CEILS *Newsletter*

Center for Education Innovation & Learning in the Sciences | **UCLA**
Bi-Monthly Newsletter | **February 19, 2016**

Visit our website www.ceils.ucla.edu for more detailed information about CEILS and upcoming news and events.

Upcoming Events

CEILS Journal Club for STEM Education Research

Fridays from 2:00 – 3:00 PM in **1100 Terasaki Life Sciences Bldg.**
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!

Upcoming Presenters in Winter 2016:

- **February 19, 2016 |** No meeting today
- **February 26, 2016 | Azad Hossain,** Assistant Project Scientist with HHMI Professor Tracy Johnson in MCDB, will present the following paper: *Measuring Networking as an Outcome Variable in Undergraduate Research Experiences.* *CBE-Life Sci. Educ. 14:1-10*
- **March 4, 2016 | Kristin McCully,** Teaching Fellow for the Life Sciences Core Education Department, will present this week (paper/topic TBD).

Transformative Teaching – A Virtual Event

February 26, 2016 | 8a – 12p PST
Join sessions from leading academics and students to hear how digital tools are transforming teaching and learning experiences from across the country.

8a – 9a | Inside the Minds of Students: Data Driven Teaching and Learning
9a – 10a | Student Panel: How Digital Shapes Their Potential
10a – 11a | Foundations of Student Success: How Today's Students are Different and Why It Matters
11a – 12p | Teaching and Learning with Digital Tools: How to Overcome Challenges and Engage Students Outside of Class

Register to attend any of these events here.

8th Conference on Understanding Interventions

February 26-28, 2016 | **Philadelphia, Pennsylvania**
This conference was established to facilitate dissemination and exchange of hypothesis-based research on interventions and initiatives that broaden participation in science and engineering research careers. The conference is designed to create a dialogue among behavioral/social science and education researchers, evaluators, and faculty in STEM (science, technology, engineering, and mathematics) fields who participate in intervention programs.

Visit the conference website to learn more.

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. **Registration deadline is February 22, 2016**. For guidelines and additional event information, please visit the website.

2016 PKAL Summer Leadership Institute for STEM Faculty

July 12, 2016 to July 31, 2016 | Adamstown, MD
The PKAL Summer Leadership Institute is designed for both early and mid-career STEM faculty engaged in leading projects aimed at transforming undergraduate STEM education in their classrooms, departments, and institutions. The five-day intensive Institute provides faculty participants with the theory and practice required to effectively manage the politics of such change and contribute to the national STEM higher education reform effort. **Application Deadline: February 24, 2016**.

Institute I: July 12 – July 17, 2016
Institute II: July 19 – July 24, 2016
Institute III: July 26 – July 31, 2016

2016 National Academies Special Topics Summer Institute on Quantitative Biology

The Quantitative Undergraduate Biology Education and Synthesis (QUBES) project is now accepting applications from individuals and teams to the Summer Institute. Participants from all STEM fields are welcome.

The goals are the workshop are to:

- Develop supportive communities of colleagues
- Increase awareness of resources and methods for teaching quantitative biology
- Share materials and experiences with other participants and the broader faculty community

The institute will be from June 19-24, 2016 and take place at North Carolina State University in Raleigh. Applications for the workshop are now open and be accepted until **March 28, 2016** and applicants will be notified regarding their status of their application by April 4. Apply Now!

Transforming Undergraduate STEM Education: Implications for 21st Century Society

A Network for Academic Renewal Conference
November 3-5, 2016
Boston, Massachusetts
Proposals Due Thursday, March 24, 2016

The Association of American Colleges and Universities (AAC&U) and Project Kaleidoscope (PKAL) invite proposals for concurrent sessions and poster presentations at the 2016 conference *Transforming Undergraduate STEM Education: Implications for 21st Century Society*. **Please note that all session presenters are responsible for conference registration fees, travel, and hotel expenses.** Presentation times range from Friday, November 4th at 8:00 a.m. through Saturday, November 5 at 12:00 p.m., and presenters are expected to be available at the time they are scheduled by the conference organizers. Proposals that showcase evidence-based practices related to any of the themes below, and that are poised for immediate uptake and adaptation in a wide range of institution types, including community colleges and minority serving institutions are strongly encouraged.

Newsworthy

NIBLSE: A Network for Integrating Bioinformatics into Life Sciences Education

CBE Life Sciences Education
This article provides information on the Network for Integrating Bioinformatics into Life

Sciences Education (NIBLSE; pronounced “nibbles”) and their efforts to establish bioinformatics as an essential component of undergraduate life sciences education by creating a network of investigators to articulate a shared vision about how best to integrate bioinformatics into life sciences curricula. The initial networking effort in April 2014 convened 26 biology and computer science faculty from diverse institutions and professionals from the private sector to explore core issues related to the long-term. In particular, the conference focused on how best to facilitate effective communication and enhance opportunities for collaboration by discussing current challenges and potential next steps for the 1) integration of bioinformatics into life sciences curricula; 2) assessment of bioinformatics educational resources; and 3) professional development of life sciences educators.

Males Under-Estimate Academic Performance of Their Female Peers in Undergraduate Biology Classrooms, Grunspan et. al.

Published in Plous One

Women who start college in one of the natural or physical sciences leave in greater proportions than their male peers. The reasons for this difference are complex, and one possible contributing factor is the social environment women experience in the classroom. Using social network analysis, this research study explores how gender influences the confidence that college-level biology students have in each other’s mastery of biology. Results reveal that males are more likely than females to be named by peers as being knowledgeable about the course content. This effect increases as the term progresses, and persists even after controlling for class performance and outspokenness. The bias in nominations is specifically due to males over-nominating their male peers relative to their performance. The over-nomination of male peers is commensurate with an overestimation of male grades by 0.57 points on a 4 point grade scale, indicating a strong male bias among males when assessing their classmates. Females, in contrast, nominated equitably based on student performance rather than gender, suggesting they lacked gender biases in filling out these surveys. These trends persist across eleven surveys taken in three different iterations of the same Biology course. In every class, the most renowned students are always male. This favoring of males by peers could influence student self-confidence, and thus persistence in this STEM discipline.

Updated: U.S. House passes controversial bill on NSF research

Published in Science

The controversial Scientific Research in the National Interest Act (HR 3293) was passed by the House of Representatives on February 10th. Some consider this a simple reminder that federal dollars should be spent wisely, while others view it as an unwise and unwarranted intrusion into NSF’s grant funding process.

Professional Development: STEM Grad Students & Post-Docs

Biomedical & Life Science Graduate Student Professional Development Workshops – Winter 2016

RSVP for any of these events at http://www.uclagradprofdev.eventbrite.com

2/23 - Biomedical and Life Sciences Professional Development Half Day Conference
Featured speaker: Toby Freedman (1:15p – 6:30p | CNSI Auditorium)

CIRTLCast Series: March Theme: Creating an Inclusive STEM Research Environment

Online weekly events | 10am Pacific time

2/24 – Getting the STEM Classroom Right: Engaging Undergraduate Students with Experiential Learning

3/2 – No session.

3/9 – Creating an Inclusive Research Environment – Overview

3/16 – Creating Inclusive STEM Research Labs in Engineering

3/23 – Creating Inclusive STEM Research Labs in Biology

3/30 – Creating Inclusive STEM Research Labs in Chemistry

2016 ASM Biology Scholars Program

Applications are now being accepted for the 2016 Biology Scholars Program. Applicants may choose from three hybrid courses, all geared toward improving student learning:

- Assessment Course: Measuring Student Learning
- Education Research Course: Discipline-Based Education Research
- Writing and Publishing Course: From Science Education Research to Publication

In each course, accepted participants will attend webinars and complete online assignments from March through July. The experience is completed after Scholars meet face-to-face at workshops held July 19-20 in North Bethesda, Maryland. The deadline for applications is **March 1, 2016**: Apply Now!

For more information about selection criteria, eligibility and other general program questions, please contact biologyscholars@asmusa.org.

Job Opportunities in STEM

Ecology Education Program Leader at the Cary Institute
Application Deadline: Position is open until at least February 19, 2016 or until filled
► http://www.caryinstitute.org/who-we-are/jobs

***Assistant Professor Position* in Biochemistry and Molecular Biology**
Application Deadline: February 19, 2016
► http://jobs.sciencecareers.org/job/393477/assistant-professor-biochemistry-and-molecular-biology/

***Senior Lecturer Position(s) in Biology* at the College of Arts and Sciences, University of Washington**

Application Review Begins: March 1, 2016; Open Until Filled
► http://ap.washington.edu/ahr/academic-jobs/position/aa16618/

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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 or stop by the CEILS office in Hershey Hall (Rooms 122 & 126). If you wish to be added to the CEILS mailing list, please send your request to media@ceils.ucla.edu. Thanks!