
THE WORK OF THE JOINT BOARD OF MODERATORS: REFLECTIONS ON THE UK ACCREDITATION PROCESS, EDUCATIONAL STANDARDS AND THE SKILLS NEEDED BY INDUSTRY



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This address provides a brief description of the work of the JBM (the “Joint Board of Moderators”) which provides independent accreditation of a wide range of civil engineering degrees in the UK (and a limited number of other countries). The JBM acts on behalf of four professional engineering institutions (ICE, IStructE, CIHT, IHE) to provide accreditation of the initial education component of professional qualification as a Chartered Engineer (or the lower grades of membership of Incorporated Engineer or Engineering Technician).

Typically each university is subject to a ‘visit’ on a five year cycle, and accreditation is then provided for a five year future intake. New courses, or courses subject to major changes, are dealt with on an ad-hoc basis. Prior to the ‘visit’ the University provides a very comprehensive submission on the course content and on the most recent output, as well as data on staff, facilities and a wide range of other background information.

The members of the JBM are all members of one or more of the four Sponsoring Institutions, and Board Composition is approximately 50% academics and 50% practicing engineers, from both consultants/designers and (to a limited extent) from contractors. On each ‘visit’ there will always be a similar split (typically 2 academics and 2 practising engineers).

As a deliberate policy the JBM allows a relatively wide variation in course content, with only three mandatory subject areas for Bachelor and Master level (BEng and MEng) degrees, as follows:

Structures

Geotechniques

Materials

Two further mandatory subjects can be selected from a short list of five, leaving the options open for courses with a 'theme', for example, in building structures; or in civil engineering with transportation; or civil and environmental engineering.

The Board looks for an holistic approach to two issues; namely design; and risk assessment/health and safety. It expects these attributes to be embedded into each course and looks for evidence that demonstrates this in the student output. As well as the continuing efforts made to respond to the 'requirements' of the professions and employers of graduate engineers, the current concerns of the Board for the short term and medium term are discussed as follows:

- Responding to a recent government proposal on future engineering education at university level generally
- Encouraging membership of a professional Institution amongst academic staff (controversially the JBM has issued guidelines requiring 50% of academic staff in accredited departments to hold a professional engineering qualification eg MICE or MIStructE).
- Encouraging an appropriate and coordinated approach to teaching sustainability, including technically quantitative assessments of energy and carbon usage
- Dealing with the rapidly changing economics of UK university education, which is currently undergoing the most radical change of the last 50 years or more