

2005 Romeo L. Moruzzi Young Faculty Award for Innovation in Undergraduate Education Recipient

Professor Kristen L. Billiar

WPI is pleased to present the 2005 Moruzzi Young Faculty Award for Innovation in Undergraduate Education to Professor Kristen L. Billiar of the Department of Biomedical Engineering.



To meet the challenge of providing experiential learning opportunities to a large and growing student population, Professor Billiar developed a formal mentoring system in his laboratory. For this system, undergraduate work/study students and volunteers work with graduate students and experienced undergraduate lab assistants to learn basic skills and to develop expertise in self-selected technical areas. The program includes a weekly seminar series that allows all students to share their areas of expertise, and an evaluation process that allows both mentors and mentees to evaluate each other, providing useful input and feedback. Professor Billiar provides additional support for this program using a toolbox of streaming videos, and is developing a set of automated assessment techniques as part of his Teaching Technology Fellowship.

Formal mentoring systems, common in industry, are rarely seen in academic labs, and the open lab environment achieved here is unique. The synergy of the weekly seminar series and evaluation process creates a strong culture of collaboration in the laboratory that has supported educational development of many undergraduate students through research and lab work, projects, and related course-work.

Professor Billiar received multiple nominations for this award, with 8 nominations submitted by undergraduate and graduate students. WPI is proud to affirm all of these nominations by presenting Professor Kristen Billiar with the 2005 Moruzzi Young Faculty Award for Innovation in Undergraduate Education.