

ENVIRONMENTAL SCIENCE

WHAT ARE YOU INTERESTED IN?

“Environmental Science” is an interdisciplinary approach to understanding the physical world. It is a broad way of thinking that draws from the natural sciences, social sciences and humanities to understand the physical, chemical and biological components of the environment, how these components interact, and how humans influence these components and interactions. The UO ESCI major provides students with the opportunity to learn from multiple disciplines, yet also customize their coursework to meet individual learning goals. This list provides ideas for strategically clustering your coursework around specific topics of interest. This list is intended to be a guide and not a comprehensive list because courses are always changing. Be sure to check the ESCI “tip sheets” for temporary courses (numbered 399, 407, 408, 410 or 411) and other courses of interest.

Important note: For some of the topic areas listed below, there are multiple Area 3B courses listed that fall under the same core area. Remember that ESCI majors can only count ONE class in THREE of the four core areas (Social Science, Policy, Humanities, and Sustainable Design and Practice) for their major requirements. Some excess courses may count towards UO general education requirements. Please see an ENVS Student or Faculty Adviser if you have questions.

** Area 3A LS = Life Science | Area 3A EPS = Earth and Physical Science | ELP = Environmental Leadership Program **

CLIMATE CHANGE/ENERGY

ENVS 350 Ecological Energy Generation (EPS)
 GEOG 321 Climatology (EPS)
 GEOG 361 Global Environmental Change (EPS)
 GEOG 421 Advanced Climatology (EPS)
 GEOG 430 Long-Term Environmental Change (EPS)
 GEOG 432 Climatological Aspects of Global Change (EPS)
 PS 367 Science and Politics of Climate Change (Policy)

ECOSYSTEM DYNAMICS/ LANDSCAPE HISTORY

GEOG 322 Geomorphology (EPS)
 GEOG 323 Biogeography (LS)
 GEOG 361 Global Environmental Change (EPS)
 GEOG 423 Advanced Biogeography (LS)
 GEOG 433 Fire and Natural Disturbance (LS)
 GEOG 461 Environmental Alteration (EPS)
 GEOL 315 Earth Physics (EPS)
 GEOL 462 Environmental Geomechanics (EPS)
 GEOL 468 Intro Seismology (EPS)
 LA 413 Analyzing Land Systems (Analytical Approaches)
 LA 440 Introduction to Landscape Planning Analysis (Sustainable Design and Practice)

ECOLOGY

ANTH 375 Primates in Ecological Communities (LS)
 BI 306 Pollination Biology (LS)
 BI 370 Principles of Ecology (LS)
 BI 432 Mycology (LS)
 BI 471 Population Ecology (LS)
 BI 472 Community Ecology (LS)
 BI 473 Quantitative Ecology (Analytical Approaches)
 BI 474 Marine Ecology – OIMB (LS)
 BI 476 Terrestrial Ecosystem Ecology (LS)
 BI 478/479 Neotropical Ecology in Ecuador (LS)
 ENVS 450 Political Ecology (Social Science)
 ENVS 465 Wetland Ecology and Management (EPS)
 ENVS 427 Environmental and Ecological Monitoring (Analytical Approaches/LS)
 ENVS 429 ELP (Area 5 or LS)
 LA 441 Principles of Applied Ecology (Sustainable Design and Practice)
 LA 465 Landscape Ecology (LS)

NATURAL RESOURCE MANAGEMENT/SUSTAINABILITY

BI 307 Forest Biology (LS)

ENVS 335 Allocating Scarce Environmental Resources (Policy Core)

ENVS 350 Ecology of Energy Generation (EPS)

ENVS 427 Environmental and Ecological Monitoring (Analytical Approaches or LS)

ENVS 429 ELP (Area 5 or LS)

ENVS 450 Political Ecology (Social Science)

ENVS 455 Sustainability (Social Science)

ENVS 465 Wetland Ecology and Management (EPS)

GEOG 341 Population and Environment (Social Science)

GEOG 360 Watershed Science and Policy (EPS)

GEOG 461 Environmental Alteration (EPS)

GEOL 310 Earth Resources and Environment (EPS)

PPPM 442 Sustainable Urban Development (Sustainable Design & Practice Core)

PPPM 443 Natural Resource Policy (Policy Core)

PPPM 444 Environmental Policy (Policy Core)

PPPM 445 Green Cities (Sustainable Design & Practice Core)

PALEOECOLOGY/PETROLOGY

GEOL 304 Fossil Record (EPS)

GEOL 305 Dinosaurs (EPS)

GEOL 311 Earth Materials (EPS)

GEOL 331 Mineralogy (EPS)

GEOL 332 Intro to Petrology (EPS)

GEOL 334 Sedimentology & Stratigraphy (EPS)

GEOL 350 Structural Geology (EPS)

GEOL 425 Geology of Ore Deposits (EPS)

GEOL 431 Paleontology I: Paleozoic Marine Fossils (EPS)

GEOL 433 Paleobotany

GEOL 434 Vertebrate Paleontology

GEOL 435 Paleopedology

RESTORATION/CONSERVATION BIOLOGY

ANTH 472 Primate Conservation Biology (LS)

BI 374 Conservation Biology (LS)

BI 375 Biological Diversity (LS)

BI 442 Systematic Botany (LS)

BI 448 Field Botany (LS)

BI 471 Population Ecology (LS)

ENVS 427 Environmental and Ecological Monitoring (Analytical Approaches or LS?)

ENVS 429 ELP (Area 5)

ENVS 465 Wetland Ecology and Management (EPS)

WATER AND WATERSHED ISSUES

ENVS 427 Environmental and Ecological Monitoring (Analytical Approaches or LS)

ENVS 429 ELP (Area 5 or LS)

ENVS 465 Wetland Ecology and Management (EPS)

GEOG 360 Watershed Science and Policy (EPS)

GEOG 425 Hydrology and Water Resources (EPS)

GEOG 427 Fluvial Geomorphology (EPS)

GEOL 316 Intro to Hydrology (EPS)

GEOL 451 Hydrogeology (EPS)

GEOGRAPHIC INFORMATION SYSTEMS (GIS)

GEOG 481/482/491 GIScience I, II, Advanced (Analytical Approaches, EPS)

GEOG 495 Geographic Data Analysis (Statistics)

GEOG 485/486 Remote Sensing I, II (EPS)

SUSTAINABLE AGRICULTURE

ENVS 467 Sustainable Agriculture (Sustainable Design & Practice)

ENVS 477 Soil Science (EPS)

GEOG 425 Hydrology and Water Resources (EPS)

GEOL 316 Introduction to Hydrogeology (EPS)

BI 359 Plant Biology (LS)

BI 452 Insect Biology (LS)

*Check out the Food Studies Minor