NM STATE Teaching Academy

Events SUMMER 2009

"Who dares to teach must never cease to learn." • John Cotton Dana

Cooperative Learning and Problem-Based Learning

Karl Smith
Purdue University &
University of Minnesota

Wednesday, August 12
9 a.m.–12 p.m.
Milton Hall Room 50

An ongoing challenge of teaching STEM classes is engaging students with one another and with the instructor. Many of us are exploring cooperative learning or other forms of active engagement to encourage students to be active and responsible participants in their own learning as well as in the learning of other students. *But, how do we structure these experiences in our classrooms, many of which have fixed seating, to ensure that they are most effective and achieve our aims (i.e., student learning)?*

This session emphasizes the instructor's role in designing and implementing individual and group strategies in connection with active and cooperative learning. These strategies are research-based, and include positive interdependence, individual and group accountability, face-to-face interaction, teamwork skills, and group processing. Examples will be provided to help the participants select, design, and revise cooperative learning and problem-based learning materials. The workshop is hand-on, interactive, and focused on helping participants select, prepare, and structure cooperative and problem-based learning materials and strategies for their classes. Participants will learn how to overcome the challenges and barriers to implementing active and cooperative learning.

Session Objectives:

Participants will be able to describe:

- Key Elements of Cooperative Learning, especially interdependence and accountability
- Approaches for implementing cooperative learning in STEM classes

Karl Smith is Cooperative Learning Professor of Engineering Education and Fellow, Discovery Learning Center, Purdue University, and Morse-Alumni Distinguished Professor of Civil Engineering at the University of Minnesota.

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