Consultation

Engineering Instruction and Accreditation

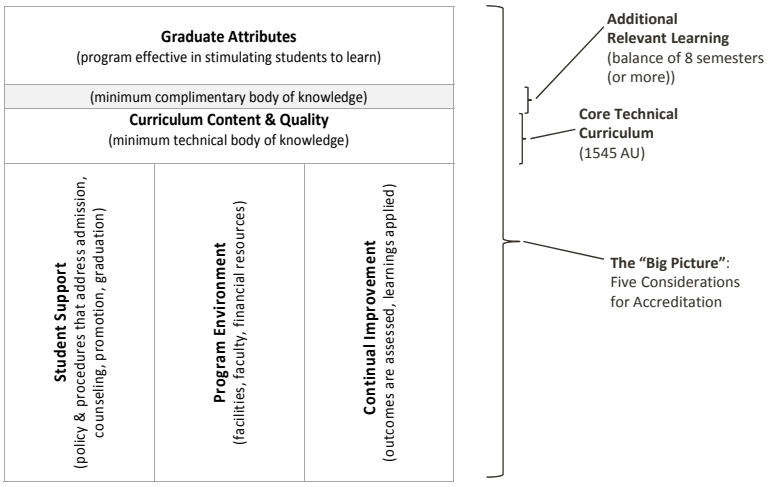
Report to EC Board

February 24, 2016

consultation@engineerscanada.ca
consultation@ingenieurscanada.ca

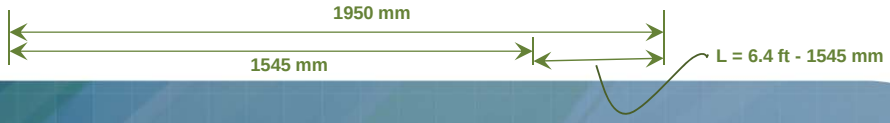
engineerscanada
ingénieurscanada

Accreditation 101



Measurement of Curriculum Content

			Current	Proposed
Core Technical Curriculum	3.4.2	Eng. Science & Eng. Design	900	900
	3.4.2	Math & Natural Sciences	420	420
	3.4.5	Complimentary Studies	225	225
		Lab & Safety Instruction		
		Subtotal	1545	1545
Additional Relevant Learning	3.4.6	Total Program	405 AU – coursework for other learning "… minimum of 1950 AU at University level" (= 8 semesters / 4 yr)	AU not specified but program length is … "8 semesters (or 4 yr) of full-time (or equivalent) appropriate content at a university level"



Additional Learning Activities: the 405AU issue

Current criteria:	Minimum of 1950 AU at a university level which includes 405 AU of coursework not specifically attributed to math, natural sciences, engineering science, engineering design and complementary studies. This reflects an 8 semester/4 year program.
Proposed criteria:	An 8 semester/4 year program that includes outcomes instead of relying only on hours of instruction. Institutions have flexibility in delivery of the portion over and above the technical requirements of the degree, but must be consistent with the expressed fundamental principles. Note: the core technical curriculum does not change

Interpretive Statement v9

Principles

- The integrity and rigour of a four-year engineering degree in terms of content and quality will not be compromised.
- There will be no dilution or reduction in the total learning requirement.
- The additional relevant learning activity must be appropriate to engineering education and approved by the HEI for academic credit.
- The performance of individual students in all learning activities making up the curriculum must be evaluated for the assignment of academic credit.
- The requirements for curriculum content and quality must be satisfied by all students ("minimum path" concept).

Commitment to Quality

- **STAKEHOLDERS**: Don't water down our gold standard!
- **AB**: "The change in criterion 3.4.6 will not result in a dilution or a reduction of the total learning effort from that implied by the former version of this criterion. The integrity and rigour of the Canadian four year / eight semester engineering degree will not be compromised."

Commitment to Quality

- **NCDEAS**: “The deans wish to improve upon the current quality of the engineering degree by adapting the educational delivery and assessment to better meet the evolving needs of the global marketplace. The proposed change would be delivered in a way that benefits students, safeguards the best interests of the public, benefits the economy and prosperity of Canada, and upholds the standards and principles of the profession of engineering.”

- **CONSULTATION GROUP**: “The profession is not at risk of becoming “watered-down” ... If there is a risk, the profession is at risk of falling behind in the world competition.”

The Path Forward: Recommendations

- Further develop the consultation document … considering all suggestions made … lead by AB, through normal EC governance processes … with Consultation Group assistance … EC Board ratification or decision in fall of 2016

- Regulators, AB and NCDEAS more clearly define desired outcome: programs which reliably produce graduates who meet the standards of admission
- AB – policies and procedures to reduce workload (short term solution)
- AB – more effective communication and consultation (change management)
- CEO – more change management expertise and staff assistance to AB (short term solution)
- EC Board – higher awareness of pace of progress and overall system costs (stewardship)
- EC Board and AB – white paper outlining “Accreditation 2020” (long term solution)

The Path Forward: Short Term

Increased staff expertise and assistance to AB, NCDEAS and the Regulators

- training of visiting teams and those preparing for an accreditation visit
- administrative support and tools
- automation of manual processes
- forum for stakeholder engagement
- new Regulator Engagement Committee and Student Engagement Committee
- advisory service available to engineering schools

AB policies and procedures changes proposed to reduce workload

- exploring course material sampling options
- reviewing accreditation visit process to introduce greater efficiencies
- simplifying the accreditation questionnaires that HEIs complete
- automatic table generation from the Course Information Sheet data

Questions and Discussion

Thank you

engineerscanada
ingénieurscanada