

# UCLA College

## Center for Education Innovation & Learning in the Sciences (CEILS)

---

### CEILS Events

#### STEM Education Research Journal Club

**Fridays, Winter Quarter 2016**

**2:00 - 3:00 PM**

**1100 Terasaki Life Science Building (TLSB)**

CEILS members explore relevant education literature in more depth and develop greater understanding of assessment techniques and data analysis. Presenters will select a paper and lead a discussion about how education researchers have documented the relationship between effective teaching practices and their impact on student learning, knowledge retention, and persistence in STEM majors. Faculty, graduate students, and post-docs are welcome to participate! Join us on **Fridays from 2:00 – 3:00 PM** in **1100 TSLB** for these enriching discussions.

#### *Upcoming Presenters in Winter 2016:*

**January 8** | No Journal Club today

**\*January 15** | **Erin Sanders**, Assistant Adjunct Professor in MIMG, will present the following paper. Stockwell et al. 2015; Blended Learning Improves Science Education. Cell 162: 933-936.

**\*(PLEASE NOTE: This presentation will be held in 168 Hershey Hall. This is a one time only change.)**

**January 22** | No Journal Club today (due to Diversity Workshop event)

**January 29** | Heather Tienson, Lecturer in the Department of Chemistry and Biochemistry, will present the following paper. Loertscher et al. 2014; Identification of Threshold Concepts for Biochemistry. CBE-Life Sci Educ 13: 516-528.

If you need an electronic copy (PDF) of the paper or handouts for this talk, please email [media@ceils.ucla.edu](mailto:media@ceils.ucla.edu) with your request in advance of the meeting.

### *On-campus Events*

**Science in the Media by Alexis Gambis, M.F.A., Ph.D.**

*A community discussion between students, scientists, artists, writers, historians, and the public.*

For more information and to reserve your tickets please see:  
[uclascienceinthemedia.eventbrite.com](http://uclascienceinthemedia.eventbrite.com)

**Thursday, January 7, 2016**

From Neuroscience PhD to Filmmaker: A Career Perspective  
2-3p | 158 Hershey Hall

Student-Speaker Networking Reception  
3-4p | 158 Hershey Hall

**Friday, January 8, 2016**

Student-Speaker Networking Lunch  
12-1p | 158 Hershey Hall

Behind the Scenes Lecture and Q&A  
3:30-5p | LeKretz 110 (open to general public)

“The Fly Room” Film Screening, Q&A and Reception  
8-11p | James Bridges Theater (open to general public)

**Science on Screen: A Panel and Networking Event**

*Meet the scientists behind Breaking Bad, The Big Bang Theory, The Last Ship, Battlestar Galactica, and Gravity!*

**Wednesday, February 17, 2016; 6pm**

Grad students are eligible to apply for free tickets; check out the link below.

More Info: <http://scicommhub.com/science-on-screen>

**CIRTLCast Series: Assessing What Students are Learning**

- Facilitating Cooperative Work: How to Assess Active Learning Experiences  
**January 13, 2016 | 10am PT**
- Formative Assessment as a Means of Gauging Student Understanding  
**January 20, 2016 | 10am PT**
- Effective Grading: The Art of Providing Useful (and Used) Feedback  
**January 27, 2016 | 10am PT**

***Off-campus Events***

**2016 Southern California PKAL Regional Network Annual Meeting**

## *Integrating Teaching, Assessment, & Education Research to Enhance Student Learning in STEM*

**February 27, 2016**

**University of California, Irvine**

Over the past decade, STEM education reports (e.g. “Engage to Excel”, “Vision and Change”, and “Reaching Students: What Research Says about Effective Instruction in Undergraduate Science and Engineering”) have highlighted the importance of evidence-based instructional practices. This trend is further manifested in the increased emphasis by funding agencies, professional societies, and our own institutions on using assessment to improve teaching and learning. Event organizers are soliciting proposals for professional development workshops that will support meeting participants in learning about the practical aspects of conducting classroom assessment and education research. The goal of these workshops is to empower meeting participants to engage in discipline-based education research (DBER) and to increase the rigor of assessments conducted at local institutions. **Workshop proposals and poster abstracts are due December 10, 2015.** For guidelines and additional event information, please visit the [website](#).

## **Newsworthy**

### **PhET Interactive Simulations for Physics, Math, Chemistry, and Biology**

PhET simulations are open educational resources available for faculty to use. This program founded by Carl Wieman at the University of Colorado, Boulder, has grown over the past decade with additional faculty involvement and support from a team of developers to create the growing library which hosts over 100 simulations. [Click here to view an example of a simulation on molecule structure.](#) You can view the full library by visiting their website: <http://phet.colorado.edu>

### **NSF 2015 Teaching & Learning Video Showcase**

As we begin 2016, highlighted here is a showcase of 3-minute videos with online discussion that illustrate innovative work to improve science, math, engineering, and computer science education collected through a cross-center NSF event hosted in 2015. This year’s 2016 showcase theme is “broadening participation and increasing access to quality STEM and CS learning experiences” and videos will be collected through the end of April. View the video collection, learn more about this project, and consider submitting a video for the 2016 showcase here: <http://resourcecenters2015.videohall.com/>

### **Learning Assessment Techniques: A Handbook for College Faculty**

**Published by WILEY**

Elizabeth F. Barkley is the author of several widely used books on active learning in the classroom including [Student Engagement Techniques: A Handbook for College Faculty \(Jossey-Bass, 2010\)](#) and [Collaborative Learning Techniques: A Handbook for College Faculty \(Jossey-Bass, 2004\)](#) co-authored with Claire Howell Major and K. Patricia Cross. *Learning Assessment Techniques: A Handbook for*

*College Faculty*, another collaboration between Barkley and Major has just been published this January 2016 and provides 50 easy-to-implement active learning techniques that embed assessment strategies based on Fink's Taxonomy of Significant Learning to gauge student learning in the classroom. You may order directly from the [publisher](#). This title is also available from [Amazon](#) or [Barnes and Noble](#).

## **Presenting Clicker Questions with an Open-Versus Close-Response Format**

### **[Published in the JMBE](#)**

This study offers some evidence of the benefits of using open clicker questions (not revealing the multiple response options at first), specifically highlighting a positive impact on middle performing students.

**Abstract:** Active learning can improve student learning but can be more difficult to use in large classrooms. Course response systems (clickers) can be used to increase active learning and student discussion. In this study, students in a large introductory biology course were given clicker questions in different formats. Students were first presented with an open response question on a PowerPoint slide where no potential answers were visible. After peer discussion, the same question was presented with potential answers in a multiple choice format and students used their clickers to answer. For comparison, the same questions were asked in a different section of the same course but all questions were in the standard multiple choice format. The results show that C students perform better when required to create their own answer for the question. The instructor also noted that student discussions were longer, most likely because students had to discuss the biology rather than just confirming a specific answer choice. [Journal of Microbiology & Biology Education; Vol. 16, No 2; pp: 254-255]

## **Professional Development Opportunities for STEM Graduate Students & Post-docs**

### **SciComm Hub**

SciComm Hub represents an on-campus community of graduate students and post-docs across the Life and Physical Sciences who are interested in science education, outreach, and communication. This organization hosts a variety of events that are designed to help individual's improve their science communication skills. A complete program announcement can be found on the SciComm Hub [website](#). Please consider joining this growing UCLA community!

- **Announcing SciComm Slam!** This thesis-style video submission contest gives you an opportunity to talk about research and potentially win \$100. **Submission deadline for SciComm Slam is January 30, 2016.**

### **CIRTL Network**

#### **Spring 2016 Courses are Open for Registration**

CIRTL is offering four free online courses designed to reinforce pedagogical cornerstones. Visit the [website](#) for detailed descriptions of courses and instructions for how and when to register. Courses begin in January 2016.

#### **CIRTL Network Courses**

- **The College Classroom**  
*Build on your own TA experience with this seminar on evidence-based teaching*  
Meeting Dates: January 28-March 31 (Student Presentations April 4-8)  
Meeting Times: Thursdays at 9:30-10:50am PT
- **Research Mentor Training**  
*Learn new tools for being an effective, insightful mentor for STEM students*  
Meeting Dates: January 28-April 7 (no session March 10)  
Meeting Times: Thursdays at 11am-12pm PT
- **Teaching-as-Research**  
*Develop a Teaching-As-Research project, to be implemented later in 2016*  
Meeting Dates: January 25-April 25  
Meeting Times: Mondays at 10am-12pm PT

### **CIRTL MOOC (New!)**

- **Advancing Learning through Evidence-Based STEM Teaching**  
*Join our MOOC and learn about evidence-based STEM teaching at your own pace*  
Open for registration in Early 2016.

## **Job Opportunities in STEM**

[Part-time Lecturer Position in Microbiology, Immunology, and Molecular Genetics](#)

**University of California Los Angeles**

In the Department of Microbiology, Immunology, and Molecular Genetics

Application Deadline: January 15, 2016

[please click on [link](#) and see attached job description with application instructions]

[Two Open-rank Tenure-track Positions in Mathematics Education and Science Education](#)

**University of Utah**

In the College of Education in collaboration with the College of Science

Application Deadline: Open Until Filled

[please click on [link](#) and see attached job description with application instructions]

[Academic Assessment Principal Analyst](#)

**UC-San Diego**

In the Center for Engaged Teaching (CET)

Application Review Starting: December 10, 2015 | Open Until Filled

[please click on [link](#) and see attached job description with application instructions]

[Full-time Tenure-track Science Education Faculty Position](#)

**Washington State University Spokane**

In the WSU Health Science STEM Education Research Center

Application Review Starting: December 14, 2015 | Open Until Filled

[please click on [link](#) and see attached job description with application instructions]

[Full-time Tenure-track Position as Associate Director for Learning Sciences](#)

## Kennesaw State University

In the Center for Excellence in Teaching & Learning (CETL)

Application Deadline: February 1, 2016

[please click on [link](#) and see attached job description with application instructions]

[Postdoctoral Science Education Fellow in Physics](#)

## University of California, Santa Cruz

Application Deadline: January 19, 2016

[please click on [link](#) and see attached job description with application instructions]

[Program Assessment Analyst](#)

## University of Maryland, College Park

In the Learning Transformation Center (TLTC) and Office of Institutional Research, Planning, and Assessment (IRPA)

Application Deadline February 8, 2016

[please click on [link](#) and see attached job description with application instructions]

**For more information about CEILS events and resources, including a list of STEM education events from previous mailers, please visit the CEILS website at [www.ceils.ucla.edu](http://www.ceils.ucla.edu) or stop by the CEILS office in Hershey Hall Room 126.**

**If you wish to be added to the CEILS mailing list, please send your request to [media@ceils.ucla.edu](mailto:media@ceils.ucla.edu). Thanks!**