydrology* - ENVI/GEOG 423 Soils**	4
J. One upper-level course in environ chem or hydrology	- ENVI/GEOL 304 Intro Envi Geochem** - ENVI/GEOL 342 Environmental Hydrology* - GEOL 470 Geochemistry*	4
K. Five upper-level courses in Earth Systems (20 credits) (GEOG, ENVI, or other related fields)	- ENVI 332 Water, Rivers & Society* - ENVI 345 U.S. Energy Policies - GEOL 301 Rock Record & Earth History* - GEOL 303 Earth Materials** - GEOL 304 Intro Envi Geochem** - GEOL 326/ENVI 343 Nonrenewable Natural Resources* - GEOL/ENVI 342 Envi Hydrology* - GEOL 414 Climate & Paleoclimate* - GEOL 423 Igneous & Metamorphic Petrology* - GEOL 436 Sediment Environments & Facies** - GEOL 453 Environmental Geophysics - ENVI/GEOG 423 Soils** <i>First-Year Research Immersion (FRI) students only:</i> - ENVI/GEOL 306 Geospatial Sensing - ENVI/GEOL 334 Biogeochem Past Special Topics Courses <i>Future availability of these courses may vary</i> - GEOL 482A Earth Systems Statistics - GEOL 482A Paleobiogeography	20

	- GEOL 482P Methods in Paleobiology	
L. One upper-level research, teaching, and/or applied course in Earth Systems	- GEOL 414 Climate & Paleoclimate* - GEOL 423 Igneous & Metamorphic Petrology* - GEOL 436 Sediment Environments & Facies** - GEOL 453 Environmental Geophysics - GEOL 470 Geochemistry* Past Special Topics Courses <i>Future availability of these courses may vary</i> - GEOL 482A Earth Systems Statistics - GEOL 482A Paleobiogeography - GEOL 482P Methods in Paleobiology The following require department permission. - ENVI 397 Independent Study - ENVI 491 Undergraduate Teaching - ENVI 495 or CDCI 395 Environ Internship (need to receive approval from undergraduate director to receive ENVI major credit for CDCI 395)	4
M. One upper-level capstone course	- ENVI 413 Environ Studies Capstone - ENVI 497 Independent Study (requires approval from faculty supervisor) - ENVI 481W White Mountain Field School (offered summer only; additional course fee applies; contact ENVI director for details) * Honors Thesis can substitute for a capstone course. See undergraduate director.	4
	Total Credits:	70