

Lunch@ITE – Spring 2019 Schedule

Tuesday, February 19: *Strategies for Using Anonymous Polling Software in Teaching*, presented by Kathleen McEnnis

A terrifying moment for a teacher is asking a question to the class, hoping for a lively class discussion, and being met instead with silence. I find this to often be the case. Even if you can successfully get students to answer and participate, it will often only be a handful of students responding, and the remaining students act as passive listeners. Many students are afraid to speak out in class and will often resist participating. I have found that by using anonymous polling software, such as PollEverywhere, I can get most students to engage and respond to questions. This technique not only engages more students in the learning process but also functions as an assessment tool. In this session, I will discuss my experience with and strategies for using anonymous polling software as a tool for student engagement and assessment.

Tuesday, February 26: *Grading and Assessment Tools for Instructional Technology Toolbox*, presented by Padma Natarajan

Are you looking for a technology tool that can help reduce your grading time for offline quizzes or tests? Would you also like to quickly obtain an overview of student and class performance? If so, look no further. This session will present tool(s) that can help address these and more.

Tuesday, March 5: *NJIT Distributed Museum*, presented by Bob Barat and Liz Petrick

In this presentation, we will discuss our efforts over the last two years to expand the museum-quality artifact displays around our campus. While our current three display cases are not a first for NJIT, they are in unexpected locations. We have a number of future plans for the museum that we hope will create opportunities to incorporate students. One effort is to create an NJIT distributed museum website containing photographs and descriptive links so that students can learn more about the artifacts in the collection. We also envision using the various displays as resources for our current and future history of technology courses.

Tuesday, March 12: *Assessment Everywhere*, presented by Regina Collins

Assessment is happening everywhere at NJIT. Courses integrate formative and summative assessments of student learning through quizzes, assignments, and exams. Course evaluations assess students' perceptions of the value of a course and the learning materials. Surveys capture perceptions of faculty and staff regarding NJIT being a "Great College to Work For." Where do all these assessments go? As NJIT prepares for its next reaccreditation by Middle States, we can't just DO assessment, we have to show that we USE our assessment data. Join me for a very brief (I promise!) overview of the new Middle States standards for accreditation, at which point we can have a lively discussion about the ways we are all doing and using assessment.

Monday, March 25: *Active Learning Strategies for Boosting Classroom Engagement*, presented by Angelo Tafuni

Active learning (AL) is the practice of engaging all the students during a lecture by having them do something course-related directly in the classroom. This technique has shown to be quite effective in energizing the class while allowing the students to retain more of the material seen in class in long-term memory. There are several ways an instructor could choose to implement AL activities during a lecture, each with its own advantages and disadvantages. In this brief talk I will go over some of the AL tools that I adopt during my lectures and the challenges faced while implementing such tools in the classroom.

Tuesday, April 2: *Slack: The Innovative Tool Providing Insight into Student Collaboration*, presented by Nellone Reid

Assessment of student group work is often elusive and unreliable, with mixed or inflated reviews from student feedback. This session introduces Slack, a collaboration hub for work to take place, and its function in the Chemical Engineering Plant and Process Design course. Slack can be accessed online, or from your desktop, tablet or mobile device. By leveraging tools frequently used by students, Slack is a new platform for students to work collaboratively and has the potential to provide instructors an inside look into how students communicate, organize and prepare group projects and presentations.

Tuesday, April 9: *3D Printed Widgets as Tools for the Effective Learning of Abstract Concepts in Mechanics*, presented by Carlotta Mummolo

Despite the common thinking that Mechanics is a practical, hands-on discipline, there are plenty of abstract concepts that students must learn early on in their engineering education. While there are students with a mindset and background that favors the learning and retention of abstract concepts, the effective communication of mathematical entities (such as vectors, coordinate reference systems, and axes of rotation) to a large and diverse audience could be a challenge for the instructor. The initiative I would like to bring into the mechanics classrooms at NJIT consists in engaging the students each semester in the design and fabrication of a simple but effective 3D printed prototype of an object that could tangibly, but at the same time rigorously, illustrate one of the many abstract concepts learnt in class. The collection of the student-made widgets throughout the semesters will provide a fun and innovative tool that could enhance the teaching of mechanics in the years that come.

Tuesday, April 16: *Using Humor in the Classroom*, presented by Jorge Fresnada

Let's eat grandma! Let's eat, grandma! Punctuation saves lives!

Humor has extensive applications and benefits in the classroom, including: 1) keeping students' attention and involvement, 2) lowering the stress level, 3) keeping a creative atmosphere, etc. These facts have been scientifically validated through brain scans.

Every instructor's goal is to be an effective communicator in the classroom and help students learn. Although humor has the power to fuel engagement, where is the limit? What is the right balance? Do I look like a stand-up comedian?

This session presents some facts and examples of the use of humor in the classroom while addressing the risks of its overuse. The session is intended to "fuel" the debate about achieving the right balance of humor during our lectures.

Tuesday, April 23: *ENGR101: An Application-Oriented Course to Bridge the Gap between Mathematics and Engineering*, presented by Jaskirat Sodhi

Performance in pre-calculus and calculus courses has a strong impact on student success, retention, and graduation in any engineering school. One of the important reasons why students perform poorly in these courses is their failure to make the connection between concepts of mathematics, and engineering problems and applications. This also strongly affects students' chances to make satisfactory academic progress within their degree, as mathematics and science courses are usually pre-requisites or co-requisites to their core engineering courses. To address this issue, starting Fall 2016, NJIT is offering a new course: Analytical Methods for Engineering Applications (ENGR101) which specifically targets students that are ill-prepared in mathematics based on the performance on the placement exam that all incoming first-time full-time first-year students take. This talk will include information about setting up such a course and also present the results of my analysis thus far, including a comparison of the performance in mathematics courses of the participants against a control group.