

Health and safety—the case for education

Health and safety is being taught on accredited engineering degree courses in Britain, but in reality it's a low priority. **John Carpenter** reports on recent successful initiatives to get health and safety risk management moved up the academic agenda.

ICE members will be aware it has been a requirement for a number of years for undergraduate engineering courses accredited by the UK Joint Board of Moderators (JBM) to contain an element of health and safety risk management.¹

However, initial research sponsored by the UK Health & Safety Executive (HSE) revealed in 2001² that, despite the requirement, it was not occurring on a sufficiently wide scale. Follow-up research in 2004³ found advances had been made but there remained some important outstanding issues, namely:

- ensuring delivery of this key element of study to JBM requirements
- achieving active support from heads of departments
- integrating health and safety as a component of risk management
- encouraging all parts of the industry to work together to achieve the desired goal.

Setting out the arguments

To launch its latest research, HSE sponsored a dinner in October 2004 and invited all those with a formal interest in undergraduate education. It was a successful event, with positive discussion and an agreed action plan for both the hosts and the guests.

One of the main actions for HSE was to produce a reasoned argument for the inclusion of health and safety within construction courses. This has now been done through a formal statement,⁴ the key points of which are:

- management of risk plays a central role in all engineering works
- failure to manage risk leads has economic as well as human consequences
- construction remains a high-risk industry.

The statement goes on to observe that:

'the principles set out in health and safety legislation espouse sound business management procedures, worthy of any business course, and reflect the intellectual essence of managing risk associated with the people, process and products involved in a project.'

Industry / academia partnerships

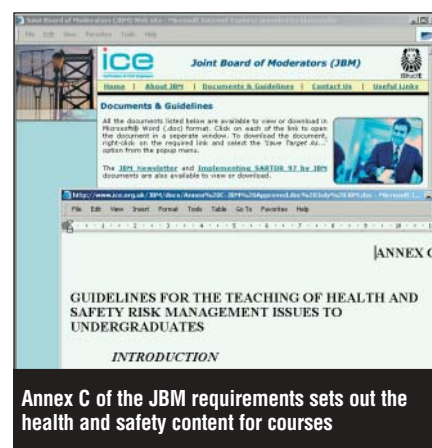
The guests, which included the JBM and the ICE, were invited to:

- report back to their respective organisations and consider any additional issues
- consider mechanisms for improving industry/academia partnerships (e.g. through 'champions')
- bring forward industry/academia partnership exemplars for the 'Accelerating change in built environment education' website.⁵

Follow-up briefing seminars were held for engineering academics and others in December 2004 and for architectural academics in May 2005. There continues to be an understandable concern in respect of further pressures being applied to the curriculum. However, these seminars indicated how health and safety, when considered as an element of risk management, lends itself to an integrated cross-curricular approach that can run as a design thread throughout all accredited courses.

Intellectual understanding

What is also sought is an intellectual understanding of risk, its uncertainty and the obligation for its management. However, though this can be illustrated through practical example – and there are invariably opportunities to do this within courses –



Annex C of the JBM requirements sets out the health and safety content for courses

academics are not expected to train undergraduates in the detail of regulations and site processes. This is the job of employers, specifically during initial professional development and more generally throughout the career span of an engineer.

The UK health and safety summit held on 24 February 2005⁶ also emphasised the importance of competency in engineers (and others). The foundations of competency are laid during the education phase and a major advance in this area is long overdue.

All key bodies have signed up to the principle and practice of risk management teaching to undergraduates: the task now is to deliver on this important aspect of education.

References

1. Annex C on the JBM website at www.jbm.org.uk
2. HSE Contract Research Report 392/2001, www.hse.gov.uk
3. HSE Research Report 275, www.hse.gov.uk
4. HSE. *Health and Safety Risk Management: the case for inclusion within undergraduate courses*. Her Majesty's Stationery Office, London, December 2004, HSE statement.
5. www.cebe.heacademy.ac.uk/learning/acbee/index.php
6. www.hse.gov.uk/construction/summit/index.htm

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