

Registration includes
2 graduate credits
On Campus: \$450
Off Campus: \$195

Great Lakes Investigations

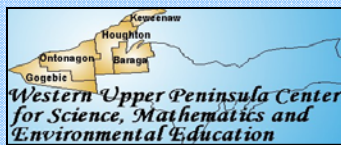
Teacher Institute

June 24-28, 2013

Application Deadline:
May 20, 2013



Course Credit:
2 graduate credits
(ED5640)



About the Course

The Institute is designed to teach educators about the physical, chemical, and biological components of the Great Lakes ecosystem using Lake Superior as the classroom. This 5-day course will enhance the ability of educators to teach about Great Lakes topics including watershed dynamics, stream and lake assessments, amphibian monitoring, wetlands, environmental stewardship, analyzing Great Lakes data, building school community partnerships, and environmental careers. Mathematics; life, earth and physical sciences; technology; and social studies will be woven into the course content.

The Institute will take place at Michigan Tech's new Great Lakes Research Center (<http://greatlakes.mtu.edu/>) on the Portage Waterway with state of the art facilities that support chemical, physical and biological research on the Great Lakes and aquatic ecosystems.

Institute participants will engage in hands-on data collection and analysis, field trips, lab experiences, and discussions with research scientists. Participants will take a ½ day trip on Lake Superior and Portage Waterway aboard Michigan Tech's research vessel, *Agassiz*, to sample water chemistry, zooplankton, phytoplankton, sediment, and benthic organisms. They will investigate wetland biodiversity, discover how toxins move between the water and air, study the impact of aquatic exotics on the Great Lakes and inland lakes, and explore why amphibians are bioindicators of environmental health.



Funding provided by:

National Science Foundation

National Oceanographic & Atmospheric Administration

Michigan Tech Center for Water & Society

Coordinated by the Western UP Center for Science, Math & Environmental Education and Michigan Technological University

Cost

Cost for the 5-day Institute is **\$195 off campus** (includes **2 graduate credits**, 5 lunches, and instructional materials) and **\$450 on campus** which includes five nights lodging and meals. [Generous support from the National Science Foundation and Michigan Tech Center for Water and Society has reduced the cost of MTU tuition (official 2012-2013 MTU Applied Science Education Graduate Tuition for Residents/Non-Residents is \$485 per credit)]. **Payment of the full registration fee is due by June 1st.** Make checks payable to "Michigan Tech University D93730."

Credit

Michigan Tech University faculty and expert educators will present the sessions. To receive credit, participants develop a 5-day teaching unit after the institute due September 1, 2013.

Financial Aid

The Michigan Space Grant Consortium K-12 Educator Incentive Program will provide up to \$400 for Michigan teachers to attend workshops on math and science. For an application: <http://mi.spacegrant.org/>



To Apply/More Information

Application forms and updated information available at: <http://wupcenter.mtu.edu>

Application deadline is: May 20, 2013

For More Information::

Joan Chadde, Institute Coordinator
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Submit applications to:

Lori J. Witting, Coordinator
Michigan Tech Teacher Professional Development
Work:: 906.487.2263 Fax: 906.487.2468
Cell: 906.370.9748 Email: lori@mtu.edu



Accommodations

Participants will receive five nights lodging in MTU's new Hillside Place Residence Hall in a single room with shared bath and receive all of their meals from Monday breakfast through Friday lunch.



Michigan Technological University campus on the Portage Waterway.

Getting to Michigan Tech

Michigan Technological University is located east of downtown Houghton, MI (pop. 7,000). United Airlines (800.241.6522 or www.united.com) is the sole airline serving Houghton with 2 flights daily from Chicago to the Houghton County Airport. Taxi service is available from the airport to Michigan Tech's campus for about \$20 per person by calling Neil's Taxi Service at 906.482.5515 or Copper Country Limo & Taxi at 906.482.4761.

City of Houghton

Houghton is an historic town with roots in the copper mining days of the mid-19th century. Hiking and mountain biking are easily accessible at the nearby MTU Recreational Trail System, or stroll along Lake Superior at McLain State Park, or visit a nearby nature sanctuary. Learn more about MTU: <http://www.mtu.edu> or Keweenaw Tourism information: www.thekeweenaw.com