

Colorado State University Geosciences Department
Environmental Geology Concentration: 120 Credit Minimum

Freshman Year	Credits	Sophomore Year	Credits
<u>Fall Semester</u> CO 150: College Composition GEOL 150: Physical Geology for Scientists MATH160: Calculus for Physical Sciences I AUCC 3B: Arts and Humanities <u>Spring Semester</u> GEOL 154: Historical and Analytical Geology AUCC 3E: Global and Cultural Awareness CHEM 111: General Chemistry I CHEM 112: General Chemistry I lab AUCC 3D: Historical Perspectives	 3 4 4 3 4 3 4 1 3	<u>Fall Semester</u> GEOL 232: Mineralogy CHEM 113: General Chemistry II CHEM 114: General Chemistry II lab GEOL 344: Sedimentation and Stratigraphy MATH 161: Calculus for Physical Sciences II <u>Spring Semester</u> GEOL 364: Igneous and Metamorphic Petrology PH 121 or PH 141 CO 300 or JTC 300 or CO 301B AUCC 3C: Social/Behavioral Sciences	 3 3 1 4 4 4 5 3 3
Junior Year	Credits	Senior Year	Credits
<u>Fall Semester</u> GEOL 366: Sedimentary Petrology and Geochemistry PH 122 or PH 142 or SOCR 470 SOCR 240: Introductory Soil Science STAT 301 or STAT 315 or MATH 340 <u>Spring Semester</u> GEOL 372: Structural Geology GEOL 376: Geologic Field Methods NR 319 or NR 322: Geospatial Applications AUCC 3B: Arts and Humanities <u>Summer Semester</u> GEOL 436: Summer Field Course	 4 3-5 4 3-4 4 3 4 3 6	<u>Fall Semester</u> GEOL 452: Hydrogeology Elective WR 416: Land Use Hydrology Directed Technical Elective <u>Spring Semester</u> GEOL 446: Environmental Geology GEOL 454: Geomorphology Directed Technical Elective Electives *Additional courses may be required to fulfill prerequisite requirements. Program total	 4 3 3 3-4 3 4 3-4 2-4 120

Colorado State University Geosciences Department
Environmental Geology Concentration: 120 Credit Minimum

Directed Technical Elective List

<u>Course Subject Code and Number</u>	<u>Title</u>	<u>Credits</u>
GEOI 342 ^P	Paleontology	3
GEOL 424 ^P	Modern Gas and Oil	3
GEOL 442 ^P	Applied Geophysics	4
GEOL 447 ^P	Mineral Deposits	3
GEOL 498 ^P	Undergraduate Research (up to 1 hour may be counted toward directed electives)	V1-6
GEOL 546 ^P	Sedimentary Basin Analysis	4
GEOL 547 ^P	Ore Deposit Geochemistry	3
GEOL 551 ^P	Groundwater Modeling	3
GEOL 552 ^P	Advanced Topics in Hydrogeology	V2-3
GEOL 553 ^P	Use of Tracers in Hydrogeology	3
GEOL 562 ^P	Statistical Data Analysis in Earth Resources	3
NR 323/GR 323	Remote Sensing and Image Interpretation*	3
NR 422	GIS Applications in Natural Resources Management*	4
SOCR 440	Pedology	3
SOCR 467 ^P	Soil and Environmental Chemistry	3
SOCR 470 ^P	Soil Physics (if not used to fulfill the physics II requirement)	3
SOCR 478 ^P	Environmental Soil Science	3
STAT 315 ^P	Statistics for Engineers and Scientists (if not used to fulfill statistics requirement)	3
WR 418 ^P	Land Use and Water Quality	3
WR 474	Snow Hydrology	3
WR 524 ^P	Modeling Watershed Hydrology	3
CIVE 322 ^P	Basic Hydrology	3
CIVE 413 ^P	Environmental River Mechanics	3
CIVE 440 ^P	Nonpoint Source Pollution	3
CIVE 455 ^P	Applications in Geotechnical Engineering	3
CIVE 538 ^P	Aqueous Chemistry	3
GR 410 ^P	Climate Change: Science, Policy, Implications	3
ECON 340 ^P	Introduction: Economics of Natural Resources	3
POLS 361 ^P	U.S. Environmental Politics and Policy	3
SOC 461 ^P	Water, Society, and Environment	3
BZ 471 ^P	Stream Biology and Ecology (must be taken with BZ 472)	3
BZ 472 ^P	Stream Biology and Ecology Laboratory (must be taken with BZ 471)	1
PHIL 565 ^P	Seminar in Environmental Philosophy	3

^P This course has at least one prerequisite. Check the Courses of Instruction of the catalog at <http://catalog.colostate.edu> to see the course prerequisites.

*May only select one class from these options to fulfill this category.

Classes outside of this list may be taken with approval of the department advisor and department head.

Effective Fall 2018