

## National Articulation Committee

### GUIDELINES ON ARTICULATION

#### 1 BACKGROUND

Engineers Australia recognises three occupational categories in the engineering workforce. They are Professional Engineer, Engineering Technologist, and Engineering Associate (Officer).

Competency Standards have been developed by Engineers Australia for each of the above three categories. The standards cover the knowledge base and enabling competencies, normally gained through an accredited educational qualification and the practice competencies gained in the workplace. Stage 1 refers to the knowledge base and enabling competencies deemed adequate for entry to professional practice: Stage 2 includes Stage 1 and refers to the full range of abilities expected of an experienced practitioner. It is not possible to be Stage 2 competent without being Stage 1 competent.

Articulation is primarily concerned with achievement of Stage 1 Competencies. The basic qualifications that satisfy Stage 1 Competencies are:

- Professional Engineer: accredited four-year Australian Bachelor of Engineering degree.
- Engineering Technologist: accredited three-year Australian Bachelor of (Engineering) Technology degree.
- Engineering Associate: accredited two-year Australian (AQF) Advanced Diploma or Associate Degree.

Persons holding overseas qualifications acceptable under the Washington and Sydney Accords are also deemed to have satisfied Stage 1 Competencies for the categories of Professional Engineer and Engineering Technologist respectively. Lists of recognised programs can be obtained via the respective Accord websites.

The Stage 1 and Stage 2 Competency Standards are set out in full on Engineers Australia's website at [www.engineersaustralia.org.au](http://www.engineersaustralia.org.au).

#### 2 ARTICULATION

Articulation is the process of transferring from one occupational category to another – normally from Engineering Technologist to Professional Engineer or from Engineering Associate to Engineering Technologist.

The most direct way to achieve the Stage 1 Competencies required for articulation is by completing the basic qualification for the relevant category. Some educational institutions offer programs specially designed for the purpose of articulation. Completion of a program designed for articulation and accredited by Engineers Australia automatically satisfies the relevant Stage 1 Competencies.

Candidates for articulation often feel that their work experience has enabled them to develop and demonstrate most of the practice competencies associated with the category to which they aspire, ie their target category. However, as well as the practice competencies they must also demonstrate Stage 1 competency - the breadth and depth of knowledge and enabling skills appropriate to that category. Without the relevant educational qualification, demonstration of Stage 1 competency can be difficult. It is certainly possible to develop extensive knowledge in ways other than a formal educational program, for example through experiential learning and self-study, but it has proved unusual for such pathways to provide the full range of Stage 1

Competencies. Despite their years of experience, many candidates for articulation need to undertake some further academic study to fully develop their Stage 1 Competencies.

### **3 DIRECT ASSESSMENT OF STAGE 1 COMPETENCIES**

Notwithstanding the above, Members who consider they have already achieved the full range of Stage 1 Competencies for their target category by a combination of experience in the workplace and programs of learning may apply for assessment independent of the articulation process.

For details of the procedure for the direct assessment of Stage 1 Competencies refer to “The Guide to Assessment of Eligibility for Membership (Stage 1 Competency). This document can be found at [www.engineersaustralia.org.au](http://www.engineersaustralia.org.au) by using the following tabs or links:

- **Join Engineers Australia** (right hand tab),
- **Assessment** (left hand tab), and
- **The Guide to Assessment of Eligibility for Membership (Stage 1 Competency)** (link to a PDF file in the middle of the page).

Details of the Stage 1 Competencies can be found through the guidelines.

### **4 THE NATIONAL ARTICULATION COMMITTEE**

The National Articulation Committee’s primary role is to approve arrangements whereby members of Engineers Australia may articulate from one category in the engineering workforce to another. Assistance to individual members is provided by the Manager Articulation, who chairs the Committee and consults with it as necessary. The Committee and the Manager work together to provide achievable and clearly defined pathways for articulation.

The requirements set by the National Articulation Committee are consistent with Engineers Australia’s membership of several international agreements on equivalences and mobility. All matters of professional standards and qualifications are constantly benchmarked against best practice in other countries.

The Committee also acts to encourage educational institutions to offer programs suitable for articulation purposes and contributes to the wider debate on matters affecting articulation such as the status of Engineering Technologists and Engineering Associates

### **5 INDIVIDUAL ARTICULATION PROGRAMS**

The normal articulation pathways are from Engineering Associate to Engineering Technologist and from Engineering Technologist to Professional Engineer. Members might also articulate directly from Engineering Associate to Professional Engineer, although this is a more arduous and difficult pathway. The National Articulation Committee may also assist Affiliates who wish to move into a recognised engineering occupational category.

Through the Manager Articulation, the Committee will assist an individual candidate to identify or devise a personal program of academic study if no suitable accredited program is available. Such a program will recognise and build on existing qualifications and experience to achieve Stage 1 competency in the target category as quickly and directly as possible. The program must demonstrate an integrated approach to knowledge development.

Members who successfully complete a program of study approved in advance by the Committee are eligible to apply for Graduate Membership in the relevant category.

The following guidelines apply for articulation candidates who have been carrying out the responsibilities of their current occupational category **for at least five years**.

## **For articulation from Engineering Technologist to Professional Engineer**

A key element of any articulation pathway to Professional Engineer is that candidates clearly develop the ability to approach advanced applications from a theoretical as well as a practical viewpoint. Articulation programs therefore require demonstration of a strong grounding in the mathematics and engineering sciences underpinning their chosen field, and the Committee's advice and approvals are designed to ensure this.

The normal framework for a personal program of academic study for articulation from Engineering Technologist to Professional Engineer is a study-based engineering Masters Degree program provided by an academic unit offering programs accredited by Engineers Australia. Many engineering Masters Programs offer a wide choice of study units and the framework is usually sufficiently flexible to meet the needs of most candidates.

The Committee would not normally accept a program based on a Masters degree that falls outside accepted engineering disciplines. For example Management or Project Management programs are not recognised as suitable frameworks for articulation purposes since they do not contribute sufficiently on their own to the breadth and depth of foundation knowledge in science, mathematics and engineering required to achieve Stage 1 competency. For similar reasons, graduate programs by research only and graduate degrees in Systems Engineering are also not recognised for articulation purposes.

Masters degrees are not generally accredited by Engineers Australia, and completion of a Masters degree does not guarantee eligibility to articulate. The key requirement for articulation is that each candidate must secure the Articulation Committee's approval, in advance, for a specific program of units within the Master's framework. The program must be designed to build on the candidate's existing background to achieve the Stage 1 Competencies of a Professional Engineer.

A program of units sufficient for articulation purposes need not necessarily satisfy a University's requirements for the award of a Masters degree. Candidates may, of course, see advantage in taking additional units and formally completing the degree.

A comprehensive list of graduate programs in Engineering is available in the annual "The Good Universities Guide to Postgraduate Courses in Engineering, Science, and Technology" which can be obtained through Engineering Education Australia.

Particular attention is drawn to the Master of Engineering Practice program offered by the University of Southern Queensland and available by distance mode. The program has been developed specifically for articulation purposes and is fully accredited by Engineers Australia. Other Accredited Australian Conversion Masters Programs are being developed, and candidates for articulation should consult Engineers Australia's web site using the following tabs or links:

- **About Us** (top tab),
- **Program Accreditation**, (under top tab) and
- **List of Accredited Programs** (PDF files near the top of the page)

Graduates from accredited programs are not required to negotiate individual programs with the Articulation Committee.

Applicants who have a clear understanding of their career objectives may submit study units from more than one University to satisfy the requirements. A "mix and match" program must be fully justified by demonstrating that the program satisfies the Stage 1 Competencies for Professional Engineer.

## **For articulation from Engineering Associate to Engineering Technologist**

The normal framework for a personal program of academic study for articulation from Engineering Associate to Engineering Technologist is a Bachelor of Engineering Technology (BEngTech) program accredited by Engineers Australia.

Management or Project Management programs are not recognised as suitable frameworks for articulation purposes since they do not contribute sufficiently to the breadth and depth of foundation knowledge in science, mathematics and engineering required to achieve Stage 1 competency.

A program of units sufficient for articulation purposes need not necessarily satisfy a University's or TAFE's requirements for the award of a Degree. Candidates may, of course, see advantage in taking additional units and formally completing the degree.

Applicants who have a clear understanding of their career objectives may submit study units from more than one University or TAFE to satisfy the requirements. A "mix and match" program must be fully justified by demonstrating that the program satisfies the Stage 1 Competencies for Engineering Technologist.

## **6 RECOGNITION OF PRIOR LEARNING**

Candidates may sometimes be able to demonstrate prior learning equivalent to one or more units of an agreed articulation program. To do so they must present tangible evidence that they have satisfactorily attained the learning outcomes specified for the subject or unit for which RPL is sought. Learning outcomes are normally declared in University or TAFE course/subject/unit outline documents.

Evidence to support a claim for RPL could include:

- Specific work activities and units of study undertaken. These should be presented in the form of a portfolio specifically addressing the relevant learning outcomes and including copies of any certificates gained;
- an oral assessment/interview that allows the applicant to demonstrate the achievement of the specified learning outcomes;
- a challenge test to show that the applicant has met the specified learning outcomes.

Candidates wishing to claim RPL must gain approval from the Committee at the time that their personal program is negotiated. Note that RPL approved by the Committee for articulation purposes may result in an articulation program that does not lead to the award of a University or TAFE qualification.

Candidates for articulation from Engineering Technologist to Professional Engineer should be aware that the Master of Engineering Practice offered by the University of Southern Queensland, recommended in section 5 above, has highly-developed processes for RPL and individual program design. Candidates may obtain credit for up to 50% of the program through the submission of Portfolios. The Portfolios are written in a format that may be used later as Career Episode Reports for Stage 2 assessment by Engineers Australia.

## **7 OPERATIONAL DETAILS**

The Manager Articulation can only approve individual articulation programs for candidates who are already financial members of Engineers Australia and who are resident in Australia or who have approval to migrate to Australia. However, advice may be given to non-members who wish to determine their likely category on joining or who wish to determine their articulation possibilities.

Any request for articulation assistance from an eligible candidate should be directed to the current Manager whose contact details are provided below.

Correspondence between an applicant for articulation and the Manager is normally by email. The usual process is for an applicant to provide the Manager with a CV, including details of all post-secondary academic studies and all work experience since qualifying in their present category. An exchange of emails follows during which the Manager may consult with the National Articulation Committee or some of its members to ensure that the Guidelines are being followed. In due course an agreed individual program of study is negotiated, including any RPL arrangements.

Once the program of study and RPL arrangements have been approved, the Manager notifies the applicant and enters an outline on Engineers Australia's data-base. Details of the agreement are copied to any Division or Assessor that has been involved in the initial referral.

When a certified copy of the results from the agreed program of study has been received, and any RPL submissions have been approved, the applicant is notified that Stage 1 Competency for the appropriate category has been achieved. A copy of the notification is sent to the applicant's local Division and a notation is entered on the data-base.

Following receipt of the notification that Stage 1 Competency has been achieved, the candidate applies for transfer of membership. The relevant forms are downloadable from Engineers Australia's web site. The articulation process normally leads to application for Graduate Membership, but a Member application may be considered in cases where substantial experience has been obtained at an appropriate level.

After successfully transferring membership to the target category, a candidate may wish to apply for Chartered status in that category and/or registration on the appropriate section of the National Engineering Registers. This may not be possible until some time after the articulation process during which Stage 2 competency in the new category has been demonstrated.

From time to time the Manager receives requests for assistance from members who have previously been assessed for migration purposes by the Migration Skills Assessment Unit (MSAU). Under such circumstances the case is discussed with the MSAU and, based on those discussions and any other information supplied by the articulation candidate, the Manager arrives at a decision.

#### Manager Articulation

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