



The Royal Institution of Naval Architects
EXPERIENTIAL LEARNING REPORT CHARTERED ENGINEER (CENG)

Candidates who do not have the exemplifying academic qualification for CEng as recognised by the UK Engineering Council or relevant Washington Accord signatory are required to submit an **Experiential Learning Report (ELR)** demonstrating that they have achieved the same level of underpinning knowledge and understanding through their practical experience within the workplace.

The required outcomes of an accredited course which meets the academic requirement for CEng are defined in terms of;

- underpinning science, mathematics & engineering principles
- engineering analysis
- design
- economic, social, environmental and ethical context
- engineering practice
- management & leadership.

Section 1: How to complete the Experiential Learning Report

Specific examples of activities should be provided for each outcome, in sufficient detail to enable the Membership Committee to assess whether the required knowledge and understanding has been achieved.

- 1. Contextualize the Experience:** Briefly introduce the organization, your role, and the time period of your experience.
 - Example: "During the summer of 2023, I interned at XYZ Corp as a Marketing Assistant, where I supported digital campaigns targeting a young demographic."
- 2. Responsibilities and Tasks**
 - **List Key Duties:** Outline the primary tasks and responsibilities you undertook.
 - Be specific: Instead of saying "handled data," describe "analysed sales data to identify trends for quarterly reporting."
 - **Provide Context:** Explain how your role fit into the organisation's broader goals or projects.
- 3. Achievements and Contributions**
 - **Highlight Accomplishments:** Use metrics, if possible, to demonstrate the impact of your work.
 - **Focus on Results:** Showcase how your work contributed to the organisation's success or improved processes.
- 4. Challenges and Problem-Solving**
 - **Describe Challenges:** Share one or two significant challenges you faced during the experience.
 - **Explain Your Approach:** Detail how you addressed these issues and what you learned from them.
 - Example: "When a key project faced delays, I implemented a revised timeline and led daily check-ins to ensure team accountability."

5. **How does it meet the Learning Outcome Area?**

- **Connect to the learning outcome area:** Relate your practical experiences to academic requirement for CEng?

Tips for Writing

- **Use Clear Language:** Avoid jargon unless it's widely understood in the field.
- **Be Concise but Detailed:** Stick to the most impactful elements of your experience.
- **Quantify Impact:** Use data to validate achievements whenever possible.
- **Maintain Professional Tone:** Keep the tone formal and reflective.

Inability to provide an example for every outcome will not necessarily preclude a successful application, but the advice of the Institution should be sought as to whether sufficient information has been provided to enable the Membership Committee to assess whether the required level of knowledge and understanding has been achieved.

Section 2: Non-accredited University Study (optional)

Candidates may also support their application with details of their non accredited university program if they have studied in a relevant engineering program, and must be accompanied with supporting documentation. Please fill out Section 2.

Part 1: Experience Learning Recording

Underpinning science, mathematics and engineering principles	Detail of activities	Employment details of where activity took place / reference within academic studies
Apply a comprehensive understanding of scientific, mathematical and engineering principles to complex problems;		
Be aware of developing technologies;		
Apply a comprehensive knowledge and understanding of mathematical and computer models, and appreciate their limitations;		
Apply an understanding of concepts from a range of areas, including some outside engineering, and apply them effectively.		

Engineering Analysis	Detail of activities	Employment details of where activity took place/reference within academic studies
Apply fundamental knowledge, aided by critical evaluation of technical literature or other information sources, to investigate new and emerging technologies.		
Apply mathematical and computer-based models to solve complex problems, and assess their limitations		
Extract data pertinent to a problem, and apply it to solving the problem, using computer-based engineering tools when appropriate.		
Design	Detail of activities	Employment details of where activity took place/reference within academic studies
Apply a wide knowledge and comprehensive understanding of design processes and methodologies, and adapt them in unfamiliar situations;		

Apply an integrated or systems approach to the solution of complex problems		
Generate an innovative design for products, systems, components or processes, that meets defined needs (eg user, business & customer) and takes into account applicable health and safety, diversity, inclusion, cultural, societal, environmental and commercial matters, codes of practice and industry standards.		
Economic, social, environmental and ethical context	Detail of activities	Employment details of where activity took place/reference within academic studies
Evaluate the environmental and societal impact of sustainable solutions to complex problems (to include the entire lifecycle of a product or process) and minimise adverse impacts.		
Identify and analyse ethical concerns and make reasoned ethical choices informed by professional codes of conduct.		
Engineering Practice	Detail of activities	Employment details of where activity took

		place/reference within academic studies
Apply a thorough understanding of current engineering technologies, practice and processes (including workshop & laboratory skills) and their limitations when solving complex problems. Maintain awareness of likely new developments.		
Apply an extensive knowledge and understanding engineering materials and components.		
Apply engineering techniques, taking account of industrial constraints, including the role of quality management and commercial aspects such as legal matters and intellectual property rights.		
Communicate effectively on complex engineering matters with technical and non-technical audiences.		

Management and leadership	Detail of activities	Employment details of where activity took place/reference within academic studies
Apply an extensive knowledge and understanding of engineering management, including project and change management as well as business practices, and their limitations, and how these may be applied appropriately.		
Adopt an inclusive approach to engineering practice and recognise the responsibilities, benefits and importance of supporting equality, diversity and inclusion (EDI) and promote EDI in your work		
Understand the different roles within a team. Function effectively whether leading, as a member or as an individual. Evaluate effectiveness of own and team performance		
Develop, monitor and update, on an on-going basis, a plan, to reflect a changing operating environment, as well as a personal programme of work.		

Learn new theories, concepts, methods etc in unfamiliar situations.		
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