

## Minor in Sustainability

## Environmental Science and Management

The minor requires at least 30 credits (at least 15 of which must be taken in residence at PSU), to include the following:

### Regulations/Policy and Sustainability - all three courses required:

ESM 150	Orientation to Environmental Science and Management	1
UNST 224	Environmental Sustainability	4
ESM 222	Applied Environmental Studies: Policy Considerations	4

*Upper-division to include four courses- one course from each category, and one additional course from any category.*

### Economics and Business Issues

EC 332U	Economics of Environmental Issues	4
EC 430	Resources and Environmental Economics	4
EC/ESM 433	Advanced Natural Resource Economics	4
EC/ESM 434	Business Environmental Management Economics	4
EC/ESM 443	Global Environmental Economics	4
EC 444	Economics of Green Power	4
USP 490	Green Economics and Sustainable Development	3
ESM/BA357	Business Approaches to Environmental Problems	4

### Social and Management Issues

ARCH 367U	Fundamental of Environmental Design	4
GEOG 340U	Global Water Issues and Sustainability	4
GEOG 345U	Resource Management	4
GEOG 346U	World Population and Food Supply	4
GEOG 347U	Environmental Issues and Action	4
GEOG 442	Sustainable Cities	4
GEOG 465	Tuscany: Sustainability in City and Country	4
HST 339U	The Environment and History	4
PHL 310U	Environmental Ethics	4
PS 319	Politics of the Environment	4
SCI 321	Energy and Society I	4
SCI 322	Energy and Society II	4
SOC 341U	Population Trends and Policy	4
SOC 465	Environmental Sociology	4
USP 313U	Urban Planning: Environmental Issues	4
USP 419	Population and Society (prereq SOC200)	4
USP 325	Community and the Built Environment	4
SYSC 334U	Modeling Social-Ecological Systems	4

### Environmental and Ecological Issues

ESM 355U	Understanding the Environment	4
ESM 356U	Understanding Environmental Conservation	4
ESM 420	Ecological Toxicology	4
ESM 424	Wetland Ecology and Regulations	4
ESM 426	Ecology of Stream and Rivers	4
ESM 428	Urban Ecology	4
ESM 445	Old-Growth Forest Ecology	4
ESM 460/CE 488	Air Quality	4
SCI 335U	Water and the Environment I	4
SCI 336U	Water and the Environment II	4
SCI 352	Science and Policy of Climate Change	4

### In addition, students must choose an appropriate capstone or internship\*:

UNST 421	Capstone	6
ESM 450	Case Studies in Environmental Problem Solving	6
ESM 404	Internship	6
Total credits		30-31

\*A list of acceptable capstone courses is posted on the ESM web page: <https://www.pdx.edu/esm/sustainability-minor>

Courses taken as pass/no pass will not be accepted toward fulfilling minor requirements. Courses numbered 401, 404, 405, 406, and 407 are not allowed for the minor. Additional courses may be required as prerequisites. Students must pass courses with a C- or above.

Note: Students earning the Minor in Sustainability may NOT also earn the Sustainable Urban Development Minor offered by the Nohad Toulan School of Urban Studies and Planning unless the courses presented for the minors differ by at least 12 credits. **7/2015**