Exploring Easy and Effective Ways to Use PhET's Web-based Interactive Simulations in Your Science Course

Session Abstract:
PhET's FREE interactive sims (http://phet.colorado.edu) help students understand science. This hands-on workshop will help you design and share inquiry-based lessons using the website. Do you want to help your students make sense of science? The PhET Interactive Simulations Project has developed over 80 simulations for teaching and learning introductory physics, chemistry, biology and earth sciences. These research-based simulations create animated, interactive, game-like environments that are designed to engage students in active thinking, encourage experimentation, and help develop visual and conceptual models of physical phenomena, emphasizing their connections to everyday life. The simulations are free, and can be run from the PhET website (http://phet.colorado.edu) or downloaded to a local computer for off-line use. The PhET team has designed a set of guidelines that help teachers integrate the simulations into lessons using guided inquiry. This workshop will help you design effective, inquiry-based lessons using these guidelines to provide activities for students to construct their own understanding of physics and physical science ideas. In this workshop, you will learn about the research that helped establish the guidelines and the simulations, look at lessons available free on the web, learn how to contribute to the lesson database, and work on writing a lesson for your class

Strand: Enhancing Science Teaching and Learning with Instructional Technology
Helping teachers use a set of guidelines for Inquiry Based Lessons prepared by the University of Colorado PhET Project to develop lessons using interactive simulations that are specifically designed from research about student learning.