National Academies of Sciences, Engineering, and Medicine Report Implementation

Workshop Syllabus

Workshop Leaders

- Cassandra Volpe Horii, Associate Vice Provost for Education and Director of the Center for Teaching and Learning, Stanford University
- Tracie Addy, Founding Director, Center for Teaching, Innovation, and Inclusive Pedagogy, Rutgers University, New Brunswick
- Michael Dennin, Vice Provost for Teaching & Learning and Dean of the Division of Undergraduate Education, University of California, Irvine

Goals: Participants will gain...

1. deeper understanding of the NASEM consensus study
2. enhanced clarity about equity- and evidence-based instructional practices at their institutions
3. develop strategies to align and maximize STEM education improvement efforts.

Suggested Pre-work: Teams will...

- review the National Academies Report and other salient literature.
- will identify existing efforts at their institution to 1) improve UG STEM instruction and courses, 2) value and support instructors, 3) measure and advance systems change
- will identify the range of collaborators available to support and advance new initiatives, including, for example, the CTL, institution assessment/analytics and other support units

Principal Workshop Activities: Through a series of interactive sessions, participants will...

- map existing efforts to the NASEM principles/recommendations, identify strengths/challenges
- align collaborators' effort to STEM education improvement priorities
- explore ways to gauge the contextual risks, barriers, and costs of potential initiatives
- develop short-&-long-term strategy that build strengths and addresses challenges in contexts

Essential Literature

- *Equitable and Effective Teaching in Undergraduate STEM Education: A Framework for Institutions, Educators, and Disciplines* (NASEM 2025).
- Michael S. Palmer and Judith A. Giering (2023), [Characterizing Pedagogical Innovation in Higher Education | Innovative Higher Education](#) (*Innovative Higher Education*).
- Mary C. Wright (2023), *Centers for Teaching and Learning* (Hopkins Press).