Welcome

This issue reports on HE-related activity that the Engineering Council has been engaged in since the previous HE bulletin in February. Some of this has resulted directly or indirectly from the White Paper on HE in England, and the Engineering Council is actively engaged in responding to the various consultations that the White Paper set in place. There is of course some uncertainty about the combined effect of the various measures, and their full impact on engineering undergraduate numbers and engineering HE in general won’t be known for some time, however there is cause for serious concern. Arrangements will differ in other parts of the UK and developments are being monitored.

On a more positive note, HE STEM funding has been awarded to the Engineering Council to assist in embedding more widely the ‘engineering gateways’ work-based framework; guidance on risk and learning outcomes for Masters degrees have been published; an introductory email for circulation to students about the profession and registration is available on request; and progress made towards recognising the EngD for the purposes of registration.

Please feel free to forward this to colleagues who might be interested. Comments on this issue or content that you would find useful in future issues are welcome. Comments and requests to be added to or removed from the circulation list should be emailed to Deborah Seddon dseddon@engc.org.uk

Learning outcomes for Masters degrees other than the MEng

These have recently been published by the Engineering Council. They were not included in the UK-SPEC document *The Accreditation of Higher Education Programmes* (AHEP) when it was published in 2004, principally because of the wide range of such degrees and their specialist nature. Since then, professional engineering institutions (PEIs) have gained a good deal of experience in accrediting Masters degrees, and more MSc degrees are being put forward for accreditation.

The Masters learning outcomes are available for downloading and a new edition of AHEP incorporating them is being prepared and will be published soon. The material was developed by a task group chaired by Dr Rob Best (IChemE) comprising members from eight PEIs, including several academics. The overall aim is to assist academics and accreditors by focusing on the distinctiveness of the Masters degree compared with the MEng. The main new content is a preamble confirming the range of degrees that may be accredited, including those that are
highly specialised or combinations of specialisms, and the contextual interpretation of the learning outcomes according to the discipline.

The references to team work and design have been slightly amended in recognition of the specialist nature of some Masters degrees. http://www.engc.org.uk/education--skills/accreditation/information-for-universities  Universities are encouraged to use these as soon as possible. The learning outcomes will apply to all Masters courses being put forward for accreditation from July 2012, or sooner by arrangement with individual PEIs. Please check with the accrediting PEI for specific requirements.

If your institution doesn’t offer Masters degrees and would like hard copies of the existing version of AHEP, please contact: info@engc.org.uk

Public information about accreditation

The White Paper on HE in England includes in its proposed key information set (KIS) for each degree a statement about ‘professional bodies that recognise the course’. The Engineering Council welcomes this development as an important opportunity to raise awareness about accredited status and its value to graduates who intend to seek IEng or CEng qualifications. To assist universities and users of the KIS, generic profession-wide statements have been developed by the Engineering Council, working with PEIs. The aim is to ensure a consistent message that is easy to understand. A logo signifying an accredited degree is being developed by the Engineering Council and will be available towards the end of the year. Liaison with the HE Better Regulation Group (HEBRG) is continuing to try to ensure that the KIS entry about professional body recognition directs users to ‘ACAD’, the definitive list of accredited engineering degrees, published and maintained by the Engineering Council. The revised introduction to ACAD explains accreditation periods and eligibility for IEng and CEng. http://www.engc.org.uk/education--skills/accreditation/accredited-course-search

It is worth noting that the QAA’s revised scheme for investigating quality concerns in UK HE, launched in November 2010, lists ‘misleading information about the accreditation of a course by a professional body’ as something that QAA can investigate under this scheme. Universities are advised to ensure that their statements about accredited status are accurate. This may also impact on the scheduling of re-accreditation visits if accreditation is running out. For further details about statements on accreditation contact Deborah Seddon dseddon@engc.org.uk

Changes to an accredited degree

Accreditation is granted on the basis that the accrediting PEI(s) is notified about any major change to an accredited degree. This is not intended to stifle change or innovation, and indeed PEIs expect courses to change and evolve over time. Nor is this intended to place an additional administrative burden on universities. What constitutes a ‘major’ change is a matter of judgement. Apart from major restructuring of a programme, examples would be removal of a module crucial to the delivery of required learning outcomes, or not replacing a key subject specialist. If in doubt, please contact your accrediting PEI for advice about their requirements.

Engineering Doctorates (EngD)

The EngD was not included as an exemplifying academic qualification when UK-SPEC was published, although holders of the EngD are eligible to be considered for CEng on an individual basis and this is happening. It has been suggested that more might be said about EngD holders and CEng registration, and that this would add value to the EngD for individuals and employers. Over the past few months, with the help of a small task group, the Engineering Council has looked into issues such as EngD content, level, range and mode of provision, and the research component, and sought the views of PEIs.

Based on responses from fourteen PEIs, a picture has emerged of strong support for viewing the EngD as an exemplifying academic qualification, even though EngDs vary enormously. PEIs said that they
would consider accrediting the EngD as further learning for a graduate with an accredited Bachelors degree. Most felt that an EngD holder who had the full exemplifying academic qualifications for CEng should be in a roughly comparable position to someone who has completed an accredited IPD programme.

The next step is to consider how the EngD might be accredited. Research indicates that 25% of an EngD is normally spent on taught course work so the recently published learning outcomes for Masters degrees should be helpful. The Engineering Council has agreed the following ‘in principle’ statement:

| Subject to further work being undertaken on the process for accreditation of the EngD, for the purposes of CEng registration, an accredited Bachelors degree with honours in engineering or technology plus an accredited EngD will provide the full exemplifying award. |

In the meantime, in line with the statement in UK-SPEC, institutions should consider the EngD as ‘appropriate further learning to Masters level’, and consider an EngD holder as being in a broadly comparable position to someone who has completed an accredited Initial Professional Development (IPD) scheme.

If you have experience of the EngD and would be interested in contributing to the work on accrediting EngDs, please contact Deborah Seddon dseddon@engc.org.uk as soon as possible.

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**Engineering Council launches guidance on Risk**

Top level generic profession-wide guidance on risk has been published that establishes six principles to help engineers and technicians meet their professional obligations, and to ensure that the identification and management of risk is an important consideration in everyday engineering activity.

Speaking at the launch event in March, Judith Hackitt CBE, Chair of the HSE, welcomed the risk guidance and referred to it as a timely reminder of the important principles for experienced engineers and an invaluable tool for new engineers of all disciplines.

The six risk principles and their supporting statements fit with several explicit references within the UK-SPEC degree learning outcomes, for example risk assessment, industry codes and standards, and health and safety. Engineering departments are encouraged to embed the risk principles programme-wide, rather than treating the topic of risk as a separate module, so that risk is a more holistic part of the underpinning knowledge and understanding of engineering graduates.

The material is concise and accessible for students, and in a similar format to the sustainability guidance, published by the Engineering Council in May 2009. An eight page brochure is available to download at [http://www.engc.org.uk/about-us/guidance-on-risk](http://www.engc.org.uk/about-us/guidance-on-risk) and a handy wallet card listing the six principles, (with those for sustainability on the reverse) can be ordered in bulk for student groups from info@engc.org.uk

If you have ideas for how the risk principles can be used in HE teaching or case studies that can be shared, please get in touch with Deborah Seddon dseddon@engc.org.uk
Enhance your professional status with IEng or CEng after your name

Becoming professionally qualified as an Incorporated Engineer (IEng) or Chartered Engineer (CEng) demonstrates an individual’s commitment to, and standing in, the engineering profession.

**For you** - If you haven’t already gained IEng or CEng status because you think it’s too difficult for academics, think again. Information and case studies showing how other academics have become professionally qualified is available at: [http://www.engc.org.uk/professional-qualifications/registration-for-academics](http://www.engc.org.uk/professional-qualifications/registration-for-academics)

The first step is to become a member of a professional engineering institution (PEI) relevant to your discipline of engineering. That institution is usually able to put you in touch with a mentor who will support you through the registration process.

**For your students** - Professional qualifications should be the next step on the career ladder of any graduate who is serious about a career in engineering. Gaining a degree in engineering gives your students part of what is needed to achieve registered engineer status. Those who go on to work in an engineering role and develop the necessary competences can get their professionalism recognised by gaining IEng or CEng. Whilst students are likely to have heard of CEng, IEng is less well known, and for some, IEng would be a good first step on a progressive route to CEng. Students can start their career journey while studying by becoming a member of a PEI, many of which offer student membership at low or no cost.

Posters and leaflets about IEng and CEng are available. New for this year, the Engineering Council has prepared an introductory email for you to forward to your students, providing information on the profession and registration as IEng or CEng. For a copy of this email or any of the other materials, please email marketing@engc.org.uk putting IEng/CEng in the subject line.

Your students can find out about both titles and how to register at: [http://www.engc.org.uk/ceng](http://www.engc.org.uk/ceng)  [http://www.engc.org.uk/ieng](http://www.engc.org.uk/ieng)

**Engineering Council campaign to promote IEng**

Research has highlighted a lack of awareness and understanding of the value of the IEng professional qualification. To help to address this, the Engineering Council is working with the PEIs on an IEng promotional campaign. Further details on the campaign can be found at: [http://www.engc.org.uk/news-list/engineering-council-fires-up-ieng-promotional-campaign](http://www.engc.org.uk/news-list/engineering-council-fires-up-ieng-promotional-campaign)

If you could help to raise awareness of the IEng professional qualification among your colleagues and students, IEng-specific materials are available for use on departmental noticeboards or in student/alumni newsletters. Please email marketing@engc.org.uk for further information, putting IEng in the subject line.

**Higher National Diplomas**

Since the introduction of UK-SPEC in 2003, individual HND programmes have generally not been accredited but the qualifications have been approved on a national basis. For registration with the Engineering Council, there is no requirement for an HND to be accredited and HNDs are not listed on the academic courses accreditation database (ACAD). A small number of historical records of accredited HNDs have been removed from ACAD to a separate list.

Vice-Chancellor is new Chairman of the Registration Standards Committee (RSC)

Professor Bob Cryan CEng FIET (pictured here) has been appointed Chairman of the Engineering Council’s RSC and took office in July. Professor Cryan is Vice-Chancellor of Huddersfield University and brings to RSC a wealth of HE experience, including five years as Chairman of the Engineering Accreditation Board from 2006-2010. RSC is one of two executive committees of the Engineering Council Board and its main business is the setting of standards and matters related to UK-SPEC, FE, HE and pathways to registration.

UK Bologna Expert

Richard Shearman, Director of Formation and Deputy CEO at the Engineering Council, has been appointed as one of the UK Bologna Experts until the end of 2013. He joins a team of senior academics and administrators supported by the British Council to raise awareness of the Bologna Process among UK higher education institutions, employers and professional bodies, and to inform, advise and support them in engaging with it. Issues on which there is a particular emphasis include mobility, recognition, credit transfer, learning outcomes and employability. For more information contact Richard Shearman at rshearman@engc.org.uk

HE STEM funding awarded to the Engineering Council

The Engineering Council has been awarded Practice Transfer Partnership funding from the HE STEM programme to assist with rolling out the ‘engineering gateways’ flexible work-based framework for HE to more universities. The project will run to June 2012. Details of the project plan and HE partners are being finalised and will be reported shortly.

Global dimension to engineering HE

This project, led by Engineers Against Poverty and supported by several organisations including the Engineering Council, is entering its third and final year. Seven workshops for academics have been held, a student challenge is underway and plans are being made for a top level conference early in 2012. The conference will showcase the project and lessons learnt, and discuss the global dimension in engineering education more broadly. For further details and resources see: http://www.engsc.ac.uk/global-dimension