

## EARTH SCIENCE *College of Humanities and Social Sciences*

The Earth Science program is an interdisciplinary field of study that focuses on our planet's interconnected natural systems that make up our environment. Majors in Earth Science gain expertise in the physical science that governs the processes that operate within Earth's natural systems. Through understanding Earth Science, students learn about environmental issues impacted by and that impact human populations like: climate change, natural disasters, natural resource management, and more.

### DEGREES OFFERED

- Earth Science, BS
- Earth Science Teaching (5-12)
- Geomorphology and Earth Surface Processes Certificate
- Earth Science Minor

### SKILLS AND TALENTS

- Scientific research
- Communication skills
- Data synthesis and interpretation
- Computer skills
- Geospatial technology skills
- Scientific methods
- Scientific writing
- Field research
- Critical thinking
- Problem solving
- Environmental awareness
- Natural resource management and conservation
- Natural hazard assessment and evaluation

### REAL-WORLD EXPERIENCES

- Applied and theoretical research opportunities
- Potential internships
- Field trips and field studies

### EMPLOYERS

- Museums and libraries
- Colleges and universities
- Government agencies
- Non-profit organizations
- Research labs and organizations
- Science and nature centers
- University extension programs
- Environmental engineering and consulting
- Conservation organizations
- Tourism industry

### CAREERS

- Conservation scientist\*
- Educator – K-12
- Outdoor educator
- Forest/park ranger
- Forester
- Geographer
- Geomorphologist
- Grant writer
- Meteorologist\*
- Climatologist\*
- Naturalist
- Environmental consultant
- Environmental engineer\*
- Environmental scientist\*
- Natural resource management
- Natural resource exploration
- Natural hazards consultant
- Hydrologist\*
- Professor\*
- Research scientist\*
- Soil scientist\*

\*Advanced Education Preferred

## FOR MORE INFORMATION

### Director of Earth Science Program

Prof. Phillip Larson – 507-389-2617 [phillip.larson@mnsu.edu](mailto:phillip.larson@mnsu.edu)

### Department of Geography

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206 Morris Hall  
Mankato, MN 56001

### Phone

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### Email

[geography@mnsu.edu](mailto:geography@mnsu.edu)

### Website

[hss.mnsu.edu/earth-science](http://hss.mnsu.edu/earth-science)

You are encouraged to visit the campus.

To arrange for a visit, please call:

Office of Admissions: 507-389-1822

Toll-free: 800-722-0544

Or the department: 507-389-2617

## SAMPLE FOUR-YEAR COURSE PLAN FOR BS EARTH SCIENCE

First Year Semester 1	First Year Semester 2
GEOG 101 Intro to Phys. Geog. (3) AST 101 Intro to Astronomy (3) ENG 101 Composition (4) Gen Ed 5 (3) FYEX 100 First Year Experience	AST 102 Intro to Planets (3) MATH 115 Pre-Calc (4) Gen Ed 11 (2-3) Gen Ed 6 (3)
Second Year Semester 1	Second Year Semester 2
CHEM 201 General Chemistry 1 (5) GEOL 121 Physical Geology (4) Gen Ed 7 (3) Gen Ed 1 pt. B (3+)	GEOL 122 Earth History (4) BIOL 100 Our Natural World (4) Gen Ed 8 (3+) Gen Ed 9 (3+)
Third Year Semester 1	Third Year Semester 2
PHYS 211 Principals of Physics (4) GEOG 315 Geomorphology (3) GEOG 217 Weather (4) GEOG 210W Landscapes and Places (3)	GEOG 373 GIS (4) Gen Ed 5 (3+) Gen Ed 6 (3+) GEOG 416W(4)
Fourth Year Semester 1	Fourth Year Semester 2
GEOG 410 (3) GEOL 201 (4) Elective for Major 1 (3) Other Electives (4+)	Elective for Major 2 (3) Other Electives (10+)

## GEOMORPHOLOGY AND EARTH SURFACE PROCESSES (CERT) PROGRAM REQUIREMENTS

Major Common Core
Take either GEOG 315 or GEOG 415 and GEOG 410 GEOG 315: Geomorphology (3) GEOG 410: Climatic Environments (3) GEOG 415: Earth Surface Processes (4)
Major Restricted Electives
Choose 3 - 4 Credit(s) GEOG 411: Soils Geomorphology (4) GEOG 416W: Fluvial Geomorphology and Hydrology (4)
Major Unrestricted Electives
Choose 6 Credit(s). *Choose courses from two of the three listed departments *GEOG 411 and GEOG 416 can be taken as an unrestricted elective if they were not taken as a restricted elective. ANTH 331: Environmental Anthropology (3) GEOG 411: Soils Geomorphology (4) GEOG 416W: Fluvial Geomorphology and Hydrology (4) GEOG 440: Field Studies (1-4 credits) GEOL 201: Elements of Mineralogy (4) GEOL 320W: Sedimentology and Stratigraphy (4)

For additional information about course requirements, please visit [hss.mnsu.edu/earth-science](http://hss.mnsu.edu/earth-science)

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Safety/Security Programs & Statistics are available at [www.mnsu.edu/safety](http://www.mnsu.edu/safety)

Placement & Occupational Outlook for Majors are available at [www.mnsu.edu/cdc/](http://www.mnsu.edu/cdc/) (Click on Resources and then Graduate Statistics)

