

RESPONSIBLE MINING, CERTIFICATE

(Code 160-602)

Advisor: K. Syverson (Geology and Environmental Science).

The Department of Geology and Environmental Science administers a **Responsible Mining certificate**. This certificate is intended for STEM majors who wish to add valuable skills to their already marketable liberal arts degree from UW-Eau Claire. Students with this certificate will be well prepared for a career in responsible resource development through proper selection and permitting of economic deposits, managing environmental compliance, conducting environmental remediation, and working for environmental and hydrogeologic consulting firms. Students would also be prepared to join state regulatory agencies such as the DNR and protect the environment through enforcing regulations, restoring brownfields, and managing water resources.

Code	Title	Credits
18 credits required		18
Environmental Policy and Geology core (7 crs):		
ENV/GEOG 377	U.S. Environmental and Sustainability Policy	3
GEOL 365	Economic Mineral Deposits	3
GEOL 452	Responsible Mining Seminar	1
Quantitative Core (choose one):		
MATH 246	Elementary Statistics	4
MATH 345	Introduction to Probability and Mathematical Statistics	
Environmental Courses (choose one):		
BIOL 338	Vegetation Ecology	4
GEOL 416	Hydrogeology II	
Communication Skills (3 crs):		
CJ 203	Fundamentals of Human Communication	3

An internship in mining, environmental consulting, or a regulatory agency is strongly recommended, but not required.

Note: Students cannot pursue the Geology major and the Responsible Mining certificate to meet graduation requirements for completing a first and second degree program.

Program Learning Outcomes

Students completing this program will be expected to meet the following learning outcomes:

- Explain Earth processes.
- Use mathematics and computational methods to analyze scientific and geological data.
- Read, write, and critically evaluate geological papers.
- Construct an internally consistent geological map utilizing field data, topographic maps, geological maps, air photos, geographic information systems (GIS) data, and geological cross sections.
- Use analytical and quantitative methods to evaluate an environmental problem.