



**AAU Undergraduate STEM Education Initiative
Virtual Workshop**

**Effective STEM Education:
The Role of the Academic Department and Department Chair**
January 25-26, 2021

Eastern Standard Time Agenda

MONDAY, January 25

1:00 – 1:05 p.m.

Welcome & Orientation to the Virtual Workshop

[Emily Miller](#), Deputy Vice President for Policy, AAU
[Tara King](#), Higher Education Project Manager, AAU

1:05 – 1:35 p.m.

Live Polling

This session aims to surface issues department chairs are confronting. The moderators will pose a short series of questions and workshop participants will, using real-time polling technology, provide brief responses that may be discussed further in breakout rooms.

Moderator: [Tobin Smith](#), Vice President for Policy, AAU

1:35 – 2:05 p.m.

STEM Disciplinary Breakout Rooms

Workshop participants will join virtual breakout rooms by common disciplinary area to introduce themselves, talk with one another, and reflect on issues raised by the live polling session.

2:05 – 2:15 p.m.

Introduction to Session Topics & Connections with AAU Work

The topics and facilitators of the remaining interactive workshop sessions will be introduced, and active projects of the AAU Undergraduate STEM Education Initiative related to these topics will be highlighted.

Presenter: [Emily Miller](#), Deputy Vice President for Policy, AAU

MONDAY, January 25

2:15 – 3:30 p.m.

Facilitating Change by Partnering with Departments: The DeLTA Project

The [DeLTA project](#) pursues transformative shifts in institutional policies and practices about undergraduate education by partnering with STEM departments and department chairs. DeLTA collaborates with STEM departments to support the structural shifts needed for new commitments in undergraduate education, such as using evidence to make teaching decisions. This working session will examine DeLTA's approach and process using department-level teaching evaluation as the example.

Facilitators: [Paula Lemons](#), Professor, Department of Biochemistry and Molecular Biology and [SEER Center](#) Director, University of Georgia
[Tessa Andrews](#), Associate Professor, Department of Genetics, University of Georgia

3:30 – 3:45 p.m.

BREAK

3:45 – 5:00 p.m.

STEM Course-level Interventions for Equity

In higher education—and especially in STEM disciplines—women, first-generation college students, and students belonging to certain racial or ethnic groups exhibit greater attrition than do their peers, a gap that continues throughout the professions. Some explanations for this phenomenon relate to student preparation or academic abilities, which is collectively known as the *student deficit model*. Dr. Cotner and colleagues have proposed the *course deficit model*, whereby instructional decisions exacerbate or minimize gaps in performance, participation, and retention. This session will introduce and provide evidence in support of the course deficit model. Key to the discussion will be take-home messages that emerge for instructors; critically, many of them are easy to implement. Further, in this interactive discussion, several in-class assessment techniques that are designed to lower barriers to participation will be identified and used.

Facilitator: [Sehoya Cotner](#), Associate Professor, Department of Biology Teaching and Learning, University of Minnesota

TUESDAY, January 26

12:00 – 12:05 p.m.

Welcome & Overview of Day 2

[Emily Miller](#), Deputy Vice President for Policy, AAU

12:05 – 1:15 p.m.

Diversity, Equity, and Inclusion in STEM

STEM fields tend to lack diversity, with underrepresented groups (women, people of color, LGBTQ+ individuals) often facing challenges and leaving these fields at higher rates than majority groups. The less diverse a field, the greater the reliance on stereotypes and implicit biases, which in turn disproportionately impacts marginalized groups. In light of recent events and the current moment of racial reckoning in society, this session will also examine the topic of systemic racism, which exists within the larger system of implicit biases and stereotypes prevalent in our society and in academia. This session will provide insights and guidelines on advancing diversity, equity, and inclusion in STEM, and what we can do to promote systemic change and a more inclusive and equitable work environment.

Facilitator: [Kuheli Dutt](#), Assistant Director for Academic Affairs & Diversity, Lamont-Doherty Earth Observatory, The Earth Institute, Columbia University

1:15 – 1:30 p.m.

BREAK

1:30 – 3:00 p.m.

Transforming the Evaluation of Teaching

During this session participants will discover how the University of Oregon is working toward alignment in how they define, develop, evaluate, and reward teaching excellence, as well as the elements of the university's new continuous improvement and evaluation of teaching system. During breakout room discussions, teams will consider how well student feedback, peer review, and other elements of teaching evaluation are working, and what next steps are needed to create positive change.

Facilitator: [Sierra Dawson](#), Associate Vice Provost for Academic Affairs, University of Oregon

3:00 – 3:25 p.m.

Department Demonstration Projects – Teaching Evaluation

Learn and provide feedback on a possible new program aimed at supporting departments to develop and demonstrate a better system to evaluate teaching.

Moderator: [Tobin Smith](#), Vice President for Policy, AAU

Remarks: [Carl Wieman](#), Cheriton Family Professor and Professor of Physics and of Education, Stanford University
[Peter Lepage](#), Tisch Family Distinguished University Professor of Physics, Cornell University

3:25 – 3:30 p.m.

Closing Remarks

[Emily Miller](#), Deputy Vice President for Policy, AAU