



Duluth Campus

Environment, Sustainability & Geography Minor

Geography & Philosophy

College of Arts, Humanities and Social Sciences

- Program Type: Undergraduate minor related to major
- Requirements for this program are current for Fall 2021
- Required credits in this minor: 22

The purpose of the program is to prepare students to create sustainable communities for present and future generations. This program provides students with the tools to understand the physical and social systems of the earth to become informed change makers locally and globally. Sustainability challenges are all around us: from climate change, to vulnerabilities in the industrial food system, to the way we design cities. One of the fundamental hurdles in a transition toward sustainability is bridging the ecological and social sciences with decision making. The program trains students to analyze the interwoven nature of social and ecological systems, and translate that knowledge into policies to enact change. Meaningful engagement with the world outside the classroom prepares students to comprehend and address these challenges. To this end, the program provides students with theoretical and hands-on instruction in ecological and social processes, mentoring, as well as opportunities for professional and real-world experiences through internships and applied research.

Program Delivery

This program is available:

- via classroom (the majority of instruction is face-to-face)

Minor Requirements

Core Requirements (9 cr)

- [ES 2005](#) - Environment and Sustainability [SUSTAIN] (3.0 cr)
- [GEOG 1205](#) - Our Globalizing World [SOC SCI, GLOBAL PER] (3.0 cr)
- [GIS 2552](#) - Mapping Our World [LOGIC & QR] (3.0 cr)

Sustainability (4 cr)

- [GEOG 1414](#) - The Physical Geography [LE CAT, NAT SCI, SUSTAIN] (4.0 cr)
- or [EES 1110](#) - Geology and Earth Systems [LE CAT, NAT SCI, SUSTAIN] (4.0 cr)

Electives (9 cr)

To fulfill this requirement students take at least 3 courses. Students have two options to complete this requirement: 1) Select 3 courses across the listed Course Lists. One course may be at the 2xxx level. 2) Students may propose 3 courses. NOTE: The first option is the system default.

Course List (2xxx level)

Take 0 - 1 course(s) from the following:

- [ARTH 2300](#) - The City as a Work of Art [LE CAT, HUMANITIES] (3.0 cr)
- [ES 2095](#) *{Inactive}* (3.0 cr)
- [ES 2100](#) - Western Lake Superior Sustainable Food Systems (4.0 cr)
- [ES 2803](#) - Issues in Global Ecology [LE CAT] (3.0 cr)
- [GEOG 2306](#) *{Inactive}* [LE CAT] (3.0 cr)
- [GEOG 2313](#) - Economic Geography [LE CAT6, SOC SCI] (3.0 cr)
- ES, GEOG, URS 2xxx

Course List (3xxx-4xxx level)

Take 2 - 3 course(s) from the following:

- [ES 3100](#) - Sustainable Food Systems (4.0 cr)
- [ES 3200](#) - Environmental and Ecological Justice (3.0 cr)
- [ES 3300](#) - Anthropocene Stories: Geology, Human Histories and Possible Futures (3.0 cr)
- [ES 3500](#) - Ecological Economics (3.0 cr)
- [ES 4005](#) - Environmental Policy (3.0 cr)
- [ES 4612](#) - Field Techniques and Research Design (3.0 cr)
- [EES 3605](#) - The Irish Landscape in Science and Literature - Study Abroad [GLOBAL PER] (4.0 cr)
- [GEOG 3334](#) - Urban Geography (3.0 cr)
- [GEOG 3335](#) - Urban Planning (3.0 cr)
- [GEOG 3370](#) - Geographies of Development (3.0 cr)
- [GEOG 3401](#) - Weather and Climate (3.0 cr)
- [GEOG 3411](#) - Human Environment Interactions (3.0 cr)



- GEOG 3422 - Natural Hazards (3.0 cr)
- GEOG 3461 - Geography of Global Resources (3.0 cr)
- GEOG 3481 - The Ecology of Cities (3.0 cr)
- GEOG 3712 - Geography of Latin America (3.0 cr)
- GEOG 3800 *{Inactive}*[GLOBAL PER] (4.0 cr)
- GEOG 3995 - Special Topics: (various titles to be assigned) (3.0 cr)
- GEOG 4393 - Political Geography (3.0 cr)
- GEOG 4401 - Climate Science (3.0 cr)
- GEOG 4446 - Water Processes and Management (3.0 cr)
- GEOG 4451 - The Geography of Soils (4.0 cr)
- GEOG 4803 - Geographic Thought (3.0 cr)
- URS 4001 - Cities and Citizenship (3.0 cr)
- ES, GEOG, URS 3xxx-4xxx

•Optional Experience

Take 0 - 3 credit(s) from the following:

- ES 4091 - Independent Study (1.0 - 3.0 cr)
- ES 4910 - Teaching Assistantship (1.0 - 3.0 cr)
- ES 4999 - Honors Project (1.0 - 3.0 cr)
- GEOG 3991 - Independent Study (1.0 - 3.0 cr)
- GEOG 4910 - Teaching Assistantship (1.0 - 3.0 cr)
- GEOG 4999 - Honors Project (3.0 cr)
- URS 3991 - Independent Study (1.0 - 3.0 cr)
- URS 4910 - Teaching Assistantship (1.0 - 3.0 cr)
- URS 4999 - Honors Project (1.0 - 3.0 cr)

or Propose Electives

If students elect to propose courses, they must consult with an ESG adviser. No more than 1 course at the 2xxx level and one course must be at the 3xxx-4xxx level (3 cr) or higher. Proposal form found here: z.umn.edu/umdcclaprograms