

2008 *REAL Science* Summer Academy

The **REAL Science** Academy offers teachers the opportunity to learn modern laboratory science in the authentic context of their community's businesses and industries. Teachers will learn first hand the range of career opportunities that exist locally and regionally in the STEM fields from practicing technicians, scientists, and engineers. By being immersed in real-world science and technology, teachers will gain a better understanding of the Nature of Science, inquiry-based instruction, and career opportunities in the STEM fields.

The sessions for Biology and Chemistry will run concurrently this summer during the dates and times listed below. The majority of the week-long experience will involve separate biology and chemistry sessions, although there will be opportunities for both groups to meet together. Teachers who successfully complete a **REAL Science** Academy will have access to the laboratory equipment used in that academy.

TIMES: July 28, 2008 to August 1, 2008
Academy hours are from 8:00 am to 4:30 pm Monday and 8:30 am to 4:30 pm Tuesday through Friday

LOCATION: To Be Announced

COST: FREE
\$500.00 Stipend per person to be paid for completing the academy requirements

CREDIT: 3 graduate credit hours through WMU **OR** 9 SB-CEUs available, pending approval

**REAL Science I:
Introduction to Spectroscopy and Chromatography**

**REAL Science II:
Introduction to Biotechnology Techniques**

TARGET AUDIENCE: Grades 8-12 Chemistry Teachers

TARGET AUDIENCE: Grades 8-12 Biology Teachers

Description: REAL Science I introduces both the principles and some applications of spectroscopy and chromatography. The course is intended for teachers interested in learning the operation of the Spectronic 20 visible light spectrophotometers. Further, the course will introduce thin layer and column chromatography as analytical techniques culminating in the operation and use of a high pressure liquid chromatograph (HPLC).

Description: REAL Science II introduces both the principles and applications of biotechnology in the analysis of DNA and proteins. This course is intended for teachers interested in using gel electrophoresis in the classroom to separate restriction digests of DNA, and will also include an introduction to bacterial transformation and other biotechnology techniques.

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Please return application, no later than May 16, 2008 to: MAISD, 630 Harvey Street, Muskegon, MI 49442. If you have questions, call Jennifer Haase at (231) 767-7318. No phone applications, please. Faxes accepted at (231)773-1028.

Please check one: REAL Science I REAL Science II

Name: _____

Grade Level: _____ District: _____ Building: _____ Phone: (____) _____

*Summer E-Mail Address: _____

*Summer Address: _____ *Summer City: _____

*Summer Zip: _____ *Summer Phone: (____) _____ ***(required for confirmation)**