



Kingston University London

MSc PROFESSIONAL ENGINEERING

“The guided work-based route to registration”

CEng
The mark of excellence

 Engineering
Council

The Chartered Engineer

Chartered Engineers (CEng) enjoy a title that is internationally recognised as a mark of excellence. These elite professionals enjoy benefits such as improved career prospects, greater influence and enhanced professional status.

Today's would-be Chartered Engineers must demonstrate further learning at Masters level and meet defined UK-SPEC competences.ⁱ

The **MSc Professional Engineering** programme is designed to help potential Chartered Engineers satisfy both these key requirements.

Barriers to Professional Status

Recent researchⁱⁱ has shown that many practicing engineers are not achieving CEng status because they are unclear as to how to go about it and believe they will need to take time away from work to meet the further learning requirement.

The **MSc Professional Engineering** addresses these issues by offering step-by-step help in the achievement of UK-SPEC competences and enabling participants to demonstrate further learning through the achievement of employer approved company-based tasks.

The MSc Professional Engineering Approach

The **MSc Professional Engineering** approach includes:

- codifying the participants' normal workplace activities in learning goals in such a way that their completion leads to the recognition of further learning at Masters Level;
- matching workplace achievement against UK-SPEC competences in a well-defined, step-by-step supervised way; and
- providing an academic supervisor and industrial mentor to make the journey to CEng more easily attainable.

The outcome is that participants can work confidently towards their further learning and CEng status **without being away from the workplace and with an expectation of success.**

The **MSc Professional Engineering** programme aligns the work participants are already undertaking in the workplace with the competences required to meet UK-SPEC.

Company Benefits

In addition to providing a structured route to CEng registration, the work-based learning approach also results in knowledge transfer when and where the participant needs it in order to deliver a strategic company advantage.

The programme results in heightened job satisfaction, making staff more valuable to their employer. Having proven high-calibre engineering staff – who these days are much in demand – gives a business a significant commercial advantage.

The **MSc Professional Engineering** programme is extremely cost-effective. It avoids the costs associated with key personnel being absent from work for extended periods, and focuses the learning activity on company valued outcomes.

How the Programme Works

After enrolling, all participants undertake a Professional Development Audit (PDA) (described below) to define the scope of their individually tailored work-based Learning Agreement. This personal Learning Agreement is devised to meet the University's requirements for Masters Level and the requirements of their chosen Professional Engineering Institution (PEI), who also confirm acceptance of the Agreement under a formal Engineering Council protocol. With the support of their supervisor and mentor, the participant works for a period of, typically, two-to three years, to complete their Learning Agreement goals. Upon completion the participant will be required to present their programme of work for assessment at a viva voce.

Satisfactory completion will lead to the award of an MSc acceptable to their PEI for consideration at a Chartered Professional Review Interview, which, if successful will result in CEng status.





The Professional Development Audit

The Professional Development Audit is a reflective assessment of their education, qualifications, experience and competences achieved to date. The PDA is then matched against the UK-SPEC requirements to meet three objectives:

- 1) to assess areas for development to meet the competences required by the PEI / UK-SPEC for CEng;
- 2) as an aid to writing the remaining MSc Learning Agreement goals; and
- 3) to plan of how the candidate intends to meet the required competences.

If the expectation is that completion of the resulting Learning Agreement will fall short of meeting UK-SPEC competence requirements, a candidate who remains registered with the University may transfer to a normal work-based learning MSc in Technology.

Why Study at Kingston University?

Kingston University has been successfully running engineering Masters Degree programmes by work-based learning for over 10 years, with many hundreds of participants having graduated.

In 2006 The UK Engineering Council (EC) successfully applied for funding from the Department of Education and Science (DfES)ⁱⁱⁱ Gateways to the Professions Development Fund to extend and deliver the existing Kingston University work-based learning model to meet both the EC further learning and UK-SPEC competence requirements; thereby providing a step-by-step route to professional recognition that does not require the candidate to take time away from work.

Entry Criteria

Entry to the **MSc Professional Engineering** normally requires the completion of an accredited BSc / BEng (Hons) Degree and at least 2 years experience. Those without such a degree, but with suitable extra industrial experience, may join the MSc subject to PDA assessment.



KEY FEATURES

- step-by-step guidance along the route to CEng
- a means of obtaining 180 Masters Level credits without the need for significant time away from work
- an opportunity to meet the UK-SPEC threshold competences
- Masters Level work-based learning to be recognised within an award which has commensurate academic standing
- normal work-based project deliverables used as evidence of further learning and competences.

Programme Content

Although your Learning Agreement will be specifically targeted at your specialist needs, the content will typically be structured to contain a number of specific elements including:

- The application of technology
- Problem analysis and solution construction
- Engineering design
- Interpersonal and leadership skills
- Professional and ethical management of technology
- Risk management

More About Work-Based Learning

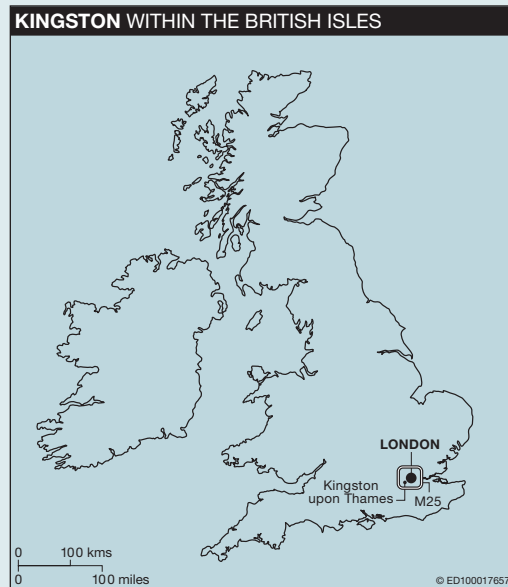
The work-based approach has been identified in UK-SPEC as a means of achieving further learning and competences for some years now. The two quotations below describe how this approach is being encouraged by the Government:

“The Government has an increasing emphasis on flexible modes of delivery, including Work-Based Learning as important mechanisms for achieving the realisation of the UK’s higher skills agenda, and for delivering better productivity levels and economic growth.” (Leitch Review 2006).

“A Work-Based Learning programme is a process for recognising, creating and applying knowledge through, for and at work which forms part (credits) or all of a higher education qualification.” The Higher Education Academy.
<http://www.engsc.ac.uk/er/wbl/index.asp>

Location

Located beside the Thames, Kingston University is within the London travel-pass zone. Easily accessible from surrounding areas such as Surrey and Middlesex, its local stations (Kingston; Surbiton) are also only 20 minutes from Waterloo.



1 The UK engineering profession is regulated by the Engineering Council (EC), which maintains a register of some 250,000 professional engineers and technicians. Anyone applying to become a Chartered Engineer is assessed against a national standard called UK-SPEC (UK Standard for Professional Engineering Competence), the assessment being carried out by an engineering institution or society that has been licensed by EC.
2 2007 EC survey for DIES
3 became the Department for Innovation, Universities and Skills (DIUS)



For further information and an application form please contact:

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