UW Oshkosh Summer 2011 Modeling Method Courses

Quality professional development for physics and physical science teachers (grades 9-12)

Join us this summer!

Featured Instructors

Waves and Fields for Teachers (Physical Science 501)

June 13 to August 5, 2011 (8 Weeks)
Meets Mondays, 8 a.m.-1 p.m., Halsey Science Center, UW Oshkosh
5 Graduate Credits

This course introduces the Modeling Method of Instruction with an in-depth study of wave phenomena. Topics include: vibrations of strings and rods, pendulums, reflection and diffraction of water waves, spring phenomena, sound, and color. We will also develop a technical understanding of how student think and learn in this area. Follow-up activities occur during the week through online readings and discussion.

Mr. Edward Wyrembeck
Howards Grove High School

Optics for Teachers (Physical Science 505)

June 14 to August 5, 2011 (8 Weeks)
Meets Tuesdays, 8 a.m.-1 p.m., Halsey Science Center, UW Oshkosh
5 Graduate Credits

Learn how to use concept-building laboratories to teach geometric and physical optics. Topics include: the pinhole camera, converging and diverging lenses, aerial images, curved and plane mirrors, single- and double-slit interference, and polarization. This course highlights the Modeling Method of Instruction and Bridging Analogies. Online discussions will deepen your understanding of related teaching and learning issues in physics education.

Mr. Jeff Elmer
Oshkosh North High School

Classical Mechanics for Teachers (Physical Science 510)

June 15 to August 6, 2011 (8 Weeks)
Meets Mondays, 8 a.m.-1 p.m., Halsey Science Center, UW Oshkosh
5 Graduate Credits

A basic understanding of force and motion is necessary for a deep understanding of most other topics in physics and physical science. In this course, we take a detailed look at Newton's three laws of motion. Teachers will be exposed to a wide range of classroom technology, including motion detectors, force probes, and the use of video analysis. This course stresses research-based teaching techniques, such as the Modeling Method of Instruction and Interactive Lecture Demonstrations.

Mr. Scott Hertting
Neenah High School

Coursework leads to a Master's degree with an emphasis in Physics Education.
Modeling Instruction is designated as an Exemplary K-12 Science Program
by the U.S. Department of Education.

Program website: www.phys.uwosh.edu/lattery/mse/mse.htm

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