

Applying for Incorporated Engineer

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This document explains

- How to apply for IEng
- The many ways you can meet the academic entry standards
- The purpose and scope of a Professional Review
- The submission you will prepare for a Standard Review
- How to apply for the Review
- What happens on the day
- How to combine the Review with IHE's Professional Certificates

Why aim for IEng

Engineering Council registration confirms your skills and achievements, giving you the edge in applying for new posts. It is recognised throughout the world as a mark of quality.

Becoming an Incorporated Engineer demonstrates a commitment to professional standards, setting you ahead of unregistered engineers and showing a pride in your achievements.

How you do it

By a combination of knowledge and understanding exemplified by an academic qualification (see below) plus proven application of that knowledge on highway and transport projects.

To become a registered Incorporated Engineer your competence to perform professional work to accepted national standards and your professional commitment is assessed through a Professional Review. The Review essentially comprises a report of your experience, backed up by documents you produced in the course of your work, presented at an interview with two incorporated colleagues.

You will need a mentor to assist you. Normally they will be a chartered or incorporated engineer in your company and IHE can supply back-up support. See **Document C** for more on the mentor role.

Come along to one of IHE's courses, "**Preparing for your Review**" and your mentor can attend without charge.

Meeting the Academic Entry Standards

1. The 'benchmark' academic entry standard, set by the Engineering Council (EC), is a degree in engineering or technology.

Older HNCs and HNDs in engineering are still accepted – you do not need a degree. You can apply for the standard Incorporated Review, for instance, if your Higher National has 8 'H' units with a project and Maths N/H and was started before 1999. Check at www.engc.org.uk.

Higher Nationals started in or after 1999 usually have to be topped up to the benchmark degree standard by Further Learning. Normally you need the equivalent of 60 credits to top up to BSc level (300 credits in

total) from an HND which is worth 240 credits. Alternatively, you can follow the Technical Report option which is explained in [Document IE4](#).

2. Science ("cognate") degrees

These lack degree engineering knowledge and analysis and also need to be topped up by Further Learning if you wish to follow the Standard Route, alternatively you can follow the Technical Report Route.

3. Further Learning academic top ups

It is helpful to have at least an HND in engineering or to hold a science degree before you consider topping up your qualifications to the benchmark degree level. Possible further learning academic options include:

- **HND/FD** + relevant MSc or Postgraduate Diploma
- **HND/FD** + Bath Highways Open Tech + 30 degree credits
- **HND/FD** + EC Examination Papers (2 at Certificate + 2 at Diploma level in specific subjects until 2011)
- **HND/FD** + Transfer to a BSc degree course

- **Cognate or Construction degree**, + MSc or Postgraduate Diploma
- **Cognate or Construction degree** + Bath Highways Open Tech
- **Cognate or Construction degree** + NTU Postgraduate Certificate (entry now closed)

- **An honours degree in any subject** (eg BA geography)+ HNC Civils + 30 degree credits (H or I level)
- **An honours degree in any subject** (eg BA geography + Engineering or technical MSc.

You can ask IHE for a list of Part-time degrees and Distance Learning courses.

4. There are also two a Work Based Further Learning options: look at [Document IE4](#)

These options are only available to HND and degree graduates. They allow you to show depth of knowledge equivalent to the incorporated degree level through work you have done for your organisation. One option asks you to compile a report which demonstrates how you have developed your knowledge in employment plus any academic or short courses. The second asks for 2 projects reports to meet the 60 credit shortfall. Once assessed by IHIE, you follow the standard Review route.

Your first step is always to ask IHE where you stand. For a **career assessment**, send a CV explaining your current responsibilities and copies of your qualifications and the units you studied to secretary@ihie.org.uk.

5. The Technical Report Option (See [Document IE4](#) which replaces this Document)

If you cannot meet the academic entry requirements in full, you can prepare and present at an interview, a Technical Report which shows you have acquired engineering knowledge to degree level through your experience.

Your Technical Report and interview will focus on establishing your knowledge of engineering principles. It will be followed by a professional review for which you will have prepared the usual submission. The second interview is much as for the standard route, but will concentrate on your management and communication skills and confirm your level of responsibility and professional commitment.

What is an Incorporated Professional Review?

Standard Route

When you are ready and satisfy both the education and experience requirements, send IHE your review submission showing how you meet the Engineering Council (UK) Statements of Competence and Commitment in **Document IE3**.

You must also have seven "CPD Days" off the job education and training in the two years before submitting and a professional development plan showing five days a year of structured development.

Two IHE Incorporated Reviewers will assess your submission in order to decide whether to call you for interview. Next, you present a couple of recent projects at an interview with these two Reviewers.

Documentation

Document E1 lists all the IHE documents and forms you will need.

Consult *Document A* for advice on the presentation and layout of your reports, on choosing documents and on the interview.

Make **four** copies of your submission and a CD and keep the original for yourself.

Your Review Submission looks like this

- **An IHE Application or Transfer form**
- **A payment form and your cheque or credit card**
- **Academic Certificates authenticated as true copies**
- **Your Job description**
- **An organisation chart with your position highlighted**
- **A professional development record with 7 "CPD Days"**

Plus

1. A CV summarising your employment history: date, employer, job and responsibilities.

Describe clearly the work undertaken and your personal responsibilities. It can be helpful to start each section "I was responsible for"

Mention the size and complexity of schemes for which you were directly responsible.

Keep it short: aim for one page for each five years of employment.

2. Professional Development Forms

Give a succinct description, drawn from your more recent experience, of how you meet each of the 16 Competence and Commitment Statements listed in **Document IE3**.

Aim for no more than 250 words per statement explaining what you have done. The ability to analyse and summarise is part of the communication skills requirement. If we need more information, we will ask you for it.

We recognise most engineers work in teams but we want to know what **you** did and why.

Describe at least two schemes or projects per statement. This gives your Reviewers more confidence in your abilities.

Do not cite training courses as examples. Courses provide you with knowledge – the Review asks you to demonstrate how you have used that knowledge.

Your Mentor should sign off each of the 16 statements to signify it's your work and he's satisfied it meets the requirement.

There is no problem in referring to the same scheme or experience in more than one statement – but ensure you explain which aspects are relevant in each case and don't repeat descriptions.

You need to achieve a 'Practice' pass in Statement E.2 covering health and safety. Make sure you demonstrate risk awareness and assessment. You'll also need to know your role under the CDM Regulations (2007). There's additional IHE guidance available on safety – just ask or come to the Review course.

3. Supporting Evidence

List on the Professional Development Forms, and include in your submission, relevant documentary evidence you have produced which illustrates achievement of each Statement. Aim to submit documents only from a few schemes overall allowing you to refer to the same ones across several statements.

Choose documents to illustrate and substantiate the work described on the Forms.

When looking for evidence, ask 'What can I show someone to convince them that I can do this Statement?'

Put yourself in the assessors' shoes and obviously select your strongest evidence.

Examples of documents and of a cross referencing schedule or matrix you can use to quickly summarise how your chosen documents relate to the 16 EC Standards are included in **Document IE3**.

Seek clearance for any confidential or commercially sensitive work and warn IHE.

All documents should be your own work. If not, explain your role.

There is no need to copy standard information or manuals produced by others; just refer to them in the text showing what use you made of them.

If the evidence is from past projects, and standards or practices have changed, you must show by a note that you are aware of the current standards.

Your documents need not all be elegant – provided that any working papers, sketches or diary extracts are legible.

Reduce plans or drawings to A3 or A4 if possible: you can bring the full size drawing to the Review if you need to.

4. Review Presentation

On one or two sides of A4, briefly describe one or two projects you will discuss at the Review to demonstrate you meet the five broad CEng requirements (Statement headings A, B, C, D and E).

You should show that you

- Solve problems from first principles
- Exercise independent technical judgement
- Manage safety and risk
- Understand financial, statutory and commercial issues
- Manage schemes and resources
- Are self motivated and a team player
- Can communicate concepts and ideas to technical and non-technical people
- Are committed to the profession's code and rules of conduct
- Are committed to your personal and professional development

The schemes may be among those described on your forms.

5. Continuing Professional Development (CPD)

To satisfy Statement E.4 you need to include a CPD record and plan. The plan could be your recent appraisal forms or use IHE forms BO2 and BO3.

Your CPD record should show five days a year of structured development which may include internet research and reading. Use IHE form BO4 or your employer's record.

Please attach a list of seven "CPD Days", formal off the job education and training taken in the two years before you submit. Identify two on health and safety and one on sustainable issues. Do not bother with attendance certificates, a list is sufficient.

6. Corroboration from your Employer Proposer

You should ask a line manager to endorse and authenticate your full completed application. He or she should be a Chartered Engineer familiar with your work and with the Chartered Review who is able to sign off your submission in terms of Engineering Council standards.

He or she should offer constructive criticism and final advice and either your mentor or proposer should offer a mock interview.

Your proposer should complete a confidential report (**Form 301**) to be sent direct to IHE or enclosed with your submission in a sealed envelope.

Applying for Review

Send IHE one copy of your Review submission.

We will confirm your eligibility and give you details of two IHE Reviewers and the Engineering Council representative. You then send them a copy of your full submission direct by post.

The Reviewers complete an Initial Assessment of your submission against each of the 16 EC Standards over about 8 weeks. You will receive copies of their assessments from IHE. They may ask you to bring additional evidence to the interview.

Any identified weaknesses should be addressed in your interview presentation.

If the Reviewers are not convinced that you have broadly achieved the Standards, you will be asked to provide additional information.

Once they are satisfied, you will be told the date and place of your Review.

If you have any disability, special access requirements or medical problems which might affect your performance, tell the IHE Membership Manager in advance and we will do our best to accommodate you. Advice is available for dyslexic applicants.

The Review Interview

The review is very much your show. The Reviewers will ask you to present the scheme outlined in your summary using relevant documents to explain your decisions and your role.

Expect to lead a discussion of about one hour during which the Reviewers will test your knowledge, competence and judgement in order to satisfy themselves that you meet the EC (UK) standards. They will also ask about other projects and responsibilities described on the forms or your CV.

Your Reviewers will normally be IHE Incorporated Fellows familiar with, or practitioners in, your discipline.

After the review

After your review, the Reviewers prepare a holistic assessment of your competence and commitment and a recommendation for the next Institute Membership Committee. If you are successful, you will receive a letter within three weeks of the Committee meeting notifying you of your election as a Fellow. IHE will register you with the Engineering Council.

If you do not succeed you will be given detailed reasons and advice in a letter which you should discuss with your employer. IHE can provide further help and a Mentor will be offered.

If you wish to appeal, ask the IHE Membership Manager about the procedures and reply within six weeks after receipt of your notification. Advice is NOT available during an appeal. You can appeal if you are dissatisfied with the way the Review was conducted. – i.e. if the format, procedure or structure of the Review significantly compromised your ability to convince the Reviewers that you meet the Institute's published standards. It is unlikely that appeals based around the Reviewers' assessment of engineering competence will be pursued.

Exemptions

1. Holders of a full **NVQ/SVQ Level 4/5** in transportation, project or site management are still required to have an approved academic qualification to be eligible for the standard Review route to Incorporated Engineer.

The Institute is a partner in various awarding bodies and if you want further advice ring IHE.

It is suggested that you describe on the relevant Professional Development Forms how the work submitted for your NVQ units meets Statement and cross referencing the documentary evidence in your NVQ portfolio. (See **Document IE3** for an example). Do not send us these documents.

There may be sufficient evidence in your NVQ units about managing others and developing yourself (CPD) to meet Statements C and E.4: just explain how.

Bring your NVQ portfolio to the Review interview but do not submit it in advance.

2. If you have successfully completed an **ICE Career appraisal or a Training programme** you can dispense with the Professional Development Forms. Instead submit proof of your success and a copy of your training record or the career appraisal. There will not be a formal initial assessment; provided the Reviewers are content, you will be called for Review. Check with IHE before you embark on this route. You may need to compile a more detailed CV.

IHE Professional Certificates

IHE Professional Certificates certify achievement of specialist expertise. They are available in Traffic Sign Design, and Traffic Signal Control at Practitioner and Expert Practitioner level. Certificates in Designing for the Public Realm and Development Control are at Foundation level only.

You can apply simultaneously for a Certificate and a Professional Review. In brief, your submission will need to be cross referenced to both the Certificate Statements of Competence and those of the Engineering Council. At the interview your specialist knowledge will be judged alongside the normal Review criteria.

The process is fully explained in **Document TSC 4 and TSD4**.

If you decide to follow this route, please apply to IHE for clearance in the first instance.

How to apply for IEng



