Teaching with Technology

Robert A. Linsenmeier, Northwestern University
Sabrina Kramer and Stephen M. Roth, University of Maryland

This course is designed to help STEM graduate students and postdocs at the start of their teaching careers enhance their understanding of educational technologies. Instructors in all courses have a large number of options for communicating with students: having students work together, connecting classwork to the world outside the classroom, offloading some aspects of the course in favor of emphasizing others during synchronous meetings, doing formative and summative assessment, and enhancing the ability for students to do gain more practice, do independent work, or obtain deeper mastery of a subject. Most of these are under the control of the instructor, and it is technologies in this spectrum that we will focus on in this course. Our discussion of such systems will be from the perspective of understanding how to use their features to enhance community, engagement, and learning.

Diversity in the College Classroom: Teaching the STEM Undergraduate

Jean Alley, Vanderbilt University
Robin Paige, Rice University

Become a better college instructor by considering the complex issues of diversity and how to address them effectively in your classroom practice. Current graduate students and faculty are recognizing that we must consider that the way we teach differentially impacts the success of all our students. This course is designed for graduate students and post-docs who have an interest in advancing diversity issues as educators. Participants in this course will take a critical yet practical look at how we define diversity and for what purposes, and discuss the ways different definitions of diversity might influence what and how we teach our disciplinary topics. Participants will also create a diversity-focused plan of action for their future teaching practice.

Creating Assessments and Evaluation Plans

Mary Besterfield-Sacre and Julie Breckenridge, University of Pittsburgh

Creating an assessment tool that measures your intended student learning outcomes is critical. You don’t know if you have achieved the learning outcome unless you’ve properly measured it! This course is intended to help participants learn and develop skills associated with creating and implementing assessments particular to STEM courses. Each week, students will pre-read information related to assessment. Each live, synchronous session will review aspects of the technique (i.e., development issues, implementation and administration, when best to apply, etc.), as well as provide examples. The last session will be devoted to learning how to develop an evaluation plan for an education-related project.

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