2008 Courses for Teachers

Course Registration and Information

Lori Witting, Professional Development Coordinator
lori@mtu.edu or 906-487-2263 Web: http://www.ed.mtu.edu/

Michigan Tech's M.S. in Applied Science Education

Use these courses towards an M.S. or a Planned Program for Professional Certification. Contact: Dr. Brad Baltensperger, Chair, Dept. of Education, brad@mtu.edu or 906-487-2460

Winter Ecology ♦ February 15-17

Discover the wonders of winter survival, refine your tracking skills and learn how to incorporate winter ecology into your teaching during a weekend spent exploring the outdoor classroom. 1 cr. ED5640

Teaching Algebra: Mathematical Tasks ♦ June 16-26

Consider how the tasks used in instruction support students' understanding of algebraic ideas. Teachers will modify existing tasks and design new tasks that support algebraic learning. 3 cr. ED5566

The Engineering Process ♦ June 16-27

This course introduces engineering problem-solving and design processes. 4 cr. ENG5100

Geology of Utah's National Parks ♦ June 16-July 1

Field course based in the Nat'l Parks and Monuments of east Utah. Learn how climate, sea level, and mountain-building change landscapes through time. 4 cr. GE5130

Engineering for Educators ♦ June 18-22

Introduces engineering problem-solving and design process, with emphasis on engineering applications in math and science teaching. 2 cr. ENG5102

Natural Hazards & Human Impacts ♦ June 23-July 3

Explore human impacts on earth processes and effects of natural hazards on human systems through field study on the Keweenaw Peninsula. 3 cr. SS5150

Great Lakes Watershed Investigations ♦ June 23-27

Explore the interactions of land use and water quality in a watershed and potential impacts to the Great Lakes with scientists and resource managers. Engage in data collection and field trips to assess the health of streams and the Great Lakes. Address common student misconceptions, develop stewardship projects, and receive a MEECS water quality unit and other classroom materials. Supported with a grant from the Wege Foundation. To learn more, contact Joan Chadde (jchadde@mtu.edu). Gr. 4-12, 3 cr. ED5640

Global Change ♦ July 14-18

Investigate effects of global change on ecosystems, including impacts of changing climate, elevated carbon dioxide and ozone levels, nitrogen saturation, acid rain, and invasive species. Addresses social studies and science standards. Partial funding from the National Science Foundation. To learn more, contact Joan Chadde (jchadde@mtu.edu). Gr. 5-12. 3 cr. ED5641 / FW 5641

Engineering Applications in Earth Sciences ♦ TBA

Problem-solving in the earth sciences, emphasizing applications in mathematics and science teaching. 4 cr. ENG5300

Future Fuels from Forests: An Investigation into the Sustainability of Biofuels Production ♦ July 7-11

Investigate the technological, ecological, social, economic, and political issues associated with ethanol production from woody biomass, switch grass, and crops using lectures, hands-on data collection, field trips, labs, and discussions with research scientists. Supported with a grant from the National Science Foundation. To learn more, contact Joan Chadde (jchadde@mtu.edu). 3 cr. ED5642 / FW5642

Ecology of Isle Royale ♦ July 19-27

Explore the ecology and history of Isle Royale through wilderness backpacking, conversations with researchers, and examination of research data. 3 cr. ED5560

Teaching World History and Geography ♦ July TBA

Strengthen content knowledge for teaching the new required World History and Geography course. 4 cr. ED 5685

Great Lakes Maritime Transportation ♦ July 20-25

Based in Duluth, MN, the largest port on the Great Lakes, participants will explore the historical, economical and environmental aspects of Great Lakes shipping; with visits to iron ore docks, coal docks, specialized cargo facilities, historic lighthouse and an iron ore mine; meet with industry and educators. Addresses social studies and science standards. Supported with a grant from the Great Lakes Maritime Research Institute. To learn more, contact Joan Chadde (jchadde@mtu.edu). Gr. 4-12. 2 cr. ED5680

50 Years of Isle Royale Wolf-Moose Research: July 24-Aug 1

Work with scientists from the world's longest running predator-prey study to translate their data and field methods into classroom lessons. Involves wilderness backpacking and paddling. 3 cr. ED5630

*Michigan Tech Applied Science Education graduate tuition rate is $369 per credit.
Costs for the above courses have been reduced by external funding or Michigan Tech department awards.