Title: Implementing Problem-Based Teaching and Learning in the Classroom

Date/Time: Monday, July 28, 1:00 PM – 4:30 PM

Location: Renaissance Austin Hotel **Cost:** $80

Description: Reforming any educational practice requires that dialogue translate into action. Therefore, this workshop will focus on the components of problem-based teaching and learning in order to effect pedagogical transformation. Participants will learn how to define the problem and will then proceed through the workshop in a challenge-based or learning cycle fashion, identifying resources and collecting/sharing insights (modeling employability skills) that will help them develop solutions that will also function as models for further independent development in their own classrooms. Participants of this workshop will leave armed with information about relevant processes/tools, knowledge, and skills necessary to continue/implement such change within their institution.

The Boston Area Advanced Technological Education Connections (BATEC) is a National Science Foundation (NSF) funded Regional Center for Information Technology (IT). One of its goals is to provide curriculum and professional development for relevant, standards-based programs that are regionally connected, advanced in content and pedagogy, and industry-linked in a way that models the reality of the workplace and 21st Century careers.

A curriculum has traditionally been developed by individual professors with a content focus. This traditional model is no longer adequate if IT programs are to meet industry needs and capture the attention of 21st Century learners. Working with the Center for Innovation in Technological Education (CITE) in Nashville, TN, BATEC has used cognitive theory developed by John Bransford that clearly supports the idea that learners build on prior knowledge. BATEC's successfully implemented curriculum development model mirrors a change management process that will be mirrored in this workshop. BATEC has made significant progress using this systematized process with educators to innovate and modify curriculum that closely aligns with industry skills while employing innovative teaching methodologies that explicitly integrate analytical and employability skills to develop student competence in broader workplace knowledge and capabilities.

Presenters:

Deborah Boisvert is the Principal Investigator for the Boston Area Advanced Technological Education Connections (BATEC), a NSF-funded center that is creating a coordinated regional IT education system, spanning area secondary schools, community colleges, and UMass Boston. Ms. Boisvert is also the Co-Principal Investigator of the Commonwealth Alliance for IT Education for the NSF Broadening Participation in Computing Programs. She has extensive experience in developing and implementing educational programs for secondary school, community college, and university faculty that advance the educational and

professional objectives of area students, current workers, and community residents. Her work across business, industry, and community has provided her with a broad-level perspective on regional planning for education and workforce development. Ms. Boisvert has served as a member of the Massachusetts Network Communications Council's Workforce Development Committee and was honored as their Workforce Development Leader of the Year in 2006. She serves on the Massachusetts High School Reform Taskforce, the Massachusetts K-12 Technology Standards Revision Team, the Board of Higher Education's Transfer Task Force, and the ACM SIGITE Education Board.

David McNeel is Director of the Center for Innovation in Technological Education (CITE), an ATE center of excellence located at Nashville State Technical Community College (NSCC). In addition to assuming the role of PI on the Center's initial regional center grant in 2004, he has also served as PI and Co-PI on grants for Synergy 2004, 2006 and 2008, as well as NSCC's current large-scale materials development grant, "Innovation in Teaching and Learning" and NWCET's National Resource Center grant for development of an alternative model for resource clearinghouses. David's extensive background in business includes over 20 years in management positions in IT development and implementation at GE Network Services, Willis North America and Agency Records Control. He has also served as an Instructor of Mathematics at the University of the South and a Teaching Fellow in Mathematics at Vanderbilt University. David holds a B.S. in Mathematics from Rhodes College and earned his M.S. (ABD) in Applied Mathematics at Vanderbilt University.