



March 15–19, 2026

San Diego Convention Center
and Hilton San Diego Bayfront
San Diego, California, USA

#TMSAnnualMeeting

SUBMIT AN ABSTRACT FOR THE FOLLOWING SYMPOSIUM

SPECIAL TOPICS

Stuff Your Students Should Know: Reflections on How We Do—and Don't—Train Our Students

Regardless of where a materials career will eventually lead—academia, national labs, industry, or funding and regulatory agencies—everyone starts their career as a student. Learning experiences can be varied: despite mentors' best intentions, students often graduate without some of the key skills, knowledge, or perspectives that they need to thrive in the next stage of their careers. This symposium is intended to serve as a forum to reflect on the formal and informal ways we train students in materials science & engineering—both the successes and where those efforts fall short.

This symposium welcomes contributions that explore the breadth of materials science & engineering education but focus on the key ideas of what students should know—at the undergraduate, graduate, and professional levels—how we train them—in the classroom and in the laboratory—and how we, as a field, can better prepare students for an evolving workplace.

Suggested topics include (but are not limited to):

- Essential skill and knowledge gaps—especially for industry and governmental jobs.
- Hidden curricula: knowledge and skills which tend to be taught implicitly (or students are assumed to already know).
- Approaches to teaching and mentorship: Successes, failures, and lessons learned, at the individual, course, and departmental scales.
- Teaching the next buzzword: Strategies for incorporating additive manufacturing, artificial intelligence/machine learning, and the next hot topic into curricula at the onset of relevancy.
- Preparing students for non-technical challenges: scientific ethics, professional communication, job searching, finding a mentor, etc.

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