

ASCE "Raise The Bar" Newsletter Vol. 2, No. 2

The Board-level ASCE Committee on Academic Prerequisites for Professional Practice (CAP³) 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.



The Levels of Competency

Subcommittee is moving forward

completing their charge. They are looking at the levels of competency (levels I, II, and III - recognition, understanding, and ability) used in the first edition of Body of Knowledge (BOK) and recommending possible changes. This subcommittee is the result of feedback from the Curricula Committee, a collection of over 20 schools who are assessing the BOK. The Curricula Committee had trouble mapping the levels to their curriculum and asked if we were really raising the bar. The subcommittee is also working with ABET who has a similar Task Committee assigned to review the various terminology being used across ABET's four commissions. The new levels will be tied to Bloom's taxonomy of cognitive learning and will be clearer, simpler and more measurable. This is a major step forward and shows the value of input and feedback from a wide range of stakeholders.

Body of Knowledge Fulfillment and Validation Committee

The committee has completed their report related to how the BOK can be fulfilled and validated. Key findings in the report include the following: the B + 30 credit pathway is a viable way to fulfill the BOK; there are several possibilities for organizations that could validate the acceptability of alternative education providers and of the coursework taken beyond the bachelor's level, including American Council on Education (ACE), National Council of Examiners for Engineering and Surveying (NCEES), and ABET. We will need to engage the possible players in the next 3 years as we move toward implementation. The full report can be found on 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. The committee has also added the following schools to their activity: University of Illinois-Urbana Champaign, Tufts University, University of Wyoming, and Tennessee Tech.

Licensure Committee

The licensure committee has been busy assisting in the National Council of Examiners for Engineering and Surveying regional meetings. A presentation was given at these meetings that covered a number of possible changes to the Model Law. One change of interest to the raise the bar effort is requiring additional education beyond the BS, with anticipated state-by-state implementation over the next fifteen years or so. At the NCEES annual meeting in Memphis, TN this August, the organization will vote on recommending changing the Model Law to require additional education in the future, beginning “no earlier than” the year 2010. Once this passes, a committee would be tasked over the next year to draft the specific language that would be necessary to change the Model Law. We are making steady progress in the licensure area and recognize that we will have to work with all 56 licensing jurisdictions, with the necessary assistance of State organizations of multiple engineering societies, and the support of professional engineers in general, in each jurisdiction. Raising the bar in all 56 individual jurisdictions will be a formidable, long term challenge, for which ASCE CAP³ is preparing action plans.



Accreditation Committee

The accreditation committee has been on the fast track. Under the leadership of Wayne Bergstrom, Chair and Stephen Ressler, Vice Chair, the committee has prepared draft basic level civil engineering program criteria along with supporting commentary and advanced level general criteria. To improve communication, a Frequently Asked Questions (FAQ) document has been prepared. The draft products can be found on www.asce.org/raisethebar. The committee continues to seek input from a broad base of ASCE stakeholders (EdAC, DHCEC, CC&A, and Department Chairs/Heads). Each iteration results in a better final product. Our implementation schedule includes the following: June 2006 transmit proposed criteria to ABET; 2006—2008 public comment period; fall 2008 pilot visits and fall 2009 new criteria will take effect.

CAP³ had a productive meeting with Civil Engineering Department Chairs/Heads at the end of May. We have several presentations scheduled at the American Society for Engineering Education Conference in mid-June. We will engage the ABET Criteria Committee and ASCE Board of Direction in July. We also look forward to participating in the NCEES annual meeting in August.

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