The minor in environmental science provides students with an opportunity to analyze interactions between the physical, chemical, and biological components of the environment with relation to human and ecological health, and to understand many of the most important issues confronting the world today. Environmental issues such as global climate change, safe water quality, wetland reconstruction, environmental sustainability, ecosystem habitat restoration, biological diversity, hazardous contaminant pollution of soil and water, carbon sequestration, and food security are challenging areas of critical importance in environmental science. The Environmental Science minor introduces students to the scientific principles, concepts, and methodologies required to understand the interrelationships of the natural world, to identify and analyze environmental problems both natural and human-made, to evaluate the relative risks associated with these problems, and to examine alternative solutions for resolving and/or preventing them. The ES minor will be useful to students majoring in pure and applied physical sciences including Agricultural Sciences, Earth Sciences, Biological Sciences, and providing a complement to social science programs.

A total of 15 semester hours are required for this minor.

**Required Course:**
ENR 2100 (3)

**Choose 2: Introductory Coursework (must total between 4-7 hours),**
ENR/EARTHSC 2155 (3)
ENR 3000 (3), 3280 (2), 3285 (3), 3300 (3), 3321 (3), 3700 (2) (3), 5797.06 (3) Iceland, 5797.01 (3) Australia, 5797.02 (3) Australia
Note: A maximum of 6 approved study abroad credits (ENR 5797 or a related study abroad experience as approved by an ENR advisor) may be used toward the minor unless specified otherwise.

**Controlled Electives:** (add courses from one of the following 3 focus areas to meet the 15 hour minimum requirement): must not overlap with Introductory Coursework.

**Ecosystem Restoration**
ENR 3322 (3), 3800 (2), 4260 (3), 5250.01 (3), 5273 (3), 5279 (3), 5280 (4), 5560 (2),
EEOB 3410 (4)
ENR/FABE/ENVENG 5310 (4)
GEOG 2960 (4), 3980 (3), 3900 (3)

**Soil Resources and Environmental Sustainability**
ENR 3001 (1), 4260 (3), 5260 (3), 5261 (3), 5262 (3), 5263 (3), 5268 (2), 5273 (3), 5279 (3)
EarthSci 2203 (3), 5550 (4)
GEOG 3900 (3)

**Water Science**
ENR 5250.01 (3), 5273 (3), 5280 (4), 5345 (4)
EARTHSC 2204 (3), 2206 (3), 4450 (3)

This minor is not available to students majoring in Environmental Science, Natural Resources Management or Forestry, Fisheries and Wildlife. Students majoring in Environmental Policy & Decision Making or Environment, Economy, Development and Sustainability should take an additional course from the list of introductory coursework in place of ENR 2100 (unless using the 3 hour allowable overlap for ENR 2100).

**Environmental Science minor program guidelines**
The following guidelines govern this minor:

**Required for graduation No**

**Credit hours required** A minimum of 15 credit hrs. 1000 level courses shall not be counted in the minor. At least 6 credit hrs must be at the 3000-level or above.

**Transfer and EM credit hours allowed** A student is permitted to count up to 6 total hours of transfer credit and/or credit by examination.

**Overlap with the GE** A student is permitted to overlap up to 6 credit hours between the GE and the minor.

**Overlap with the major and additional minor(s)**
• The minor must be in a different subject than the major.
• The minor must contain a minimum of 12 hours distinct from the major and/or additional minor(s).

**Grades required**
• Minimum C- for a course to be listed on the minor.
• Minimum 2.00 cumulative point-hour ratio required for the minor.
• Course work graded Pass/Non-Pass cannot count in the minor.
• No more than 3 credit hours of coursework graded Satisfactory/Unsatisfactory may count toward the minor.

**X193 credits** No more than 3 credit hours.

**Minor approval** Not required as long as students complete the courses as indicated on the minor program description.

**Filing the minor program form** The minor program form must be filed at least by the time the graduation application is submitted to a college/school counselor.

**Changing the minor** Once the minor program is filed in the college office, any changes must be approved by filing a petition for change in the minor through the academic unit offering the minor.

College of Arts and Sciences
Curriculum and Assessment Services
154 Denney Hall, 164 W. 17th Ave.
http://artsandsciences.osu.edu
SS 24/13
Updated 4/26/13 DH
SS 52/213
Updated 5-7-14 DH
SS 52/29/15
SS 3/13/18
DH 3-27-18