

2010
MRS



FALL
MEETING

Boston, MA • November 29–December 3

CALL FOR PAPERS

Abstract Deadline: June 22, 2010

REMINDER:
In fairness to all potential authors,
late abstracts will not be accepted.

www.mrs.org/fall2010

MRS Symposium XX: Materials Education Development and Outreach—From K-Grad

Materials education and outreach programs have multiple points of contact with the general public, and with students in and outside the profession. Recent activities within the U. S. (e.g., Materials Education workshops hosted by NSF) suggest the need for broad dissemination of ideas to the general MRS community. Community partnerships with Informal Science Education organizations (particularly focused on nanomaterials and nanoscale phenomena), targeting children to adults, take place in a broad range of venues, from museums to nontraditional forums, like coffee houses, and include public media like radio, podcasts, and video. Alliances with K-12 schools is a primary area of interest for many materials educators, and successful programs that reach diverse student populations need to be shared among the community. Teaching materials information within the undergraduate Materials Science and Engineering curriculum (i.e., the Engineer of 2020), and bringing materials concepts to other engineering and STEM disciplines, remains a challenge. Presentations focused on course development that couple programs with assessment are encouraged. Finally, the strengths of materials education at the graduate level are in many of the interdisciplinary areas targeted by research covered in the MRS community. Presentations that focus on course and curricula that help define what it means to be a “Materials” graduate student are encouraged.

The goal of this symposium is to encourage the active exchange of successful programs among education specialists at all levels and active researchers in the materials community. The symposium will consist of traditional talks, panel sessions, and an interactive poster and demonstration session. In particular, several sessions will target tools and best practices for researchers interested in adding educational components for career development.

Session topics will include:

- The role of computational materials science in undergraduate MSE curricula
- Freshman-level MSE courses and undergraduate research as recruiting and retention tools
- Defining a graduate-level core curriculum in North America
- Best practices in materials camps for middle and high school educators
- The need for public engagement in dialogs about the directions, costs, benefits, and uncertainties of nanotechnology
- Undergraduate programs in nanoscale science and technology—courses, majors/minors, and workshops
- Course development for nontraditional systems, such as the materials/biological sciences interface
- Worldwide materials educational developments at both the undergraduate and graduate levels

Invited speakers include:

Brian Augustine (James Madison Univ.), **Daryl Butt** (Boise State Univ.), **Nancy Healy** (Georgia Inst. of Technology), **Richard LeSar** (Iowa State Univ.), **Scott Perry** (Univ. of Florida), **Lyle Schwartz** (ASM Foundation), and **Ralph Spolenak** (ETH Zurich, Switzerland).

Symposium Organizers

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