

**2006-339: NATIONAL RESOURCE CENTER FOR MATERIALS TECHNOLOGY  
EDUCATION**

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## session number 1526

The National Science Foundation has recently funded a project at Edmonds Community College that will create a National Resource Center for Materials Technology Education. The objective of this project is to develop a clearinghouse of teaching materials for the broad field of materials technology. All materials considered for this Resource Center will be peer reviewed and the focus will be on innovative approaches to curriculum. The Resource Center is supported by a series of college and university faculty collaborators across the U.S. and of the ASM Materials Education Foundation. These include nine community college and three technology college partners as listed in Table 1.

**Table 1. Resource Center Partners**

### **Community College**

- Cerritos College, Norwalk, CA
- Connecticut College of Technology, Hartford, CT
- Cuyahoga Community College, Cleveland, OH
- Gadsden State Community College, Gadsden, AL
- McHenry Country College, Crystal Lake, IL
- Metropolitan Community Colleges, Kansas City, MO
- South Piedmont Community College, Polkton, NC
- Tidewater Community College, Virginia Beach, VA
- University of New Mexico Los Alamos, Los Alamos, NM

### **Technology College**

- Central Washington University, Ellensburg, WA
- Kettering University, Flint, MI
- Wentworth Institute of Technology, Boston, MA

Specific Resource Center goals are:

1. To develop a set of core competencies in the area of materials technology to define the materials-related skills a technician needs in today's advanced manufacturing environment;
2. To provide faculty with easy and direct access to available curriculum that will allow them to introduce the required competency-related concepts of materials technology into their manufacturing and engineering technology courses
3. To provide mentoring and professional development for faculty members to assist them to better teach the basic subjects of materials technology to their students.
4. To provide the communication systems and web-based resources needed to create a community of users to disseminate and sustain the Resource Center activities

During the first year of the program, July 2005-June 2006, work has begun on goals 1, 2, and 4. Goal 3, mentoring and professional development are slated to begin in the second year of the program.

Core competency focus group meetings have been held in Los Angeles, Seattle, Detroit, and Cleveland. A draft core competency report will be issued in January 2006 and reviewed by

center partners and industry. These competencies will be then used in the curriculum collection and categorization goal as described below.

Curriculum collection and categorization was initiated early in the first year of the program to identify curriculum to support the materials technology core competencies developed by the focus groups. For each core competency, curriculum will be identified as: available as is, available but needs modification, or not available and requires development. Curriculum modification and development will be conducted in years 2 and 3.

Annual partner meetings will be held with the first meeting in April 2006 at Edmonds Community College. To disseminate Center resources to the materials technology profession, an annual Proven Practices and Annual Update Conference will be held in conjunction with the MS&T and NEW annual conferences. The first conference will be held in October 2006 at Cincinnati, OH. Topics at the Proven Practices and Annual Update Conference will include:

- Proven practices discussions, publications
- Curriculum training
- Mentor training
- Industry feedback
- Communication and networking

The center invites faculty to submit curricula for inclusion in the Resource Center. This may include modules, demonstrations, experiments or other curricular materials. Reviewers will also be needed. Communication is via the Center web site, [www.materialseducation.org](http://www.materialseducation.org).

This project is sponsored by the National Science Foundation's Advanced Technology Education Program under Award No. 0501475. Further information will be available on our web site, [www.materialseducation.org](http://www.materialseducation.org), as the Center program is developed.