Can you **Dig it?**

**Earn two units of graduate credit** and learn about Iowa’s geological resources through an activity-based short course (EARTHSCI 6233 Iowa’s Geological Resources for Teachers) through the University of Northern Iowa. **This year’s focus:** Course activities will aid Iowa teachers in addressing specific science teaching standards.

The course begins with three online components in the spring to prepare you for the hands-on workshop visiting various geological sites and preparing curricular materials in July.

- Develop rock and mineral 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.

**Applications due** .................................... Feb. 8, 2018
**Online via Adobe Connect** .........................March 20, April 3, April 17
**On the UNI campus** .................................. July 9–12

**SPONSORED BY**
The **IOWA LIMESTONE PRODUCERS ASSOCIATION**, in conjunction with the **UNI Department of Earth Science**, with assistance from the **Iowa Geological Survey**.
WORKSHOP DETAILS

Schedule
The **online component** of this workshop is offered via video conferencing (Adobe Connect) **Tuesdays from 4 to 6 p.m., March 20, April 3 and April 17**, through a series of two-hour classes covering the principles of geology in Iowa. An Adobe Connect test session will take place on **Tuesday, March 6 from 4 to 5 p.m.**

The **on-campus component** begins at 10 a.m. on **Monday, July 9**, with a reception and check-in on the University of Northern Iowa campus. The workshop ends at 3 p.m. on **Thursday, July 12**.

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.

If you are accepted for the workshop, further workshop details will be sent Feb. 13.

Two regional geology trips will be provided to course participants. The trips will be on Saturdays with one trip in eastern/southeastern Iowa and the other in central/north-central Iowa. Workshop participants will be encouraged to attend at least one of these spring field trips.

Housing
Students who desire housing on the University of Northern Iowa campus should notify Dr. Heinzel, who will help you make arrangements. Housing is air-conditioned. *(Housing costs are covered by the ILPA).*

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 Continuing & Distance Education at 319-273-7206 or 800-648-3864 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 5, 2018**, in order to receive a full refund of the $200 registration fee.

Further information

SCHEDULES AND FIELD TRIPS
Chad Heinzel, Associate Professor
Workshop Leader
UNI Department of Earth Science
Phone .................. 319-273-6168
Email ........ Chad.Heinzel@uni.edu

REGISTRATION AND BILLING
Jamie Anderson
UNI Continuing & Distance Education
Phone .................. 319-273-7206
Toll-free ................. 800-648-3864
Email ........ Jamie.Anderson@uni.edu

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

UNI Department of Earth Science
319-273-2759
www.earth.uni.edu

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

Apply @ distance.uni.edu/geology
Iowa’s Geological Resources for Teachers

WORKSHOP APPLICATION

APPLY NOW!
Class size is limited to 18 participants.

Submit this form via:
Online application
distance.uni.edu/geology

Mail
Iowa’s Geological Resources Workshop
Continuing & Distance Education
University of Northern Iowa
CEEE 13
Cedar Falls, IA 50614-0223

Application Deadline:
Feb. 8, 2018

Acceptance:
Selected participants will be notified Feb. 13 and invited to enroll in the course.

*Please note: the workshop size is limited to 18 teachers.

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.

The University of Northern Iowa does not discriminate in employment or education. Visit uni.edu/policies/1303 for additional information.
TOPICS AND ACTIVITIES

History
• Processes at work in the formation and shape of the landscape and the sediments beneath the surface
• Environments past and present of the landscape and the subsurface
• Rocks, minerals and fossils in the geological record
• Collection and classification of rocks, minerals and fossils

Processes and Principles
• Stratigraphy, sedimentation, sedimentary environments
• Field activities as classroom events; taking students to the field for learning activities
• Geologic origin of limestone

Geology and Land Use
• Agriculture, environmental geology; drainage tile, ag wells, aquifers
• Landfills and waste management issues
• Land use and landscape; glacial topography and land use issues
• Resource management and land use

STEM through Geology
• Develop integrated STEM lesson plans through local hands-on geology activities
• Explore effective ways to meet Earth Science NGSS and Iowa Core Standards in stand-alone Earth Science course or through activities within an existing biology, chemistry, or physics course

Economic Geology
• Aggregate production and product application
• Sand and gravel operations and product applications
• Relationship of geological processes to locations of aggregate and sand and gravel locations
• Site visits to various economic geology facilities

Apply @ distance.uni.edu/geology