

THE FIRST ANNUAL
TEACHING AS RESEARCH CONFERENCE
JUNE 6, 2017



Sponsored by the Center for Teaching Excellence (CTE)
and the Cornell University Center for the Integration of Research,
Teaching, and Learning (CU-CIRTL)

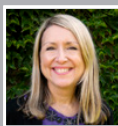
WELCOME

It is our great pleasure to welcome you to the first annual Teaching as Research National Conference at Cornell University. This is the inaugural offering of what was previously known as the Classroom Research and Teaching Symposium - now expanded to a national conference with attendees and presenters from across the country. This event highlights and supports the research of graduate students, postdocs, faculty, and staff into effective teaching and learning.

WHAT IS TEACHING AS RESEARCH?

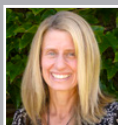
Teaching as Research is the deliberate, systematic, and reflective use of research methods by instructors to develop and implement teaching practices that advance the learning experiences and outcomes of both students and teachers. It can be a great capstone experience for graduate students and postdocs interested in learning more about teaching and learning, enhancing their CVs, and moving closer to an academic career. Teaching as Research also helps new and veteran faculty build upon their skills as researchers to help them systematically use evidence to inform and improve teaching and learning in their classrooms.

EVENT ORGANIZERS



Theresa Pettit

Director of the Center for Teaching Excellence (CTE)



Kimberly Williams

Teaching Support Specialist for the Center for Teaching Excellence (CTE)



Colleen McLinn

Director of the Center for the Integration of Research, Teaching, and Learning (CU-CIRTL)

AGENDA

All events are in 700 Clark Hall

7:45am - 8:00am **Light breakfast available**

8:00am - 8:30am **Welcome and introductions**

Opening remarks by Barbara Knuth,
Senior Vice Provost and Dean of the
Graduate School, Cornell University

8:30am - 10:45am **Paper presentations I**

11:00am - 12:00pm **Poster Session**

12:00pm - 12:30pm **Lunch**

Optional consultation for Trainer the
Trainer participants in Room 247

12:30pm - 1:20pm **Roundtable discussions**

1:30pm - 2:30pm **Paper presentations II**

2:45pm - 4:15pm **Keynote: Using Evidence to Transform
Undergraduate Teaching**

Michelle K. Smith, University of Maine

4:30pm - 5:30pm **Informal reception**

KEYNOTE SPEAKER

Michelle K. Smith

C. Ann Merrifield Professor in Life Science Education

Associate Professor, School of Biology and Ecology, University of Maine

Member, Maine Center for Research in STEM Education (RiSE Center)



Dr. Michelle Smith's research engages undergraduate and graduate students, postdocs, K-12 teachers, and university faculty in research on teaching and learning. Together they focus on: 1) developing tools to understand student conceptual difficulties and conduct classroom observations, 2) studying what aspects of peer discussion make it an

effective learning tool, and 3) understanding what factors influence faculty members' decisions about teaching. Dr. Smith is currently a PI or co-PI on five NSF grants and a grant funded by the University of Maine Research Reinvestment Fund. She has co-authored over 25 peer-reviewed Discipline-Based Education Research (DBER) articles.

Dr. Smith has a Ph.D. in biology from the University of Washington and did a postdoc with the Science Education Initiative at the University of Colorado in Boulder. She is currently an Associate Professor in the School of Biology and Ecology at the University of Maine, and holds the C. Ann Merrifield Professorship in Life Science Education. She is also a member of the Maine Center for Research in STEM Education.

Dr. Smith will be presenting her keynote, *Using Evidence to Transform Undergraduate Teaching*, at 2:45pm.

PAPER PRESENTATIONS I

Teaching Scholar Bootcamp: A Professional Development Technique to Increase Self-efficacy and Confidence in Graduate Student Instructors

Larry Bowman, Jr.*[†], Ecology and Evolutionary Biology; Kelly Culhane*, Molecular Biophysics and Biochemistry; Ahrume Julie Park*, Cell Biology; Samantha Lin, Molecular, Cellular, and Developmental Biology; Kaury Kucera, Center for Teaching and Learning, Yale University

*(*authors made equal contributions)*

We aim to uncover the effects of graduate student and post-doctoral teaching development programs on the self-efficacy and confidence of the individuals undergoing development: the teaching assistants themselves. How does teaching training affect the teaching assistant, and is it effective for long-term implementation of teaching techniques?

Context Matters: STEM Faculty Reflect on Career Influences External to Classroom and their Impact on Instruction

Mary Centrella, Entomology, Cornell University

In this study, we conducted interviews, syllabi evaluations, and course observations of two faculty members to better understand the impact of contextual factors outside of the classroom on faculty teaching experience. Our results suggest that faculty experienced stress and pressure from their careers, often dictated by the institution, indicating that future pedagogical studies should be aware of career context when working to improve teaching in STEM higher education.

Evaluating Efficacy and Student Response to a Two-stage Homework System in an Introductory Thermodynamics Class

Ashley Earle, Derek Holyoak, and Shivem Shah, Biomedical Engineering, Cornell University

We implemented a two-part homework system in a sophomore-level thermodynamics class that requires students to submit two versions of each homework assignment. The students submit a first draft that emphasizes conceptual understanding of each problem, and then the TA provides detailed feedback to each student prior to them submitting a second draft that is graded on both conceptual and quantitative mastery. We evaluated overall student response to the system, and the relationship between feedback, homework mastery, study habits, and exam grades.

PAPER PRESENTATIONS I

Trust, Power, and Transformation in the Prison Classroom

Frances Fairbairn, Philosophy, Cornell University

This study asks two main questions: i) what is the role of power and trust in transformative learning in the prison classroom, and ii) in particular, what is the role of power and trust in the decision to either transform one's meaning scheme in the face of new information or simply reject the new information.

Gender Differences in Students' Sex-specific Social Comparisons and Goal Adoption for STEM and Non-STEM Majors

Emily J. Hangen, Clinical and Social Sciences in Psychology, University of Rochester

Over 600 university students from both STEM and Non-STEM disciplines were surveyed about their achievement goal adoption, their normative performance expectations, and the degree that their goals focus on performing better/worse than their male classmates and their female classmates. Findings reveal that despite opposite gender stereotypes, students generally compare to classmates of their same-sex regardless of being in a STEM or Non-STEM discipline.

Connecting with Reality: Using Mini-Case Study Approach to Facilitate and Assess Student Learning

(Lucy) Xiaolu Wang, Economics, Cornell University

In this paper presentation I explore the utilizing of a mini-case study approach in teaching a business- and policy-oriented economics course, taking into consideration the strengths and weaknesses in implementation and assessment.

Teaching in Practice: Research Building Relationships Between Landscape Architects and Engineers in the Classroom

Todd Walter, Biological and Environmental Engineering; Josh Cerra, Landscape Architecture, Cornell University

Landscape architects and engineers often collaborate in practice and engage stakeholders during project development. However, less frequently are they exposed to engaged learning experiences with these groups during their academic training. This project builds upon on a cross-course relationship between a service learning studio in landscape architecture and a capstone course in engineering that begins to fill these gaps so that educational, research, and community benefits can be evaluated and improved.

Disease-centered Physiology Instruction for Biomedical Engineering Undergraduates

Aaron E. Chiou, Biomedical Engineering, Cornell University

Physiology is a core component of the undergraduate biomedical engineering curriculum, and focusing on the broader applications of course material may motivate and help engineering students learn better. Here, I describe the implementation of a module centered on altered states of physiology (disease, superheroes) in a lecture-based physiology class for biomedical engineering undergraduates, as well as student perception and performance to this module.

Shaping the Study Abroad Mind: An Inquiry on Culture in Spanish Language Textbooks

Katryn Evinson, Romance Studies, Cornell University

Study Abroad has been increasingly well-regarded in higher education as contributing to students' personal and professional development. Study Abroad has also emerged as a source of income for universities today. In this presentation we will look at how culture is presented in an Intermediate Spanish language course to see how the forms in which culture is portrayed is directly related to the Study Abroad agenda. We argue that culture is often treated as uncomplicated and easily graspable, which shapes the ways in which students relate to the cultural aspects of the target country.

Experts in the Classroom: Informing Undergraduate Career Choices in Biomedical Engineering

Yehudah Pardo, Biomedical Engineering, Cornell University

We assessed the impact of "testimonials" from experts in various areas of biomedical engineering (research, medicine, and patient care) on the career aspirations of freshman engineering students. This study serves as a pilot toward the development of better methods to inform undergraduate students about the wide variety of career paths available in biomedical engineering, enabling them to focus their education toward achieving their personal goals.

Enhancing Student Engagement and Understanding Failure in a Biomechanics Classroom

David Bassen, Biomedical Engineering, Cornell University

This study presents a planning methodology for lecture-heavy class periods that incorporates interactive learning techniques along with a model of purposeful, observational reflection. Through the analysis and understanding of two class periods, it is demonstrated that the success of student-driven class time hinges on successful implementation of the lecture material.

POSTER PRESENTATIONS

Framing the Attention: An Investigation of TA Responsiveness to Students' Scientific Reasoning in Written Work

Cynthia Hill, Education, Tufts University

TAs attend and respond to student thinking in lab reports when the lab course focus is clearly articulated as students making sense of what's going on in their experiments and there is support (in the form of TA training) for TAs to notice and respond to student thinking. I use a framing construct to discuss why this cue is important and to propose a conjecture: an articulated focus provides a cue for TAs to pay attention to student thinking, despite having diverse beliefs about the value of student reasoning and whether the students were engaging in science.

Student Attitudes and Experiences with Active Learning in Large STEM Courses

Lisa Sanfilippo, Office of Undergraduate Biology; Sara LaPlante, Carolyn Aslan, and Theresa Pettit, Center for Teaching Excellence; Amy Godert, Learning Strategies Center, Cornell University

STEM courses at Cornell have been integrating Active Learning into their classes as part of the Active Learning Initiative. This study examines students attitudes and experiences with active learning based on survey data and focus groups.

Dependencies Between Prelim Scores and Parts of a Course Show Possible Gender Differences

Dan Houck, Mechanical and Aerospace Engineering, Cornell University

Six years of mid-semester survey data were used to find significant statistical dependencies between students' Prelim 1 scores and their ratings of specific aspects of the course, such as recitation sections, lectures, homework, textbook, and labs. Results are highly suspect due to data quality issues, but appear to suggest that, while males are relatively unaffected, females' scores may be positively or negatively affected by different aspects of the course.

Determining Impact of a Faculty Institute for Diversity: Faculty Attitudes and Actions Post-"Inclusive Teaching" Training

Theresa Pettit & Kim Kenyon, Center for Teaching Excellence, Cornell University

Faculty who have attended a 3-day workshop on inclusive teaching practices are surveyed to determine if they have changed their teaching practices as a result of the training, have seen changes in student learning and behaviors, and how the workshop impacted their attitude on the need for "inclusive teaching" training.

Gender Differences in Student Participation in an Introductory Biology Classroom

Gregor-Fausto Siegmund*, Stephanie M. Aguilon*, and Abby Grace Drake,
Ecology and Evolutionary Biology, Cornell University; Sehoya Cotner and
Cissy J. Ballen, Biology Teaching and Learning, University of Minnesota
(*authors made equal contributions)

Active learning strategies can reduce gender achievement gaps in STEM classrooms, but less is known about how these teaching strategies affect student participation. We observed an introductory biology classroom at Cornell University to understand how male and female students participate. Interactions between students and instructors were gendered: female students interacted with the instructor more often during small group discussions and male students more often by volunteering during lecture.

Student Perception of Benefits of a Program Supporting Diversity in STEM Fields

Eugene Law, Integrative Plant Science, Cornell University

The first year of college can be particularly challenging for students from underrepresented backgrounds in STEM. We interviewed students enrolled in the New York State Collegiate Science and Technology Entry Program (CSTEP) at a local public college to obtain feedback about their perception of the impact of additional services they received through the program in their first year. Students reported faculty mentorship, undergraduate research opportunities, and financial support for internships and conference travel as being particularly beneficial, but also would have appreciated more opportunities for social engagement with their peers.

Anarchy in the Classroom: Thoughts on Freedom from a First-year Writing Seminar

Katherine Thorsteinson, English Language and Literature, Cornell University

This qualitative case study follows from my experiences teaching two freshman writing seminars on topics of race at Cornell University. As a white female teacher who is passionate about anti-racist pedagogy and praxis, I have wrestled with problems of power imbalance in the classroom. This study thus explores some of the ways I have tried to extend agency and responsibility to my students, and reflects on the consequences of these practices for other institutional requirements (i.e. “achieving the grade”). How do we foster self-directed learning while still ensuring our students feel comfortable and supported in an otherwise competitive post-secondary environment?

POSTER PRESENTATIONS

Understanding the Accuracy of Self-evaluation in Students' Scientific Writing
Megan Biango-Daniels, Plant Pathology and Plant-Microbe Biology; Mark Sarvary, Ecology and Evolutionary Biology; and Kimberly Williams, Center for Teaching Excellence, Cornell University

This study examined if undergraduate students in an introductory Biology course accurately assess their scientific writing. After detailed instruction and practice using a grading rubric, students' grades differed from peer review grades. We found that freshman and sophomore students self-assign grades that are significantly higher than those given through an anonymous peer review exercise. The cause of this grade inflation or inaccurate assessment remains unknown but ongoing research will investigate patterns related to demography and overall performance of students. When teaching scientific writing, students may require more training to help them understand standards and accurately evaluate their own work.

When Teaching the "Science and Politics of the GMO" MOOC is Itself Political
Rebecca Harrison, Science and Technology Studies, Cornell University

By situating the 2016 Cornell-edX Massive Open Online Course on GMOs within a broader historical and sociological analysis of the Land Grant Mission, this project takes as its object of study the problematization of the GMO within the framework of academic capitalism at Cornell University.

What Motivates Student Engagement in Class? A Case Study with an Undergraduate Course in Environmental Biology

Susan Cheng, Ecology and Evolutionary Biology, Cornell University

This study examines the motivations that undergraduate students have in engaging in an upper-level course on ecosystem biology and global change. Using mixed methods, we identify student perceptions of the utility and relevance of material covered in a science course and how those motivations link to course objectives.

Undergraduate Students' Perceptions of Oral Examinations as a Method to Assess Learning in an Autotutorial Introductory Biology Course

Catherine Spirito, Biological and Environmental Engineering, Cornell University

This study examined the use of oral examinations in an autotutorial introductory biology course at Cornell University. Course surveys, as well as records of students' performance, were used to examine students' perceptions of this mastery learning teaching approach.

Augmenting Statistics with Science History

Dhyan Palanichamy, Integrative Plant Science, Cornell University

In this study students were asked to answer questions about their understanding, confidence, and interest in statistics before and after learning science history of statistical methods. There was a positive trend in their enjoyment and confidence of students; however, these were not statistically significant. Larger experiments with a robust science history curriculum might be able to help educators identify a better way of teaching statistics in an introductory biology class.

Close Reading Through Creative Writing: Comparing the Effectiveness of Analytic and Creative Writing to Understand the Meaning of a Text

Janet Hendrickson, Romance Studies, Cornell University

This study tests the hypothesis that creative responses to literary texts can facilitate and demonstrate competency in close reading as well as analytical exercises do. I take as a case study one class assignment, in which students had the option to write either an analytic or creative piece in response to a novel, to determine how close of a reading each option elicited from students, as well as what kind of understanding of the original text that close reading produced.

Fear and Loathing in the Classroom: How Attitudes Towards Insects Affect Learning

Kristen Brochu, Entomology, Cornell University

Many people have strong negative attitudes towards insects that may bias their learning of course material related to insects. This study assesses the effect of attitudes on learning in a large-scale non-majors Entomology course. Our results show that both STEM and students registered in the additional discussion section attributed more positive descriptors to insects, suggesting either an effect of their increased knowledge-base or self-selecting intrinsic motivation.

Cross Disciplinary Collaboration: Environmental Engineers and Landscape Architects

Christine Georgakakos, Biological and Environmental Engineering, Cornell University

Through this interdisciplinary design project, different approaches to the same project by two departments are highlighted. Student responses, expectations, and general feelings toward the project were analyzed using surveys and analysis of final deliverables.

Measuring Biases in Archaeological Survey: Can We Teach Fieldwalkers How and What to See?

Georgia Marina Andreou, Classics, Cornell University

This paper discusses the use of Geographically Weighted Regression (GWR) for estimating the impact of the student variability at detecting archaeological artifacts from the field as a quick means for identifying the strengths and weaknesses of students. The results of the GWR modelling are subsequently used to guide the design of rubrics for archaeological survey, the aim of which is to provide clear guidelines and enhance the student's ability to detect artifacts of the surface of fields.

Teaching for the First Time: the Graduate Student Teaching Experience A Case Study in the College of Engineering

Elizabeth Case and Reece Kearney, Mechanical and Aerospace Engineering, Cornell University

Graduate students have widely varying backgrounds in the classroom, and they receive minimal formal preparation from their universities. This case study takes a look at the diverse experiences of Cornell University graduate students in the College of Engineering working as teaching assistants for the first time, from those who excelled to other, less positive experiences.

ROUNDTABLES

The Ethics, Purposes, and Practicalities of Transformative Learning

Frances Fairbairn, Philosophy, Cornell University

This session will focus on the idea of transformative learning. Transformative learning occurs when a student's fundamental way of conceptualizing, understanding, or processing information is transformed through education and is taken to be distinct from other forms of learning, where the student assimilates new knowledge into their existing conceptual schemes. We hope to touch upon the following questions: What are some strategies that encourage transformative learning? What is the role of the instructor in facilitating a transformative learning experience? Should we, as educators, aspire toward transformative teaching? If so, does this fact confer additional duties and obligations on us? Is teaching to transform ethical? And what are the potential pitfalls of transformative learning?

Improving Student Learning through Entertainment?

Mary Centrella, Entomology, Cornell University

Does student engagement and retention improve through use of improvisational techniques and use of the dramatic arc in classrooms? How could we detect these improvements through teaching as research?

Using Roleplay in First-Year Writing Seminars

Anna A. (Any) Golovkova, Andrea Mendoza, and Tyran Grillo, Asian Language, Religion, and Culture, Cornell University

Three graduate instructors will discuss the effectiveness of Reacting to the Past, a role-playing methodology for teaching history, religion, literature, art, and history of science. This roundtable explores how historical immersion through role play produces deep lasting learning and encourages students to improve their writing and public speaking skills.

Designing and Assessing SMART Learning Objectives

Lauren Griffin, Sociology, Cornell University

Learning objectives form the basis for evaluating teacher, learner, and curriculum effectiveness. It is important that objectives are designed to be specific, measurable, attainable, relevant, and targeted (SMART). Aligning learning objectives with assessments is therefore a key aspect of course design. This session will discuss the use of aligned learning objectives and assessments in the classroom. Formative assessments can be used as benchmarks to gauge student progress toward the learning objectives throughout the course. Summative assessments can serve as evidence in evaluating whether students have achieved the learning objectives. This information can then be helpful in reflecting on the effectiveness of curriculum and instruction for future courses.

Using Tools of Teaching as Research to Inform and Improve Student Engagement and Learning in the Biomedical Engineering Classroom

Jeffrey Mulligan, Electrical and Computer Engineering, Cornell University

Classroom observation, in-class assessment, student survey feedback, and student work were used to inform and improve student learning in a module within a required sophomore level Biomedical Engineering class (Biomedical Signals and Systems). This roundtable discussion will center around the use of these sources of data and the ways these were used to improve the module.

ROUNDTABLES

The Evolution of a Community College Faculty Learning Community: Development, Implementation and Reflection

Gregory Ryan, Psychology, Suffolk County Community College

The Teaching and Learning Center at the Grant Campus of Suffolk County Community College, the largest community college in New York, began a process of research and development that looked into the utility of a faculty learning community during the Spring 2015 and Summer 2015 terms. The TLC worked closely with the members of the Pedagogy Committee and the results were two fold: a draft handbook defining the purpose, relevant research, and application of the faculty learning community concept, as well as the first emerging theme for our inaugural cohort. The theme, *The Creative Classroom: Developing Your Response to Student Engagement*, was designed to introduce a small (6-12) cohort of full-time faculty members to the importance of reaching our students through components of pedagogy, diversity and technology.

Measuring Meta-Learning Interventions

Josh Walker, Faculty Innovation Center, University of Texas at Austin

I will invite and facilitate discussion around models for designing, delivering, and assessing meta-learning interventions—how instructors can help teach students to learn how to learn alongside the core areas of learning in their classrooms. Sometimes these skills and habits of mind (e.g., metacognition, growth mindset, motivation, self-regulation, goal-setting, study strategies, etc.) are intended to be developed in students through separate and special programming. Some instructors, however, also see it as within the scope of their teaching responsibility to foster the development of these meta-learning areas as well. The question arises, however, how can we know they are working?

Documenting the Development of your Teaching

David Way, Center for Teaching Excellence, Cornell University

This session is devoted to helping any higher education faculty member develop a plan to document and thereby provide evidence that measures development in teaching. Following from Carol Dweck's idea of a growth mindset, it is helpful to think in terms of four skill areas that can be improved with careful attention and time for experimentation: planning for teaching, creating effective learning experiences, assessment of student learning, and professional development.

Beyond the Traditional Lecture as Control: Alternative Methodologies for Assessing Pedagogy

Emily Elliot, Center for Teaching and Learning, University of Pennsylvania

The traditional lecture or seminar structure has long been the gold standard comparison group for evaluating novel teaching approaches, wherein outcomes in a traditional course are compared to outcomes in the same course following re-design. Though useful for assessing the impact of course reform, this methodology is limited in that a traditional equivalent of a course is not always available, or does not allow the researcher to address the most current and interesting hypotheses. Teaching strategies such as student response systems, group problem solving, flipped classrooms, and POGIL are becoming more widespread, and newly created courses that incorporate these elements do not have a traditional equivalent.

Leveraging Existing Data for Teaching as Research

Amy Godert, Learning Strategies Center, Cornell University

You don't need to go hunting for data to inform teaching and learning when so much exists already. Come discuss the many possibilities for data collection that you can use to examine more critically, inform, and improve teaching and learning.

Cornell's Active Learning Initiative

Peter LePage, Physics; Doug McKee, Economics; Abby Grace Drake, Ecology and Evolutionary Biology, Cornell University

Cornell's Active Learning Initiative started four years ago as a project to introduce modern interactive pedagogy into several courses in Physics and Biology. Measurement and analysis of the impact of the new teaching methods on learning outcomes were key components of the initiative, and the results have been impressive. This spring the College of Arts and Sciences expanded the program by making new large grants to Economics, Mathematics, Classics, Sociology, Music, and Physics. This discussion will look at the past, present, and future of Cornell's Active Learning Initiative.

Teaching Race and Ethnicity in Prison Education

Nancy Quintanilla, English Language and Literature, Cornell University

My project examines the ways in which culturally responsive pedagogy promotes academic success in prison education. When incarcerated students engage with a curriculum that acknowledges their disenfranchised experiences, they experience higher education as part of a positive racial project.

PAPER PRESENTATIONS II

Research Methods for Testing Effectiveness of Educational Software

Denise S. Pope, Center for the Integration of Research, Teaching and Learning

I will share my experiences as a researcher at SimBio, which makes simulation-based software modules for college biology, where I collaborated on the development and evaluation of new and existing modules. To develop new modules, we used iterative cycles of design, testing and observations with individual students, and revision; then releasing the modules for classroom use, analyzing student answers, and further revision. We used a variety of approaches to test module effectiveness: assessing learning gains with pre- and post-tests or conducting semi-structured interviews before and after using a module; conducting classroom observations; and analyzing how students used the software and answered questions within the software. We compared modules to other teaching methods using either multiple classes in each treatment or a split-class design where sections of the class were assigned to different treatments. We also assessed the effectiveness of specific design features by creating alternate versions of a module and randomly assigning students to each treatment.

The Teaching and Learning of Controversies in Science in an Online Setting

Kathleen Hefferon, Food Science, Cornell University

A Cornell course that covers the socio-scientific controversies surrounding the topic of genetically modified organisms (GMOs) has recently been turned into a Massive Open Online Course (MOOC). The original course had been perceived by some as presenting a biased or one-sided view of the GMO controversy. This presentation examines how the MOOC instructors addressed the issue of 'instructor bias' in preparation for the online version of the course. The presentation also describes how different discussion board formats can help to shape how student opinions regarding GMOs evolve.

Guided Discussion of Primary Literature in a Medium-Sized Biomedical Engineering Classroom

Frank He and Alexander M. Loiben, Biomedical Engineering, Cornell University

During their undergraduate careers, science majors generally lack formal training in the critical reading of journal articles. This study investigated the effectiveness of a primary-literature-focused module in promoting student engagement and learning in a STEM classroom setting.

Staying-Power in Business Ethics Education

Catherine Smith, Philosophy, Cornell University

Even as business ethics education is increasingly prioritized in business schools, studies and real-world events seem to call into question the effectiveness of business ethics classes in changing student minds and behavior. In my small-scale study, I gave former and current students of business ethics a series of open-ended questions in hopes of finding out what difference, if any, their class or training had made to them, from their own point of view.

Student Engagement with Course Content and Peers in Synchronous Online Discussions

Allison Truhlar, Biological and Environmental Engineering, Cornell University

As higher education institutions offer online courses to growing audiences, there is increasing desire to understand how best to engage students. This study examines the effects of assigning chat roles and facilitating self and group reflection on student-content and student-student interaction outcomes in synchronous online chats. Group reflections were the only intervention that had a significant effect on both outcomes. We end by exploring what is happening in the group reflections in order to improve their future implementation.

KEYNOTE PRESENTATION

Using Evidence to Transform Undergraduate Teaching

Michelle K. Smith, University of Maine

The teaching practices faculty employ play a critical role in improving student learning in college courses. Consequently, there is interest in assessing students' conceptual knowledge at multiple points throughout the undergraduate curriculum. Dr. Michelle K. Smith will present the development of assessment tools that can help faculty make instructional decisions at multiple levels, including during a single class period, throughout a course, and as a department across the entire curriculum. In addition, she will discuss how student data collected from these tools has inspired groups of faculty from several institutions to share data on student learning with one another, collaboratively develop active-learning units, and create additional assessment opportunities to learn more about student thinking.

UPCOMING OPPORTUNITIES

An Introduction to Evidence-Based Undergraduate STEM Teaching

Start date: June 12, 2017

This eight-week massive open, online course is designed to prepare aspiring faculty in STEM fields to be more effective teachers through an introduction to evidence-based STEM teaching practices.

Graduate Research and Teaching Fellows (GRTF) Program

Rolling applications accepted until August 1, 2017

The purpose of the GRTF Program is to provide graduate students considering academic positions in higher education with advanced teaching and professional development opportunities to become excellent teachers.

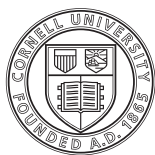
Scholarship of Teaching and Learning (SoTL) Practicum

Rolling applications accepted until September 1, 2017

We invite graduate instructors for First-Year Writing Seminars, Teaching Assistants for discussion or lab sections, and interested postdoctoral scholars with an idea for a small-scale classroom research project to apply for this supervised professional development experience.

SPONSORS

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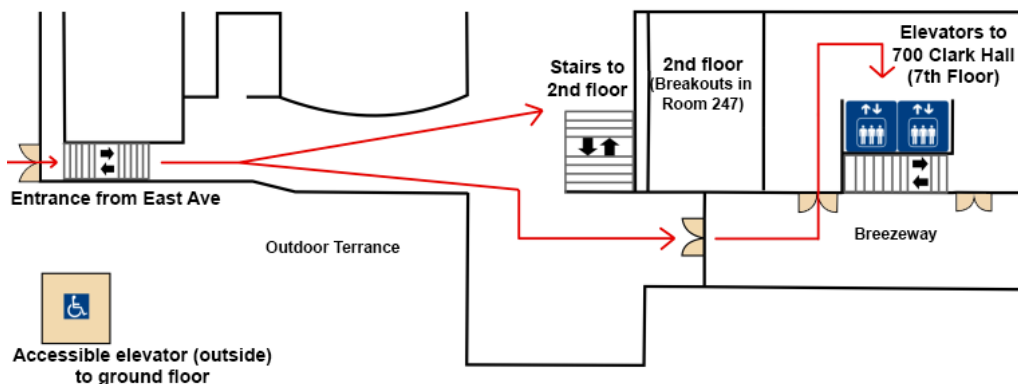
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BUILDING MAP

First floor of Physical Sciences Building (best way to get to Clark Hall)



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