

## **National Council of Deans of Engineering and Applied Science (NCDEAS) Positions**

### **Principles and Objectives of a Modernized Accreditation Process**

**April 24, 2015**

#### **Principles**

The Deans of Engineering and Applied Sciences across Canada support the purpose of the accreditation process, which is to ensure that students who graduate from accredited programs of studies in engineering 'are academically qualified to begin the process to be licensed as professional engineers in Canada'. In addition, they have the view that it is of fundamental importance that our accredited programs be designed and delivered in a way that maximizes the benefits to our students, safeguards and maintains the best interests of the public, is optimally beneficial to the economy and prosperity of Canada and its regions, and upholds the standards and principles of the profession of Engineering.

#### **Objectives for a Modernized Accreditation Process**

The Deans of Engineering and Applied Sciences across Canada seek the following from a modernized and streamlined accreditation process.

- The accreditation process will allow for the development of programs that are rigorous, challenging, and accessible to students.
- Through their respective programs, students will be encouraged to explore and develop their own interests and creativity so that when they graduate they can contribute to innovation in Canada in an effective manner.
- Students graduating from all accredited institutions will have knowledge based on commonly accepted engineering principles.
- As accreditation requirements evolve over time and new elements are added to programs, they will displace other requirements to ensure that program lengths do not grow over time.
- Programs will have flexibility for educational innovation, enabling improvements in program quality and reduction in costs in a resource-constrained environment. For example, the accreditation process must allow for the exploration and implementation of alternative forms of program delivery (e.g., active learning, experiential learning, project based learning, MOOCS, etc.).
- A minimum of constraints will be imposed on programs in order to allow individual universities to differentiate themselves and allow students to specialize in particular fields of endeavor based on the local strengths and interests of their Faculty and University.

- Students will have the ability to complement their technology-focused studies in their engineering programs with other studies (e.g., management, social sciences, entrepreneurship, research) to better prepare them to enter the global marketplace and their chosen area of practice.
- Given the importance of international connections and opportunities, student mobility will be supported such that students can pursue studies elsewhere in the world through exchange programs, as part of their engineering program of study.
- The workload to prepare for accreditation and monitor indicators on graduate attributes will be kept to a minimum, and should by no means increase beyond the workload required historically, by ensuring that only relevant, meaningful and actionable data is collected and provided to visiting teams for review and analysis.
- Visiting teams require appropriate training to prepare them to deal with the complexities of the graduate attribute assessment process and work with the variety of approaches implemented at various institutions.
- With respect to the qualifications of faculty members:
  - Across Canada, it will be recognized that professional registration in one or more orders in any of the regions of Canada qualifies professors as satisfying registration requirements for accreditation under the CEAB, regardless of the jurisdiction in which the program is offered.
  - In new engineering fields for which in the past there was no accredited engineering curriculum, a method for the licensing of qualified engineering faculty members as professionals is required (e.g., limited license).

In addition, further to its meeting of April 24, 2015, NCDEAS resolves that:

- The NCDEAS institutions offer degrees in engineering that do not exclusively lead to licensure of graduates but rather to a range of career options and post graduate study that meet the needs of students and society.
- The April 24, 2015 statements represent the position of the NCDEAS as to the long term goals for the accreditation process.
- The NCDEAS proposes that there be a review of the curriculum content measurement methodology and would like to be active participants in this review.
- As a transition, the NCDEAS proposes the amendment of “CEAB Criteria and Procedures” Articles 3.4.2 and 3.4.6 to a minimum of 1545 AUs to allow programs to renew curriculum and achieve graduate attributes.