

GEOGRAPHY- GEOLOGY

MISSION STATEMENT

Our mission is to prepare students to engage with a complex, dynamic, and interdependent world by:

- Providing them with in-depth knowledge about human cultures and the physical world;
- Fostering intellectual and practical skills that enable analysis of spatial patterns and processes, evidenced-based problem solving, and effective oral and written communication; and
- Encouraging a sense of social responsibility through the examination of real-world cases.

Faculty are committed to preparing students for employment opportunities in the private and public sectors, the pursuit of graduate degrees, and to develop meaningful relationships to their university, professional, and local communities. We meet these goals through classroom lecture and discussion, collaborative assignments, undergraduate research, internships, field courses, and travel abroad.

STUDENT LEARNING OUTCOMES

Students who graduate from UW-Whitewater with a degree in Geography- Geology will meet the following student learning outcomes:

- Demonstrate knowledge of major geological principles and concepts:
 - Describe the layered structure of the earth and the characteristics of each layer.
 - Explain the theory of plate tectonics, concept of deep time, evolution and fossil record, and various other short-and long-term geologic processes to a general audience
 - Recognize and articulate the interconnected nature of geosphere, biosphere, atmosphere, and hydrosphere.
- Apply intellectual and practical geological skills:

- Apply the scientific method for inquiry and analyses of real geoscience data to interpret earth history and processes.
- Use analog models, interpret graphs and apply other quantitative analytical methods, and collect and analyze experimental data to reach meaningful conclusions about various earth processes.
- O Develop observational and data collection skills necessary for a future career in the geoscience-related fields.
- Critically analyze geoscience-related informational texts (such as newspaper and/or journal articles, blog entries, etc.) to evaluate the validity of arguments supporting a given position.
- Be able to effectively communicate geological principles and concepts to a general audience verbally, visually, or in writing.
- Work collaboratively with others for solving problems, and conduct authentic inquiry-based activities in the geoscience-related fields.
- Integrate geology with personal and social responsibility by applying geologic principles, knowledge, and skills to:
 - Understand how geologic concepts and techniques can inform local to global policies and actions related to natural hazards, land use, human rights, and environmental change.
 - Use critical thinking skills to make personal decisions about resource consumption and environmentally responsible behavior.
 - Explain the interconnected nature of environmental, social, and economic issues pertinent to resource management and sustainability to a general audience.
 - Work collaboratively with others by taking multiple points of view into account to address social, economic, and environmental impacts of resource consumption and natural hazards.
 - Understand how geologic concepts can be applied to address society's needs.
- Integrate knowledge from multiple fields and disciplines:
 - Recognize that geologic processes are controlled by the complex interactions of the four major earth systems: geosphere, atmosphere, hydrosphere, and biosphere.
 - Synthesize how physical, chemical, and biological principles affect the interactions of the four earth systems.
 - Understand how human actions can affect the interactions of the four earth systems, both spatially and temporally.