



**LL Stewart Scholar Workshop:
Using a Web-based Interactive Science and Engineering
(WISE) Learning Tool to Promote Active Learning**

Milo Koretsky
School of Chemical, Biological and Environmental Engineering

Friday October 19, 2007
Owen 241
4-6 PM

Abstract

In an interactive, hands-on manner, this workshop will introduce instructors to the Web-based Interactive Science and Engineering (WISE) Learning Tool. WISE allows an instructor to pose to the class different types of questions (including: multiple choice answers, multiple choice with short answer follow-up, numerical answers, short answers, and Likert-scale survey). WISE is designed to utilize the COE's Wireless Laptop Initiative so that every student in a class is simultaneously engaged, creating a learner centered class based on active learning. WISE can be used to develop activities that probe for conceptual understanding and deeper level thinking. It allows real-time formative assessment by the instructor. After the students have submitted a response to an activity, the instructor can review a summary of the results with the class. For example, bar graphs are automatically compiled for multiple choice questions. For short answers, the instructor can view the set of responses and select specific answers to share with the class. Depending on the class response, the instructor can choose an appropriate method (e.g. peer instruction, instructor explanation) to reinforce or correct the response. In this workshop, participants will learn how to use WISE in their classes including: creation of questions, delivery in class, and strategies for concept-based instruction. It is requested that each participant come with a sample multiple-choice or numerical problem that they want to include in a class that they teach.

We gratefully acknowledge funding from the LL Stewart Scholars Program and a Teaching and Learning Innovation Grant from the Center for Teaching and Learning.