

## CHARACTERISTICS OF EXCELLENCE IN UNDERGRADUATE RESEARCH: A FRAMEWORK FOR BEST PRACTICES

"Characteristics of Excellence in Undergraduate Research" (COEUR), developed by the Council on Undergraduate Research (CUR), is a summary of best practices that support and sustain highly effective undergraduate research environments at all types of institutions. COEUR is organized in sections that correspond to various functions or units of a typical college or university campus. Linda Blockus, director of the office of undergraduate research at the University of Missouri, discussed the different sections and some examples of how COEUR can be used.

Many institutions are working to formalize undergraduate research programs, she said, because data show that the undergraduate research experience is a high impact educational practice. The COEUR summary provides a framework for institutions and programs to discuss and self-evaluate the extent to which their environment supports this practice. It's meant to be a summary of best practices and a framework for discussion, Blockus explained.

The COEUR tool has 12 sections:

1. Campus mission and culture
2. Administrative support
3. Research infrastructure
4. Professional development opportunities
5. Recognition
6. External funding
7. Dissemination
8. Student-centered issues
9. Curriculum
10. Summer research program
11. Assessment activities
12. Strategic planning

Blockus described some of these points in more detail, emphasizing the need for resources and community support for both students and faculty involved in undergraduate research. Peer-to-peer interactions can maximize the research experience for students, she said. CUR believes that a summer research program is essential to maintaining a strong undergraduate research institutional culture and community and therefore is included in COEUR. The guidelines also emphasize that undergraduate research should be accessible to all students.

"Our feeling is that these 12 characteristics work together to create an environment that can be excellent for undergraduate research on a campus or in a program, whatever your locus might be," she said. The COEUR guidelines are not meant to be prescriptive. Blockus offered an example of a colleague who used the document to get funding for undergraduate research ambassadors. Others use it as a checklist for grant proposals.

A new annual award, the CUR Campus-wide Award for Undergraduate Research Accomplishments (AURA), recognizes higher-education institutions that have both

successfully implemented some of the characteristics of excellence and have devised exemplary programs to provide high-quality research experiences to undergraduates. The depth and breadth of the institutional commitment to undergraduate research as well as the innovative nature of a sustained, exemplary program are important criteria for award selection.

Blockus gave attendees time to discuss their own programs in small groups and addressed several questions. She also mentioned the Council of Undergraduate Research consulting program, which can do campus-wide or department-wide evaluations and consultation of undergraduate research programs.