

# MichiganTech

## TEACHER PROFESSIONAL DEVELOPMENT Spring/Summer 2005

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Information on M. S. in Applied Science Education:  
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Check our website for updates: <http://www.ed.mtu.edu/>



### SPRING 2005

**Science Learning Materials and Inquiry (ONLINE)** Identification, selection, and evaluation of materials. 1 cr.

**Assessing Science Learning (ONLINE)** Alternative and authentic assessment techniques to ensure consistency, reliability, and fairness in evaluating science learning. 1 cr.

### SUMMER 2005

**Geology of Utah's National Parks ~ TBA**  
14-day field course in the National Parks and Monuments of eastern Utah. Teachers will learn how climate and mountain-building events change landscapes through time. The Institute mostly focuses on geology, but also emphasizes teaching and learning. 4 cr. *GE 5130*

**Exploring Mathematics through Engineering Applications ~ June 28-July 1.** Participants address development of 3-D spatial skills, geometry, truss analysis, and programmable logic controllers to build knowledge in weak areas of mathematics through problem-solving. Core course in M.S. in Applied Science Education. 2 cr. *ENG 5101*

**Exploring Science through Engineering Applications ~ June 21-26.** Participants engage in lab and field work studying water quality assessment using Palm-based laboratories and scanning electron microscopes to build student skills in earth and physical sciences. Core course in M.S. in Applied Science Education. *ENG 5301* 2 cr.

**Ecology of Isle Royale ~ TBA.** This one-week camping experience on Isle Royale National Park will explore ecological concepts and interrelationships between plants, animals, geology, climate and humans. 3 cr. *ED 5560*

### SPRING 2005

**Science Learning Materials & Inquiry (ONLINE)** Identification, selection and evaluation of materials. 1 cr.

**Assessing Science Learning (ONLINE)** Alternative and authentic assessment techniques to ensure consistency, reliability, fairness in evaluating science learning. 1 cr.

**Engineering Applications in the Earth Sciences ~ June 28-July 1 and July 11-16.** A two-week intensive course that focuses on how engineers use principles from the earth sciences to solve problems and design systems. Core course in M.S. in Applied Science Education. 4 cr. *ENG 5300*

**Global Change Institute for Teachers ~July 11-16**  
Engage middle/high school students in real-world study of global climate change and its effects on ecosystems. Participate in on-going research alongside MTU scientists. Participants stay at MTU's Ford Forestry Center. 3 cr. *FW 5641/ED 5641*

**Engineering Applications in the Physical Sciences ~ July 18-29.** This two-week intensive course demonstrates how engineers use principles from the physical sciences to solve problems and design systems. A core course in the Master's program in Applied Science Education. 4 cr. *ENG 5200*

**Forest Resources & Environmental Sciences ~ June 27-July 2.** Examine the forest community types, ecology, insects and disease, wildlife habitat suitability, and water quality of Michigan forests. Participants stay at MTU's Ford Forestry Center. 3 cr. *ED 5630*