

**INDUSTRY EXPERIENCE REPORTING REQUIREMENTS  
(this page is for your information only and is not required to be submitted.)**

Industry experience is a requirement of the I E Aust, and should complement the formal studies of the course. In addition to engineering design, the opportunity to observe human and industrial relations, job organisation, maintenance, safety and environmental procedures (from the viewpoint of the general workforce), is an important component in the early preparation for a career as a professional engineer. Work in an engineering office or laboratory, directly assisting engineers, provides a valuable insight into professional practice.

### **Introduction**

During your course the department has endeavoured to develop certain generic attributes (as listed below) through a cohesive course design. Individual units develop these skills (or a subset of them) to a greater or lesser extent depending on that particular unit. These skills are the basis for what should be a long and rewarding career as a professional engineer.

### **Graduate Attributes**

The educational structure within the Faculty and, in particular, the School of Engineering and Mathematical Sciences, is designed to ensure that graduates will develop generic attributes over the duration of their course.

The Department of Electronic Engineering aims to produce electronic engineering graduates with the generic attributes expected of a professional engineer. In particular, graduates of the department's courses are expected to have the following generic attributes:

- (a) ability to apply knowledge of basic science and engineering fundamentals,
- (b) ability to communicate effectively, not only with engineers but also with the community at large,
- (c) in-depth technical competence in their chosen engineering discipline,
- (d) ability to undertake problem identification, formulation and solution,
- (e) ability to use a systems approach to design and operational performance,
- (f) ability to function effectively as an individual and in multi-disciplinary and multi-cultural teams, with the capacity to be a leader or manager as well as an effective team member,
- (g) understanding of the social, cultural global and environmental responsibilities of the professional engineer, and the need for sustainable development,
- (h) understanding of the principles of sustainable design and development,
- (i) understanding of and commitment to professional and ethical responsibilities, and
- (j) expectation of the need to undertake lifelong learning, and capacity to do so.

### **Supervision**

During the industry experience supervision is required by an engineer eligible for "professional membership" of Engineer's Australia. The Engineer's Australia site:

(<http://www.engineersaustralia.org.au/membership/general.html>)

provides access to many Eng Aust documents in PDF form. In particular the "Guide to Assessment of Eligibility for Membership (Stage 1 Competency) for Candidates not Holding an Accredited or Recognised Qualification" (at <http://www.engineersaustralia.org.au/membership/res/downloads/Stage%201%20Guide.pdf>)

contains the Australian Engineering Competency Standards Stage 1 with details and guidelines to the assessment of eligibility for membership. In particular see section 2 (Stage 1 Competency) of the document which states that "completion of a four year accredited engineering program provides eligibility for professional membership".

### **Reporting**

**(a) INDUSTRY EXPERIENCE REPORT COVER FORM**

As part of the industry experience requirement, a report on the industrial placement must be made. The report can take any form, such as the suggested/recommended cover form produced on the following page, or the submission of a substantial engineering report that was produced in the course of the industrial experience. No matter what form the report takes, parts 1 to 4 of the following cover form must be completed.

**(b) COMPANY LETTER**

The cover form and report must be accompanied by a statement from the employing company on company letterhead detailing the position in which you were employed, the dates worked, task undertaken and should, where possible be signed by the supervising engineer.

**INDUSTRY EXPERIENCE REPORT COVER FORM**  
**(For student to complete and return to Department.)**

**1. Student Details:**

Family Name: ..... Given Names: ..... Student number: .....

- Course in which enrolled (please tick):
- Bachelor of Electronic Engineering
  - Bachelor of Computer Science (Honours)/ Bachelor of Electronic Engineering
  - Bachelor of Science (Honours)/ Bachelor of Electronic Engineering
  - Bachelor of Electronic Engineering/Master of Biomedical Engineering
  - Bachelor of Electronic Engineering/Master of Microelectronic Engineering
  - Bachelor of Electronic Engineering/Master of Telecommunication Engineering
  - Bachelor of Laws/Bachelor of Engineering
  - Bachelor of Electronic Technology

**2. Company and Employment Details:**

Company Name: ..... Phone No.: .....

Name and position of supervisor: .....

Is your supervisor an IE Aust Member<sup>1</sup> :

Dates of employment: From ..... / ..... / ..... to ..... / ..... / ..... Total number of weeks: .....

**3. Company Letter:**

You are required to submit a letter from your employer on company letter head stating the dates you worked and outlining the tasks you have undertaken.

**4. Generic Attributes:**

The following Generic Attributes developed during the course were seen to be either directly or indirectly useful in the performance of the duties required in my industry experience program (please tick).

- ability to apply knowledge of basic science and engineering fundamentals,
- ability to communicate effectively, not only with engineers but also with the community at large, in-depth technical competence in their chosen engineering discipline,
- ability to undertake problem identification, formulation and solution,
- ability to use a systems approach to design and operational performance,
- ability to function effectively as an individual and in multi-disciplinary and multi-cultural teams, with the capacity to be a leader or manager as well as an effective team member,
- understanding of the social, cultural global and environmental responsibilities of the professional engineer, and the need for sustainable development,
- understanding of the principles of sustainable design and development,
- understanding of and commitment to professional and ethical responsibilities, and
- expectation of the need to undertake lifelong learning, and capacity to do so.

**5. Report:**

Please attach a 500 word report detailing such information as:

- Type of work undertaken
- Your role in the company
- The Role of the supervising engineer in the company
- Management structure of the company
- Outcomes from your employment
  - For the company
  - For you personally
- A comment on the how the generic skills, that you have developed during the course, were effective in your employment and understanding of the engineering/commercial outcomes from the employment

**Attach your appraisal to this form and submit it to the Head of the Department of Electronic Engineering as soon as possible after the completion of your industry experience.**

Student's signature: ..... Date submitted: ..... / ..... / .....

**For Department use only:**

Head of Departments approval: ..... Date: ..... / ..... / .....

<sup>1</sup> Either a full member of the Institution of Engineers (Australia), or eligible to become a full member.