The Royal Institution of Naval Architects



**IPD Logbook**

A record of the Initial Professional Development of Members applying for registration with

the Engineering Council (CEng)

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| **introductioN**  |

**Engineering Council (UK) Registration**

The standards of professional competence and commitment required for Engineering Council registration are defined within the [UK Specification 4th Edition](https://www.engc.org.uk/ukspec4th). It is important that candidates familiarize themselves with the competency standards with the UK Spec 4th Edition as they will need to demonstrate to RINA they meet the standard required for Chartered Engineer (CEng).

RINA has taken the standards from the UK Spec, and applied a Naval Architecture and Maritime Engineering context to create a series of ‘bite-sized’ competencies. Prospective candidates can document their work experience to demonstrate they are working at the standard required for registration.

These are known as RINA’s **Initial Professional Development (IPD)** objectives.

These Objectives may be achieved byexperience, internal training, or external activities (eg training courses, conferences, Branch meetings, etc). Any relevant previous experience, not necessarily in the marine field, and work experience gained prior to graduation may also help you in part to meet the requirements.

**Engineering Council (UK) Registration**

To apply for Chartered Status with the Engineering Council you will be required to demonstrate that you are working at the competency standards required. You have three options in how you can achieve this:

1. **Option 1**: Complete your IPD logbook recording to the required standard, and submit these logbooks to RINA for evaluation.
2. **Option 2**: Complete your IPD logbook recording. Using the logbooks as evidence and content, construct a Professional Review Report. You do **not** need to submit your logbooks alongside your report.
3. **Option 3:** If you are employed and are working under a company where RINA has accredited your IPD Graduate Scheme. You will be required to meet the standards of the scheme, but are **not** formally required to complete IPD logbook recording.

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| **Recording your Work Experience**  |

The IPD logbook books are for candidates to document their practical work experience, to build up a portfolio of evidence to present to RINA that are working at the required standard for registration.

The logbooks can be used in a variety of ways:

* **For forward planning**: to work out what you will need to achieve within your current employment to meet the registration standards.
* **To retrospective recording**: once you believe work has been achieved that meets the competency standard, you can document it within the logbooks.

The Professional Development Objectives are grouped under the broad headings of **Design**, **Engineering Practice**, and Management Services, but the same activity may achieve more than one Objective.

Applying for Professional Registration demonstrates to RINA that you are operating as an *Independent Practicing Engineer* and have the skill set and experience as set out in the UK-SPEC 4.

To meet the registration requirements, RINA would like you to operate broadly across all of the competencies at all 3 levels below.  The minimum levels of ability required in each activity are broadly defined as:

**Level 1:** Having knowledge or being aware of an activity’s existence and the reason for it.

**Level 2**: Having an understanding of the reason for an activity and being familiar with how it should be carried out, or can carry it out with supervision.

**Level 3**: Having the skill to be able to carry out an activity competently and without further guidance

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| **IPD Logbook** |

**What would RINA expect to see in your IPD logbooks?**

When you apply for professional registration, you have the option to submit your completed IPD logbook for review. If you choose this route, RINA will need to be satisfied that your documentation contains sufficient detail to demonstrate that you meet the UK-SPEC 4 standards for registration.

Therefore, we would expect to see the following principles when you are recording your work experience.

**Each logbook will:**

1. Contains detailed descriptions of work undertaken and how it relates to that competency of practice
2. Contains a reflective element – what was successful, what wasn’t successful, what will be improved in the future
3. How does that practice demonstrate you are an independent practising engineer?
4. Detail when and what company work was undertaken
5. Signed off by a line manager or supervisor (if you are submitting your logbooks for review)

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| **advice and assistance**  |

If you require any **advice or assistance** on completing your IPD Logbook, or about any aspect of your Initial Professional Development for registration, you should contact the **RINA Membership Team**

**Membership@rina.org.uk**

The Royal Institution of Naval Architects

8-9 Northumberland Street, London WC2N 5DA

Tel: +44 (0) 20 7235 4622

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| **personal details**  |

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| **Title** | **Name** |
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| **Academic Qualifications**  |

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| **Date** | **College/University** | **Course** |
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| **Employment** |

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| **Date** | **Company** | **Position**  |
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| **Activities (Courses, conferences, Branch meetings, etc )**  |

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| **Date** | **Activity** |
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| **Professional Development Objectives Record of Achievement** |

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| **Design – Analytical skills: D1** |
| **Logbook Sign-Off Information** |
| **Supervisor or Line Manager Name:**  | **Supervisor or Line Manager Contact Email:** |
| **I *(supervisor or line manager)*  can confirm the details within this logbook are accurate as stated Y/N**  |
| **Objective**  | **Date**  | **Activity** | **Activity Level** **(1, 2 or 3)**  |
| **D1.1** | Be able to select and apply the appropriate engineering theory to solve real problems across a range of naval architecture based subjects. |  |  |  |
| **D1.2** | Be familiar witha range of analysis techniques and their limitations, including software packages. |  |  |  |
| **D1.3** | Be able to carry out calculations by hand, by specialist software packages, and by using general office software (for example creating and using spreadsheets for calculations). |  |  |  |

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| **Professional Development Objectives Record of Achievement** |

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| **Design – Design Processes & Methodology: D2**  |
| **Logbook Sign-Off Information** |
| **Supervisor or Line Manager Name:**  | **Supervisor or Line Manager Contact Email:** |
| **I (supervisor or line manager) can confirm the details within this logbook are accurate as stated Y/N**  |
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| **Objective**  | **Date**  | **Activity** | **Activity Level** **(1, 2 or 3)**  |
| **D2.1** | Understand the different stages of the design process, from concept to detail design |  |  |  |
| **D2.2** | Understand design procedures |  |  |  |
| **D2.3** | Understand the implications and interaction of design on manufacture, performance and the environment, and seek to limit environmental impact |  |  |  |
| **D2.4** | Be able to apply current design procedures and devise new procedures where required by your employment |  |  |  |

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| **Design – Communication of Technical Information: D3**  |
| **Logbook Sign-Off Information** |
| **Supervisor or Line Manager Name:**  | **Supervisor or Line Manager Contact Email:** |
| **I (supervisor or line manager) can confirm the details within this logbook are accurate as stated Y/N**  |
| **Objective**  | **Date**  | **Activity** | **Activity Level** **(1, 2 or 3)**  |
| D3.1 | Be able to communicate and assimilate technical information through a variety of means, including:* Written specifications
* Drawings
* Reports
* Presentations
 |  |  |  |
| D3.2 | Be familiar with the types of drawings or CAD models used and conventions employed in the marine industry and understand their functions and uses. |  |  |  |
| D3.3 | Be able to produce drawings, where required by your employment. |  |  |  |

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| **Design – Regulations & Standards: D4**  |
| **Logbook Sign-Off Information** |
| **Supervisor or Line Manager Name:**  | **Supervisor or Line Manager Contact Email:** |
| **I (supervisor or line manager) can confirm the details within this logbook are accurate as stated Y/N**  |
| **Objective**  | **Date**  | **Activity** | **Activity Level** **(1, 2 or 3)**  |
| D4.1 | Be familiar with the standards applicable in design and the designer’s role selecting the appropriate standards to be used. |  |  |  |
| D4.2 | Understand how design methods are applied and controlled |  |  |  |
| D4.3 | Be aware of the regulatory framework, including role of statutory bodies and class societies. |  |  |  |
| D4.4 | Be able to correctly apply appropriate design standards and work within the regulatory framework, where required by your employment. |  |  |  |

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| **Design – Evaluation & Optimisation: D5**  |
| **Logbook Sign-Off Information** |
| **Supervisor or Line Manager Name:**  | **Supervisor or Line Manager Contact Email:** |
| **I (supervisor or line manager) can confirm the details within this logbook are accurate as stated Y/N**  |
| **Objective**  | **Date**  | **Activity** | **Activity Level** **(1, 2 or 3)**  |
| D5.1 | Be familiar withmethods of evaluation and optimisation used in design. |  |  |  |
| D5.2 | Be familiar with plan approval processes and internal and customer design reviews. |  |  |  |
| D5.3 | Be able to evaluate designs to ensure that they are fit for purpose  |  |  |  |
| D5.4 | Be able to apply optimisation techniques to a proposed design when required by your employment  |  |  |  |

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| **Design – Design Management: D6**  |
| **Logbook Sign-Off Information:**  |
| **Supervisor or Line Manager Name:**  | **Supervisor or Line Manager Contact Email:** |
| **I (supervisor or line manager) can confirm the details within this logbook are accurate as stated Y/N**  |
| **Objective**  | **Date**  | **Activity** | **Activity Level** **(1, 2 or 3)**  |
| D6.1 | Understand how design projects are organised and managed. |  |  |  |
| D6.2 | Be able to carry out basic design project management, involving planning, resources, budgets, contracts and quality assurance, where appropriate. |  |  |  |

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| **Professional Development Objectives Record of Achievement** |

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| **Design – Safety, Risk & Hazards: D7**  |
| **Logbook Sign-Off Information:**  |
| **Supervisor or Line Manager Name:**  | **Supervisor or Line Manager Contact Email:** |
| **I (supervisor or line manager) can confirm the details within this logbook are accurate as stated Y/N**  |
| **Objective**  | **Date**  | **Activity** | **Activity Level** **(1, 2 or 3)**  |
| D7.1 | Be familiar with techniques for the evaluation of risk and measures to reduce it |  |  |  |
| D7.2 | Understand the safety implications of design and of hazard identification and amelioration. |  |  |  |
| D7.3 | Be aware of reliability techniques and factors affecting a products through life capabilities. |  |  |  |
| D7.4 | Be able to apply techniques to achieve safe design. |  |  |  |

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| **Design – Research & Development: D8**  |
| **Logbook Sign-Off Information:**  |
| **Supervisor or Line Manager Name:**  | **Supervisor or Line Manager Contact Email:** |
| **I (supervisor or line manager) can confirm the details within this logbook are accurate as stated Y/N**  |
| **Objective**  | **Date**  | **Activity** | **Activity Level** **(1, 2 or 3)**  |
| D8.1 | Be familiar with research methods and knowledge of information sources. |  |  |  |
| D8.2 | Understand of the need for research and development, and its importance to the business. |  |  |  |
| D8.3 | Understand the necessity for experimental/laboratory work, the type of projects undertaken and the methods employed. |  |  |  |
| D8.4 | Be able to carry out efficient research and correctly interpret results, where required by your employment.  |  |  |  |

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| **Design – Materials: D9**  |
| **Logbook Sign-Off Information:**  |
| **Supervisor or Line Manager Name:**  | **Supervisor or Line Manager Contact Email:** |
| **I (supervisor or line manager) can confirm the details within this logbook are accurate as stated Y/N**  |
| **Objective**  | **Date**  | **Activity** | **Activity Level** **(1, 2 or 3)**  |
| D9.1 | Be familiar with the range of materials available, their use and limitations. |  |  |  |
| D9.2 | Understand of factors affecting material selection. |  |  |  |
| D9.3 | Understand the implications and interaction of design on manufacture, performance and the environment, and seek to limit environmental impact |  |  |  |
| D9.4 | Be able to specify the correct use of materials, where required by your employment. |  |  |  |

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| **ENGINEERING PRACTICE - Overview of Production E1**  |
| **Logbook Sign-Off Information** |
| **Supervisor or Line Manager Name:**  | **Supervisor or Line Manager Contact Email:** |
| **I (supervisor or line manager) can confirm the details within this logbook are accurate as stated Y/N**  |
| **Objective**  | **Date**  | **Activity** | **Activity Level** **(1, 2 or 3)**  |
| E1.1 | Be aware of production methods and product work breakdown structures |  |  |  |
| E1.2 | Be aware of the different stages of production, such as fabrication, construction, outfitting and installation. |  |  |  |
| E1.3 | Be aware of current production technologies used in the marine industry. |  |  |  |
| E1.4 | Be aware of engineering practical skills required in the marine industry. |  |  |  |
| E1.5 | Understand the correct use of current engineering technologies. |  |  |  |

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| **ENGINEERING PRACTICE – Safety & Ethics: E2** |
| **Logbook Sign-Off Information** |
| **Supervisor or Line Manager Name:**  | **Supervisor or Line Manager Contact Email:** |
| **I (supervisor or line manager) can confirm the details within this logbook are accurate as stated Y/N**  |
| **Objective**  | **Date**  | **Activity** | **Activity Level** **(1, 2 or 3)**  |
| E2.1 | Be aware of safety hazards in the production environment and measures to protect against them. |  |  |  |
| E2.2 | Apply a sound knowledge of health and safety legislation and its resulting obligations on the employer and on the individual. |  |  |  |
| E2.3 | Be able to apply appropriate safety procedures. |  |  |  |
| E2.4 | Understand the ethical issues that may arise in your role and carry out your responsibilities in an ethical manner. |  |  |  |
| E2.5 | Understand the principles of sustainable development and apply them in your work |  |  |  |
| E2.6 | Understand and comply with relevant codes of conduct |  |  |  |
| E2.7 | Reinforce team commitment to professional standards |  |  |  |

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| **ENGINEERING PRACTICE – Quality E3** |
| **Logbook Sign-Off Information** |
| **Supervisor or Line Manager Name:**  |
| **Supervisor or Line Manager Contact Email:** |
| **I (supervisor or line manager) can confirm the details within this logbook are accurate as stated Y/N**  |
| **Objective**  | **Date**  | **Activity** | **Activity Level** **(1, 2 or 3)**  |
| E3.1 | Be aware of quality control methods employed, standards and qualifications, non-destructive testing, and the quality assurance procedures. |  |  |  |
| E3.2 | Be familiar with quality control and assurance procedures. |  |  |  |

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| **ENGINEERING PRACTICE – Production Management: E4** |
| **Logbook Sign-Off Information** |
| **Supervisor or Line Manager Name:**  | **Supervisor or Line Manager Contact Email:** |
| **I (supervisor or line manager) can confirm the details within this logbook are accurate as stated Y/N**  |
| **Objective**  | **Date**  | **Activity** | **Activity Level** **(1, 2 or 3)**  |
| E4.1 | Understand how production is organised and controlled, including, planning, budgeting, expediting, reporting of progress and control of resources – material, manpower and information. |  |  |  |
| E4.2 | Be aware of production optimisation/ improvement techniques. |  |  |  |

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| **ENGINEERING PRACTICE** **– Commissioning & Setting to Work, Maintenance & Operation: E5**  |
| **Logbook Sign-Off Information** |
| **Supervisor or Line Manager Name:**  | **Supervisor or Line Manager Contact Email:** |
| **I (supervisor or line manager) can confirm the details within this logbook are accurate as stated Y/N**  |
| **Objective**  | **Date**  | **Activity** | **Activity Level** **(1, 2 or 3)**  |
| E5.1 | Be aware of the function of commissioning and trials. |  |  |  |
| E5.2 | Be aware of the commissioning process – setting to work, trials and handover. |  |  |  |
| E5.3 | Be aware of maintenance and repair regimes and their effects on costs and operability. |  |  |  |

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| **ENGINEERING PRACTICE – Procurement: E6** | **Activity Level** **(1, 2 or 3)**  |
| **Logbook Sign-Off Information** |
| **Supervisor or Line Manager Name:**  | **Supervisor or Line Manager Contact Email:** |
| **I (supervisor or line manager) can confirm the details within this logbook are accurate as stated Y/N**  |
| **Objective**  | **Date**  | **Activity** |  |
| E6.1 | Be aware of the relationships with suppliers, through specifications and contracts, and of how materials/components are stored and handled within a production environment. |  |  |  |
| E6.2 | Be aware of the factors that affect purchasing of materials/equipment/services. |  |  |  |

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| **MANAGEMENT SERVICES – Accounts & Finance: M1**  |
| **Logbook Sign-Off Information** |
| **Supervisor or Line Manager Name:**  | **Supervisor or Line Manager Contact Email:** |
| **I (supervisor or line manager) can confirm the details within this logbook are accurate as stated Y/N**  |
| **Objective**  | **Date**  | **Activity** | **Activity Level** **(1, 2 or 3)**  |
| M1.1 | Be aware of the role of accounts in the control and administration of the business. |  |  |  |
| M1.2 | Be aware of company accounting procedures and processes. |  |  |  |
| M1.3 | Be familiar with how budgets are compiled and controlled. |  |  |  |
| M1.4 | Be able to apply correct accounting procedures. |  |  |  |

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| **MANAGEMENT SERVICES – Human Resources: M2** |
| **Logbook Sign-Off Information** |
| **Supervisor or Line Manager Name:**  | **Supervisor or Line Manager Contact Email:** |
| **I (supervisor or line manager) can confirm the details within this logbook are accurate as stated Y/N**  |
| **Objective**  | **Date**  | **Activity** | **Activity Level** **(1, 2 or 3)**  |
| M2.1 | Be aware of employment legislation and its effects. |  |  |  |
| M2.2 | Be aware of the requirements for the supply and training of skilled personnel. |  |  |  |
| M2.3 | Be familiar with teamwork and leadership skills, and methods of self-development, factors affecting morale and motivation, and their effects. |  |  |  |
| M2.4 | Be able to interact and relate to all levels of personnel in an effective and constructive manner |  |  |  |
| M2.5 | Be aware of diversity and inclusion issues, and how your work or behavior might affect others |  |  |  |
| M2.6 | Promote equality, diversity, and inclusion |  |  |  |

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| **Professional Development Objectives Record of Achievement** |

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| **MANAGEMENT SERVICES – Quality Assurance: M3** |
| **Logbook Sign-Off Information** |
| **Supervisor or Line Manager Name:**  | **Supervisor or Line Manager Contact Email:** |
| **I (supervisor or line manager) can confirm the details within this logbook are accurate as stated Y/N**  |
| **Objective**  | **Date**  | **Activity** | **Activity Level** **(1, 2 or 3)**  |
| M3.1 | Be aware of quality assurance policy and documentation. |  |  |  |
| M3.2 | Understand the aims of QA policies. |  |  |  |
| M3.3 | Be able to apply correct QA procedures where required. |  |  |  |

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| **Professional Development Objectives Record of Achievement** |

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| **MANAGEMENT SERVICES – Company Structure & Organisation: M4** |
| **Logbook Sign-Off Information** |
| **Supervisor or Line Manager Name:**  | **Supervisor or Line Manager Contact Email:** |
| **I (supervisor or line manager) can confirm the details within this logbook are accurate as stated Y/N**  |
| **Objective**  | **Date**  | **Activity** | **Activity Level** **(1, 2 or 3)**  |
| M4.1 | Be aware of company structure and the functions of differing departments or sections of the company. |  |  |  |

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| **MANAGEMENT SERVICES – Marketing & Communication M5** |
| **Logbook Sign-Off Information** |
| **Supervisor or Line Manager Name:**  | **Supervisor or Line Manager Contact Email:** |
| **I (supervisor or line manager) can confirm the details within this logbook are accurate as stated Y/N**  |
| **Objective**  | **Date**  | **Activity** | **Activity Level** **(1, 2 or 3)**  |
| M5.1 | Be aware of marketing techniques, company profile, and relationships with customers, the wider marine industry and the media/public. |  |  |  |
| M5.2 | Be aware of the factors affecting customer satisfaction. |  |  |  |
| M5.3 | Be aware of varying cultures in working in a global industry |  |  |  |

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| **Professional Development Objectives Record of Achievement** |

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| **MANAGEMENT SERVICES – Managerial Skills, Contracts & Negotiations M6** |
| **Logbook Sign-Off Information** |
| **Supervisor or Line Manager Name:**  | **Supervisor or Line Manager Contact Email:** |
| **I (supervisor or line manager) can confirm the details within this logbook are accurate as stated Y/N**  |
| **Objective**  | **Date**  | **Activity** | **Activity Level** **(1, 2 or 3)**  |
| M6.1 | Be aware of different management techniques and styles, and of their application. |  |  |  |
| M6.2 | Be aware of contractual obligations upon company and self. |  |  |  |
| M6.3 | Be familiar with negotiating techniques and skills. |  |  |  |
| M6.4 | Be able to manage a project, section or department efficiently. |  |  |  |

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