

# Some issues facing the JBM

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ACED Meeting April 2010

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*The Institution  
of Structural  
Engineers*

  
The Institution of Civil Engineers



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The Joint Board of Moderators

**Some Selected Current Concerns of the JBM:**  
(Annual Report 2009)

- Course Aims and Objectives
- Teaching of Structural Analysis and Design
- Health and Safety Risk Management
- Sustainability

## **Course Aims and Objectives:**

The aims and objectives of various degree schemes at a number of Universities were disappointing, with many not differentiating significantly between IEng and CEng degree schemes.

The aims and objectives of the BEng and MEng degree programmes must be written to ensure that they are stand alone.

The broadening aspects of the MEng degree were often overlooked when writing the aims and objectives.

Also, many Departments continue to fail to refer to the uniqueness of their course or their Department's particular strengths. This is an area in which the Industrial Advisory Board or its equivalent, can help to ensure that the course structure meets the aims and objectives as specified by the Department.

## **Teaching of Structural Analysis and Design :**

The Civil Engineering team should review the teaching of structural analysis to ensure that students have developed a suitable methodology to check and question the validity of a computer analysis.

The health and safety responsibilities of designers within projects should be given more emphasis in the teaching of design, specifically in the design projects.

## **Health and Safety Risk Management:**

During two separate visits, the JBM Team had to request that the safety officer review the laboratories as a matter of urgency. This was because there were hazards visible to the Team indicating that the labs were an unsafe environment for the students to work in.

All Civil Engineering teams must require students to use appropriate PPE for all laboratory sessions.

## **Sustainability:**

Sustainability is a JBM 'thread' which should permeate throughout each individual course.

The Civil Engineering teams should promote student awareness of sustainability issues, particularly within the first two years of the programmes.

## **Sustainability:**

Many believe that there is little evidence to show that there is a universal acceptance of the concept of sustainability in Civil Engineering education.

How do we obtain the evidence that a student has an understanding of the concepts of sustainability?

Should we ask questions?



## **Sustainability:**

What contributions can Civil Engineering make to the development of a more sustainable world?

Can you give an example of a Civil Engineering project which is an exemplar of sustainability?

How would you assess the sustainability of a project design: which methods would you use?

What design or construction practices are unsustainable and why?

How can the built environment be made to encourage more sustainable human behaviour?

Tony Parry  
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## **Sustainability:**

Do you think that the department takes sustainability seriously? What is the evidence that you have to support your view?

What do you understand by the term 'sustainability'? Does this understanding affect the way that you approach your life?

Please tell me about the skills and techniques that you have learnt to help you "engineer" sustainability.

Ed McCann  
Expedition Engineering

**Thank you for listening**