



ENGINEERS  
AUSTRALIA

## STAGE 1 GUIDE

A Guide to Assessment of Eligibility for Membership  
Using the Online Application Process  
(Stage 1 Competency)

# Stage 1

[engineersaustralia.org.au/membership/assessment](http://engineersaustralia.org.au/membership/assessment)

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## INTRODUCTION

This guide is for persons seeking admission to Engineers Australia in the grade of Graduate or Member who do not hold engineering qualifications that are already accredited or recognised by Engineers Australia. Examples include:

- ▶ Candidates holding Australian engineering qualifications that have not been accredited or approved by Engineers Australia
- ▶ Candidates holding engineering qualifications from overseas countries with which Engineers Australia does not have formal accreditation or mutual recognition agreements
- ▶ Candidates holding qualifications in engineering or in fields related to engineering which are not recognised by Engineers Australia but who may have post-graduate qualifications in engineering and substantial experience in engineering work

The Online Application Process requires that supporting documentation is prepared for uploading as a series of files. Preference is for files to be in PDF format. This Guide provides the details of the required content.

Successful assessment of eligibility for membership does not satisfy immigration requirements. A separate guide is available for overseas residents seeking assessment by Engineers Australia of their engineering qualifications for the purpose of immigration to Australia under the Skilled Migration Program: [www.engineersaustralia.org.au/about-us/migration-skills-assessment](http://www.engineersaustralia.org.au/about-us/migration-skills-assessment)

Engineers Australia supports the highest standards in the engineering profession, and applicants may find that their qualifications and experience while providing the basis for a satisfying career in engineering may not meet these standards.

## The Engineering Team

Membership of Engineers Australia is competency-based and is open to persons in three occupational categories:

- ▶ Professional Engineer
- ▶ Engineering Technologist
- ▶ Engineering Associate (previously called Engineering Officer)

Those with membership within Engineers Australia at the grade of Graduate are Professional Engineers, Engineering Technologists or Engineering Associates who have demonstrated acceptable education and training qualifications. Graduates typically work under guidance and supervision.

Those having the grade of Member of Engineers Australia are Graduates with additional three or more years of engineering or engineering-related experience appropriate to their occupational category.

## The Competency Standards

Competency is the ability to perform activities within an occupation to standards expected and recognised by employers and the community.

There are two Stages of competency:

- ▶ Stage 1 is the level of competency needed for entry to practice as a qualified member of the engineering team, corresponding to completion of an accredited or recognised educational qualification

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- ▶ Stage 2 is the level of competency expected of an experienced engineering practitioner and is the requirement for Chartered membership of Engineers Australia. Stage 2 assessment is outside the scope of this Guide: see [www.engineersaustralia.org.au/echartered](http://www.engineersaustralia.org.au/echartered)

Engineers Australia publishes and maintains the Australian Engineering Competency Standards for Professional Engineers, Engineering Technologists and Engineering Associates. The Stage 1 Standards are available at [www.engineersaustralia.org.au/Membership/Assessment](http://www.engineersaustralia.org.au/Membership/Assessment)

This document The Stage 1 Guide, is only concerned with the Stage 1 Competency Standards.

Stage 1 Competency means you have a thorough understanding of the body of engineering knowledge relevant to your occupational category (Professional Engineer, Engineering Technologist, or Engineering Associate); and the ability to apply this knowledge to representative problems and situations, typical of the responsibilities of practitioners in your occupational category. You must also have the attributes and skills necessary to function as a professional, and the intellectual skills to test and continually extend your knowledge through lifelong learning in formal and informal contexts.

Stage 1 Competency is a combination of knowledge and professional attributes, which are assessed as competencies.

The Standard at Stage 1 for each occupational category is comprised of three Competencies:

- ▶ Competency 1: Knowledge Base
- ▶ Competency 2: Engineering Ability
- ▶ Competency 3: Professional Attributes

Each **Competency** describes a particular area of performance and is comprised of Elements.

The **Elements** are the necessary components or activities which make up the Competency. Details of the Elements are different for each of the three occupational categories. To be assessed as Stage 1 competent you must demonstrate each Element in an overall sense.

Each **Element** has a set of **Indicators** which provide a guide to the level of performance and allow a judgment to be made on whether the element of competency has been achieved. These Indicators describe and list the ways in which the Element would typically be demonstrated and assessed.

While it is expected that every Element would be achieved, assessment is made on a holistic basis and it is not expected that every Indicator will be met in detail.

## Eligibility for Membership of Engineers Australia

To be eligible for admission in the grade of Graduate or in the grade of Member in any of the three occupational categories, you must demonstrate that you have the competencies needed to enter practice as a qualified member of the engineering team. This is Stage 1 Competency.

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You may demonstrate Stage 1 Competency and eligibility for admission in one of the following ways:

## a. Recognised qualification

If you hold an engineering qualification which has been accredited, recognised or approved by Engineers Australia, then you are immediately eligible for membership. The benchmark qualifications are:

- ▶ Professional Engineer: four-year Bachelor of Engineering degree
- ▶ Engineering Technologist: three-year Bachelor of (Engineering) Technology degree
- ▶ Engineering Associate: two-year Advanced Diploma of Engineering (Australian Qualifications Framework Level 6), an Associate Degree or earlier equivalent such as Associate Diploma of Engineering, recognised by Engineers Australia

If you hold such a qualification, you may apply directly for membership using the appropriate form available on the web at [www.engineersaustralia.org.au/Membership/join-engineers-australia](http://www.engineersaustralia.org.au/Membership/join-engineers-australia) or through Engineers Australia offices.

## b. Direct demonstration of competence

When Engineers Australia accredits a program leading to an engineering qualification, it also does so against the Stage 1 Competency Standards. Accreditation means that after examining the program in depth, Engineers Australia is satisfied that it enables all its graduates to achieve and demonstrate Stage 1 competency.

You may find a list of accredited programs on our website at [www.engineersaustralia.org.au/about-us/program-accreditation](http://www.engineersaustralia.org.au/about-us/program-accreditation)

If you have not demonstrated Stage 1 competency through possession of an accredited or recognised qualification, then you must undertake a direct demonstration of competency on an individual basis to

achieve membership. Such an application for assessment must include evidence of a tertiary qualification that has provided adequate underpinning engineering knowledge.

A later section explains how to prepare and submit an application for assessment of eligibility for membership (Stage 1 Competency).

## c. Mutual Recognition Agreements

Engineers Australia has Mutual Recognition or Mutual Exemption Agreements with professional engineering bodies in a number of other countries. If you are a Graduate, Member or Fellow of an engineering body with which Engineers Australia has such an agreement, then you may be entitled to automatic acceptance for Engineers Australia membership. You should apply for admission using the Application Form for Admission through a Mutual Recognition Agreement, available at [www.engineersaustralia.org.au/Membership/mutual-recognition-agreements](http://www.engineersaustralia.org.au/Membership/mutual-recognition-agreements)

As a condition under many of the agreements, the applicant's formal undergraduate qualifications must be acceptable to both parties in accordance with the Washington, Sydney or Dublin Accords. Where undergraduate qualifications are not acceptable under one of these Accords, the applicant may be asked to submit a Stage 1 Competency Assessment application as a first step towards membership under the relevant MRA.

In case of doubt, please inquire from your own Institution or from the Member Assessment Team at Engineers Australia's National Office: [www.engineersaustralia.org.au/membership/join](http://www.engineersaustralia.org.au/membership/join)

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## d. International Engineering Alliance Accords

Recognition of substantially equivalent international qualifications under the Washington, Sydney or Dublin Accords is based on similar in-depth examination by overseas professional bodies. More information is available at [www.engineersaustralia.org.au/membership/international-accords](http://www.engineersaustralia.org.au/membership/international-accords)

If your qualification has been accredited by a Signatory of one of these accords, then you may apply directly for membership using the appropriate form available at [www.engineersaustralia.org.au/membership/join-engineers-australia](http://www.engineersaustralia.org.au/membership/join-engineers-australia)

## DEFINING THE ENGINEERING TEAM

The characteristics of each of the engineering occupational categories are defined by the Role Descriptions below. You will find the Stage 1 Competency Standard for each occupational category at [www.engineersaustralia.org.au/Membership/Assessment](http://www.engineersaustralia.org.au/Membership/Assessment)

Within the Standards, the Competencies and the Elements of Competency represent the Engineering Profession's expression of the knowledge and skill base, engineering application abilities, and professional skills, values and attitudes that must be demonstrated at the point of entry to practice.

The Indicators of Competency provide insight to the breadth and depths of ability expected for each Element of Competency and thus guide the competency demonstration and assessment processes as well as curriculum design. The Indicators should not be interpreted as discrete sub-elements of competency mandated for your individual audit. Each element of competency must be tested in a holistic sense, and there may well be additional indicator statements that could complement those listed.

## Role Description – The Professional Engineer

The benchmark Stage 1 qualification for Professional Engineers is the four-year Bachelor of Engineering degree.

Professional Engineers are required to take responsibility for engineering projects and programs in the most far-reaching sense. This includes the reliable functioning of all materials, components, sub-systems and technologies used; their integration to form a complete, sustainable and self-consistent system; and all interactions between the technical system and the context within which it functions. The latter includes understanding the requirements of clients, wide ranging stakeholders and of society as a whole; working to optimise social, environmental and economic outcomes over the full lifetime of the engineering product or program; interacting effectively with other disciplines, professions and people; and ensuring that the engineering contribution is properly integrated into the totality of the undertaking. Professional Engineers are responsible for interpreting technological possibilities to society, business and government; and for ensuring as far as possible that policy decisions are properly informed by such possibilities and consequences, and that costs, risks and limitations are properly understood as the desirable outcomes.

Professional Engineers are responsible for bringing knowledge to bear from multiple sources to develop solutions to complex problems and issues, for ensuring that technical and non-technical considerations are properly integrated, and for managing risk as well as sustainability issues. While the outcomes of engineering have physical forms, the work of Professional Engineers is predominantly intellectual in nature. In a technical sense, Professional Engineers are primarily concerned with the advancement of technologies and with the development of new technologies and their applications through

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innovation, creativity and change. Professional Engineers may conduct research concerned with advancing the science of engineering and with developing new principles and technologies within a broad engineering discipline. Alternatively, they may contribute to continual improvement in the practice of engineering, and in devising and updating the codes and standards that govern it.

Professional Engineers have a particular responsibility for ensuring that all aspects of a project are soundly based in theory and fundamental principle, and for understanding clearly how new developments relate to established practice and experience and to other disciplines with which they may interact. One hallmark of a professional is the capacity to break new ground in an informed, responsible and sustainable fashion.

Professional Engineers may lead or manage teams appropriate to these activities, and may establish their own companies or move into senior management roles in engineering and related enterprises.

## Role Description – The Engineering Technologist

The benchmark Stage 1 qualification for Engineering Technologists is the three-year Bachelor of Engineering degree.

Engineering Technologists normally operate within broadly defined technical environments, and undertake a wide range of functions and responsibilities. They are often specialists in the theory and practice of a particular branch of engineering technology or engineering-related technology (the technology domain), and specifically in its application, adaptation or management, in a variety of contexts. Their expertise often lies in familiarity with the current state of development of a technology

domain and most recent applications of the technology. Within their specialist field, their expertise may be at a high level, and fully equivalent to that of a Professional Engineer. Engineering Technologists may not, however, be expected to exercise the same breadth of perspective as Professional Engineers, or carry the same wide-ranging responsibilities for stakeholder interactions, for system integration, and for synthesising overall approaches to complex situations and complex engineering problems.

The work of Engineering Technologists combines the need for a strong understanding of practical situations and applications, with the intellectual challenge of keeping abreast of leading-edge developments as a specialist in a technology domain and how these relate to established practice. For this purpose, Engineering Technologists need a strong understanding of scientific and engineering principles and a well developed capacity for analysis. The work of Engineering Technologists is most often concerned with applying current and emerging technologies, often in new contexts; or with the application of established principles in the development of new practice. They may also contribute to the advancement of technology.

Engineering Technologists frequently will take responsibility for engineering projects, services, functions and facilities within a technology domain, for specific interactions with other aspects of an overall operating context and for managing the contributions of their specialist work to a broader engineering system or solution. In these roles, Engineering Technologists must focus on sustainable solutions and practices which optimise technical, social, environmental and economic outcomes within the technology domain and over a whole systems life cycle. They will have an intimate understanding of the standards and codes of practice that underpin the technology domain and ensure that technology outcomes comply with statutory requirements. Engineering Technologists are required to interact effectively with Professional Engineers



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and Engineering Associates, with other professionals, tradespersons, clients, stakeholders and society in general, to ensure that technology outcomes and developments fully integrate with the overall system and context.

Engineering Technologists must ensure that all aspects of a technological product or operation are soundly based in theory and fundamental principle. They must understand how new developments relate to their specific field of expertise. They will be often required to interpret technological possibilities, to investigate interfaces, limitations, consequences, costs and risks.

Engineering Technologists may lead teams responsible for the implementation, operation, quality assurance, safety, management, and maintenance of projects, plant, facilities, or processes within specialist practice area(s) of the technology domain. Some Engineering Technologists may establish their own companies or may move into senior management roles in engineering and related enterprises, employing Professional Engineers and other specialists where appropriate.

## Role Description – The Engineering Associate

The benchmark Stage 1 qualification for Engineering Associates is the two-year Advanced Diploma or the Associate Degree in Engineering, classified at Level 6 (AQF-6) under the Australian Qualifications Framework.

Engineering Associates have a wide range of functions within engineering enterprises and engineering teams. Examples of their roles may include feasibility investigation, scoping, establishing criteria/performance measures, assessing and reporting technical and procedural options; design and development; component, resources and materials sourcing and procurement; construction, prototyping, manufacture, testing, installation, commissioning, service provision and de-

commissioning; tools, plant, equipment and facilities acquisition, management, maintenance, calibration and upgrades; operations management; procedures documentation; presentation and reporting; maintenance systems design and management; project and facility management; quality assurance, costing and budget management; document control and quality assurance.

Engineering Associates are often required to be closely familiar with standards and codes of practice, and to become expert in their interpretation and application to a wide variety of situations. Many develop very extensive experience of practical installations, and may well be more knowledgeable than Professional Engineers or Engineering Technologists on detailed aspects of plant and equipment that can contribute very greatly to safety, cost or effectiveness in operation.

In other instances, Engineering Associates may develop high levels of expertise in aspects of design and development processes. These might include, for example, the use of advanced software to perform detailed design of structures, mechanical components and systems, manufacturing or process plant, electrical and electronic equipment, information and communications systems, and so on. Other examples might be in the construction of experimental or prototype equipment. Experienced operators in these areas often develop detailed practical knowledge and experience complementing the broader or more theoretical knowledge of others.

Engineering Associates need a good grounding in engineering science and the principles underlying their field of expertise, to ensure that their knowledge and skills are portable across different applications and situations within the broad field of practice. Equipment, vendor or context-specific training in a particular job are not sufficient to guarantee generic competency. Given a good knowledge base, however, Engineering Associates may build further on this through high levels of training

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in particular contexts and in relation to particular equipment. Aircraft maintenance is an excellent example.

The competencies of Engineering Associates equip them to certify the quality of engineering work and the condition of equipment and systems in defined circumstances, laid down in recognised standards and codes of practice.

Engineering Associates may lead or manage teams appropriate to these activities. Some may establish their own companies or may move into senior management roles in engineering and related enterprises, employing Professional Engineers, Engineering Technologists, and other specialists where appropriate. In Australia, the term 'para-professional' is frequently used to describe the Engineering Associate occupation.

## WHAT YOU NEED

### for the online application for Assessment of Eligibility for Membership (Stage 1 Competency)

#### Overall form of application

Preparing and submitting a Stage 1 application using the Online Application Process allows your engineering competency to be assessed. You will need to supply your personal details and to upload supporting documentation.

Before starting the Online Application Process, you should read the Role Description for each of the three occupational categories. On this basis, decide which category you believe matches your qualifications and experience: Professional Engineer, Engineering Technologist, or Engineering Associate. You should apply for assessment in only one of these categories. This is the

basis on which your application will be assessed.

The supporting files to be uploaded should preferably be in PDF format. Scanned documents should be clear, in colour and with a resolution of at least 300 dpi. Each individual file should preferably be smaller than 5Mb, with a maximum 10 Mb.

The required material includes:

- a. Documentation of all your qualifications, both testamur and transcripts
- b. A verified Curriculum Vitae
- c. Three career episodes describing major learning experiences through which you personally developed and demonstrated Stage 1 competencies, as set out in the Competency Standard for your Occupational Category
- d. The Summary Statement
- e. Evidence of your English-language competency
- f. Copy of photo identification

#### Qualification details

You must upload clear copies of the original testamur of your degree, diploma, certificates, or certificates of other contributing qualifications, together with the associated academic transcripts showing courses, subjects or units studied and the results gained in each. If you have more than one qualification that you believe is relevant, please provide the above details for each one. An example of multiple qualifications might be an undergraduate degree in a non-engineering (but engineering-related) field, plus a Masters degree in engineering; or an Advanced Diploma followed by a Graduate Diploma in engineering.

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It is mandatory that adequate underpinning engineering, mathematical and scientific knowledge has been obtained and confirmed. This knowledge is most easily obtained as part of an initial qualification. If this knowledge is absent, then bridging this educational gap is difficult with work experience alone without additional formal educational courses.

Where your qualifications are not in the English language, you must upload copies of both the original language document and an English-language translation. The documents must be translated by a professional translator. The name and contact details of the translator must be provided on the English-language version.

If your current name is not the same as on the original documents, or if different spellings of your name are used over your documentation, then you must upload evidence of your name change or a statutory declaration stating that the variation of your name all designate one and the same person.

## Curriculum Vitae

You must upload a verified Curriculum Vitae (CV) covering your complete employment experience from the completion of your undergraduate studies to date. If you are a graduate, your CV may cover any industry placement undertaken as part of undergraduate studies.

The CV may also include engineering experience gained prior to your current qualification or concurrently with it.

Whilst your CV may include non-engineering employment, for each engineering appointment you have held, please include:

- ▶ Name, location and contact details of your employing organisation

- ▶ Dates and duration of your employment in this appointment
- ▶ Title of the position you held
- ▶ Your defined role and responsibilities

Your CV should be no more than three A4 pages. Normally, it will comprise a scanned document in PDF format including essential verification.

Verification of your CV must cover at least the last three years of your engineering employment. If you have less than three years of engineering work experience, then please provide verification of what you have completed.

Each stage of your CV must be verified by a responsible Engineer, preferably a Member or Fellow of Engineers Australia. The following statement must be added to the CV and signed by the Verifier:

*I verify that this is a true statement of the career history of (candidate's name) during the period (date) to (date).*

This statement must be accompanied by the printed name, address, phone number and status of the Verifier, with their membership number if applicable.

The verification may be confirmed by Engineers Australia.

If you cannot provide a verified CV due to overseas employment, a reference letter from your previous employer is acceptable. Such letters should clearly indicate employment period, position held, and main responsibilities. If the letter is not in English, please provide copies of both the English translation and original document.

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If, in exceptional circumstances, you cannot provide verification of employment for all or part of the last three-year period, you must upload a properly witnessed Statutory Declaration stating that the information contained in your CV is true and correct. Please refer to Appendix B for an appropriate form.

## Career episodes demonstrating Stage 1 competency – nature and purpose

Career episodes are the most important part of your application.

The purpose of the career episodes is to demonstrate to the Assessor that your qualification has provided the theoretical basis for entry into the engineering profession and that it has been applied in circumstances to confirm the appropriate competencies.

You should prepare and upload three career episodes describing major engineering experiences through which you believe you developed and demonstrated Stage 1 competency.

Before starting, you should again read the Competency Standard for your chosen occupational category.

Choose three major learning experiences that you believe are able to demonstrate the range of competencies for your occupational category. A substantial project or design exercise, for example, may have required you to demonstrate many different competencies, and could be a very suitable basis for one of your career episodes.

After you have completed each career episode, indicate in your Summary Statement which Elements of Competency it enabled you to demonstrate.

You should not try to write separately about each Element of Competency. Nor is it expected that each career episode will demonstrate all Elements of Competency. Rather, you should aim to ensure that your career episodes, taken together, cover all the Elements.

You must describe work you have actually performed yourself and write in the first person singular (I ... ) to make your personal contribution very clear.

A total of 1000 words should be enough for each career episode, and you should not exceed 2,000 words for each. Preference is for a scanned document in PDF format.

When writing about a team project, you should describe the project overall but you must also describe the specific part you played personally, how it contributed to the overall objective, what you actually did, and what competency or competencies you believe this demonstrates.

Please number each career episode and each paragraph within it so that you can refer to them later in the Summary Statement. For example, paragraph 3 in Career Episode 2 would be referred to as paragraph CE2.3.

### Remember that Stage 1 competency requires:

- ▶ A thorough understanding of the engineering body of knowledge
- ▶ The ability to apply this knowledge to problems and situations within your occupational category

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Engineers Australia needs to be satisfied that you have both. Your career episodes should focus on the application of your knowledge. They should also show that you acquired the knowledge in a systematic and comprehensive way, through an educational program or otherwise.

Refer to Appendix A for an example of a career episode.

## Career episodes relating to engineering employment

When you demonstrate competencies gained through work performed in engineering employment, you should base each of your career episodes on a project or a piece of work you have worked on or are currently working on, detailing particular problems you were required to solve.

The career episode should describe the application of your engineering knowledge in the context of the previous paragraph. You must write about what you actually did, indicating what Elements of Competency you believe you demonstrated, and how you did so. It should identify any particular problems encountered and problem-solving techniques you used. The Assessor must be able to identify the contribution you made personally to the project or task, particularly if the contribution was of a novel or critical nature. You must write in the first person singular, describing what you actually did and how this demonstrates the competencies claimed. A mere listing of your responsibilities or a position description is not appropriate.

Please ensure that each work-based career episode includes:

- ▶ Introduction
  - Dates and duration of the project or appointment you are writing about
  - Name of employing organisation and location of worksite
  - Title of the position you occupied
  - Background, nature and objectives of the overall engineering project
  - Nature of your particular work area
  - An organisation chart highlighting your position
- ▶ Personal performance
  - Detailed description of the work you performed personally
  - Technical details of the work
  - How you applied your engineering knowledge and skills
  - The tasks delegated to you and how you went about accomplishing them
  - Any particular engineering problems you encountered and how you solved them
  - Strategies you devised, including any original or creative design work
  - How you worked with other team members
- ▶ Summary
  - Your view of the overall project (brief summary)
  - How well the project succeeded in meeting its goals and requirements
  - How your personal role contributed to the project

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The Stage 1 Competency Standards place great emphasis on formal knowledge of engineering principles and fundamentals, particularly in Competency 1: Knowledge Base. It is vital for you to show that you understand not only what makes good engineering practice, but also why. If your formal educational program did not cover all of the knowledge base you require, then you may wish to claim that you developed some of this knowledge from post-graduate qualifications in engineering and substantial experience in engineering work. Please note that it is not enough simply to say that you have performed work requiring such knowledge. You must explain how you acquired the knowledge – for example through training courses, continuing professional development, work-based learning modules, or private study. You must give enough detail for the Assessor to be satisfied that you have developed the knowledge in a serious and comprehensive way. An unsubstantiated claim of “private study” or “on-the-job experience” will not be enough. If possible, include certificates or statements of satisfactory completion from any relevant courses.

## Career episodes relating to an educational program for those recently graduated

Recent graduates may have difficulty in providing career episodes related to engineering employment. In that case, career episodes may be based on experience gained in obtaining their qualification. Otherwise, it is expected that career episodes would be based on experience gained in engineering employment.

A career episode based on your experiences during your educational program should focus on the most advanced pieces of work you have done, the knowledge you needed in order to perform that work, and the abilities you needed in order to apply your knowledge in an engineering context.

Project work is likely to be one of the best ways of illustrating your knowledge and abilities.

It may be useful to describe what you found most challenging, and how you developed the ability to meet these challenges with confidence. It is not enough to say simply that a particular unit of study covered the competencies required. You must explain one or more pieces of work that you performed (during the educational program, or subsequently), how you performed it, and how you believe it demonstrates the knowledge or competency in question. It is important also to indicate which units of study contributed to the knowledge you needed in order to perform the work.

## General – all career episodes

As you compose your career episodes, ask yourself continually: How can the Assessor, reading my application, be satisfied that I have actually demonstrated Stage 1 competency? The Assessor will expect that you in your series of career episodes will have covered every Element of Competency. You must try to show that you have demonstrated each Element in an overall sense. In judging whether or not you have demonstrated each Element, the Assessor will rely on the Indicators for that Element as a guide. Remember always that you must write about your personal performance. It is not enough to say that a project or unit of study in which you took part covered certain competencies. You must describe what you did yourself, as an individual.

Formula, tables, photographs and drawings are no substitute for a concise description of individual activity and their relationship to the Stage 1 Competencies.

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## Summary Statement

Following your career episodes you will be asked to provide a summary table, identifying each Element of Competency claimed and indicating where you have addressed it. The example below shows a suitable format and is based on the Career Episode Example in Appendix A.

Competency Element	Where the Element was demonstrated (career episode paragraph reference)	Where the underpinning knowledge was developed
PE 2.1	CE1.4, CE1.6, CE1.9	Degree program
PE 2.3	CE1.6 to CE1.10	Degree Program and CPD

## English-language competency

Stage 1 competency requires fluency in written and spoken English. Engineers Australia will normally accept your English-language competency if:

- ▶ You are a native speaker of English;
- ▶ You have successfully completed an Australian undergraduate engineering qualification;
- ▶ You have successfully completed a Masters degree or PhD program at an Australian university;
- ▶ You have worked in Australia (as detailed in your CV) and your employer has provided a statement that you are competent in English in the workplace.

If one of these statements applies to you, please provide and upload a statement in PDF format to this effect. These statements may be confirmed by Engineers Australia.

If English is not your first language, and none of the above statements applies, then you must provide evidence that you have achieved sufficient English-language competency to enter engineering practice in Australia.

You should provide an IELTS (International English Language Testing System) assessment showing that you have achieved a score of 6.0 or more in each of the four modules of speaking, listening, reading and writing, in either the General Training or the Academic modules of IELTS.

Other formal assessments of English-language competency may be acceptable on a case by case basis. However, the IELTS assessment is preferred.

## Photo identification

All Stage 1 Applications must upload:

- ▶ A passport-style photo
- ▶ A copy of your passport bio-data page or Australian drivers licence

Where a passport or Australian drivers licence are not available, a copy of your Birth Certificate or other Official Identity Document may be acceptable in lieu.

## Assessment Procedure

On the basis of the information contained in your application, an Assessor appointed by Engineers Australia will assess whether you have demonstrated Stage 1 competency and eligibility for membership. The assessment is made on a holistic basis, taking into account all your qualifications and experience as described in your application.

You are expected to have demonstrated each Element of Competency in an overall sense, but it is not expected that you will have demonstrated every Indicator within each Element.

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Occasionally, a candidate may be asked to provide more information or to attend an interview with one or more assessors. In the majority of cases, assessment is based on the report as submitted. Engineers Australia reserves the right to seek confirmation of particular information. It may, for example, seek confirmation from your university, college or other educational institution that the details of your qualification/s are correct. Those who verify your CV may also be contacted.

You will be advised by email of the outcome of your application, your eligibility for Engineers Australia membership and your occupational category. If your application has not been successful, then you will be provided with reasons for this assessment.

A revised application submitted within three months will be accepted for assessment at no additional fee. An application received more than three months after the original will be treated as a new application, and a new fee will be charged.

## Review and Appeal of Decision

If you believe your assessment outcome is not appropriate, then you may request that your application be reviewed. Normally, in such cases, the application is passed to another Assessor for re-examination.

For those decisions still remaining in dispute, a formal appeal process is available. Your appeal should be addressed in writing to:

**Executive General Manager, Professional Standards and Practice**  
**Engineers Australia**  
**11 National Circuit**  
**Barton, ACT 2600**

Your appeal should set out the basis on which you believe the outcome is inappropriate. The request for an appeal must be accompanied by the fee for Appeal of Stage 1 Competency Assessment which is displayed on the Engineers Australia website.

The fee will be refunded if the outcome is in your favour, but not if the original decision is confirmed.

If you apply for an Appeal, then you should understand that all necessary documentation from your file will be forwarded to the Appeal Committee. Under Australian Privacy Legislation your permission is required for this to happen. Your signature on your letter applying for a review will be taken as denoting your consent for your file documents to be forwarded to the Appeal Committee.

## CHECKLIST OF MATERIAL TO BE PREPARED AND UPLOADED

To complete the Online Application Process, you must have provided your personal details and uploaded digital copies of the following:

- ▶ Academic testamurs or certificates
- ▶ Academic transcripts, showing courses, subjects or units studied and results gained in each
- ▶ Verified Curriculum Vitae
- ▶ Career episodes demonstrating Elements of Competency
- ▶ Summary Statement
- ▶ Statement or evidence of English-language competency
- ▶ Photo identification
- ▶ Identity documentation



# Stage 1 Guide



The preference is for documents to be in PDF format. Scanned documents should be clear, in colour and with a resolution of at least 300 dpi. Each individual file should preferably be smaller than 5Mb, with a maximum 10 Mb.

Refer to the Stage 1 On-line Application Process Guide at [www.engineersaustralia.org.au/membership/assessment](http://www.engineersaustralia.org.au/membership/assessment) which is a 'how to' guide for the application process.

## BECOMING CHARTERED

If you receive an outcome which provides you with eligibility for Membership of Engineers Australia in an occupational category, you are encouraged to make your membership application promptly.

Once a member you may commence your pathway to Chartered Status. Visit [www.engineersaustralia.org.au/echartered-portal](http://www.engineersaustralia.org.au/echartered-portal) for more information.

Now is the time for you to commence or continue to maintain a professional diary which can be used to initiate your Continuing Professional Development log needed for Chartered Status.

Those with Chartered Status are Professional Engineers, Engineering Technologists, or Engineering Associates who have demonstrated Stage 2 competence and who have completed their foundation phase of developing broad-based experience. They have the competencies to work independently and display leadership in creating and applying new engineering practices on a regular basis. They have demonstrated engineering skills and judgment in addition to educational competencies and can practice in a competent, independent and ethical manner.

# Stage 1 Guide

## APPENDIX A

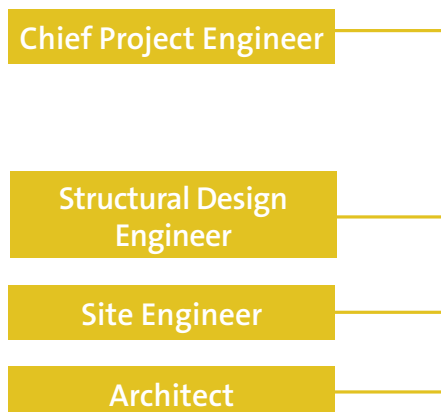
### Career Episode Example

This example career episode is intended to give Stage 1 applicants an overview of the type and style of documentation required. It is not used as a mechanism of comparison or moderation against other career episodes.

#### Career episode 1: Construction of a new medium rise building in XXXX

**CE1.1** This career episode deals with my involvement in the construction of Building XXX located at XXX in NSW while working as Structural Design Engineer for XXX. Our office was commissioned by the head office to complete several complicated elements of the structure. My role in this project was to complete the majority of the detailed design of the complex suspended ground floor slab. I undertook this project in July 2009 and the construction is due to be completed in April 2012.

**CE1.2** The organisational structure for the engineering project at the time was as shown below:



**CE1.3** After being briefed on the project by the chief project engineer, my first task was to break down the entire floor system into an ordered set of discrete designable elements such as slabs, bands and transfer beams. Next I used the RAPT computer program to carry out the detailed design of each of the forty or so elements. This involved measuring the span, dimensions and loading on each element and entering this data to model it in the program. My aim was to make the models as accurate as practicable, while still allowing for the opportunity to incorporate future changes.

**CE1.4** After re-assessing the specified design criteria, I realised that the reinforcement cover I had used did not satisfy fire resistance and durability requirements. However because each design element was already set up as a computer model, it was simple enough to change the covers and make the necessary design modifications. To ensure the clarity of the design to others, I documented and ordered the calculations and computer output in a lever arch file, including summary pages and assumptions used.

**CE1.5** Throughout the design process, it was my responsibility to produce, order and maintain all the design documentation including computations and reinforcement drawings. I arranged the calculations, numbering approximately 1000 pages, based on the site grid system. The RAPT output for each element designed was sorted in this system, with summary pages of input and conclusions provided for each. I clearly outlined content pages and the design concepts and philosophies at the front of the documentation, while also including sections for superseded computations and verification documentation.

**CE1.6** I considered various design possibilities. In one particular possibility, due to the height difference in the external ground level to the internal slab finished level, it was required to provide retaining walls. Providing

# Stage 1 Guide

retaining walls was a cost effective solution compared to importing fill to raise the external ground level. I introduced concrete ramps and steps to the entrance. I undertook the concrete design to satisfy Australian standards AS 3600. Whilst I was checking the drawings, I noticed that some area in the added mezzanine floor was created as part of the structural system and redundant. I was convinced that this area was necessary for the structural framing and that in future, it had a potential to be used as extra storage space. I performed design checks for the related structural elements for a storage imposed load. This exercise avoided any anticipated potential risk.

**CE1.7** It was also my task to draw up and update the reinforcement drawings. I produced a sample markup which was checked by the chief project engineer and the clients to ensure an acceptable format for the rest of the drawings. After we issued this sample markup, the chief project engineer went on several weeks holiday, which left me with the task of managing the timing and production of the rest of these drawings, with minimal supervision from the department manager. Using the original design computations as my basis, I drew up all the detailed reinforcement plans. This approach allowed me to check and verify the computations as I went, and update the drawings accordingly.

**CE1.8** Altered drawings were revised and reissued as a next revision, in many cases with copies of relevant calculations to show reasoning. During this time the rest of my workload was light so, apart from one or two difficult areas, I took the chance to push the drawings ahead and have the first revisions largely ready before time. Whilst in the middle of this process, the client advised us that the pile capping drawings needed to be issued earlier than anticipated, so I diverted more of my time and resources to this task in order to get the drawings and documentation ready by the deadline. Key documentation met this deadline, with supporting section drawings being delivered a few days later.

**CE1.9** The client was concerned about the deflection under load of the suspended ground floor slab. I discussed my computer model results with the client and demonstrated that the design case deflections were acceptable. I also showed that changing the design to provide less deflection would significantly increase construction costs.

**CE1.10** Another engineer completed an independent verification of the ground floor structure. I then went through and addressed all the issues raised, making changes where necessary. The head office also reviewed and directed many queries to our chief project engineer. I was then given the task of reviewing and addressing many of these issues and providing responses. The reviewed design was provided to the client who advised that the design brief had been met.

**CE1.11** Apart from my design activities, my participation in this project involved health and safety considerations, planning, obtaining approvals and communicating effectively with stakeholders. By coincidence, a couple of months later I was on holiday in this capital city and I used this opportunity to contact the head office and organise a site visit with one of their engineers. At the time they were constructing the basement and foundations, so not much of my design had been built yet. However the experience was still very valuable to see the site and discuss my designs with the site engineer to unearth any problems and methods he believed things could have been done better.

# Stage 1 Guide

## APPENDIX B

### A MODEL FOR A STATUTORY DECLARATION BY AN APPLICANT FOR STAGE 1 ASSESSMENT BY ENGINEERS AUSTRALIA WHEN VERIFICATION OF A CV CANNOT BE OBTAINED

I,

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*(Applicant's full name, address and occupation in BLOCK CAPITAL letters)*

do solemnly and sincerely declare as follows:

- ▶ I am an applicant for Stage 1 Competency Assessment of Engineers Australia.
- ▶ I declare that it is not possible for me to provide independent verification of certain sections of my CV. This is due to the following circumstances which were beyond my control.

*(State circumstances which prevent independent verification and/or the provision of written references, and the steps taken to retrieve the documentation)*

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I declare that the information given by me in relation to these sections in my attached application dated     /    /     is accurate, true, correct and complete in all relevant details to the best of my knowledge and belief.

I also declare that the relevant experience and level of professional responsibility claimed in the application and supporting documents provide a fair and balanced statement which may properly be taken into account by Engineers Australia in assessing my eligibility for Membership.

I stand ready to respond to any reasonable requests of Engineers Australia for explanations or further information in relation to my application.

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I make this solemn declaration by virtue of the Statutory Declarations Act 1959, and subject to the penalties provided by that Act for the making of false statements in statutory declarations, conscientiously believing the statements made in this declaration to be true in every particular. I am fully aware of the serious nature of making a Statutory Declaration or it has been explained to me.

Signed

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*(Signature of declarant)*

Declared at

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*(place of the declaration is made)*

on \_\_\_\_ / \_\_\_\_ / \_\_\_\_

Before me

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*(Signature of person before whom the declaration is made)*

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*(full name, qualification and contact details including address, in printed letters, of person before whom the declaration is made)*

This declaration must be witnessed and signed by an authorised person under the Statutory Declarations Act 1959 to witness statutory declarations. More information about Statutory Declarations is available at [www.ag.gov.au/Publications/Pages/Statutorydeclarations.aspx](http://www.ag.gov.au/Publications/Pages/Statutorydeclarations.aspx)

Engineers Australia membership number is acceptable identification for a member witnessing.