

CommunityMatters™

A Monthly Newsletter for the ABET Community

September 2006

InsideABET

Call for Comments on Dual-Level Accreditation

ABET is watching and listening closely to the discussions following the release of the National Academy of Engineering *Engineer of 2020* reports, particularly those regarding accreditation at both the bachelor's and master's levels. This practice is currently prohibited by the Engineering Accreditation Commission (EAC) of ABET.

Specifically, the reports recommend that the bachelor's degree "be considered as a pre-engineering or 'engineer in training' degree," rather than the first professional degree, as the bachelor's is widely considered now.

Many in the engineering community favor the master's degree as the first professional degree, citing the need to both enhance the status of the engineering profession and to enable new engineers to enter the profession with the breadth and depth of knowledge many feel is required in today's increasingly global economy.

Others argue for the bachelor's to remain as the first professional degree out of concern for creating yet another roadblock in the U.S. engineering pipeline.

Ultimately, ABET must respond to its core constituencies — the 28 professional societies that comprise it and the academic institutions that invite it to assess their programs. ABET will not be a "driver" in this regard, but it must be responsive to the needs of its constituents. That may mean being a facilitator for those programs who seek to change and for the profession as a whole, should it decide to move in the direction of the *2020* recommendations.

ABET needs to hear from you on this issue. Should the EAC prohibition on dual-level accreditation be removed? Please send your comments to ABET President Richard

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VolunteerSpotlight

Kay Schulze

Kay G. Schulze, Ph.D., recently completed her service as the Chair of the Computing Accreditation Commission (CAC) for the 2005-2006 accreditation cycle. Like her predecessors, Kay oversaw all of the CAC's activities, setting its meeting agendas and editing final statements to the institutions. However, during her tenure, Kay also found a way to foster timeliness among members of her commission.

Before CSAB became part of ABET in 2000, the society completed draft statements to the institutions based on the previous fall's accreditation visits by mid-January, thereby allowing final draft statements to be completed by late May. During the past few years, though, the commission became lax about this practice, which frequently led to harrowing efforts on the commission leaders' parts as they prepared for the Summer Commission Meeting, when accreditation actions are discussed and finalized. Kay experienced this last-minute rush often over her five years on the CAC Executive Committee and was determined to make it a thing of the past.



"In the spirit of ABET's commitment to continuous self-examination, we made a conscientious attempt to enhance the timeliness of providing feedback to our programs and institutions," she said.

Kay's solution was to revise the timeline for much of the accreditation cycle and to use a spreadsheet to track the cycle's progress. If the team chairs neglected their deadlines, Kay would take the time to personally send them a "ping," a computing term meaning to send out a signal to see if there are signs of activity from a piece of hardware or, in this case, the volunteer receiving the e-mail message. Not only were Kay's reminders effective, but they contributed to the CAC

finishing all of their final statements for the 2005-2006 accreditation cycle by the end of May — an all-commission record in recent ABET history — and to smooth sailing into CAC's business meetings in late July.

Kay Schulze is a professor and the Chair of the Computer Science Department at the United States Naval Academy in Annapolis, MD, where she has been a civilian faculty member for 17 years.

LookAhead

- Sept. 22 — ABET Board Executive Committee Meeting in Baltimore, MD
- Sept. 29 — Registration deadline for the Oct. 24 workshop in Tampa, FL
— Pre-registration deadline for the 2006 Commission Summit and the 2006 ABET Annual Meeting in Tampa, FL
- Oct. 25 — 2006 Commission Summit featuring "A PEV's Eye View"
- Oct. 26-27 — 2006 ABET Annual Meeting — "The 3rd ABET International Congress on Education, Accreditation, and Practice"

InsideABET

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Seagrave, Ph.D., at seagrave@iastate.edu. Comments would be appreciated in time for the EAC's Executive Committee meeting in January 2007.

Partnership to Advance Volunteer Excellence Planning Meeting Held

During the past two years, teams of member society staff, volunteers, and ABET headquarters staff have worked through the Participation Project to devise means to strengthen how the organization's program evaluators are recruited, selected, trained, and evaluated.

Having completed the development and testing stages for this initiative, the implementation phase, called the Partnership to Advance Volunteer Excellence (PAVE), will begin with a day-long planning meeting on Wednesday, August 30. Members of the Participation Project Advisory Committee, member society education liaisons, society accreditation committee leaders, chairs of the ABET commissions' training committees, and other key volunteers were invited to develop action plans for implementing these improvements systemwide.

Topics are expected to include new volunteer recruitment materials and a program evaluator competency model that the societies can use to select evaluators and that team chairs and fellow program evaluators can use to assess performances on accreditation visits. Member societies that participated in piloting the recruitment materials and applying the competency model to their selection



PAVE

processes have been invited to share lessons learned.

In addition, attendees will be introduced the recently piloted new program evaluator training process, which includes mentoring, pre-work, and face-to-face training that simulates the discussions and experiences that the program evaluators will encounter during a campus visit.

The outcomes of the PAVE planning meeting will be reported in next month's issue of *CommunityMatters*.

Best Assessment Processes IX Dates Announced; Call for Proposals Issued

Best Assessment Processes IX will be held on April 13-14, 2006, on the campus of the Rose-Hulman Institute of Technology in Terre Haute, Indiana. A call for proposals was just issued with a deadline of October 15. More information is available at www.rose-hulman.edu/assessment2007.

ASEE Names Three ABET Volunteers as Fellows

The American Society for Engineering Education (ASEE) bestowed the distinction of Fellow Member upon three ABET volunteers at the ASEE Annual Conference and Exposition in Chicago this summer:

- ▶ James Farison is a professor and the Chair of Electrical and Computer Engineering Department at Baylor University. He has been as a program evaluator for ASEE and is serving his first term as one of ASEE's two commissioners on the EAC during the 2006-2007 accreditation cycle.

- ▶ Joseph Hughes, a professor and the Associate Chair for Electrical and Computer Engineering at Georgia Institute of Technology, serves as an EAC program evaluator representing the Institute of Electrical and Electronics Engineers (IEEE).
- ▶ Mark Pagano is the Dean of Continuing Education and Conferences for Purdue University at West Lafayette. He served as the Chair of the Technology Accreditation Commission (TAC) for the 2003-2004 cycle and, more recently, coordinated many activities related to the Technological Education Initiative (TEI) that ended earlier this year. He formerly represented the American Society of Mechanical Engineers (ASME) on TAC.

The designation of Fellow is reserved for individuals who have been members of ASEE for at least 10 years and who have made valuable contributions to engineering education.

ANS Evaluator Receives National Intelligence Grant

Dwight Williams, Ph.D., P.E., an ABET evaluator from the American Nuclear Society (ANS), has received one of nine Director of National Intelligence Fellows Awards, which acknowledge outstanding technical achievement within the intelligence community. Williams serves as the Principal Nuclear Physicist in the Defense Intelligence Agency's Science and Technology Brain Trust with the Directorate for Measurements and Signatures Intelligence and Technical Collection. He and the other Fellows will each receive a \$200,000 grant to support current or future research initiatives.

ABETOnline

- ▶ Register for the 2006 ABET Annual Meeting at www.abet.org/register.shtml.
- ▶ Check out ECEI's redesigned website: www.ecei.org.
- ▶ See Gloria's archived *Assessment Tips* at www.abet.org/assessment.shtml.

CommunityMatters™

CommunityMatters is a monthly publication of ABET, Inc., produced for and distributed to more than 3,000 stakeholders, including ABET-accredited programs; ABET commission, Board, and council members; ABET member societies; and program evaluators.

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CommunityMatters is online: www.abet.org/newsletter.shtml

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Assessment101

Assessment Tips with Gloria Rogers, Ph.D.

Rubrics: What Are They Good For Anyway?

Before a discussion on rubrics, it is important to understand where they fit into the assessment schema by defining the terms that will

be used in this article. *Objectives* are broad statements that describe the career and professional accomplishments that the program is preparing graduates to achieve. *Outcomes* are statements that describe what students are expected to know and be able to do by the time of graduation that enable them to meet the objectives. *Performance criteria (or performance indicators)* are specific, measurable statements identifying the performance(s) required to meet the outcome and are confirmable through evidence.

A rubric is a set of categories developed from the performance criteria that define and describe progression toward meeting important components of work being completed, critiqued, or assessed. For example,

Objective: Graduates will exhibit effective communications skills.

Outcomes: By the time of graduation, students will:

- ▶ demonstrate effective written communication skills.
- ▶ demonstrate effective oral communication skills.

Performance criteria (indicators) for written communication skills:

- ▶ Student provides adequate detail to

- support his/her solution/argument.
- ▶ Student uses language and appropriate word choice for the audience.
- ▶ Student work demonstrates an organizational pattern that is logical and conveys completeness.
- ▶ Student uses the rules of standard English.

Now that some high-level indicators (performance criteria) for student learning have been defined, the development of rubrics allow faculty to assess student work in a way that identifies the progress students are making toward achieving the performance criteria. Below is an example of a rubric for the performance criteria listed above.

Note that each category contains a gradation of levels of completion or competence with a score assigned to each level and a description of what performance criteria need to be met to attain the score at each level. The use of rubrics when scoring student work provides the program with valuable information about how students are progressing and also points to specific areas where students need to improve. For example, when a faculty member is grading a student's paper, she can also score the paper for the student's writing skills using the rubric provided. The scores obtained by each student can be aggregated and used for program assessment.

In next month's issue of *Community Matters*, I'll show one way to present the results of rubric scoring and discuss the value of various types of rubrics.

	4 - Exceeds Criteria	3 - Meets Criteria	2 - Progressing to Criteria	1 - Below Expectations
Content	Provides ample supporting detail to support solution/argument.	Provides adequate supporting detail to support solution/argument.	Some details but may include extraneous or loosely related material.	Inconsistent or few details that may interfere with the meaning of the text.
Organization	Organizational pattern is logical & conveys completeness & wholeness.	Organizational pattern is logical & conveys completeness & wholeness with few lapses.	Little completeness & wholeness, though organization attempted.	Little evidence of organization or any sense of wholeness & completeness.
Style	Uses effective language; makes engaging, appropriate word choices for audience & purpose.	Uses effective language & appropriate word choices for intended audience & purpose.	Limited & predictable vocabulary, perhaps not appropriate for intended audience & purpose.	Limited or inappropriate vocabulary for the intended audience & purpose.
	Consistently follows the rules of standard English.	Generally follows the rules for standard English.	Generally does not follow the rules of standard English.	Does not follow the rules of standard English.

YourCorner

Board of Directors

The call for agenda items for your October 28 meeting in Tampa closes on September 8. Please send items to ABET Executive Assistant Rachelle Daucher at rdaucher@abet.org.

Commissioners

Help support ABET's continuous quality improvement efforts by assessing the performance of your program evaluators. PEV evaluation forms will be online by the first week of September. Just use the link for "Commissioners" from www.abet.org.

Institutions

Final statements have been sent to all programs visited in the 2005-2006 accreditation cycle. Please take a moment to review section II.L. of the *Accreditation Policy and Procedure Manual* (www.abet.org/forms.shtml) for guidelines on the public release of accreditation information. You will also find helpful information on promoting your program's accreditation at www.abet.org/promote.shtml.

The 2006 Commission Summit is right around the corner on October 25. Unlike Institutional Representatives' Day, held each summer for programs being visited that fall, the Commission Summit is designed to benefit programs at any point in their accreditation cycle. The Summit is especially helpful for new programs and programs seeking initial accreditation, as well as for faculty and administrators unfamiliar with the accreditation process. Learn more about the 2006 Commission Summit at www.abet.org/summit.shtml.

Member Societies

It's time to confirm that each evaluator went on an assigned visit for the 2006-2007 cycle. Also, look out for commission nominees for the 2007-2008 cycle.

Program Evaluators

Help support ABET's continuous quality improvement efforts by assessing the performance of your team chairs. Team chair evaluation forms will be online by the first week of September. Just use the top link at www.abet.org/pev.shtml.

Member Societies

ABET is a federation of 28 professional and technical societies representing the fields of applied science, computing, engineering, and technology:

American Academy of Environmental Engineers	Health Physics Society
American Congress on Surveying and Mapping	The Institute of Electrical and Electronics Engineers, Inc.
American Industrial Hygiene Association	Institute of Industrial Engineers, Inc.
American Institute of Aeronautics and Astronautics, Inc.	ISA-The Instrumentation, Systems, and Automation Society
American Institute of Chemical Engineers	Materials Research Society
American Nuclear Society	National Council of Examiners for Engineering and Surveying
American Society of Agricultural and Biological Engineers	National Institute of Ceramic Engineers
American Society of Civil Engineers	National Society of Professional Engineers
American Society for Engineering Education	Society of Automotive Engineers
American Society of Heating, Refrigerating, and Air-Conditioning Engineers, Inc.	Society of Manufacturing Engineers
The American Society of Mechanical Engineers	Society for Mining, Metallurgy, and Exploration, Inc.
American Society of Safety Engineers	Society of Naval Architects and Marine Engineers
Biomedical Engineering Society	Society of Petroleum Engineers
CSAB, Inc.	The Minerals, Metals, and Materials Society



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