

CommunityMatters™

A Monthly Newsletter for the ABET Community

December 2006

InsideABET

ABET to Apply for Membership in Sydney and Dublin Accords

In 2007, ABET will apply for membership in the Sydney and Dublin Accords, as formally recommended to the Board of Directors by the Technology Accreditation Commission (TAC). The Sydney and Dublin Accords, modeled on the Washington Accord, are mutual recognition agreements among accreditors of engineering technology programs.

ABET is a founding member of the Washington Accord, which now has signatories in nine nations. This June, members of the Washington Accord, as well as the Dublin and Sydney Accords, will meet in Washington, D.C., for their biennial meeting. ABET, which currently serves as secretariate for the Washington Accord, will be hosting this meeting.

Currently, the Sydney Accord has seven members:

- ▶ Canadian Council of Technicians and Technologists (CCTT)
- ▶ Engineering Council of South Africa (ECSA)
- ▶ Hong Kong Institution of Engineers (HKIE)
- ▶ Institution of Engineers, Australia (IEAust)
- ▶ Institution of Engineers of Ireland (IEI)
- ▶ Institution of Professional Engineers, New Zealand (IPENZ)
- ▶ Engineering Council UK (ECUK)

The Dublin Accord has four members:

- ▶ Canadian Council of Technicians and Technologists (CCTT)
- ▶ Engineering Council of South Africa (ECSA)
- ▶ Institution of Engineers of Ireland (IEI)
- ▶ Engineering Council UK

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VolunteerSpotlight

Al Ormsbee

On October 28, 2006, Allen I. Ormsbee, Ph.D., retired from the Board of Directors after serving ABET in many capacities over more than 25 consecutive years.

Al, who is now Professor Emeritus of Aeronautical and Astronautical Engineering at the University of Illinois at Urbana-Champaign and retired Professor and Chair of the Aerospace Engineering Department at Embry-Riddle Aeronautical University in Daytona Beach, Florida, began his service to ABET (then the Engineers Council for Professional Development [ECPD]) in 1970. Representing the American Institute of Aeronautics and Astronautics (AIAA), Al made dozens of campus visits, first as a program evaluator and then as a commissioner.

For nearly a decade, Al was a member of the Engineering Accreditation Commission (EAC). More than two-thirds of that tenure was served on the Executive Committee of the commission, culminating with chairmanship during the 1992-1993 accreditation cycle.

Instead of retiring from ABET service

when he retired from the commission in 1994, Al joined the Board of Directors as an AIAA representative. Someone on the Board's leadership must have spotted Al's flair for finances — he hardly had a chance to take his seat before being assigned a member

of the Finance Committee. After serving on the committee for four years, Al was elected Board Secretary for a two-year term.

In 2000, Al made a return to finances when he was elected as Treasurer for the ABET Board, a post he held until his retirement in October.

Al became a Fellow of ABET in 1995. He is also an Associate

Fellow of AIAA, and he is a member of the American Society for Engineering Education, the Society of Automotive Engineers, Sigma Xi, Tau Beta Pi, and Sigma Tau.

Al Ormsbee's contributions to ABET accreditation, the engineering profession, and the overall higher education community have been truly great. Over the past quarter-century, he has been an inspiration for volunteers and ABET staff alike. Al become a member of the ABET family and will be missed dearly by all.



LookAhead

- Dec. 20** — Registration deadline for Jan. 13 Faculty Workshop on Assessing Program Outcomes, Phoenix, AZ
- Dec. 31** — Deadline for comments on dual-level engineering program accreditation
- Jan. 12-14** — Commission Executive Committee and Accreditation Council Meetings in San Diego, CA
- Jan. 13** — Faculty Workshop on Assessing Program Outcomes, Phoenix, AZ

InsideABET

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Cooperation Agreement with the Council for Higher Education, Israel, Approved

At its October 28 meeting, the ABET Board of Directors approved a memorandum of understanding (MOU) between ABET and the Council for Higher Education, Israel.

Within the MOU, ABET agrees to collaborate in the development of accreditation workshops and seminars on evaluation and accreditation. The MOU does not extend to the recognition of Israeli programs or graduates.

The purpose of a memorandum of understanding is to provide a structure that guides collaboration of organizations with ABET to facilitate implementation of quality assurance organizations in other countries during their developmental period. Typical activities conducted under these agreements are sharing of best practices, assisting organizations in their development of accreditation processes, and providing training workshops for staff and volunteers.

ABET currently has memoranda of understanding in effect with these organizations:

- ▶ Comisión Nacional de Evaluación y Acreditación Universitaria, Argentina
- ▶ Acredita CI, Chile (*pending*)
- ▶ Chinese Association of Science and Technology
- ▶ Commission des Titres D'Ingenieur, France
- ▶ Accreditation Agency for Study Programs in Engineering, Informatics, Natural Sciences, and Mathematics, Germany
- ▶ Council for Higher Education, Israel
- ▶ The Japan Accreditation Board for Engineering Education
- ▶ Accreditation Board for Engineering Education Korea

- ▶ Consejo de Acreditación de la Enseñanza de la Ingeniería, Mexico
- ▶ Instituto de la Calidad en la Acreditación en las Carreras de Ingeniería y Tecnología, Peru
- ▶ Ordem dos Engenheiros, Portugal
- ▶ Institute of Engineering Education Taiwan
- ▶ Ministry of Higher Education, Ukraine
- ▶ UNESCO Regional Office for Science & Technology for Latin America & Caribbean, Uruguay

ABET Board Suspends Evaluation of Foreign Academic Credentials

The ABET Board of Directors at its fall meeting made a business decision to suspend ABET's credentials evaluation service, Engineering Credentials Evaluation International (ECEI).

"We regret this decision, but I can assure you that the Board came to this conclusion in a careful and deliberate manner," ABET Executive Director George D. Peterson, Ph.D., PE., said. "The ECEI staff and the dedicated ABET volunteers who support them as members of the ECEI Resource Council have worked tirelessly to provide in-depth analysis of foreign educational credentials against the ABET criteria and, in turn, ensure that foreign-educated technical professionals meet the same standards that are required of those educated in the United States."

ECEI was established in 1997 to address what, at the time, was an unmet need to provide uniform, quality-based evaluations of the educational credentials submitted by individuals who hold undergraduate degrees in technical disciplines from foreign institutions and who wished to pursue licensure, career, or educational opportunities in the United States

that would be acceptable to all of the state licensing boards. To date, ECEI has processed more than 6,000 evaluations of degrees in engineering, technology, surveying, and computer science disciplines.

ECEI is no longer accepting new applications and has established a timetable to phase out its operations. If you applied for an ECEI credentials evaluation before October 30, you may check the status of your application online at www.ecei.org or direct specific questions to (410) 843-7171.

2007-2008 Commission Officers Ratified

At its fall meeting, the ABET Board of Directors ratified the elections of the officers and Executive Committee members of the commissions for the 2007-2008 accreditation cycle. The following Chairs and Chairs-Elect will take office in July 2007:

Applied Science Accreditation Commission

- ▶ Chair: **Ralph Hodek**, Michigan Technological University
- ▶ Chair-Elect: **J. Turner Hughey**, Chromcraft Corporation

Computing Accreditation Commission

- ▶ Chair: **Stuart Zweben**, The Ohio State University
- ▶ Chair-Elect: **Gayle Yaverbaum**, Pennsylvania State University

Engineering Accreditation Commission

- ▶ Chair: **Mary Leigh Wolfe**, Virginia Polytechnic Institute and State University
- ▶ Chair-Elect: **John (Jack) Rutherford**, The Boeing Company

Technology Accreditation Commission

- ▶ Chair-Elect: **Mohammad Zahraee**, Purdue University Calumet
- ▶ Chair: **Michael Robinson**, Bettis Atomic Power Laboratory

ABETOnline

- ▶ View the presentations from the 2006 ABET Annual Meeting at www.abet.org/annual.shtml.
- ▶ Register for one of next year's faculty workshops with Gloria Rogers at www.abet.org/workshop.shtml.
- ▶ See what's happening with PAVE at www.abet.org/pave.shtml.

CommunityMatters™

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Assessment 101

Assessment Tips with Gloria Rogers, Ph.D.

Using Course or Test Grades for Program Assessment

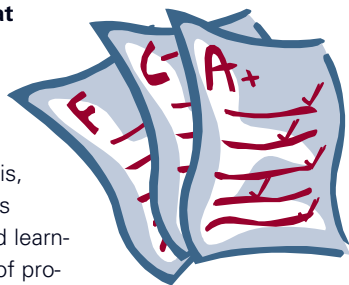
When discussing outcomes assessment, one of the most common questions that faculty members have is, “We are already giving students grades in courses. Why can’t we just use grades as a measure of student learning outcomes?”

Grades represent the extent to which a student has successfully met an individual faculty member’s requirements and expectations for a unit or course. **Because many factors contribute to an assigned grade, it is almost impossible to make inferences about what a student knows or can do solely by looking at that grade.**

In outcomes assessment at the program level, the primary question that needs to be answered is, “To what extent do students demonstrate the anticipated learning outcomes?” The focus of program assessment is on providing evidence that students can demonstrate knowledge or a skill that is directly linked to specific performance criteria¹ that define the program outcomes. Grades *per se* are relative measures and generally do not represent specific aspects of learning. More often, they reflect performance on multiple concepts.

Course content and emphasis varies with each individual faculty member’s beliefs about what is important (topics, concepts, and levels of cognition students must demonstrate for each concept) and the faculty member’s expertise and interests. The grading policy in any course is dependent on the individual faculty member. This is generally true even when there are multiple sections of the same course with common exams and syllabi. Some faculty choose to give (or take away)

‘points’ or award ‘partial credit’ for things that are not related to student learning (e.g., attendance, class participation, and filling out the course evaluation). Some faculty grade on a curve, while others have a fixed standard. Letter grades or numeric scores reflect the relative standing the student has in the class or on a test — relative to a set scale or relative to other students. All of these variables confound the ability to interpret the meaning of the grade related to specific student knowledge or abilities. An assigned grade does not tell the person interpreting it what a student knows or can do, nor does it provide information about which topics or concepts a student did not understand or how student learning could be improved.



For program assessment, a numeric score that is **directly** linked to students’ performance on specific performance criteria can be used as evidence of program learning outcomes. For example, for the outcome “students have an understanding of ethical responsibility,” one of the

performance criteria could be “students will demonstrate the ability to evaluate the ethical dimensions of a problem in their discipline.”

Faculty could develop a rubric to score student performance. Each performance level is described and assigned a numeric score (e.g., 1=no evidence, 2=developing, 3=good, and 4=exemplary).² The student work related to the specific performance can be scored as a part of the course work and may even contribute to the course grade. Reporting the percent of students who score at each of the performance levels provides meaningful data that are linked directly to the anticipated performance and focus the evaluation and strategies for improvement.

Grades will continue to be an important part of the higher education culture and should be understood for what they represent. However, the measure used to assess the outcomes should be used consistently among faculty, reflect specific student knowledge or skills, and be directly linked to specific performance criteria. It is important to remember that the focus is not a score but the specific student knowledge or skill that the score represents.

Modified from “Do Grades Make the Grade in Program Assessment,” *ABET Communications Link*, Spring 2003.

YourCorner

Board of Directors

The Report to the Board from the ABET Board of Directors meeting, held on October 28 in Tampa, is online at www.abet.org/board_report.shtml.

Commissioners

The Report to the Board from the fall ABET Board of Directors meeting, held on October 28 in Tampa, is online at www.abet.org/board_report.shtml. The report contains all recent actions of the Board, including approvals of Executive Committee members and changes to the accreditation criteria and *Accreditation Policy and Procedure Manual*.

Institutions

This fall, the ABET Board of Directors approved a change to the EAC General Criteria for 2007-2008. As a result, the General Criteria titles will change from Basic/Advanced to Baccalaureate/Master’s. This change is part of an effort ABET is making to improve consistency among the operations of its four accreditation commissions.

All 2007-2008 accreditation criteria have now been posted at www.abet.org/forms.shtml. New this year is a separate link to the criteria document that will open directly to the “proposed changes” section. The commissions invite your feedback on these proposed changes.

Member Societies

Last month’s recruitment and selection webinars were a great success, and we hope to have more in the near future. Please send any topic suggestions to ABET’s Meetings and Member Services Specialist, Stephanie Engelhardt (sengelhardt@abet.org), so we can plan new sessions that you’ll find helpful and interesting.

Don’t forget: Nominations for your vacant commission seats are due Friday, December 22!

Program Evaluators

Thanks for all your efforts this fall! Don’t forget to complete your team chair evaluations and submit all expense reports. See you next year!

1 “Performance criteria” define the learning outcome and are measurable statements identifying the specific knowledge, skills, attitudes, and/or behavior students must demonstrate as indicators of achieving the outcome.

2 I wrote an in-depth article about creating rubrics that appeared in a series in the previous three issues of *CommunityMatters*, which are available at www.abet.org/newsletter.shtml. Information about creating rubrics is also available at my “Assessment Planning” section of the ABET website at www.abet.org/assessment.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	IEEE, Inc.
American Industrial Hygiene Association	Institute of Industrial Engineers, Inc.
American Institute of Aeronautics and Astronautics, Inc.	ISA
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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