Consultation Group – Engineering Instruction and Accreditation

Measurement of Content Comparison Table: Current and Proposed

			Current Min. AU	Proposed Min. AU	Comments
Core Technical Curriculum	3.4.2	Engineering Science and Engineering Design	900	900	No change.
	3.4.2	Math and Natural Science	420	420	No change.
	3.4.5	Complimentary Studies Essential areas of study defined in 3.4.5.1 – see below	225	225	No change.
		Laboratory studies and safety procedures instruction			No change.
		Subtotal	1545	1545	1545 AU ≈ 6.5 semesters
Additional Relevant Learning	3.4.6	Total Program Relevant areas of learning not defined by AB, but must be "relevant to engineering education" and "allowed for degree credit by the HEI"	405 AU - coursework for other learning **Current 3.4.6**: "The program must have a minimum of 1950 accreditation units that are at a university level." Students would normally need eight semesters / four years (or more) of full-time study to accomplish 1950 AU of coursework.	AU not specified, but program length is … **Revised 3.4.6**: "The program must have eight semesters (or four years) of full-time (or equivalent) appropriate content at a university level." Relevant areas of learning are not defined by AB, but intent is stated: **Revised 3.4.6**: "It is expected that the curriculum content required to satisfy the minima specified criterion 3.4.2 will comprise no more than 80% of the total learning workload involved in an engineering program, the remaining 20% to comprise additional relevant learning activity at a university level."	1950 AU ≈ 8 semesters Total institutional credits not to be less than currently accredited program(s). The proposed revision means that accredited programs at each HEI may include 10% - 20% of courses on subjects and using educational methodologies at their own discretion, providing the courses are relevant and at a university level – some latitude for educational innovation by HEIs - see below for examples.

3.4.5.1 "While considerable latitude is provided in the choice of suitable content for the complementary studies component of the curriculum, some areas of study are essential in the education of an engineer. Accordingly, the curriculum must include studies in the following:

a. Subject matter that deals with central issues, methodologies, and thought processes of the humanities and social sciences
b. Oral and written communications
c. Professionalism, ethics, equity and law
d. The impact of technology on society
e. Health and safety
f. Sustainable development and environmental stewardship
g. Engineering economics and project management"

Additional Relevant Learning
Currently 405 AU can be any of AB curriculum categories (MATH, NS, CS, ES, ED) or "Other".
Must be **relevant** to engineering education and at a **university level**, i.e. recognized for degree credit by HEI.
Examples*:

- Management or business studies
- Entrepreneurship
- Active independent learning (project-based; directed research; etc.)
- Structured work terms
- International exchange experiences
- Appropriate graduate courses

*Note: the AB can cite precedent where such content has been accepted under current criteria, i.e. judged relevant by a visiting team and recognized for academic credit by the HEI