



SC ATE *Briefs*

SC Advanced Technological Education (SC ATE) Center of Excellence
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SC ATE Takes Stock of Proposed TAC of ABET Engineering Technology General Criteria 2000

The Technology Accreditation Commission (TAC) of the Accreditation Board for Engineering and Technology (ABET) has proposed new general criteria for engineering technology programs, which are now posted on the ABET web site (www.abet.org).

The SC ATE curriculum doesn't conflict with current ABET accreditation standards and appears to be particularly consistent with the new criteria. In fact, some aspects of the criteria reflect instructional approaches that mirror approaches integral to the ATE curriculum. A comparison of some of the ABET criteria and ATE curriculum approaches has been drafted to reflect how the proposed ABET engineering technology criteria 2000 might impact colleges implementing components of the SC ATE engineering technology curriculum.

W. David Baker, chair of the TAC of ABET, was a member of the SC ATE national peer review panel that evaluated components of the ATE curriculum this past fall.

Comments on the proposed criteria are being considered by ABET until June 15, 2000. The new criteria are being phased in as colleges elect to be evaluated under the new criteria. The new criteria will be fully implemented during fall of 2004.

This comparison of proposed ABET criteria and SC ATE approaches is offered to assist colleges; it, of course, can't ensure ABET accreditation of any specific program.

A summary of the new general criterion 1, on preparation of students and graduates, compared with SC ATE approaches follows.

TAC of ABET 2000 Proposed Criterion 1

◆ "Apply creativity in the design of systems, components or processes appropriate to program objectives."

◆ "Function effectively on teams."

◆ "Identify, analyze and solve technical problems."

◆ "Communicate effectively."

SC ATE Curriculum Approach

◆ Open-ended ATE problem scenarios encourage creative solutions. There is no expectation of one and only one correct answer.

◆ ATE students work in teams throughout their ATE experience. Students are taught teaming skills, function in different team roles and benefit from the support system a team provides.

◆ ATE curriculum revolves around industry-validated technical problems. Students learn mathematics, physics, communications and technology skills in the context of solving technical workplace problems. Students must be able to identify what information they know, and what information and skills they will need to solve the problems.

◆ Communications is a key component of the ATE integrated curriculum. Beginning with the first ATE project, students learn to communicate effectively in written and oral presentations, as well as with team members.

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◆ “Recognize the need for and possess the ability to pursue lifelong learning.”

◆ “Understand professional, ethical and social responsibilities.”

◆ “Recognize contemporary professional, societal and global issues and are aware of and respect diversity.”

◆ ATE students are not provided with all the information needed to solve problems and are required to seek knowledge to complete assignments. Problem-solving strategies are taught through the ATE curriculum and can be used in other classes, the workplace and in everyday life.

◆ Because ATE classrooms model the workplace environment, students become familiar with the expectations (professional, ethical and social) of the worksite. The ATE Scholars initiative provides students work experience in industry settings and helps teach work ethics.

◆ ATE faculty members have participated in extensive faculty development activities focused on systematic use of appropriate teaching methods to support the learning needs of a diverse population of learners. This sensitivity to and respect for diversity is modeled in ATE classrooms. Students become more aware of professional and global issues as they work with local industry through ATE.

SC ATE News Briefs

- **Curriculum milestone:** The last of the SC ATE ET Core curriculum was written in April! Pilot testing and



Denmark Technical College’s ATE Technology Gateway class, fall 1999.

refinement will follow. Congratulations to Dr. Jim Wood, SC ATE principal investigator for curriculum, Dr. Helen Edens, SC ATE curriculum specialist, and the many ATE faculty members who participated on the curriculum writing teams.

- **Faculty development:** SC ATE is continuing to build capacity to deliver the ATE curriculum to more students. Spring teaching team training sessions involved faculty members from four colleges and one secondary teacher.
- **Web:** Watch for the new web site look coming in June!

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