

Morris Campus

Environmental Science B.A.

Division of Science & Mathematics - Adm

Division of Science and Mathematics

- Program Type: Baccalaureate
- Requirements for this program are current for Fall 2016
- Required credits to graduate with this degree: 120
- Required credits within the major: 76
- Degree: Bachelor of Arts

This major is for students interested in an interdisciplinary science education that prepares them to deal with environmental challenges. The basic natural resources of land, air, and water are studied in the context of protecting and sustaining the environment. Students become knowledgeable about environmental issues and applied environmental science. The environmental science curriculum draws courses predominantly from the disciplines of the Division of Science and Mathematics.

Program Delivery

This program is available:

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

Admission Requirements

For information about University of Minnesota admission requirements, visit the [Office of Admissions website](#).

General Requirements

All students are required to complete general University and college requirements. For more information, see the [general education requirements](#).

Program Requirements

Students are required to take 2 semester(s) of any second language.

Students are encouraged to fulfill distribution requirements with courses that complement the environmental science major (e.g., ECON 1111 - Microeconomics, ECON 3007 - Environmental and Natural Resource Economics I, and ECON 3008 - Environmental and Natural Resource Economics II).

Selection of electives must be done in consultation with an environmental science adviser. By the beginning of their junior year, students should submit a clearly articulated educational plan and a list of selected electives, to be reviewed and approved by the Environmental Science Advisory Group.

Courses in the Division of Science and Math, other than those listed below, may be used to fulfill the "Elective Science Courses" with the prior approval of the Environmental Science Advisory Group.

Required courses may not be taken S-N unless offered S-N only.

Up to 4 credits of coursework with a grade of D or D+ may be used to meet the major requirements. A minimum GPA of 2.00 is required in the major to graduate. The GPA includes all, and only, University of Minnesota coursework. Grades of F are included in GPA calculation until they are replaced.

Required Courses

Basic Sciences

- [CHEM 1101](#) - General Chemistry I [SCI-L] (5.0 cr)
- [CHEM 1102](#) - General Chemistry II [SCI-L] (5.0 cr)
- [MATH 1101](#) - Calculus I [M/SR] (5.0 cr)
 - or [MATH 1021](#) - Survey of Calculus [M/SR] (4.0 cr)
- [PHYS 1101](#) - General Physics I [SCI-L] (5.0 cr)
 - or [PHYS 1091](#) - Principles of Physics I [SCI-L] (5.0 cr)
- [STAT 1601](#) - Introduction to Statistics [M/SR] (4.0 cr)
 - or [STAT 2601](#) - Statistical Methods [M/SR] (4.0 cr)

Applied Sciences

- [BIOL 3131](#) - Ecology [ENVT] (4.0 cr)

GEOL 1101 - Physical Geology [SCI-L] (4.0 cr)
 GEOL 2161 - GIS and Remote Sensing [SCI] (4.0 cr)
 GEOL 3501 - Hydrology [SCI] (4.0 cr)
 ENST 1101 - Environmental Problems and Policy [ENVT] (4.0 cr)
 ESCI 4901 - Environmental Science Senior Seminar I (1.0 cr)
 ESCI 4902 - Environmental Science Senior Seminar II (1.0 cr)
 ENST 2101 *{Inactive}*[SCI-L] (4.0 cr)
 or BIOL 1111 - Fundamentals of Genetics, Evolution, and Development [SCI] (3.0 cr)
 BIOL 2101 - Evolution of Biodiversity [SCI-L] (4.0 cr)

Required Practicum

Completion of an applied educational experience in environmental science. An approved educational experience in a work, research, and/or field setting that provides a practical complement to the student's classroom learning experiences. Educational experiences are approved by the Environmental Science Advisory Group. A wide variety of experiences are possible, ESCI 3196 - Environmental Science Field Camp is one example.

ESCI 3196 - Environmental Science Field Camp [SCI] (2.0 - 4.0 cr)
 or Completion of an applied educational experience in environmental science.

Elective Science Courses

Courses from at least two disciplines must be included. No more than 8 credits from 2xxx courses may be used to meet this requirement. If a second major is sought in the Division Science and Mathematics, at least 12 elective credits for the environmental science major must come from a discipline outside the second major (e.g., a geology major cannot apply more than 8 GEOL elective credits toward the environmental science major).

Take 20 or more credit(s) from the following:

- BIOL 4121 - Herpetology (4.0 cr)
- BIOL 4131 - Vertebrate Natural History (4.0 cr)
- BIOL 4151 - Entomology (4.0 cr)
- BIOL 4172 - Plant Systematics (4.0 cr)
- BIOL 4191 - Freshwater Biology (4.0 cr)
- BIOL 4301 *{Inactive}*(4.0 cr)
- BIOL 4332 *{Inactive}*[ENVT] (4.0 cr)
- BIOL 4333 *{Inactive}*(4.0 cr)
- BIOL 4334 *{Inactive}*(4.0 cr)
- BIOL 4351 - Conservation Biology (4.0 cr)
- CHEM 2301 - Organic Chemistry I [SCI] (4.0 cr)
- CHEM 2302 - Organic Chemistry II [SCI] (4.0 cr)
- CHEM 2304 - Organic Chemistry II with a Biological Emphasis [SCI] (4.0 cr)
- CHEM 3101 - Analytical Chemistry [SCI-L] (4.0 cr)
- CHEM 3301 *{Inactive}*[SCI] (4.0 cr)
- CHEM 3501 - Physical Chemistry: Thermodynamics [SCI] (4.0 cr)
- ESCI 3111 - Evolution of the Minnesota Prairie [SCI-L] (4.0 cr)
- ESCI 3301 *{Inactive}*[SCI] (4.0 cr)
- GEOL 2001 - Natural and Unnatural Geologic Hazards [ENVT] (4.0 cr)
- GEOL 2121 - Sedimentology and Stratigraphy [SCI-L] (4.0 cr)
- GEOL 2131 - Geomorphology [SCI] (4.0 cr)
- GEOL 2141 - Glacial and Quaternary Geology [SCI] (4.0 cr)
- GEOL 3111 - Introduction to Paleontology [SCI-L] (4.0 cr)
- GEOL 3502 - Groundwater [ENVT] (4.0 cr)
- PHYS 3004 - Atmospheric Physics [ENVT] (4.0 cr)
- STAT 4601 - Biostatistics (4.0 cr)
- ESCI 3401 *{Inactive}*[SCI] (4.0 cr)
- or CHEM 3401 *{Inactive}*[SCI] (4.0 cr)