

HARVEY MUDD

C O L L E G E

**Department of Engineering
Seminar Program
Wednesday, April 18, 2012
Galileo McAlister, 4:10pm**



Associate Professor Mary Kathryn Thompson
KAIST Department of Civil and Environmental Engineering

Mary Kathryn Thompson earned her B.S., M.S., and Ph.D. from the Massachusetts Institute of Technology in Cambridge, MA. She is engaged in design research at the boundary, both within engineering and beyond, and is actively working on the development and application of formal design theories to civil, environmental, and urban engineering. She is also interested in non-traditional applications of the finite element method, especially for surface phenomena such as fluid sealing, thermal and electrical contact resistance, friction and wear. Kate is the Director of the KAIST Freshman Design Program, which earned her both the KAIST Grand Prize for Creative Teaching and the Republic of Korea Ministry of Education, Science and Technology Award for Innovation in Engineering Education in 2009. She is currently on sabbatical leave at the Technical University of Denmark.

" A Behind-the-Scenes Look at Assessment in Engineering Design Education "

What really goes on behind the scenes of the grading process in a project-based engineering design course? How do professors ensure fairness and consistency in grading? And how much variation is there in the evaluation of subjective and open-ended assignments? This presentation will give you a behind-the-scenes look at assessment in a large engineering design course at the Korea Advanced Institute of Science and Technology. It will discuss the benefits and disadvantages of traditional design juries and how they can be modified for use in very large courses with a small number of design experts. It will examine the agreement between design jury members and what measures can be taken to improve that agreement. It will also explore different types of grading rubrics, the impact of using different evaluation scales in a rubric, and the some of the metrics that can be used to validate (or invalidate) one. Finally, it will discuss the potential impact of grading online versus grading on paper. Join us and get a rare glimpse inside the engineering design assessment process.