

Environmental Studies

The environmental studies (ES) concentration is an interdisciplinary program involving departments and programs in the natural and social sciences and humanities. The concentration allows students to explore the interactions among earth systems, human societies and local and global environments. Students may complete an ES concentration as an adjunct to a major in any of the participating departments or programs: anthropology, biology, chemistry, economics, english, geology, growth and structure of cities, or political science.

General inquiries concerning the concentration should go to the ES Director, Maria Luisa Crawford (mcrawfor@brynmawr.edu). The listed contact persons on the ES steering committee can answer questions pertaining to the concentration in their departments.

Richard Davis, Anthropology
Karen Greif or Neal Williams, Biology
Sharon Burgmayer or Krynn Lukacs, Chemistry
Michael Rock or David Ross, Economics
Peter Briggs or Bethany Schneider, English
Donald C. Barber, Geology
Gary McDonogh, Growth and structure of cities
Carol Hager, Political science

The concentration consists of six courses, three of which are fixed, and three of which are chosen from approved groups. Students should consult the catalog listings of their major department for disciplinary coursework specific to the concentration, if any. Additional program information is available at the ES website: <http://www.brynmawr.edu/es>.

All concentrators enroll in GEOL/CITY 103-*Earth Systems and the Environment*, followed by BIOL 220-*Ecology*. As seniors, all concentrators reconvene in the *ES Senior Seminar* (ANTH/BIOL/CITY/GEOL 397) to discuss in-depth issues within a broader environmental theme, set by mutual consent at the beginning of the semester. Because the ES concentration seeks to provide perspective on policy questions and the human sides of environmental issues, students also must choose three courses outside the natural sciences. Two of these choices should address issues of **Planning and Policy**, and one other course should address issues of **Humans in the Environment**. Available recommended courses are listed below, divided into these two groups. Alternative courses not shown below also may fulfill these requirements, but the ES director must approve any such course substitution. Students also are encouraged, but not required, to take additional science courses to augment their curriculum; possible courses are listed. In addition to checking with her department ES contact, each student's coursework plan for the concentration must be reviewed by the ES director.

Note Some classes shown below have prerequisites; some are not offered every year. College divisions and how often each course is offered are shown (subject to change).

Planning and Policy (two are required)	Div.	When Offered
Anth 210 - Medical Anthropology	I	Alternate Years
Econ 234 - Environmental Economics	I	Occasionally
City/Anth 190 – Form of the City	I or III	Every Year (Spr)
City 217 - Research in Policy Methods	I	Every Year (Spr)
City 229 - Comparative Urbanism	I	Most Years (Fall or Spr)
City 360 - Urban Social Movements	I	Most Years (Fall or Spr)
Pols/City 222 – Intro. to Environmental Issues	I	Alternate Years (Spr. '07)
Pols 310 – Comparative Public Policy	I	Alt. Yrs. (Spr. '06)
Pols 321 – Technology and Politics	I	Every 3 Years (Fall '05)
Pols 339 – The Policy-making Process	I	Alt. Yrs. (Fall)
Pols 354 – Comparative Social Movements	I	Every 3 Years (Fall '06)
Humans in the Environment (one is required)		
Anth 101 – Intro. to Anthropology	I	Every Fall
Anth 203 - Human Ecology	I	Every Spring
Anth 263 (HC)- Anthropology and Architecture	I	Occasionally
City 227 - Topics in Modern Planning	I	Most Years (Fall or Spr)
City 270/370- Japanese Architecture & Planning	I	Every Third Year
Hist/City 237 - Urbanization in Africa	I	Occasionally
Engl 204 – Literatures of American Expansion	III	('06-'07)
Engl 213 - Nature Writing, Environ. Concern	III	Occasionally ('07 ?)
Engl 309 – Native American Literature	III	('06-'07)
Science of the Environment (suggested offerings)		
Geol 205- Sedimentology	II L	Every Fall
Geol 206 - Energy, Resources and Policy	II	Occasionally
Geol 209 - Natural Hazards	II Q	Every Year (Spr '06)
Geol 302 – Low-temperature Geochemistry	II	Alt. Yrs. (Fall '05)
Geol 312 – Quaternary Geology	II	Alt. Yrs. (Spr '06)
Biol 209 - Environmental Toxicology	II	Spr. '06
Biol 210 - Biology and Public Policy	II	Every Year (Fall or Spr)
Biol 215 – Experimental Design & Statistics	II	Alt. Yrs. (Spr. '07)
Biol 225 - Biology of Plants	II	Occasionally
Biol/Geol 250 - Computational Models	II	Every Spring
Biol 309 - Biological Oceanography	II	Spring
Geol/Biol/Arch 328 - Geospatial Analysis / GIS	II	Every Spring

For a number of the courses above, especially those with a substantial component of independent inquiry, students are encouraged to select environmental topics.

In her senior year, in addition to the Environmental Senior Seminar, each student should show evidence of advanced work in environmental studies. This may consist of a research project, a major thesis, or in some departments it would be a 300-level course in which the student deals extensively with environmental issues. In selected cases, with

approval of the major department advisor and the coordinator of Environmental Studies, this advanced work may be undertaken as an internship or Praxis course. Additional courses of interest to students of all disciplines include:

- Courses at University of Pennsylvania or Swarthmore College
- Certain classes from Junior Year Away programs may fulfill requirements for the concentration if pre-approved. These include special environmental programs like the University of Kansas Costa Rica programs and the programs sponsored by Swarthmore in Eastern Europe.

Given the flexible requirements of the concentration, it is important that students plan their curriculum as early as possible. Ideally planning should start no later than the first semester of the sophomore year.