How to Engage Students Both Inside and Outside the Classroom | College of Engineering

Matt Jensen

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April 14, 2017 — The S-STEM project team held a teaching seminar on April 4, 2017, for faculty and graduate students in the College of Engineering who are interested in how to engage students in active learning both inside and outside the classroom.

S-STEM, an acronym for Scholarships in Science, Technology, Engineering and Mathematics, is an education program of the National Science Foundation. The S-STEM team started the project in 2015 and has awarded a significant amount of scholarships ($5,000 per year per student) to nearly 30 students in the College of Engineering.

This year the team organized the teaching seminar involving five speakers from three departments in the College of Engineering. Each speaker talked for about 10 minutes, followed by Q&A.

Dr. Laurie McNeill
Dr. Laurie S. McNeill from the Department of Civil and Environmental Engineering demonstrated her use of clickers to assess student learning in both graduate and undergraduate classes.

**Dr. Oenardi Lawanto**

Dr. Oenardi Lawanto from the Department of Engineering Education described his technique called Enhanced Guided Notes to improve students' self-regulated learning.
Dr. Tadd Truscott from the Department of Mechanical and Aerospace Engineering introduced a unique problem-based learning approach to engaging students in a thermal fluids laboratory class.
Randy Hurd

Mr. Randy Hurd from the Department of Mechanical and Aerospace Engineering introduced a unique problem-based learning approach to engaging students in a thermal fluids laboratory class.
Dr. Ning Fang from the Department of Engineering Education described three ways to engage students in in-class problem solving in a large undergraduate course.

The seminar inspired good discussions among the speakers and audience. In the after-seminar anonymous survey, all survey respondents provided positive comments and suggestions, for example, “I liked that there were multiple short presentations. That made it easy to stay engaged and interested in what the presenters had to say,” and “It was nice to see several different techniques quickly,” and “Speakers were great! We need to keep having these seminars.”

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**Contact:** Dr. Ning Fang, Professor | Dept. of Engineering Education, Utah State University | email: ning.fang@usu.edu | 435-797-2948