

Faculty Development Workshop Series

“A Flipped Classroom Model for Teaching Engineering Design”

Dr. Ann Saterbak

**Full Teaching Professor and Associate Dean for Undergraduate Education
School of Engineering, Rice University**

Faculty at Rice University have created instructional resources to support teaching first-year engineering design using a flipped classroom model. Students watch videos and complete a short quiz before coming to class. During class time, students work collaboratively on in-class exercises that require them to analyze and evaluate design situations or problems. Then, design teams tackle their own unique semester-long design project.

Three assessment methods have examined the impact of using a flipped classroom model. Two assessment methods were summative in nature and showed little difference between the flipped and lecture models. The third assessment method was formative and relied on evaluating teams' technical memos, documents that were created as students applied steps in the design process to their project. When assessing the technical memos, some statistically significant differences were seen between the lecture and the flipped models. In addition to thoughts about the timing of assessment, we hypothesize that using a flipped model of instruction in engineering design may have a more significant impact on complex material.

Friday, January 27, 2017

MD Anderson Library Room 306

11:30- 12:45 pm

Lunch will be provided.

Please RSVP using the link below:

www.SignUpGenius.com/go/10C0D4FADAF28A5FB6-faculty5