ASCE "Raise The Bar" Newsletter December 2005 Vol. 2, No. 4

The ASCE Committee on Academic Prerequisites for Professional Practice (CAP^A3) has continued its efforts to raise the educational requirements for the future practice of civil engineering at the professional level (licensure). This effort is an on-going, long-term effort. Below is a summary for each of our committees.

<u>Second Edition of the Body of Knowledge</u> (BOK) Committee



Over 24 applications were received from an open "call" for self-nominations to the Second Edition of the BOK committee. This "call" was published in the August 2005 edition of the ASCE News. In October, an ASCE Policy 465/Body of Knowledge Workshop was held in conjunction with the ASCE Annual meeting in Los Angeles, CA. There were over 15 participants including new members to CAP³ committee, the licensure committee, and interested nominees for the Second Edition of the BOK Committee. The workshop lasted 7 hours and addressed the background and progress in implementing Policy 465 and the BOK. In addition, accreditation issues were addressed. As a result of the workshop, the committee has been formed. Richard O. Anderson, P.E. will serve as the Chair of the committee. He is just completing his term as President for ABET, Inc. Stuart G. Walesh will serve as the Editor for the Second Edition. Stu served as the Editor of the first edition of the BOK. Other committee members include JoAnn Silverstein, John Mason, Anirban De, Mahoj Jha, Dan Lynch, Bob Mackey, Tim Lengyel, Melanie Lawrence, Ken Fridley, Ron Harichandran, David Lange, Decker Hains, and William Knocke. There are over 20 corresponding members to this committee who will review various work products and offer their input and feedback. The committee will complete their charge by April 2007. It is anticipated that the Second Edition of the BOK will be released in conjunction with Engineers' Week in February 2007. The committee charge is posted at www.asce.org/raisethebar.

Curricula Committee

The committee will fulfill its charge by the end of this calendar year. The committee continues to work on mapping the BOK outcomes on existing curriculum. This process has identified many suggestions on how to improve the next edition of the BOK.

Licensure Committee

The licensure committee has been busy assisting in the National Council of Examiners for Engineering and Surveying (NCEES) in starting the discussion on draft Model Law language that would include additional education in the future.

Accreditation Committee

The accreditation committee continues to refine the draft basic level civil engineering

program criteria along with supporting commentary and advanced level general criteria. The draft criteria include the following:



Proposed Changes to the Criteria for Accrediting Engineering Programs Effective for Evaluations during the 2008-2009 Accreditation Cycle

PROGRAM CRITERIA FOR CIVILAND SIMILARLY NAMED ENGINEERING PROGRAMS

1. Curriculum

The program must demonstrate that graduates can apply knowledge of mathematics through differential equations, calculus-based physics, chemistry, and at least one additional area of science, consistent with the program educational objectives; can apply knowledge of four technical areas appropriate to civil engineering; can conduct civil engineering experiments and analyze and interpret the resulting data; can design a system, component, or process in more than one civil engineering context; and can explain the fundamentals of management, business, public policy, and leadership.

2. Faculty

The program must demonstrate that faculty teaching courses that are primarily design in content are qualified to teach the subject matter by virtue of professional licensure, or by education and design experience. The program must demonstrate that it is not critically dependent on one individual.

CRITERIA FOR ADVANCED LEVEL PROGRAMS

Advanced Level Programs must develop, publish, and periodically review educational objectives and program outcomes. The program must demonstrate that graduates attain, through their educational and professional experiences, knowledge and skills consistent with fulfillment of the basic level general criteria and applicable program criteria (if any). Advanced level programs must consist of at least one academic year of study beyond the basic level. Graduates must have a culminating engineering experience demonstrating advanced level program knowledge.

The draft commentary can be found on www.asce.org/raisethebar. If approved by the various ABET committees, the earliest implementation of these criteria would be for evaluations occurring in September 2008.

Questions, comments, or suggestions, please contact Jeffrey S. Russell at russell@engr.wisc.edu