

INSTITUTE OF  
HIGHWAY  
ENGINEERS



## GUIDANCE ON HOW TO MEET FURTHER LEARNING REQUIREMENTS

### Section A: Introduction to the JBM and the need for Further Learning

#### A1 What is the JBM?

The [Joint Board of Moderators](#) (JBM) was established by the [Institution of Civil Engineers](#) (ICE), the [Institution of Structural Engineers](#) (IStructE), the [Institute of Highway Engineers](#) (IHE), and the [Chartered Institution of Highways and Transportation](#) (CIHT) to coordinate accreditation activities for educational programmes in the civil, structural, transportation and associated engineering disciplines within the built environment sector.

The JBM is licensed by the Engineering Council (EngC), the UK's regulatory body for the engineering profession, to accredit degree programmes that partially or fully satisfy the academic requirements for Incorporated Engineer (IEng) or Chartered Engineer (CEng).

#### A2 What is accreditation?

The EngC sets the overall requirements for the Accreditation of Higher Education Programmes (AHEP) in engineering, in line with the [UK Standard for Professional Engineering Competence \(UK-SPEC\)](#). The JBM's accreditation process complies with UK-SPEC's outcomes-based approach and, additionally, the JBM has some civil engineering-specific requirements which must be met (these are set out in the [JBM's Guidelines for Developing Degree Programmes](#)).

JBM accreditation is for a maximum period of five years after which time higher education institutions (HEIs) must undergo a re-accreditation exercise.

#### A3 What is approval?

[Approved](#) qualifications or programmes are subject to independent external validation (such as by Ofqual). Therefore the range of evidence considered is narrower in scope than that for degree accreditation, and a visit is not a requirement but may be undertaken.

## A4 Introduction

A4.1 The chart on page eight of this document identifies the further learning required from different starting points in order to meet the educational base for a Chartered or an Incorporated Engineer, and the [JBM Further Learning Options](#) document (FLJBM 04) outlines the routes open to graduates holding accredited or approved qualifications to achieve this further learning.

A4.2 The route to professional registration in the UK has three stages:

- Attainment of appropriate knowledge and understanding (may be referred to as the appropriate 'educational base'), followed by:
- A period of postgraduate development known as Initial Professional Development (IPD), culminating in:
- A Professional Review to assess and confirm that the required standards have been met.

This document outlines the options open to engineers to meet the further learning requirements.

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## Section B: Academic Requirements for a Chartered or an Incorporated Engineer

### B1 Educational Base for a Chartered Engineer

B1.1 Under the [UK Standard for Professional Engineering Competence \(UK-SPEC\)](#), published by the Engineering Council (EngC), the educational base for registration as a Chartered Engineer (CEng) is exemplified by:

- An integrated MEng degree, or
- An accredited bachelor's degree with honours in engineering or technology, plus either:
  - an appropriate master's degree or engineering doctorate (EngD) accredited by a professional engineering institution (see section C1.2), or
  - appropriate further learning to master's level, such as an Employer-Managed Work-Based Further Learning Programme (see section C2) or an Experiential Learning submission (see section C3).

*For qualification levels and higher education reference points see [QAA](#)*

B1.2 Further learning comprises the additional knowledge and understanding necessary to bridge the gap between an accredited BEng (Hons), BSc (Hons) or BSc degree and an accredited master's degree. Where appropriate, elements of further learning can be integrated with IPD but must be recorded and assessed separately.

### B2 Educational Base for an Incorporated Engineer

B1.1 Under the current [UK Standard for Professional Engineering Competence \(UK-SPEC\)](#), the educational base for registration as an Incorporated Engineer (IEng) is exemplified by:

- An accredited bachelor's degree in engineering or technology, or
- A Higher National Diploma (HND) or foundation degree with appropriate further learning to degree level.
- An NVQ4 or SVQ4 which has been approved for the purpose by a licensed professional engineering institution, plus appropriate further learning to degree level.

*For qualification levels and higher education reference points see [QAA](#)*

B1.2 Further learning comprises the additional knowledge and understanding necessary to bridge the gap between an approved Higher National Certificate (HNC), HND or foundation degree and an accredited IEng degree. Where appropriate, elements of further learning can be integrated with IPD but must be recorded and assessed separately.

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## Section C: Options available to Graduates to meet Further Learning Requirements

### C1 Academic Route

Graduates will follow an accredited academic programme of study. The list of accredited programmes is available to review on the [JBM website](#).

Programmes of study not on the JBM list will be considered by an Academic Assessment – sometimes referred to as the Individual Case Procedure Route or Individual Route Assessment – operated by the JBM member institutions. Graduates with an IEng degree who complete an accredited or non-accredited master's programme will need to be assessed through the individual case/route option.

#### C1.1 IEng candidate

There are a number of educational options for progression beyond the 240 credits (CATs) at levels 4/5 which a candidate with an HND or foundation degree in civil or structural engineering must undertake to meet the IEng educational base.

This will comprise further learning to bring their qualification up to the same number of academic credits as is required for a BSc (300 CATs). This can be done by completing:

- the Associate-Membership (AM) exam of the IStructE, or
- four level 3 units from the final year of an accredited BSc in civil or structural engineering (4 x 15 CATs), or
- an accredited BSc/BSc (Hons) in civil or structural engineering.

Candidates with an HNC will need to undertake additional modules to bring their qualification up to the same number of academic credits as is required for an HND before completing the above.

#### C1.2 CEng candidate

With the exception of the Technical Report routes and approved employer-managed schemes, progression to the educational base for registration as a Chartered Engineer is achieved by formal study, normally by completion of an accredited MSc degree programme. See the [JBM website](#) for a list of accredited degree programmes.

The routes to CEng assume that individuals will complete an accredited BEng (Hons) degree in civil engineering, or its equivalent at CEng level.

If the MSc programme a graduate is intending to study is not shown on the JBM list they will need to apply to one of the JBM member institutions for an assessment of their package of qualifications via the individual case/route option. Please refer to the JBM member institutions' websites for more details.

Research degrees (e.g. MSc by research, MPhil and PhD) are not normally considered for approval as further learning and candidates with such awards should proceed via the individual case/route option for institution membership and CEng registration. The JBM is unable to accredit these programmes due to the bespoke nature of the research topics.

The Chartered Membership examination of the IStructE can be used to demonstrate further learning. This option is open to graduates holding an accredited BEng (Hons) degree in civil and/or structural engineering or the equivalent at CEng level.

#### C1.2.1 Routes to CEng for holders on an IEng accredited bachelor degree

For holders of an accredited IEng level honours degree, the JBM institutions strongly recommend that a technical MSc from the [JBM's list of accredited post-graduate degree programmes](#) is completed. On completion of this MSc, the individual case/route option will need to be followed. Please refer to the JBM member institutions' websites and [JBM guidance for MScs](#) (FLJBM09) for more details.

## C2 Employer-Managed Work-Based Route

Organisations that operate an employer-managed scheme will do so to ensure that they have an effective and efficient work force. They will wish to develop the individual's potential to its fullest extent. To this end, a company scheme could combine in-company training and education with aspects of the routes previously described. The programme will normally take up to three years depending on in-house opportunities.

Graduates will join a scheme that has been accredited by the JBM on behalf of its member institutions. The lists of employers offering accredited schemes for [IEng](#) and [CEng](#) and the detailed guidelines are available to review on the [JBM website](#).

## C3 Experiential Learning Submission

This is for individuals undertaking a self-managed pathway which is not part of an accredited employer-managed work-based scheme. This pathway is operated only by the ICE, CIHT and IHE and details can be found on their websites.

**C4 Technical Report Route for demonstrating Academic Attainment**

The Technical Report Route option is available to applicants wishing to gain registration as a Chartered or Incorporated Engineer but who do not hold a qualification that meets the educational base requirements. The Technical Report Route may also be used as a bridge from IEng to CEng. See separate guidance material produced by the ICE, IStructE, CIHT and IHE as appropriate.

**C5 IStructE Chartered Membership Examination**

The IStructE Chartered Membership Examination can be used by holders of an accredited IEng level honours degree or the equivalent. However, candidates wishing to use the Chartered Membership Examination as further learning will be required to undertake an Academic Assessment to determine whether this option can be used to satisfy CEng level. Each application for an Academic Assessment is judged on an individual basis and the modules studied and the marks obtained in each module will be taken into account.

**C6 Candidates who do not hold Accredited or Approved base Qualifications**

Candidates who do not hold an accredited bachelor degree or HNC/D qualification will need to apply for an assessment of their qualifications by one of the member institutions of the JBM using the individual case/route option and details can be found on their websites.

## Section D: Background Reading

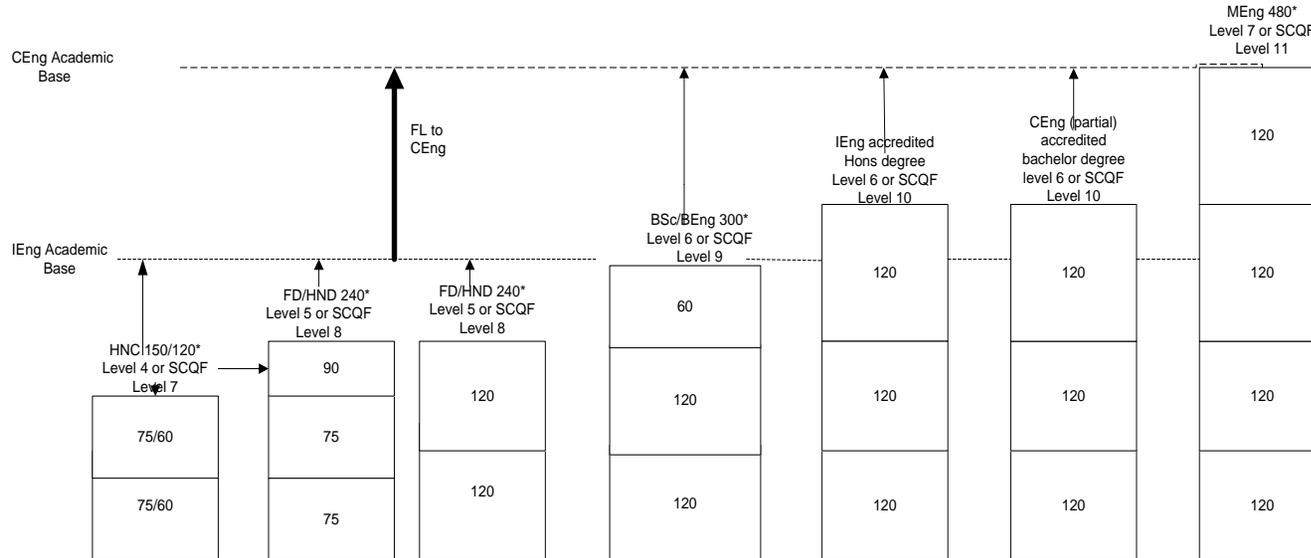
### D.1 Supporting information

This document introduces the further learning process and reference should also be made to other guidelines that are available on the JBM website including:

- [Employer-Managed Work-Based Further Learning Programmes for Completion of the Education Base for a Chartered Engineer](#)
- [Employer-Managed Work-Based Further Learning Programmes for Completion of the Education Base for an Incorporated Engineer](#)

They should also be read in conjunction with the following publications as appropriate:

- [JBM Guidelines for Developing Degree Programmes](#)
- [UK Standard for Professional Engineering Competence \(UK-SPEC\)](#)
- [Accreditation of Higher Education Programmes \(AHEP\)](#)
- [Registration Code of Practice](#)



(\*10 credits = 100 hours of learning = 30 hours of contact)  
Level is academic Level

Once you have gained further learning from a HNC/HND or foundation degree you can then undertake additional further learning to progress to CEng ie M level.