

Center for Teaching and Learning

Newsletter

February 2019

Message from the Director

CTL is pleased to announce the appointment of two Assistant Directors, Dr. Carol Cirulli-Lanham (EPPS) and Dr. Salena Brody (BBS). They will coordinate discipline-specific programming for faculty and graduate students in each of the eight schools.

CTL's continuing theme for the 2018-19 academic year is "struggling students." One area in which students—and faculty—may struggle is mixed ability classes. Course numbers (e.g., 1000-7000) conventionally designate at what level a course is targeted. These can indicate graduate vs. undergraduate, freshmen-level, senior-level, and the like. Such designations are useful reference points for faculty and students, but these can be misleading when they obscure the heterogeneity of students actually enrolled in the class. For a variety of reasons, seniors might be enrolled in freshmen general education courses. Graduate courses might have a few advanced undergraduates in the class, but there might also be a mixture of doctoral and professional masters' students. Instructors typically prepare for a course by reference to the subject and course-level and not according to the different background and needs of those enrolled. Even if instructors were to attempt to take the latter into account in preparing syllabi and assignments, this is difficult given the limited information they have about enrolled students and because class composition is subject to change through the first ten days of the semester as students add and drop classes.

Upcoming Events—check your email for invitations & RSVP links

- 2/27 What works in assessment? Presentations from winners of the 2018 Assessment Awards, moderated by Gloria Shenoy
- 3/6 Collaborative curriculum design and assessment: Piloting a hybrid first-year writing course, with Carie King & Chris Ryan
- 3/7 What else are students learning? Including marketable skills in course syllabi, with Jane Shipman, Career Center, & Karen Huxtable
- 3/13 Understanding implicit bias in the classroom, with Daniel Cordova, Multicultural Center
- 3/28 How to make the most of your international classroom, with Leticia Zamarripa, International Center
- 4/1 Invited speaker: Dr. Sunay Palsole, Assistant Vice Chancellor for Engineering Remote Education, Texas A&M
- 4/9 Recognizing and responding to students in crisis: Question, Persuade, Refer Suicide Prevention Training, UTD Wellness Committee
- 4/17 Students' End of Semester Crises, with Paul Diehl & Karen Huxtable
- 4/25 Celebration of Teaching Excellence with President Benson & Provost Musselman
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Teaching Tip

The teaching challenges posed by vast differences among students in a single course are not necessarily detrimental to teaching and learning. This circumstance is a learning opportunity if we know how to take advantage of it. If your course depends on specific

prerequisite knowledge, it is important to identify students lacking it as early in the semester as possible. A first-day quiz or checklist can help students self-assess familiarity with basic concepts. Use the results to direct students to university (such as the Student Success Center) or course-specific resources (such as a supplemental reading list or tutoring/study group) to help them catch up. Students scoring at the high end on the quiz can benefit from providing peer tutoring and/or a supplemental reading list for enrichment.

Frequent, low-stakes assessments with feedback are essential for tracking and taking action to improve the progress of under-prepared students. Even better, use a variety of formative and summative assessments, as well as a variety of ways of allowing students to interact with course materials, to give students multiple formats to demonstrate what they have learned. Diverse students will express their strengths in diverse ways. Varied assessments will improve their chances of being able to do so.

For more on this topic, see: <https://teaching.berkeley.edu/teaching-mixed-level-disparate-class>

Research into Practice

Is it worth the effort to try to improve underprepared students' chances of success? Or should universities just raise their admissions standards and admit only the very best students? Researchers at Cleveland State University examined the effectiveness of a variety of services aimed at improving the retention and graduation rates of STEM students at risk of failing the precalculus-calculus sequence. The experimental design utilized two treatment groups, with one group receiving all available services (such as a two-week summer institute, mentoring, project-based instruction, college success workshops, social activities, monetary incentives), one receiving only mandatory supplemental instruction, and a control group from a pre-intervention cohort. Results indicated that supplemental instruction alone was effective in improving the number of students passing precalculus courses. Students receiving supplemental instruction plus other services demonstrated a passing rate that was even higher.

Reference: Carver, S. D. et al. (2017). Operation STEM: Increasing success and improving retention among mathematically underprepared students in STEM. *Journal of STEM Education*, 18(3), 20-29.

What the Students Say

Students enroll in a course for a variety of reasons, but all of them expect they have the tools to succeed and that they will learn something new. Seniors in a lower-level course report being frustrated sometimes when the material is “too basic” given that they have already completed advanced coursework in the same or related disciplines. Freshmen or sophomores in that same course can be intimidated by the sophistication and knowledge demonstrated by their senior classmates. Certain assignments, such as those requiring public expression of knowledge and skills, and grading on a curve accentuate those differences. At the graduate level, professional masters' students may chafe at readings or assignments that are “too theoretical,” whereas these are an essential part of the training of doctoral students in the same seminar. There are no easy solutions. Some faculty offer differential assignments that students can choose, but these must be equivalent in some sense in that students' transcripts reflect only the same course and not the different assignments that determine the final grade appearing there.

CTL Staff

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