



CEng Experiential Learning Guidance

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Introduction

This document explains what Experiential Learning (EL) is and gives guidance on how to make a submission for assessment. An Experiential Learning submission enables you to use the knowledge you have gained at work to bridge the gap between the qualifications you have, and those you need to fulfil the academic base for Chartered membership with ICE. Once you have completed Experiential Learning, you can then proceed to complete your [Initial Professional Development](#), before sitting the Chartered Professional Review or Chartered Professional Review Progressive route.

If you have any questions or would like more information, please email us at experiential.learning@ice.org.uk.

Further Learning Requirements

To apply for ICE membership, you need to have an accredited academic qualification(s) or have proven the equivalent level of academic knowledge. You also need appropriate experience. The academic qualifications are what we call your [educational base](#).

For **ICE Member grade (MICE) and registration with the Engineering Council as a Chartered Engineer (CEng)** you will need one of the following:

- Accredited integrated MEng
- Accredited BEng (Hons) or BSc (Hons) (or a qualification which is assessed to be of equivalent standard), plus further learning to top up the qualification to Master's Level

An accredited degree is a programme that has been formally assessed by ICE or the JBM as meeting or contributing towards the required academic standards for registration as a Chartered or Incorporated engineer. The ICE's accreditation process complies with the [UK Standard for Professional Engineering Competence](#) (UK-SPEC) outcomes-based approach and also has some civil engineering specific requirements which must be met (these are set out in the [Guidelines for Developing Degree Programmes](#)).

All further learning options require you to meet the appropriate Master's level Learning Outcomes, as specified by the Engineering Council in the [Accreditation of Higher Education Programmes](#) (AHEP).

Further learning covers the gap between the initial accredited qualifications and the academic base needed to register as a Chartered engineer. This might be a formal academic qualification (such as an accredited MSc or Engineering Doctorate (EngD)). The [JBM Website](#) lists accredited further learning programmes.

All further learning options require you to meet the appropriate Master's level Learning Outcomes, as specified by the Engineering Council in the [Accreditation of Higher Education Programmes](#) (AHEP).

AHEP characterises a Learning Outcome as “*a statement of achievement expected of a graduate from an accredited programme*”, with a Learning Outcome area covering the specific skills or knowledge that applicants should be able to demonstrate after completing a “*period of training or education*”.

Master's level learning equates to the study in greater depth of particular aspects or applications of a broader discipline in which you hold an Honours degree at Bachelor's level.

The Experiential Learning submission

The Experiential Learning submission allows you to record the knowledge and skills you have gained at work so that we can assess it. The [Experiential Learning assessment](#) form asks you to provide evidence that demonstrates your learning. You need to demonstrate that the knowledge you have acquired on the job meets the appropriate Learning Outcomes by answering questions A to D in the ICE Experiential Learning assessment form).

In order to make an Experiential Learning Submission, you must be an [ICE Graduate Member](#), [Associate Member](#) or a [full Member](#). Before starting your Experiential Learning submission, you should confirm that your undergraduate course is accredited, use the [ICE course search tool](#). If you have a degree or diploma that is not accredited, you can apply to have your [qualifications assessed](#) to see if they meet the minimum standard. If you can't find your course, email experiential.learning@ice.org.uk and we will confirm whether the course is accredited or not.

The EL submission will be based on one or more appropriate project(s) or activities that demonstrate your Master's level technical leadership and managerial skills in a civil engineering context. You will have to demonstrate your ability to integrate your prior knowledge and understanding of the discipline and engineering practice with the development of advanced level knowledge and understanding, to solve a substantial range of engineering problems, some of them complex or non-routine.

You are required to make a well-structured EL submission based on normally at least 5 years' experience in a civil engineering context. Supporting evidence should be provided in appendices which must be limited to 8 pages and must be clearly sign-posted to the Learning Outcome area (A, B, C or D) that its inclusion in your submission is intended to support.

Master's level experience will provide you with an opportunity to integrate your knowledge of the technical and non-technical aspects of engineering; and develop a commitment to professional and social responsibility and ethical codes. You must demonstrate through your submission that you

have achieved a systematic understanding of the appropriate learning outcomes, including acquisition of coherent and detailed knowledge, most of which is at, or informed by, the forefront of defined aspects of the discipline. Some of the learning outcomes will be at enhanced and extended levels, the balance of which will vary according to the nature of your experience.

Your submission should be a personal account of your learning and experience written in the first person (using 'I undertook this', 'I learned that'...). You must give specific examples of how, through training and experience, you have gained and applied knowledge and understanding.

For example, you should reference:

- the relevant theory and principles
- the application of these principles
- the analytical methods and tools used to apply these principles
- the limits of these principles, methods, and tools
- examples of when you have used these principles, methods, and tools to solve routine or non-routine problems
- a reflective statement must be included which sets out what you have learnt from taking part in the activity, any problems you encountered, what skill/knowledge you have taken from participating in this project which you can apply elsewhere and also, what would you do differently in future

Continuing professional development (CPD)

When you apply for your Experiential Learning, your assessors will be looking for evidence that you can plan and record your self-learning and development as the foundation for lifelong learning/CPD.

You do this by submitting a current development action plan (DAP) and a personal development record (PDR) for at least the last three years.

- A development action plan (DAP) which details your objectives for the current/forthcoming year
- Your personal development record (PDR) should describe all the formal and informal training you've undertaken over the last three years or more. As a guide, you should have at least 30 CPD hours per year
- This should include current formal training related to health, safety and welfare. You can find out more in our CPD guidance document, which includes templates for your DAP and PDR
- Go to page 7 for details on how many appendices are you allowed to submit

Plagiarism

Plagiarism is presenting the work of others as your own. This means using words or ideas, for example, without the permission of the original author or authors, or without their acknowledgement. Plagiarism should be avoided at all times and this includes any reports, drawings and presentations that you submit.

Here are some guidelines to help avoid plagiarism:

- Don't cut and paste material from others.
- Where you've directly quoted others, or the work of others, attribute the source fully and, where appropriate, use quotation marks. As a rule of thumb, material derived from others should be considered a quote, unless it's assumed to be common knowledge – for example, standard equations that are in the public domain.

Plagiarism is taken seriously by the ICE. Should there be concerns with your submission, ICE will investigate including using plagiarism detection software. If this shows significant levels of similarity with any unattributed sources you will be contacted by the ICE and asked to provide an explanation.

Collusion

In the context of your submission, collusion is any agreement to conceal someone else's contribution to your piece of work. The guidance above equally applies to avoiding collusion. Plagiarism and collusion may lead to a ban on applying for membership or, for existing members, permanent expulsion as an ICE member.

If an allegation of plagiarism or collusion is made relating to your application for membership, no result will be given until an investigation has taken place.

Support from a mentor

It is a good idea to have a mentor to support and guide you through the Experiential Learning process. Your mentor can be any experienced engineer who is able – and can make the commitment – to provide guidance. If possible, they should also be a Chartered ICE Member. Your mentor should also, ideally, understand our procedures and standards so that they can work with you to identify the best projects to allow you to demonstrate Master's level learning.

It is also helpful if they are familiar with your work as they will need to send a letter or email of support confirming that the Experiential Learning submission is your own work and that you have gained the experience stated in your submission.

The steps in the Experiential Learning assessment process are:

1. Having received confirmation that you are eligible to use the Experiential Learning process to meet your need for further learning following an academic assessment, from your Graduate Member welcome letter, confirmation from ICE staff, or from your success at the Technical Report Review at IEng, you submit an [assessment form](#) and supporting documentation. You will need to upload the [assessment form](#) and supporting documentation to the [Experiential Learning submission portal](#).
2. Your submission will be reviewed by two members of our Experiential Learning Panel (ELP). Once they have completed their assessment they will make a recommendation to the ELP. The recommendation will be one of the following: -
 - Your submission is acceptable, and they recommend to the ELP that you meet the educational requirements for CEng
 - Your submission needs to be amended to address the assessors' comments
 - Your submission is not acceptable and you are asked to use the [Technical Report Route](#) option or undertake a different further learning option
3. At its next meeting, the ELP will consider the assessors' report and if approved you can then complete your [Initial Professional Development](#) and progress to making a [Professional Review](#) application.
4. Please note if you wish to apply for the Chartered Professional Review (CPR), it is advised that you apply for Experiential Learning **at least three - four months** before the CPR application closing date. This is to ensure that you receive your result in a timely manner and have adequate time to complete your IPD at CEng level.
5. If you became IEng MICE via the Technical Report Route, you will be able to make an Experiential Learning Submission.

What do I have to send?

Your Experiential Learning submission comprises one PDF of no more than 10mb containing:

- An Experiential Learning assessment form
- An extended CV (see below)
- Appendices – no more than 8 sides of A4*
- 3 years of previous PDR records**
- 1 year of current DAP records **
- A [non-refundable fee](#)
- A letter or email from your mentor confirming that your experiential learning submission is your own work and that you have gained the experience stated in your submission

*** You may include up to three sides of A3 pages - however, please note that one side of A3 is equal to two sides of A4; for example, if you include two sides of A3, you will then have four sides of A4 remaining**

****Your PDR and DAP records do not count towards the appendices page limit**

Word Count

2000 words maximum. We recommend you use approximately 500 words for each learning outcome statement.

Extended CV

Your extended CV should be up to four A4 sides long. It should outline your employment history and the main projects that you have worked on. It should focus on the roles you have had; the experience you have gained and demonstrate how you have developed through your career.

Fee

You need to pay online a non-refundable fee before you send your documents. After you have paid the fee, you will be emailed an eight-digit reference number, which you must include in your application form. You can find details of the fee on the [fees page](#) of our website.

Assessment and result

Experiential Learning submissions are assessed on a regular basis. Please view the [key dates](#) page of our website for the submission deadline dates and also an indication of when you should receive your result.

If your submission is approved

If the assessors agree that your submission is acceptable, we will email you, to confirm your academic ability has been recorded at CEng level.

If you are asked for more information - resubmission

If the assessors decide that you have not given enough evidence to achieve all of the Learning Outcomes, you will be asked to provide more information. Any extra information you submit will be re-assessed (at no additional cost). If you are asked to resubmit your application, please highlight the changes you have created and only included the additional information that your assessors have asked for.

You will need to clearly list the changes and additional information that has been sent or show it in the margins of your revised documents. Please note that you will receive your result within 6 weeks of submitting your additional information.

Please note that if you are required to resubmit additional information, you must re-write your original statements and remain within the word count – you are not allowed to exceed the word count.

More information and support

Our Membership Support Team (MST) can give you advice.

Please email membership@ice.org.uk or call +44 (0)121 227 5948 for help.



APPENDIX A - EXPERIENTIAL LEARNING ROUTE QUESTIONS

The four questions below are designed to allow candidates to demonstrate they have achieved the requires Learning Outcomes. When providing answers, it is important to note that a key difference between the IEng and CEng academic base requirements is the ability to address **complex** as well as **broadly defined**¹ problems, and for candidates to **evaluate** the impact of their work and the way they communicate. In addition, when providing evidence related to ‘**engineering principles**’, candidates should provide examples that demonstrates their understanding of the underpinning mathematics, statistics, and science. When evaluating the environmental and societal impact of their work, they should explain it in the context of the **whole project life cycle** and how they sought to **minimise adverse impacts**.

EXPERIENTIAL LEARNING ROUTE FOR CHARTERED ENGINEERS	
LEARNING OUTCOMES FOR ALL CANDIDATES FOR CENG WITH ACCREDITED BACHELOR'S DEGREES OR EQUIVALENT	
A	Science and Mathematics, Engineering Analysis and Practice
	Describe a project, scheme or operation that you have been involved in which demonstrates a comprehensive knowledge and understanding and application of engineering principles, technologies and processes to the analysis and solution of complex problems. Give examples from the project where data may be uncertain or incomplete and discuss the limitations of the techniques employed.
B	Design and Innovation, Health & Safety, and Commercial
	Describe a project, scheme or operation that you have been involved in which demonstrates your knowledge of design processes and how you used an integrated approach for applying your knowledge of legal, health & safety, and commercial matters . Give examples of new developments or original and innovative thinking with reference to research and technical literature .
C	Management, Leadership, Teamwork and Communications
	Give examples of how you have applied knowledge of project and quality management, demonstrated leadership and team working and communicated complex engineering matters with technical and non-technical audiences.
D	Engineer in Society
	Give examples of how you have applied ethical and societal values in your work particularly when balancing risk in the areas of sustainability, environmental, security² and inclusivity .

¹ Broadly-defined problems involve a variety of factors which may impose conflicting constraints but can be solved by the application of engineering science and well-proven analysis techniques. Complex problems have no obvious solution and may involve wide-ranging or conflicting technical issues and/or user needs that can be addressed through creativity and the resourceful application of engineering science.

² The Engineering Council defines security as ‘the state of relative freedom from threat or harm caused by deliberate, unwanted, hostile or malicious acts. It operates on a number of levels ranging from national security issues to countering crime’.

Our vision

Civil engineers at the heart of society, delivering sustainable development through knowledge, skills and professional expertise.

Core purpose

- To develop and qualify professionals engaged in civil engineering
- To exchange knowledge and best practice for the creation of a sustainable and built environment
- To promote our contribution to society worldwide

Diversity statement

As a membership organisation and an employer, we value diversity and inclusion - a foundation for great engineering achievement

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