

CommunityMatters™

A Monthly Newsletter for the ABET Community

October 2008

InsideABET

2008 Annual Meeting Encourages Participation, Dialogue About Future of ABET Disciplines

This year's ABET Annual Meeting will not be just an ordinary conference. Titled *Charting Tomorrow*, this event will actively engage participants in exploring some of the most dynamic changes taking place in technological education today as they assist in determining the impact of those changes on the foundation and framework of quality assurance.

The conference will begin with a presentation from this year's keynote speaker. **James J. Duderstadt, Ph.D.**, is President Emeritus at the University of Michigan, where he currently directs the Millennium Project. He is also the author of *Engineering for a Changing World: A Roadmap to the Future of Engineering Practice, Research, and Education*, and he will provide a provocative view of the future of applied science, computing, engineering, and technology education based on the findings of his report.

Meeting participants will attend a series of plenary and concurrent sessions. Each will begin with an expert speaker who will set the stage for the facilitated conversations to take place during the sessions. This will be followed by participants discussing the issues posed in light of their own programs and experiences. Speakers for the sessions include the following:

▶ Anticipating Needed Competencies

- ▶ *Engineering and technology breakout session* — **Jeffrey S. Russell**, Professor and Chair of Civil and Environmental Engineering, University of Wisconsin-Madison
- ▶ *Computing and applied science breakout session* — To be determined

— continued on page 2

VolunteerSpotlight

Susan Conry

Susan E. Conry, Ph.D., is the Distinguished Service Professor of Electrical and Computer Engineering at Clarkson University in Potsdam, NY. She is also a long-time advocate for accreditation in the technical fields.

Susan first became involved in accreditation in 1985, working with the body that accredited computing fields at the time, the Computer Science Accreditation Commission (CSAC). She was a program evaluator and a commissioner representing the IEEE Computer Society on CSAC and then became CSAC's chair for the 1991-92 accreditation cycle.



After that, Susan went on to represent the IEEE Computer Society on the board of directors of CSAB, which now acts as a single society to represent the computing professions within the ABET community. During the 1997-98 accreditation cycle, Susan became CSAB's president, and it was during her tenure that CSAC and ABET were merged. The role she played during this integration contributed to Susan's being named an ABET Fellow in 2005.

Since then, Susan has been living proof that computing and the other ABET disciplines are intricately intertwined. She continued to represent CSAB as a program evaluator and then as a team chair, this time on ABET's Engineering Accreditation Commission (EAC).

Two years ago, she was elected to the EAC Executive Committee.

Next up, Susan will draw upon her experiences as the current EAC Training Committee Chair to benefit all of ABET when she becomes the first chair of the Accreditation Council Training Committee. This body will continue the training

improvements that have come out of the Partnership to Advance Volunteer Excellence (PAVE) after the project ends in November.

"We emphasize the importance of continuous quality improvement to all ABET-accredited programs," Susan said. "Therefore, it only makes sense that ABET would embrace these same practices in its own processes. Our goal is to make sure that the training that prepares our dedicated volunteers for ABET accreditation activities is always the best that it can be."

LookAhead

- Oct. 7** — Hotel registration deadline for Oct. 28 Faculty Workshop, Commission Summit, and Annual Meeting, Louisville, KY
- Oct. 19** — Full registration fee deadline for Oct. 28 Faculty Workshop on Assessing Program Outcomes, Louisville, KY
 - Registration fee deadline for 2008 Commission Summit and 2008 ABET Annual Meeting, Louisville, KY
- Oct. 28** — Faculty Workshop on Assessing Program Outcomes, Louisville, KY
- Oct. 29** — 2008 Commission Summit, Louisville, KY
- Oct. 30-31** — 2008 ABET Annual Meeting, Louisville, KY

InsideABET

— continued from page 1

▶ Adapting Millennial Learning Models

- ▶ **Diana Rhoten**, Program Director for Office of Cyberinfrastructure, National Science Foundation

▶ Organizing to Improve the Pipeline

- ▶ **Daryl E. Chubin**, Director of the AAAS Center for Advancing Science & Engineering Capacity, American Association for the Advancement of Science
- ▶ **Irving Pressley McPhail**, Executive Vice President and CEO, National Action Council on Minorities in Engineering, Inc.

On Friday afternoon, designated participants will report the findings and issues raised during each of the three sessions. Those in attendance will reflect on their program or institution's plans to meet these coming challenges and make recommendations that ABET can use as it moves into the future. The meeting will conclude with an ABET leadership panel who will respond to what has been learned and its impact on the future of quality assurance.

Charting Tomorrow will take place at the Seelbach Hilton Hotel in Louisville, KY, on Thursday, October 30, and Friday, October 31. Visit www.abet.org/annual.shtml to learn more about the Annual Meeting and accompanying events and to register.

ABET Member Societies to Convene for 2008 Society Summit

On Monday, October 6, ABET will host a Society Summit for volunteers and staff members from its 29 member societies. This event will bring together the individuals who have direct responsibility for their soci-

ety's accreditation activities so that they can share best practices and discuss how ABET as a whole can effectively work to improve the accreditation experience for all involved.

The agenda for this day-long session will include progress reports about the Partnership to Advance Volunteer Excellence (PAVE) as well as presentations from society representatives about the following topics:

- ▶ Strategies for recruiting program evaluator candidates, with a particular emphasis on those working in the industry, government, and business sectors
- ▶ Preparations for program evaluators who are assigned to non-domestic visits
- ▶ Effective methods to train volunteers about program criteria or to prepare them to serve as mentors for program evaluator candidates
- ▶ Use of performance evaluations for volunteer recognition and remediation
- ▶ Approaches for refresher training for continuing volunteers and remedial training for underperforming volunteers

The Society Summit luncheon will be set up so that each table will be devoted to the discussion of a specific interest area, including the volunteer recruitment and application process; candidate training; support facilitator training; program criteria training; performance evaluation, recognition, and remediation; and ABET-society communication.

The Society Summit will conclude with a look at the ABET Member Society webpage currently in development, information about the new volunteer training website that will launch in January, and a presentation on how the processes developed and implemented during the PAVE initiative will be sustained after that project ends later this fall.

Now Accepting Proposals for 2009 Best Assessment Processes Symposium

The Best Assessment Processes Symposium provides presentation and workshop opportunities for applied science, computing, engineering, and technology educators to learn about assessment methods and how they can be used to validate and improve student learning outcomes. The 2009 symposium will take place in Indianapolis on April 3 and 4.

Proposals to present at this event are currently being accepted. Special consideration will be given to proposals on these topics:

- ▶ Assessing program objectives
- ▶ Documenting continuous improvement
- ▶ Writing measurable program outcomes

However, proposals on these and other relevant topics are also encouraged:

- ▶ Successful assessment tools
- ▶ Elements of an effective assessment process
- ▶ Direct measures
- ▶ Qualitative methods
- ▶ Embedded assessments
- ▶ Examples of how results are reported
- ▶ Use of technology in assessment
- ▶ Use of industry advisory boards in the accreditation process
- ▶ Portfolio development
- ▶ Preparing for the accreditation visit
- ▶ Collaborations between technical programs and assessment/evaluation professionals

For a complete list of suggested topics, visit www.abet.org/bap.shtml. Proposals will be accepted through Friday, November 28.

ABETOnline

- ▶ Register for the 2008 Annual Meeting at www.abet.org/annual.shtml.
- ▶ Download the latest self-study materials from www.abet.org/forms.shtml.
- ▶ Submit your proposal for next year's Best Assessment Processes Symposium at www.abet.org/bap.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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Assessment101

Assessment Tips with Gloria Rogers, Ph.D.

Using Commercial Exams for Program Assessment

When first getting started in program assessment, I purchased a

nationally normed critical thinking assessment instrument to measure student growth over time related to critical thinking. I found that the test scores for students from first year to senior year were not significantly changed.

Confident that the results did not reflect the actual student experience, I switched the assessment instrument to a different commercial test of critical thinking. The results were the same. In an effort to understand why these instruments were not providing any useful data, I contacted the second critical thinking test's creators. They indicated that my findings were not surprising if there was no intentional teaching to the constructs that made up the critical thinking test. That was a real "a-ha" moment for me.

Based on this experience, I began to examine the use of standardized instruments as a viable program assessment tool. I learned that, unless faculty have a clear notion of what is meant by any learning outcome (i.e., what are the cognitive constructs that are important to your faculty), AND the program is teaching to those skills with intention, AND you can find a test that is compatible with those constructs, it is highly unlikely that you will be able to identify a single test that will meet your needs. This means that each of the program outcomes (e.g., communication skills, life-long learning, use of modern tools, etc.) should be defined in specific measurable terms before a commercial instrument is sought. Choosing an instrument that is compatible with faculty understanding of the outcome maximizes the validity of the findings.

Some programs have worked backwards; a test was identified that they thought was

consistent with faculty views on important characteristics and identified curricular strategies that emphasized and rewarded achievement of the constructs. One could argue that this approach is "teaching to the test," but it is important to remember that, if the skills are NOT important, then the "test" should not be used. If the constructs ARE important, someone should be teaching to them.

What questions should you ask if you are considering a standardized assessment instrument?

- 1) Does the instrument measure your outcome as directly as possible? That is, are the underlying constructs consistent with how the faculty have defined the outcome, and what is being taught and/or reinforced in the curriculum? If the test has multiple sections or tests students over multiple concepts, will you be able to segment the results in a way that will provide the information that you need?
- 2) When you get the results, will you know what to do with them? That is, is the curriculum aligned with the desired performance as reflected in the examination?
- 3) Is there a testing strategy that ensures that the students taking the test are representative of the population about whom inferences will be made? Also, how can you be sure that students will take the test seriously?

Many times, faculty look to use a commercial, standardized exam (especially for the non-technical outcomes) because it appears to be the easiest way to get needed assessment data. However, if the results do not provide useful information or if it isn't clear how the results can be used to improve the program, then the instrument can not provide meaningful data for program assessment.

YourCorner

Board of Directors

New Board Member Orientation will be held on Wednesday, October 29, in Louisville, KY. While new members are required to attend, returning members are welcome to join them as well. If you wish to attend, please contact Rachelle Daucher at rdaucher@abet.org.

Commissioners

ABET has recently revised its travel policy. Changes include the following:

- ▶ Expense reports must be submitted within 60 days after the visit, or they will not be processed.
- ▶ **All** meal and beverage expenses, regardless of price, require receipts for reimbursement.
- ▶ Air travel will only be reimbursed from the U.S. place of domicile.

Log in through the "Commissioners" link on www.abet.org, and click on the "ABET Travel Policy and Expense Forms" link to review this policy. Also, don't forget to download the latest version of the expense report form from that site.

Institutions

Make sure that you review section II.E.3, "On-Site Visit," of ABET's *Accreditation Policy and Procedure Manual* again before your visiting team comes to campus and that you are communicating with your team chair about last-minute details.

Program Evaluators

ABET has recently revised its travel policy. Changes include the following:

- ▶ Expense reports must be submitted within 60 days after the visit, or they will not be processed.
- ▶ **All** meal and beverage expenses, regardless of price, require receipts for reimbursement.
- ▶ Air travel will only be reimbursed from the U.S. place of domicile.

Log in through the "Program Evaluators" link on www.abet.org, and click on the "ABET Travel Policy and Expense Forms" link to review this policy. Also, don't forget to download the latest version of the expense report form from that site. You will need to submit a signed version of this form with *original* receipts to your team chair.

2008-2009 Assessment Activities

Faculty Workshop on Assessing Program Outcomes

October 28, 2008, Louisville • December 6, 2008, Phoenix • February 7, 2009, Atlanta
April 18, 2009, Baltimore • June 13, 2009, Austin • October 27, 2009, San Antonio

Institute for the Development of Excellence in Assessment Leadership (IDEAL)

January 5-9, Savannah • August 3-7, Baltimore

Best Assessment Processes Symposium XI

April 3-4, Indianapolis

Also, keep an eye out for more sessions from ABET's **webinar** series.

Member Societies

ABET is a federation of 29 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	IEEE, Inc.
American Industrial Hygiene Association	Institute of Industrial Engineers, Inc.
American Institute of Aeronautics and Astronautics, Inc.	ISA
American Institute of Chemical Engineers	International Council on Systems Engineering
American Nuclear Society	Materials Research Society
American Society of Agricultural and Biological Engineers	National Council of Examiners for Engineering and Surveying
American Society of Civil Engineers	National Institute of Ceramic Engineers
American Society for Engineering Education	National Society of Professional Engineers
American Society of Heating, Refrigerating, and Air-Conditioning Engineers, Inc.	SAE International
American Society of Safety Engineers	Society of Manufacturing Engineers
ASME	Society for Mining, Metallurgy, and Exploration, Inc.
Biomedical Engineering Society	Society of Naval Architects and Marine Engineers
CSAB, Inc.	Society of Petroleum Engineers
	The Minerals, Metals, and Materials Society



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