

Environmental Science and Management Requirements for a Minor in Environmental Studies

To obtain a minor in Environmental Studies a student must complete a minimum of 28 credits (at least 12 of which must be taken in residence at PSU). At least 4 credits each in biological science, physical science (physics, chemistry, geology), economics, and Calculus are expected before admission to the minor.

	Credits
ESM 222 Applied environmental studies: science and policy	4
ESM 320, 321 Analysis of environmental systems I, II	8
ESM 322 Environmental risk assessment	4
Upper division environmental policy/mgmt course	4
Upper division environmental science courses	8

Environmental Policy/Management Courses (minimum 4 credits)

EC 432 . Environmental Economics	4
Geog 345 Resource Management	4
Geog 445 Resource Management Topics	4
Geog 446 Water Resource Management	4
ESM 335 Introduction to Environmental Management	4
ESM 428 Urban Ecology	4
ESM 429 Environmental Impact Assessment	4
ESM 433 Natural Resource Economics	4
ESM 434 Business Environmental Management Econ	4
ESM 443 Global Environmental Economics	4
ESM 478 Aquatic Vascular Plants	4
ESM 483 Marine Conservation Science & Management	4

Environmental Science Courses (minimum 8 credits)

ESM 410 Aquatic Chemistry	4
ESM 410 Water and Waste Water Treatment	4
ESM 410 Macroinvertebrates	4
ESM 420 Ecological Toxicology	4
ESM 424 Wetland Ecology	4
ESM 425 Watershed Hydrology	4
ESM 426 Ecology of Streams and Rivers	4
ESM 427 Watershed Biogeochemistry	4
ESM 445 Old Growth Forest Ecology	4
ESM 460 Air Quality	4
ESM 471 Atmospheric Physics	4
ESM 473 Phytoplankton Ecology	4
ESM 479 Fate and Transport of Toxics	4
ESM 499 Landscape Connectivity	4

Courses taken under the undifferentiated grading option (pass, no pass) will not be accepted toward fulfilling minor requirements. Courses with omnibus numbers 401, 404, 405, and 407 are not allowed for minor. Additional courses may be required as prerequisites.