

JBM briefing July 2009

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# **An overview**

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The Joint Board of Moderators

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The Joint Board of Moderators

## **The JBM:**

- Founded in 1977, now in our 32<sup>nd</sup> year.
- Original institutions: ICE, the Municipals and IStructE.
- CIBSE a member for a time.
- More recently: IHT and IHIE have joined ICE and IStructE on the JBM.
- Other institutions from the 'civil engineering' sector may apply to become members of JBM.

## **Composition of the JBM:**

- All appointments are made by the institutions, normally for 3 years.
- 20 member Board: 10 from industry, 10 academic members, broadly representing the interests of participating institutions.
- Chairman rotates: industry / academic.
- Three standing Sub-Committees (the chairmen of which sit on the Board):
  - Further learning
  - Higher Level and Technical Qualifications
  - International
- 30 strong panel of visiting moderators, including Board members – visiting teams comprise 2 academics and 2 from industry + secretary.

## **The main activities of the JBM:**

- To formulate and publish guidelines agreed upon by the institutions for the design of Civil Engineering courses for Bachelors and Masters degrees ([www.jbm.org.uk](http://www.jbm.org.uk)).
- To undertake accreditation of the educational base both for institution membership and the award, by license, of the EC<sup>UK</sup> CEng and IEng designations.
- To publish a web-accessible database of accredited degree courses.
- EC<sup>UK</sup> licences require the institutions formally to accredit, so the JBM makes recommendations to the institutions for them to consider and adopt.

**The main activities of the JBM (continued) :**

- The JBM guidelines seek not to be prescriptive and to recognise the diversity of university provision throughout the UK with different emphasis between one university and another.
  - The JBM accredits degrees at some 55 departments on a 5-year cycle.
- The JBM looks for good practice during its visits, and;
- Seeks to promote best practice in its visit reports, and more widely among departments through its Annual Report and the web.

## The JBM guidelines:

- Compliance with the generic standards required by EC<sup>UK</sup> as defined in 'UK-SPEC'.
- The broad JBM definition of Civil Engineering requires significant core content. At least one third of the total curriculum should be spent on core subjects
- The required core subjects **List A** are:
  - Materials
  - Structures
  - Geotechnics
- A minimum of two core subjects **List B** to be chosen from:
  - Fluid Mechanics (Hydraulics)
  - Surveying (Geomatics and Measurement)
  - Transport Infrastructure Engineering
  - Public Health
  - Construction Management
  - Environmental Engineering
  - Architectural Technology

## **The JBM guidelines (continued):**

- If fluid mechanics and surveying are not included within core subjects, the JBM would expect the fundamentals still to be covered. (See separate Guidance Note on the Teaching of Surveying dated July 2009)
- If specialist optional core subjects other than those in list B are covered their inclusion must be justified and Departments must demonstrate that there is a balance of core subjects which will provide the foundation for a career in the construction and environment sectors.



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- The 'Thread' concept in course design - the guidelines are in Annex B, C and D to the JBM Guidelines respectively.
- The three 'Threads' the JBM defines should be evident throughout courses:
  - Design
  - Sustainability
  - Health and Safety Risk Management
- Industrial placements (Annex E)
- Professionalism (Annex F)
- Industrial liaison (Guidance Note dated July 2009).
  - Industrial advisory committees or similar links.
  - Linking to current needs and practice in industry.
  - Giving a department wide access to external contributors.
  - Identifying and providing Site Visits (see separate Guidance Note dated July 2009)
  - More effective interaction with the institutions.

## **UK-SPEC :**

- Assessment for accreditation to be based on OUTPUT standards.
- The JBM visiting teams now review departments on the basis of OUTPUT standards evident in the project reports, examination scripts and other evidence it asks to see (see JBM Guideline on Output Standards).
- But the JBM continues to review INPUT standards to be assured that Output standards can be achieved in departments (see Annex A).
- Problems arise from the declining standards presented from secondary education, particularly weakness in Maths and English.
  - JBM visiting teams seek to be assured that remedial courses are available in maths where there are deficiencies.

## The Institutions and the JBM:

- The research-driven appointment process in universities has led to fewer staff with industrial experience, or having an appreciation of the profession.
- Closer links between departments and the institutions are to be encouraged, to help both staff and students understand the professional life of a Civil Engineer.
- Strengthened links between departments and industry and the institutions may assist.
- Industry needs to recognise the importance of the contribution that can be made within departments, helping to shape its future Civil Engineers.
- Ensuring that a department's Civil Engineering degrees meet employers' expectations.

## Further learning for future Chartered Engineers:

- Masters level - MEng is seen as the 'gold standard'. It is accredited as the complete educational base for future Chartered Engineers.
- Moving from Bachelor to Masters for those wishing to become Chartered Engineers.
  - Acquire a JBM accredited MSc, or
  - Undertake Employer Managed Work Based Further Education to Masters level, or
  - Submit a Technical Report which must demonstrate, amongst other things, equivalence to education to Masters level.
- The different emphasis and content in a Bachelors degree at IEng level and a Bachelors degree at CEng level requires a different kind of MSc:
  - the former requires technical deepening.
  - while the latter may be chosen to be broader in content.

## **Further learning for future Chartered Engineers**

**(continued):**

- Gaining recognition for work placements while at university as counting to Initial Professional Development (IPD).
- IPD to complete the formation of a Chartered Engineer.
- Some of the further education concepts just described, are currently under development by the JBM.

**A brief international perspective:**

- Working with departments overseas, applying the JBM Guidelines.
- Welcoming the formation of national accreditation bodies.
- The offshore campus, a new role for the JBM.

**In summary - the aims of the JBM:**

- To make each accreditation visit to a department a positive experience.
- At a fundamental level - the assurance of standards.
- Seeking to improve a department's performance where necessary.
- To create a challenging student experience.
- To identify and share best practice.

**In summary - the aims of the JBM** (continued):

- To strengthen Civil Engineering as a subject within Universities
  - where departments need support from the profession in the business model of competitive internal university environments.
  - The JBM is a major contributor to formal contact between universities authorities and the profession.
- To encourage participation with industry.
- To encourage institution membership among departmental staff.
- The '**JBM**' continues to be recognised as the pre-eminent brand for accreditation of university Civil Engineering departments and it is important that its rôle and standards are understood, respected and supported.



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