

**AEng MIEI** – Engineers Ireland

**Regulations for the registered professional  
title of Associate Engineer**

# Foreword

Engineers Ireland is the professional body for engineers and engineering in Ireland. With more than 28,000 members across the island of Ireland and overseas, our responsibilities are to:

- Promote knowledge of engineering
- Establish and maintain standards of professional engineering and engineering education
- Provide opportunities for continuing professional development (CPD) for engineers and technicians
- Maintain standards of professional ethics and conduct
- Ensure that registered professional titles are granted to qualified applicants
- Act as the authoritative voice of the engineering profession in Ireland

Through the Institution of Civil Engineers of Ireland (Charter Amendment) Act 1969, Engineers Ireland is empowered to set down “the conditions subject to which students, engineering technicians or other persons may be associated with the Institution”. The registered professional title (henceforth ‘title’) of Associate Engineer is confined to those who have satisfied the Council of Engineers Ireland of their competence and experience.

Achieving the Associate Engineer title is a public statement of your professional competence. It is a seal of approval by your peers that you have developed your ability beyond that achieved in your academic formation to that of a professional practitioner. It is also a mark of your commitment to the continuing development of your professional expertise and ethical practice.

The Associate Engineer title is internationally recognised through agreements entered into by Engineers Ireland, thereby promoting international mobility. The educational standard for the Associate Engineer title is set out in Engineers Ireland's Accreditation Criteria.

This document presents the regulations for the Associate Engineer title, including regulations for engineering education, engineering experience, the application, assessment and professional interview. The main changes to the previous (2005) regulations relate to the professional competence statements and process alignment with Engineers Ireland's other professional titles.

Guidelines on applying for the registered professional title of Associate Engineer can be found on [www.engineersireland.ie](http://www.engineersireland.ie).

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## 1. The Associate Engineer

- 1.1 The Associate Engineer is competent to apply in a responsible manner current engineering technologies in a chosen field. An Associate Engineer exercises independent technical judgement and works with significant autonomy within their allocated responsibility. The performance of their engineering work requires an understanding of relevant financial, commercial, statutory, safety, management, social and environmental considerations. As an Associate Engineer you will:
- Use a combination of general and specialist engineering knowledge and understanding to apply existing and emerging technology
  - Apply appropriate theoretical and practical methods to design, develop, manufacture, commission, operate and maintain products, equipment, processes and services
  - Assume technical, sustainable and commercial responsibility
  - Use effective communication and interpersonal skills
  - Make a personal commitment to live by the appropriate code of professional conduct, recognising obligations to society, the profession and the environment
- 1.2 If you are successful, you will be entitled to use the Associate Engineer title and use the designatory letters AEng MIEI after your name.
- 1.3 There are two phases to becoming an Associate Engineer: engineering education and engineering experience. The requirements of these two phases are outlined in the following sections.

## 2. Engineering Education

To become an Associate Engineer, you must acquire an appropriate understanding of the engineering principles associated with your engineering discipline. As specified in the Engineers Ireland Accreditation Criteria, the education standard for the Associate Engineer title is an accredited Bachelor's degree. Applicants may also hold an equivalent qualification or educational standard as outlined below.

### 2.1 Standard Route

To apply for the Associate Engineer title through the Standard Route, you must hold one of the following:

- Bachelor's degree (Level 7 on the National Framework for Qualifications) accredited by Engineers Ireland
- Bachelor's (Honours) degree (Level 8 on the National Framework for Qualifications) accredited by Engineers Ireland
- International qualification accredited under the Sydney Accord
- A First Cycle Degree listed on the European Engineering Education Database
- An EU engineering qualification substantially equivalent to an Engineers Ireland accredited Bachelor's degree (on the basis of EU Directives on recognition of professional qualifications)
- Membership of Engineers Ireland at the Associate Engineer standard, MIEI (AEng standard), having been admitted through an alternative route to membership

Refer to Section 4 of these regulations for applying through the Standard Route.

### 2.2 Experiential Learning Route

The following applicants are eligible to apply for the Associate Engineer title through the Experiential Learning Route:

- Members of Engineers Ireland who hold the Engineering Technician title (Eng Tech MIEI)
- Members of Engineers Ireland (MIEI)
- Technician members of Engineers Ireland (Tech IEI)

This route requires demonstrating the substantial equivalence of education and experience to the learning achieved in a Bachelor's degree accredited by Engineers Ireland at the Associate Engineer standard. Applicants must hold adequate experience for the achievement of this learning and the professional competences. Refer to Section 5 of these regulations for applying through the Experiential Learning Route.

### 3. Engineering Experience and CPD

- 3.1 To become an Associate Engineer, you must develop competences to apply what you learned in your engineering education to engineering practice.

**The competences of an Associate Engineer are:**

**1. Engineering knowledge and understanding:**

Use a combination of general and specialist engineering knowledge and understanding to apply existing and emerging technology. Associate Engineers **must** demonstrate how they:

- 1.1 Develop, review and select techniques, procedures and methods to undertake tasks
- 1.2 Apply appropriate scientific and engineering principles in the technology lifecycle
- 1.3 Undertake a significant role in the achievement of technical tasks
- 1.4 Apply emerging technologies and innovative approaches as appropriate to their specific area of engineering

**2. Development and implementation of engineering solutions:** Apply appropriate theoretical and practical methods to design, develop, manufacture, commission, operate and maintain products, equipment, processes and services. Associate Engineers **must** demonstrate how they:

- 2.1 Identify broadly-defined problems, select methods and prepare and implement plans
- 2.2 Evaluate results and options, considering cost, safety, quality and sustainability
- 2.3 Implement engineering solutions and monitor and assess operation against criteria
- 2.4 Identify and take action in situations where unexpected conditions or circumstances are encountered

**3. Professional responsibility and leadership:**

Assume technical, sustainable and commercial responsibility. Associate Engineers **must** demonstrate how they:

- 3.1 Plan and co-ordinate activities against objectives

- 3.2 Monitor performance against agreed targets and/or criteria
- 3.3 Assist in the preparation and control of budgets and operate within the financial and commercial constraints of an organisation and the overall statutory framework
- 3.4 Exhibit leadership in the working environment

**4. Communication skills:** Use effective communication and interpersonal skills. Associate Engineers **must** demonstrate how they:

- 4.1 Communicate technical information in a clear, concise and effective manner
- 4.2 Communicate engineering solutions effectively to non-technical stakeholders
- 4.3 Work and communicate inclusively with others
- 4.4 Contribute to negotiation of commercial and technical terms for delivery of engineering services or supply of equipment

**5. Ethical practice:** Make a personal commitment to live by the appropriate code of professional conduct, recognising obligations to society, the profession and the environment. Associate Engineers **must** demonstrate how they:

- 5.1 Comply with the Code of Ethics of Engineers Ireland and discharge their responsibilities in an ethical manner
- 5.2 Understand and apply safe systems of work
- 5.3 Undertake their engineering work in an environmentally conscious manner to achieve sustainable outcomes
- 5.4 Carry out and record CPD necessary to maintain and enhance competence in their own area of practice

- 3.2 The development of these competences requires relevant experience of professional engineering practice after the achievement of the required engineering qualification. This takes a minimum of three years for a four-year degree and four years for a three-year degree and involves relevant engineering experience and continuing professional development (CPD). The proportion of your time spent in professional practice as opposed to training will obviously increase as you develop engineering competences.

Other accepted engineering experience may include:

- Full-time research involving significant engineering work
- Lecturing on engineering subjects on a third-level engineering programme
- Working as an engineering technician or undertaking a professional engineering apprenticeship prior to qualifying as an engineer (accepted as a maximum of one year of engineering experience when approved in advance by Board of Examiners)

- 3.3 CPD is the planned acquisition of knowledge, experience and skills, and the development of the personal qualities necessary for the execution of professional and technical duties throughout an engineer's professional life. As per the Engineers Ireland CPD policy, all members are required to undertake and record a minimum of 35 hours of CPD per annum. Applicants must demonstrate their CPD for each of the two years prior to the submission of their application.

## 4. Standard Route

- 4.1 Applicants must be a member of Engineers Ireland for a minimum of three months immediately prior to applying
- 4.2 Applicants must have completed the engineering education required by Section 2.1 of these Regulations
- 4.3 Applicants must complete the online application form provided by Engineers Ireland by the designated deadline
- 4.4 Applicants must demonstrate how they have developed the competences of an Associate Engineer as presented in Section 3 of these Regulations
- 4.5 Applicants must include a record of their CPD and provide an indicative plan for their professional development over the short, medium, and long term
- 4.6 Applicants must provide two supporters of their application. Supporters should be familiar with all or part of the applicant's career as an engineer, and their engineering experience and ability. Supporters must hold the title of Chartered Engineer or Associate Engineer or another professional body with which Engineers Ireland has an agreement. In exceptional circumstances, Engineers Ireland will consider alternative supporters, where, because of the nature of the applicant's employment, the applicant cannot provide two Chartered Engineers (or one Chartered Engineer and one Associate Engineer) as supporters. Applicants must contact the Membership Team to discuss this option at least two months before submitting the application.
- 4.7 Applications are assessed by a member(s) of Engineers Ireland who is/are considered competent by the Board of Examiners. The purpose of the Assessment is to determine whether the applicant broadly meets the requirements of these Regulations and whether the applicant should be allowed to proceed to the Professional Interview.
- 4.8 The Professional Interview is conducted by a panel of two or three members of Engineers Ireland who are considered competent by the Board of Examiners to make recommendations on the suitability of candidates for the Associate Engineer title and whose knowledge and experience are appropriately aligned to that of the applicant. The members of the Interview Panel are required to satisfy themselves that the applicant has reached an acceptable level in the competences of an Associate Engineer.
- 4.9 Where the interview panel recommends awarding the Associate Engineer title, this recommendation is forwarded to the Membership & Qualifications Board for approval
- 4.10 Where the interview panel recommends that the Associate Engineer title is not awarded, this recommendation is forwarded to the Board of Examiners to ensure that the feedback and advice given is fair, consistent and helpful
- 4.11 The assessment and interview process is subject to a Quality Assurance Policy designed by Engineers Ireland to assure continuing high quality and the integrity of the procedures
- 4.12 All Assessors and Interviewers are bound by the Council of Engineers Ireland to maintain complete confidentiality in relation to all aspects of the review procedure, documentation and associated candidate data
- 4.13 Applicants have the right to appeal as per the Engineers Ireland Appeals Policy



## 5. Experiential Learning Route

- 5.1 Applicants must be a member of Engineers Ireland for a minimum of three months immediately prior to applying
- 5.2 Applicants must have completed the engineering education required by Section 2.2 of these Regulations
- 5.3 There are three steps in the Experiential Learning Route application:
  - Initial assessment (application and approval to proceed)
  - Education assessment (application, interview and approval to proceed), and
  - Professional competence assessment (application and interview)

### 5.4 Initial Assessment

- 5.4.1 Applicants must complete the initial assessment application provided by Engineers Ireland. Applications can be submitted every month (except August).
- 5.4.2 Applicants must succinctly indicate how their education and experience is substantially equivalent to the learning achieved in a Bachelor's degree accredited by Engineers Ireland at the Associate Engineer standard by providing evidence of the following learning outcomes:

#### L01 – Knowledge and Understanding

Knowledge and understanding of the mathematics, sciences, data science, analytics, and other technologies related to the branch of engineering

#### L02 – Problem Analysis

The ability to identify, formulate and analyse broadly defined problems in their particular branch of engineering

#### L03 – Design

The ability to contribute to the design of solutions to broadly defined engineering problems

#### L04 – Investigation

The ability to investigate to facilitate the solution of broadly defined problems within the particular branch of engineering

#### L05 – Professional and Ethical Responsibilities

Understanding of and commitment to professional and ethical responsibilities towards people and the environment in the practice of engineering

#### L06 – Teamwork and Lifelong Learning

The ability to work effectively independently and in diverse and inclusive teams, and to prepare for lifelong learning

#### L07 – Communication

The ability to communicate effectively on broadly defined engineering activities to diverse audiences

#### L08 – Engineering Management

Knowledge and understanding of engineering management principles relevant to the branch of engineering and an ability to apply these to one's own work

- 5.4.3 The initial assessment application is reviewed by the Membership & Qualifications Board. The purpose of this initial assessment is to determine whether the applicant broadly meets the requirements of these Regulations and whether the applicant should be allowed to proceed to the education assessment.

### 5.5 Education Assessment

- 5.5.1 Where approval to proceed is granted, applicants must complete the education assessment online form provided by Engineers Ireland by the designated deadline
- 5.5.2 Applicants must provide greater detail on how their education and experience is substantially equivalent to the learning achieved in a Bachelor's degree accredited by Engineers Ireland at the Associate Engineer standard by providing evidence of the eight learning outcomes listed in Section 5.4
- 5.5.3 Applicants will be offered the opportunity to be assigned a mentor. Applicants may decide to appoint their own informal mentor or to continue with a mentor appointed by Engineers Ireland. Applicants will be asked to confirm that they were



in contact with their mentor and that the mentor reviewed their education assessment application prior to its submission. The mentor will have no input to the assessment process or the final decision

5.6 Applicants must provide two supporters of their application. Supporters should be familiar with all or part of the applicant's career as an engineer, and their engineering experience and ability. Supporters must hold the title of Chartered Engineer or Associate Engineer or another professional body with which Engineers Ireland has an agreement. In exceptional circumstances, Engineers Ireland will consider alternative supporters, where, because of the nature of the applicant's employment, the applicant cannot provide two Chartered Engineers (or one Chartered Engineer and one Associate Engineer) as supporters. Applicants must contact the Membership Team to discuss this option at least two months before submitting the application.

5.6.1 Education assessment applications are assessed by a member(s) of Engineers Ireland who is/are considered competent by the Board of Examiners. The purpose of the Assessment is to determine whether the applicant broadly meets the requirements of these Regulations and whether the applicant should be allowed to proceed to the Education Assessment Interview.

5.6.2 The Education Assessment Interview is conducted by a panel of two or three members of Engineers Ireland who are considered competent by the Board of Examiners. The members of the Interview Panel are required to satisfy themselves that the applicant has achieved learning substantially equivalent to that of a Bachelor's degree accredited by Engineers Ireland at the Associate Engineer standard.

5.6.3 Where the interview panel recommends proceeding to the Professional Competence Assessment, this recommendation is forwarded to the

Membership & Qualifications Board for approval

## **5.7 Professional Competence Assessment**

5.7.1 Where approval to proceed is granted, applicants must complete the professional competence assessment online form provided by Engineers Ireland by the designated deadline

5.7.2 Applicants must demonstrate how they have developed the competences of an Associate Engineer as presented in Section 3 of these Regulations

5.7.3 Applicants must include a record of their CPD and provide an indicative plan for their professional development over the short, medium, and long term

5.8 Applicants must provide two supporters of their application. These supporters must hold the title of Chartered Engineer or Associate Engineer or another professional body with which Engineers Ireland has an agreement. In exceptional circumstances, Engineers Ireland will consider alternative supporters, where, because of the nature of the applicant's employment, the applicant cannot provide two Chartered Engineers (or one Chartered Engineer and one Associate Engineer) as supporters. Applicants must contact the Membership Team to discuss this option at least two months before submitting the application.

5.8.1 Applications are assessed by a member(s) of Engineers Ireland who is/are considered competent by the Board of Examiners. The purpose of the Assessment is to determine whether the applicant broadly meets the requirements of these Regulations and whether the applicant should be allowed to proceed to the Professional Interview

5.8.2 The Professional Interview is conducted by a panel of two or three members of Engineers Ireland who are considered competent by the Board of Examiners to make recommendations on the suitability of candidates for the Associate Engineer title and whose knowledge and experience are appropriately aligned to that of the

applicant. The members of the Interview Panel are required to satisfy themselves that the applicant has reached an acceptable level in the competences of an Associate Engineer.

- 5.8.3 Where the interview panel recommends awarding the Associate Engineer title, this recommendation is forwarded to the Membership & Qualifications Board for approval
- 5.8.4 Where the interview panel recommends that the Associate Engineer title is not awarded, this recommendation is forwarded to the Board of Examiners to ensure that the feedback and advice given is fair, consistent and helpful
- 5.9 The assessment and interview process is subject to a Quality Assurance Policy designed by Engineers Ireland to assure continuing high quality and the integrity of the procedures
- 5.10 All Assessors and Interviewers are bound by the Council of Engineers Ireland to maintain complete confidentiality in relation to all aspects of the review procedure, documentation and associated candidate data
- 5.11 Applicants have the right to appeal as per the Engineers Ireland Appeals Policy

## 6. International Professional Title Recognition

- 6.1. A Mutual Recognition Agreement (MRA) is an agreement between certain countries to provide mutual recognition of an engineer's professional title. Engineers Ireland has signed a number MRAs with other professional bodies which cover the Associate Engineer title (known as Incorporated Engineer or Professional Engineering Technologist in some countries). For the MRA to apply, applicants must have been elected to the title under that professional body's standard professional review and must be a member of that professional body in good standing.
- 6.2. EU Directives provide for the mutual recognition of professional qualifications between EU member states. Provided there are no substantial differences, as defined in these Directives, between such a qualification and the Associate Engineer title, Engineers Ireland will grant this title to holders of such qualifications.
- 6.3. The International Engineering Technologists Agreement (IETA) recognises the substantial equivalence of standards establishing competence for practising engineering technologists / associate engineers. It is a multi-national agreement between engineering organisations to facilitate cross-border practice by experienced engineering technologists/ associate engineers. Engineers Ireland is a member of the IETA.



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