



AAU Undergraduate STEM Education Initiative
Effective STEM Education:
The Role of the Academic Department and Department Chair
October 14 - 16, 2018

Location: Surf and Sand Resort, 1555 South Coast Highway, Laguna Beach, CA 92651

SUNDAY, October 14

3:00 – 4:00 p.m.
Pelican Room

Registration

4:00 – 4:30 p.m.
Pelican Room

Welcome and Introductions

Brief history and current status of the AAU Undergraduate STEM Education Initiative

- **Tobin Smith**, Vice President for Policy, Association of American Universities
- **Emily Miller**, Associate Vice President for Policy, Association of American Universities

4:30 – 5:45 p.m.
Pelican Room

Advancing a Culture of Teaching at Research Universities

The Active Learning Initiative at Cornell University has scaled university-wide and is supporting departments to improve the effectiveness of introductory courses. Learn how Cornell is actively engaging the departments and advancing efforts to achieve its educational mission.

- **Peter Lepage**, Goldwin Smith Professor of Physics, Cornell University

6:00 – 7:30 p.m.
Catalina Terrace

Networking Dinner

MONDAY, October 15

8:30 – 9:00 a.m.
Foyer of the Pelican Room

Breakfast

9:00 – 10:30 a.m.
Pelican Room

Creating Inclusive and Welcoming Classroom Environments

Teaching strategies that emphasize structured active learning can create more equitable classrooms and improve learning for all students. Department chairs will engage in active learning exercises and case studies that model inclusive techniques and elicit equity in the classroom.

- **Viji Sathy**, Teaching Associate Professor, Department of Psychology and Neuroscience, University of North Carolina at Chapel Hill
- **Kelly Hogan**, Assistant Dean, Office of Instructional Innovation and STEM Teaching Professor, Department of Biology, University of North Carolina at Chapel Hill

10:30 – 10:45 a.m.

Break

10:45 a.m. – 12:00 p.m.

Pelican Room

Data to Inform and Assess Curricular Innovations

Learn about analytic tools and dashboards to inform and assess department and institutional improvement as it relates to undergraduate education. Discuss with department chairs what data and information are important to make actionable decisions about introductory STEM courses.

- **Marco Molinaro**, Assistant Vice Provost for Educational Effectiveness, University of California, Davis
- **Brian Sato**, Interim Associate Dean for the Division of Teaching Excellence and Innovation, University of California, Irvine
- **Ray Vadnais**, Senior User Experience Architect, Office of Information Technology, University of California, Irvine

12:00 – 1:30 p.m.

Catalina Terrace

Lunch

1:30 – 3:00 p.m.

Pelican Room

Practices to Value, Evaluate, and Reward Teaching Effectiveness

Universities are using various strategies to create an environment where the continuous improvement of teaching is valued, assessed, and rewarded at various stages of a faculty member's career and aligned across the department, college, and university levels. AAU will showcase an emerging matrix that highlights university efforts to improve policy and practices related to the evaluation of faculty work and showcase two illustrative projects in this space.

- **Andrea Follmer Greenhoot**, Director and Gaunt Teaching Scholar, Center for Teaching Excellence and Professor, Department of Psychology, The University of Kansas
- **Emily Miller**, Associate Vice President for Policy, Association of American Universities

3:00 – 3:15 p.m.

Pelican Room

Reflective Discussions by Academic Departments

AAU will provide instructions and logistics for the department small group discussions.

3:15 – 3:30 p.m.

Ice Cream Sundae Break and Move to Small Group Discussion Location

3:30 – 4:30 p.m.

Various Locations

Reflective Discussions by Academic Departments and “Just-in-Time” Poster Creation

In small discipline-based groups, participants will discuss with colleagues how their departments are considering and/or implementing critical strategies to improve undergraduate STEM education. Groups will create a just-in-time poster that summarizes the key points of their discussion.

4:30 – 5:00 p.m.

Pelican Room

Flash Presentations of “Just-in-Time” Posters

The spokesperson from each group will give a three-minute flash presentation of their just-in-time poster.

5:00 – 5:45 p.m.

Pelican Room

A Dialogue with College Deans

Alignment of leadership across the university is necessary to overcome the inherent obstacles to systemic and sustainable change in undergraduate STEM education. Participants will engage in a discussion on how to align and situate department goals within the priorities of the college and the university.

Moderator: **Tobin Smith**, Vice President for Policy, Association of American Universities

Panelists: **Elise Covic**, Deputy Dean, The College, The University of Chicago
Michael Branicky, Professor, Department of Electrical Engineering and Computer Science and Former Dean of Engineering, The University of Kansas -
Participating Virtually

MONDAY, October 15

6:00 – 7:30 p.m.

Dinner

Ocean Terrace

TUESDAY, October 16

8:00 – 8:30 a.m.

Breakfast

Foyer of the Pelican Room

8:30 – 10:00 a.m.

Pelican Room

Productive Partnerships between Academic Departments and Centers for Teaching and Learning

Sustainable improvements to undergraduate STEM education occur with department engagement and ownership. Productive partnerships with teaching and learning centers can provide the scaffolding to faculty members in departments to advance curricular innovations, assess impact, and document department successes. Learn how two centers are successfully working in collaboration with academic departments.

Moderator: **Emily Miller**, Associate Vice President for Policy, Association of American Universities

Panelists: **Erin Sanders O’Leary**, Director, Center for Education Innovation and Learning in the Sciences, University of California, Los Angeles

Matthew Kaplan, Director, Center for Research on Learning and Teaching, University of Michigan - *Participating Virtually*

10:00 – 10:15 a.m.

Closing Comments

- **Tobin Smith**, Vice President for Policy, Association of American Universities

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