Flipping Instruction Grants

Request for Proposals to support course modification using a flipped model to provide richer and deeper learning opportunities in targeted courses within the SSoE

Vision of a Flipped Classroom: The flipped classroom is an instructional innovation where the typical lecture and “homework” elements of a course are reversed (flipped). The value of a flipped model is in the repurposing of class time, such that contact time (in-class time) may be reduced, but the quality is higher (e.g., a 3-credit course may be spent having students watch 1.5 hours of video lecture out-of-class followed by 1.5 hours of engaged high quality learning experiences in-class). As a result, in-class time is no longer used for relatively passive information delivery, but is re-designed so that students work side-by-side with an expert in the field (the instructor) to make sense of and apply the information gleaned from the out-of-class sources such as video lectures, online simulations, and readings. Note the flipped classroom time is not the same as recitation time. It requires re-thinking the classroom experience in light of the ease of access to information and the dynamic shifts in the professional arena. The classroom experience should advance and push student thinking, better preparing them as professionals in the advancing fields of engineering.

A few resources to consider about flipped instruction:
- http://www.flippedclassroom.com/

Objective: In support of the educational mission of the University and School of Engineering (SSoE), the EERC invites proposals from SSoE faculty members who teach required undergraduate courses and are interested in modifying their course to provide a richer engagement of students during class-time and better utilization of faculty expertise.

Amount and Expectations: Flipping Instruction Grants will provide $15,000 per faculty for up to three faculty members during the 2012-13 fiscal year. The award must lead to the refinement and implementation of one flipped course that will be taught during the 2013-14 academic year; and the course should be maintained as a flipped model by faculty beyond the 2013-14 school year. The funding can be used at awardee discretion, but should be used to ensure that awardees have the time and capacity to work on the course modifications. In addition to the funding, the EERC will provide support in course re-design, implementation, and measurement (see Awardee Resources, page 2).

Eligibility: Full-time (tenure and non-tenured stream) faculty within the SSoE.

Submission Deadline: 5:00 p.m. November 9, 2012.
Notification: Awards will be made by or prior to December 1, 2012.

Proposal Format: Please include the three identified sections noted. Proposals should be limited to 2-3 pages. Submit your documents as a single PDF or Word document to Sam Spiegel at sspiegel@pitt.edu.

1. Context of the Course: Please provide the course name, catalogue number and catalogue description of the course. In addition, include the frequency the course is offered (e.g., once a semester, every Spring, etc.), number of sections offered, number of instructors who typically teach the course in your home department, as well as average enrollments. Other information you feel relevant to the course may also be included.

2. Educational Objectives: Briefly describe your current course objectives (e.g., ABET oriented, others). Consider any additional objectives, beyond those currently identified, that might be achieved through a flipped model of instruction.

3. Flipping Design Needs: Provide a brief summary of your vision of the refined course. Include your understandings, questions, or anticipated needs in re-designing a course using a flipped model. Include a description of resources that currently exist that can be utilized in flipping the course (e.g., software experiments, animations, simulations, laboratory demonstrations you use currently course, etc.). You may also wish include any challenges the current course has in meeting course objectives that warrant course redesign.

Awardee Resources: The EERC will provide staff consultation and assistance in re-designing the course, such as videotaping and editing, in-class technical assistance, and assessment/evaluation planning and implementation.

1. Instructional Design and Classroom Technical Assistance: The EERC will work closely with awardees to redesign the course, considering how to transform the classroom experience to optimize the impact of the expertise of the instructor. In doing so, the EERC will provide staff assistance in:

   • Video and editing capabilities of out-of-class lectures, and
   • Pedagogy and technology instructional needs for in-class experiences.

2. Assessment and Evaluation: EERC staff will work with awardees to develop an evaluation plan to collect and analyze data on student outcomes and course design. To ensure that the 'new' course design is meeting the needs of the students and is maintaining as a high-quality flipped model, data will be collected and analyzed for the awardees (pre-flipped as well as post-flipped).

For Further Information: Contact Mary Besterfield-Sacre (mbsacre@pitt.edu) or Sam Spieg (sspiegel@pitt.edu).