



Iowa's Environmental Resources Workshop for Teachers

Spring and Summer 2025



Can you **DIG** it?

Earn two units of graduate credit and learn about Iowa's environmental resources through an activity-based short course (EARTHSCI 6233 Iowa's Environmental Resources for Teachers) through the University of Northern Iowa. **This year's focus:** Environmental geology, geochemistry and their importance to Iowa's limestone industry.

The course begins with online content development in the Spring to prepare you for the hands-on workshop visiting various environmental sites and preparing curricular materials in June.

- Develop environmental to geological collections while obtaining a basic proficiency in their identification.
- Focus on the significance of these items in understanding and interpreting Earth's history and the geology of Iowa.
- Learn of the various economic and environmental aspects of Iowa geology.

Network with fellow geology educators

Participate in several exciting, hands-on activities in the field, and meet other Earth Science teachers from across the state. Discuss what's working and what's not in your classrooms and share your tried-and-true methods for teaching about the geology of Iowa.

Application deadline Feb. 20, 2025
Online via Panopto and/or Zoom ... March 11 & 25; April 8 & 22, 2025
On the UNI campus June 23-26, 2025



SPONSORED BY

The **IOWA LIMESTONE PRODUCERS ASSOCIATION**,
in conjunction with the **UNI Department of Earth
and Environmental Sciences**, with assistance from
the **Iowa Department of Natural Resources**.

WORKSHOP DETAILS

Schedule

The **online component** of this workshop is offered via synchronous or asynchronous video conferencing (Panopto and/or Zoom) **Tuesdays from 4 to 6 p.m., March 11 & 25 and April 8 & 22**, through a series of two-hour classes covering the environmental and geochemical principles of geology in Iowa.

The **on-campus component** begins at 8:30 a.m. on **Monday, June 23**, with a reception and check-in on the University of Northern Iowa campus. The workshop ends at approximately 4 p.m. on **Thursday, June 26**.

Each day begins with announcements and an overview of the day's activities. There may also be evening sessions, which consist of special presentations, laboratory work and/or a review of the day's activities. This is an intensive course, and everyone is expected to participate in all workshop sessions.

Applications will be accepted on a first-come, first-served basis. All applicants will be notified on or before Feb. 25. The course is capped at 14 participants.

Course participants will learn through applied fieldwork, interacting with industry experts and scientists, completing environmental lab activities and peer-to-peer discussions.

Housing

Students who desire housing on the University of Northern Iowa campus should notify Dr. Heinzl, who will help you make arrangements. Housing is air-conditioned. *(Housing and most meal costs are covered by the Iowa Limestone Producers Association).*

Cost

Due to the generous support of the **Iowa Limestone Producers Association (ILPA)** we are able to offer this workshop for a \$200 registration fee, plus a technology fee of \$38 *(billed upon acceptance)*. This includes two units of UNI graduate credit, on-campus housing, most meals, transportation in the field and instructional costs.

Cancellations

If your plans change and you must cancel, please contact UNI Online & Distance Education at 319-273-7206 as soon as possible so we may allow those on the waiting list the opportunity to attend. Cancellations must be received no later than **March 4, 2025**, in order to receive a full refund of the \$200 registration fee.

Further information

SCHEDULES AND FIELD TRIPS

Chad Heinzl, Professor
Workshop Leader
UNI Department of Earth and Environmental Sciences
Phone **319-273-6168**
Email **chad.heinzl@uni.edu**

REGISTRATION AND BILLING

Jamie Anderson
UNI Online & Distance Education
Phone **319-273-7206**
Email **jamie.anderson@uni.edu**

SPONSORS

Iowa Limestone Producers Association
515-262-8668
www.limestone.org



UNI Department of Earth and Environmental Sciences
319-273-2759
www.earth.uni.edu

Iowa Geological Survey
319-335-1575
www.iihr.uiowa.edu/igs



APPLY @ online.uni.edu/environmental

Iowa's Environmental Resources for Teachers

WORKSHOP APPLICATION

APPLY NOW!

Class size is limited to 14 participants.

Submit this form via:

Online application

online.uni.edu/environmental

Mail

Iowa's Environmental Workshop
Online & Distance Education
University of Northern Iowa
HPC 106
Cedar Falls, IA 50614-0223

Application Deadline:

Feb. 20, 2025

Applications will be accepted as received.

Acceptance:

Applicants will be notified shortly after receipt of all application materials – or no later than Feb. 25 – and invited to enroll in the course.

***Please note:** *the workshop size is limited to 14 teachers. You are encouraged to apply early, as spots fill quickly.*

Name

Email

Home Address

Home City

Home State

Home Zip

Home Phone

School

School District

School Address

School City

School State

School Zip

School Phone

Check here if you have applied for this workshop in the past.

How many years have you been teaching?

What subjects and grade levels have you taught / do you teach?

Why do you think this workshop would be beneficial to you?

Please list any current teaching endorsements.



TOPICS AND ACTIVITIES

History

- Processes at work in the formation of Iowa's glacial landscapes and the bedrock below
- Environmental and geochemical characterization of Iowa's natural resources: minerals, rocks, soil and water.
- Environmental policy and regulations in Iowa
- Collection and classification of minerals, rocks, soils and water

Processes and Principles

- Glacial processes, soil formation, water quality
- Field activities as classroom events; taking students to the field for learning activities
- Sand, gravel and aggregates from the ground to improvements in your life, "If you cannot grow it, then you have to mine it"

Geology and Land Use

- Agriculture, environmental geology; watersheds, drainage tiles, wells and aquifers
- Landfills and waste management issues
- Sustainable urban versus rural development
- Resource conservation, management and hazards

Geochemistry

- Apply chemistry to Iowa's natural resources to identify challenges and opportunities
- Explore and use UNI's analytical tools including: XRD, XRF and ICP-MS

Science Education

- Explore effective ways to meet Earth Science to Environmental NGSS and Iowa Core Standards
- Best-practices for Place-based learning techniques and opportunities
- Network with your local quarry, sand-pit and water resource professionals for future student field trips
- Learn about quarry and laboratory safety procedures



The aggregation of preparation, time on tasks, assignments and interactions of this work reflects the rigor and expectation equivalent to 15 hours of direct faculty instruction and a minimum of 30 hours of out-of-class student work for each credit awarded.

APPLY @ online.uni.edu/environmental