

ENGR 3001 (CRN 24338)/BIOSC 3001 (CRN 25906)/CHEM 3001 (CRN 28127)

Preparation for the STEM Classroom:

An Introduction to Evidence-Based STEM Teaching

Days/Time	Tuesdays 4:00 – 4:50
Credits	1 credit
Location	Benedum Hall, room 320
Instructors Contact Information	<ul style="list-style-type: none"> • Dr. Mary Besterfield-Sacre, Professor and Fulton C. Noss Faculty Fellow 1040 Benedum Hall; (412) 624-9836; mbsacre@pitt.edu • Dr. Joseph Grabowski, Associate Professor, Chemistry 705 Chevron; (412) 624-8632; joeg@pitt.edu • Dr. Zsuzsa Horvath, Assistant Professor and Director of Faculty Development, Dental Medicine 380A Salk Hall; zshst2@pitt.edu • Dr. Susan Meyer, Co-director, Pitt Center for Interprofessional Practice and Education, Associate Dean for Education, Professor, Pharmacy and Therapeutics; 1108 Salk; smeyer@pitt.edu 705 Chevron; (412) 624-8632; joeg@pitt.edu • Dr. Julie Briski, Postdoctoral Associate, Pitt-CIRTL Coordinator B12 Benedum Hall; jmb312@pitt.edu • Dr. April Dukes, Postdoctoral Associate, Pitt-CIRTL Coordinator B12 Benedum Hall; aprila@pitt.edu
Course Description:	Designed for individuals planning for academic careers in the STEM disciplines, this course provides an introduction to the alignment model, evidence-based teaching practices, and general principles of teaching and learning.
Textbook & Readings	<ul style="list-style-type: none"> • <i>How Learning Works: 7 Research-Based Principles for Smart Teaching</i> by Susan Ambrose Amazon: Hardcover \$37.12/Kindle \$29.59; B&N \$37.12/Nook \$38.49; iTunes \$36.99 • <i>Prep for the STEM Classroom</i> YouTube Channel (select videos from CIRTL STEM Teaching Course): https://www.youtube.com/playlist?list=PLJgGu0Z0ByF95e5S6p5X2y0S0C_k0x70I
Course Objectives	<ul style="list-style-type: none"> • Gain knowledge and awareness of effective teaching practices of the STEM classroom • Obtain an awareness of how students learn and understand the STEM instructor's role in helping students learn in STEM fields • Acquire basic tools in designing a STEM based course
Participation:	This course is pass/fail. Attendance and participation in discussions is highly encouraged.
Assignments	<ul style="list-style-type: none"> • Participate in class discussions on <i>How Learning Works</i> and CIRTL MOOC videos • Prepare a teaching statement to be reviewed by fellow classmates and faculty

Fall 2017 Course Schedule

Date	Title	Description	Speakers
Aug 29	Introduction	<ul style="list-style-type: none"> • What is Pitt-CIRTL? • What to expect from this course • What is a Learning Community? 	Mary Besterfield-Sacre, Julie Briski, April Dukes
Sept 5	Principle 1: How does students' prior knowledge affect their learning?	<ul style="list-style-type: none"> • How Learning Works: Ch 1 • YouTube Channel: Principle 1 (4 videos) 	Julie Briski
Sept 12	Principle 2: How does the way students organize knowledge affect their learning?	<ul style="list-style-type: none"> • How Learning Works: Ch 2 • YouTube Channel: Principle 2 (3 videos) 	April Dukes
Sept 19	Principle 4: How do students develop mastery?	<ul style="list-style-type: none"> • How Learning Works: Ch 4 • YouTube Channel: Principle 4 (3 videos) 	Zsuzsa Horvath
Sept 26	Principle 3: What factors motivate students to learn?	<ul style="list-style-type: none"> • How Learning Works: Ch 3 • YouTube Channel: Principle 3 (3 videos) 	Julie Briski

Date	Title	Description	Speakers
Oct 3	Principle 5: What kinds of practice and feedback enhance learning?	<ul style="list-style-type: none"> • How Learning Works: Ch 5 • YouTube Channel: Principle 5 (4 videos) 	Julie Briski
Oct 10	No class – Monday's classes on Tuesday		
Oct 17	Principle 6: Why do student development and course climate matter for student learning?	<ul style="list-style-type: none"> • How Learning Works: Ch 6 • YouTube Channel: Principle 6 (4 videos) 	Joe Grabowski
Oct 24	Principle 7: How do students become self-directed learners?	<ul style="list-style-type: none"> • How Learning Works: Ch 7 • YouTube Channel: Principle 7 (4 videos) 	Joe Grabowski
Oct 31	Active Learning and Classroom Assessment Techniques (CATs)	<ul style="list-style-type: none"> • How Learning Works: Appendices A, C, & F • YouTube Channel: Assessments (4 videos) • 	Zsuzsa Horvath
Nov 7	Developing a Teaching statement and Portfolio	<ul style="list-style-type: none"> • Teaching Statements • Teaching Portfolios 	Susan Meyer
Nov 14	Learning Objectives (LOs) and the Alignment model	<ul style="list-style-type: none"> • How Learning Works: Appendix D • YouTube Channel: L.O.s and the Alignment Model (8 videos) 	John Radzilowicz (Center for Teaching)
Nov 21	<ul style="list-style-type: none"> • <i>NO CLASS – Have a great Thanksgiving Break!</i> 		
Nov 28	Getting started in the classroom: You've been assigned a class, now what?	<ul style="list-style-type: none"> • Syllabus construction • Using Courseweb 	April Dukes
Dec 5	Discussion and Review of Teaching Statements	<ul style="list-style-type: none"> • Teaching Statement Draft Due – bring 3+ copies • Peer review of teaching statements 	All

* No class on October 10th due to Fall Break on October 9th

** No class on November 21th due to Thanksgiving Break