

# ENGINEERS AUSTRALIA

## ACCREDITATION BOARD

### ACCREDITATION MANAGEMENT SYSTEM EDUCATION PROGRAMS AT THE LEVEL OF ENGINEERING TECHNOLOGIST

**Document No.** G06ET  
**Title** Preparation of Submission Documentation



#### DOCUMENT STATUS

Revision	Prepared by	Authorised by	Issue Date
1	Associate Director – Accreditation. Professor Alan Bradley.	Chair of the Accreditation Board. Professor Robin King	February 2009

## Table of Contents

<b>1. INTRODUCTION .....</b>	<b>4</b>
1.1. Structure and Content	4
1.2. Standard of Presentation	5
<b>2. GUIDELINES FOR DOCUMENTATION PREPARATION – INTRODUCTORY SECTION OF SUBMISSION .....</b>	<b>5</b>
2.1. Contact Details	5
2.2. Accreditation Request	5
2.2.1. Engineering Programs.....	5
2.2.2. Combined Degree Combinations .....	6
2.3. Programs for which accreditation is no longer sought	6
2.4. Action Resulting from Previous Accreditation	6
<b>3. GUIDELINES FOR DOCUMENTATION PREPARATION – ANALYSIS AGAINST ACCREDITATION CRITERIA .....</b>	<b>6</b>
3.1. The Operating Environment	7
3.1.1. Organisational Structure and Commitment to Engineering Education....	7
3.1.2. Academic and Support Staff Profile .....	8
3.1.3. Academic Leadership and Educational Culture .....	9
3.1.4. Facilities and Physical Resources .....	9
3.1.5. Funding.....	10
3.1.6. Strategic Management of Student Profile.....	10
3.2. Academic Programs	11
3.2.1. Specification of Educational Outcomes .....	11
3.2.2. Titles of Program and Award.....	11
3.2.3. Program Structure and Implementation Framework .....	11
3.2.4. Curriculum .....	12
3.2.5. Exposure to Professional Practice .....	12
3.3. Quality Systems	13
3.3.1. Engagement with External Constituencies.....	13
3.3.2. Feedback and Stakeholder Input to Continuous Improvement Processes	13
3.3.3. Processes for Setting and Reviewing the Educational Outcomes Specification .....	13
3.3.4. Approach to Educational Design and Review .....	14
3.3.5. Approach to Assessment and Performance Evaluation .....	14
3.3.6. Management of Alternative Implementation Pathways and Delivery Modes .....	14
3.3.7. Dissemination of Educational Philosophy .....	14



3.3.8. Benchmarking..... 15

3.3.9. Approval Processes for Program Development and Amendment ..... 15

3.3.10. Student Administration ..... 15

**4. SUBMISSION OF INITIAL DOCUMENTATION..... 15**

**5. INFORMATION TO BE AVAILABLE FOR INSPECTION DURING THE  
PANEL VISIT..... 16**

**6. ELECTRONIC TEMPLATES ..... 17**

**7. REFERENCES ..... 17**

## 1. INTRODUCTION

The key objective of the submitted documentation is to provide primary evidence that a program satisfies the accreditation criteria set for assessment of engineering technologist education programs. This guideline document has been prepared to assist with the preparation of the accreditation submission by the educational institution. The guidelines must be read in conjunction with the Accreditation Criteria Summary (Reference 2) and most importantly in conjunction with the Accreditation Criteria Guidelines (Reference 3).

### 1.1. Structure and Content

The submitted documentation will include an introductory section with primary contact information, a summary of the accreditation request and a brief report on specific actions in response to any previous accreditation visit report. The major component of the submission will be a succinct and coherent self-analysis, reporting against the criteria for accreditation.

The accreditation process is fundamentally focussed on systems that are already in place, not to require their creation. To this end much of the documentation requested should already exist and not require specific research or development. A good submission may well provide the self-analysis against the criteria for accreditation in an overview format with pointers to attached evidence and other support material. It is generally preferred that this overview be published as a stand-alone volume with separate appendices providing the substantiating material in a systematically indexed fashion. In some cases it will be more practicable to provide such substantiating material in electronic format. In these cases it is requested that the appropriate electronic file be provided in PDF or other common format on a CDROM included with each copy of the documentation. For example it is often more appropriate to provide the full set of academic unit outline documents in electronic form, rather than a voluminous hard copy. The overview document should always be provided in hard copy format.

In reporting against the criteria dealing with '*The Operating Environment*' and with '*Quality Systems*', a single, unified analysis may well be appropriate. This will be particularly so where a consistent operating framework is maintained for all program streams. In reporting against the criteria dealing with '*Academic Programs*', it will almost always be appropriate for the submission to branch out, analysing each individual program separately against each criterion in this category.

Engineers Australia does not want to be prescriptive about the format of the submitted documentation, but is anxious that the presentation is logically structured, easily readable and free-standing. Each criterion must be addressed in a definitive manner and be sufficient for the evaluation panel to form a judgement on the specific requirement. In the Summary of Accreditation Criteria, (Reference 2), performance indicators are included against each criterion. ***It is not expected that submissions will respond in detail to every individual performance indicator, nor to every element suggested in the guidelines below, rather that sufficient information is provided for an evaluation panel to make a holistic assessment.***

The panel may at any stage request further information relevant to the criteria. It will be helpful if the initial documentation indicates, in relation to each heading, any further evidence available in addition to that provided.

***The initial documentation should be as concise as effectiveness demands. Typically an overview presentation addressing criteria associated with 'The Operating Environment' and 'Quality Systems', typically common to all programs in an engineering school, would be expected to be in the range of 20 -***

**40 pages. The analysis of each individual program would be expected to be less than 15 pages per program. Appendices may add additional content.**

## 1.2. Standard of Presentation

The standard of presentation is important. A key objective of accreditation is to ensure international comparability and recognition. Submissions should be of a suitable standard for international audit, to demonstrate that Australian engineering education is equal to the best in the world.

The Sydney Accord, (Reference 1), an agreement between signatory countries (presently 11 in number), recognises comparability of accreditation systems and standards for professional engineering programs. The Accord is maintained through an ongoing program of mutual inspection and validation. It is possible at any time that Engineers Australia's accreditation of programs within any Australian engineering school may be subject to scrutiny and/or participation by observers from other Sydney Accord signatories.

If the initial documentation is not considered to meet the following guidelines, the engineering school may be asked to resubmit before a visit is scheduled.

## 2. GUIDELINES FOR DOCUMENTATION PREPARATION – INTRODUCTORY SECTION OF SUBMISSION

The mandatory information requested in this section establishes the key parameters for the accreditation process.

### 2.1. Contact Details

The following data must be provided in the early pages of the submission.

- Name of the educational institution seeking accreditation.
- Name and title of the officer responsible for this submission, and contact details (mailing address, phone, fax, e-mail).
- Names and contact details of others who may need to be contacted concerning this submission, and nature of their responsibility.
- Website address of the educational institution and the engineering school.

### 2.2. Accreditation Request

#### 2.2.1. Engineering Programs

For each engineering program to be submitted for accreditation, the following information must be provided. A tabular format is generally the most appropriate and a suggested proforma – Table 1 - is provided in the Appendix to this document.

- Full title of program.
- Full title of degree/s awarded on completion, and abbreviation/s.
- Campus of delivery.
- Program duration (full time basis).
- Current accreditation status.
- Level of accreditation sought.
- Original accreditation date.
- Date of last major revision.

Program and degree titles must match those appearing in the literature published by the education provider. Some universities employ a formal degree title, and a more detailed title which appears on the testamur and/or transcript. Where such distinctions exist, they should be clarified.

Professional Engineering programs and Engineering Technologist programs should be listed separately, where a submission indicates programs at each of these levels.

Clearly outline any changes to program or degree titles since the previous accreditation (both approved and proposed changes).

### 2.2.2. Combined Degree Combinations

The permitted combined/dual/double degree combinations must be clearly listed for each of the engineering programs nominated in 2.2.1 above. A tabular or matrix format is preferred. Indicate the full time equivalent study duration for each dual degree combination. State the full title and abbreviation of each permitted combination degree. Matrix 1 in the Appendix shows one method of presenting this information.

### 2.3. Programs for which accreditation is no longer sought

Any programs that are currently accredited by Engineers Australia and for which accreditation is no longer sought must be listed. A tabular format, similar to that used for 2.2.1 above (Table 1 in the Appendix), is appropriate.

### 2.4. Action Resulting from Previous Accreditation

Any significant actions taken since the previous accreditation cycle should be identified and explained for the use of the visiting panel.

In particular, specific measures taken to address concerns and recommendations raised in the previous accreditation visit report should be documented.

## 3. GUIDELINES FOR DOCUMENTATION PREPARATION – REVIEW AGAINST ACCREDITATION CRITERIA

The following subsections provide guidance for undertaking a self-review against the accreditation criteria. These guidelines have been prepared to assist in assembling succinct and relevant evidence to demonstrate compliance with the criteria. ***The guidelines provide an indication of the scope and the detail expected, but are not meant to be prescriptive.*** The panel will make judgement against the criteria in a holistic manner rather than testing compliance against a pre-determined checklist or a rigorous audit of the response suggestions provided in the guidelines below.

Each of the immediate sub-points listed under Sections 3.1, 3.2 and 3.3 below correlate directly with the respective criterion tabulated in Reference 2. Suggestions for response are provided for each criterion. It is acknowledged that some of the response suggestions will be unsuitable or inapplicable in particular cases. On some occasions alternative forms of substantiation may well be more appropriate and this is encouraged.

### 3.1. The Operating Environment

*A unified response, common to all programs or a group of programs, may well be appropriate in responding to the criterion in this section.*

#### 3.1.1. Organisational Structure and Commitment to Engineering Education

##### STRUCTURE OF EDUCATIONAL INSTITUTION

- Describe the organisational structure of the educational institution including:
  - title of chief executive officer of the educational institution (e.g. Vice-Chancellor) and name of incumbent;
  - name of the principal academic entity responsible for engineering education (e.g. Faculty of Engineering), herein called **the engineering school**, and names of comparable entities in other disciplines;
  - title of the head of the engineering school (e.g. Dean of Engineering) and name of incumbent;
  - title of person at corporate level to whom the head reports (e.g. Deputy Vice-Chancellor) and name of incumbent.
- In relation to engineering programs, describe the level of accountability the engineering school has (subject to institutional approval processes) for:
  - program educational design and review,
  - program delivery,
  - management of physical resources and facilities,
  - financial management,
  - appointment and supervision of staff,
  - professional development of staff,
  - research and commercial activities.

##### RELATIVE SIZE OF THE ENGINEERING SCHOOL

- Provide a clear indication of the dimension of the engineering school in relation to that of the overall education institution using indicators such as student load, budget proportions, or staff numbers.

##### ENGINEERING SCHOOL STRUCTURE

- Describe the organisational structure of the engineering school, including:
  - titles and names of officers having responsibility across the engineering school (e.g. associate deans, deputy deans, business manager, executive officer, etc), and names of incumbents;
  - names of sub-entities (e.g. Department of Civil Engineering) and scope of their responsibilities;
  - titles and names of the heads of sub-entities, and names of incumbents;
  - titles and names of those accountable for program administration and coordination;
  - titles and names of those appointed as leaders of academic staff teams accountable for the educational design, delivery and quality management of each individual program.
  - accountabilities for line management of academic and support staff.

## COMMITTEE STRUCTURES

- With reference to engineering program design, review, continuous improvement and approval, provide an overview of committee structures at institution, school and at sub-entity levels.

## STRATEGIC STATEMENT OF INSTITUTIONAL SUPPORT

- Provide evidence of the institution's long-term commitment to engineering as a discipline, for example through corporate mission statements and strategic plans, or otherwise. Proportional contributions of the engineering school (past and projected) to the corporate achievements of the educational institution may also help with substantiation.
- Provide any available evidence of the engineering school's engagement in long-term planning processes (excerpts from the engineering school's strategic plan may for example be appropriate in an appendix)

### **3.1.2. Academic and Support Staff Profile**

#### STAFF STRENGTH

- Provide information to demonstrate the strength of the academic staff profile in each of the program disciplines as well as that of the support staff team. The following suggestions are made.
    - In a tabular format list the names and any role titles of engineering academic staff appointed to the school, grouped against the school's organisational sub-entities. Where appropriate, list the key undergraduate program(s) each incumbent contributes teaching input to. Indicate the gender of each staff member and level of academic appointment. Show also EFT fraction of appointment and EFT distribution of workload against: engineering undergraduate teaching and educational development, research and consulting, management, administration and governance, other activities.
- Table 2 in the Appendix provides a suggested format.
- Provide details of numbers and seniority of administrative, technical and professional staff within each organisational sub-entity of the school.
  - For each program provide an estimate of the percentage or time fraction of formal teaching contact provided from the following sources:
    - engineering academic staff appointed to the school,
    - academic staff from within the educational institution but external to the engineering school,
    - sessional and guest teaching.

For each program clearly indicate the level of direct teaching input from adjuncts and industry professionals practising in engineering or in other designated fields.

- For each member of engineering academic staff appointed to the school as well as for adjunct appointments, provide a 1-2 page CV summarising academic appointment record, qualifications, professional affiliations, experience in professional practice, teaching experience, professional contributions to educational development, engineering research and consulting, publication record and any other professional development activity. A suggested proforma for staff CV's is provided in the Appendix.

- Analyse the capacity and competency of the teaching staff to cover all areas of the curriculum, and indicate any strategies for reinforcing areas of weakness, staffing new areas of specialisation, and succession planning for academic and organisational leadership. Critically assess the range and depth of staff expertise underpinning each technical specialisation.
- Provide an estimate of student to staff ratio using a basis of engineering taught EFTSU to appointed engineering teaching staff EFT - on a school, organisational sub-entity or program basis.

### WORKLOAD MANAGEMENT

- Describe the engineering school's arrangements for managing staff workloads.

#### **3.1.3. Academic Leadership and Educational Culture**

- Describe the mechanisms for formal leadership and management of the teaching team at the individual program level. Define the level of autonomy and accountability of the program teaching team in the tasks of educational innovation, design, review and continuous quality improvement. Describe the formal linkages the program teaching team has with external constituencies, the student body and program management committees at the institution, school and sub-entity levels.
- Describe any specific initiatives that:
  - encourage and enable staff to role model the generic attributes of a professional engineer;
  - promote awareness and adoption of current educational thinking and best practices;
  - internationalise the curriculum and promote awareness of cross cultural issues;
  - promote community outreach;
  - provide an inclusive operating environment.
- Provide a brief profile of the school's strategic directions for research, research record and associated professional activities. Indicate the extent and scope of activity, and naming principal areas of research concentration, formally established structural groups, centres etc. Outline major research achievements, collaborations both within and external to the institution. In particular highlight industry linked research. Discuss the linkages between research and undergraduate teaching.

#### **3.1.4. Facilities and Physical Resources**

- Briefly describe the classrooms, laboratories, library and information resources, and computing and communication facilities and services available to students and staff, and comment on their adequacy to meet the objectives of the school and the program/s to be accredited. In particular, give:
  - details of learning-support centres or special facilities;
  - titles of laboratories in active use for teaching;

- facilities available to students for project work, including workshops and technical staff support;
- details of IT support available to students and staff.
- Discuss any strategic directions for capital investment and facilities development.

### 3.1.5. Funding

- Describe the institution's arrangements for funding the engineering school and/or engineering programs. Indicate the factors used in determining the allocation, and how they are weighted.
- Discuss the adequacy of the resources available to meet the objectives of the school, and of the program/s to be accredited. Comment on any recent or prospective trends in the school's financial situation, and their impact on program effectiveness. Indicate what steps are being taken to address any perceived inadequacies.

### 3.1.6. Strategic Management of Student Profile

#### ENROLMENT DATA

- Provide statistical data for the current and past two years to show trends for commencement enrolment numbers, entry rank cut-off score, graduation rates and honours distribution. Table 3 in the Appendix provides a suggested format. The data needs to be dis-aggregated, where possible, for each program that has been submitted for accreditation.

#### STUDENT SELECTION AND ENTRY REQUIREMENTS

- Specify rules for entry and selection procedures for applicants in the following categories:
  - Commonwealth/HECS funded,
  - Australian fee paying,
  - international fee paying,
  - articulating students following agreed pathways from other universities or post-secondary programs.
- Outline any processes for admitting minority groups or classes of students to special pathways.
- Outline policies and processes for assessment of prior learning, the determination of advanced standing and the development of articulation routes for individual applicants where advanced standing credit is limited to less than 50% of the total program.

#### PROGRESSION AND GRADUATION RATES

- Provide a brief analysis of student progression rates for each year level and an outline of progression and exclusion rules. Comment on any salient trends for minority cohorts.

### 3.2. Academic Programs

*It is usually appropriate to develop a full and separate response for each individual academic program against criteria 3.2.1 through 3.2.5 below. A suggested approach is provided in the discussion under each criterion.*

#### 3.2.1. Specification of Educational Outcomes

- Clearly describe the targeted field of engineering practice and any specialisation offered for the program.
- Present or review the rationale for the nature of the program offering and for any particular focus.
- Present the full specification of outcomes for the program including the educational objectives and targeted graduate capabilities. In particular address the projected levels of technical competence, enabling knowledge and skills, engineering application skills as well as personal and professional skills and attributes.
- Highlight any explicit links between the targeted graduate capabilities statement and the Engineers Australia National Generic Competency Standards – Stage 1 Competency Standard for Engineering Technologist, (Reference 4).

#### 3.2.2. Titles of Program and Award

- Justify the title of the program and the associated degree in relation to the program objectives, field of engineering practice and any declared specialist focus.

#### 3.2.3. Program Structure and Implementation Framework

- Document in detail the program structural design, clearly indicating the titles of all academic units or subjects and the academic credit each carries within the program structure. Relate the structural design of the program to the educational objectives, designated field of practice and any nominated specialisation.
- Explain the requirements that must be satisfied for the award of the degree in terms of the structure of academic credits.
- Document all modes and implementation pathways via which the program and the degree requirements may be completed. This should include any of the following that may apply:
  - core or elective academic unit options;
  - elective major or minor study streams;
  - particular study requirements for Honours;
  - requirements for various specialisations;
  - workplace learning or cooperative options;
  - study through alternative campuses or institutions;
  - defined feeder, articulation or bridging routes;
  - external or distance delivery;
  - study abroad;
  - part time modes;
  - remote campus or offshore implementations;

- Clearly define the program study duration and the impact any of the above options may have on this.
- Discuss the program structure with regard to the proportions of the total learning experience directed to:
  - mathematics, science and engineering principles;
  - engineering design and projects;
  - engineering specialisation,
  - exposure to professional practice,

in relation to the suggested targets provided in Section 3.2.3 of the Accreditation Criteria Guidelines (Reference 3).

- Describe how the profile, background and special needs of individual students or minority groups are accommodated through special support, remedial routes or other flexible features of the program.
- Using a tabular or other approach, map the structures for all dual degree derivatives of each host engineering program. Clearly indicate where core or elective academic units are deleted from the host program for each dual degree combination and provide a rationale to demonstrate that equivalent learning outcomes are assured.

(Much of the above may be adequately documented in internal statements prepared for the purposes of program planning, review and approval and/or in public statements to program constituents.)

#### 3.2.4. Curriculum

- In an appendix, provide a brief description of each academic unit (subject or course) including its level and prerequisites; its scope, coverage and learning outcomes and how these map to the educational objectives and graduate capabilities targeted for the program as a whole. This description should also include details of the learning activities and assessment processes and demonstrate how these assure the delivery of the learning outcomes, thus closing the quality loop at the academic unit level. Include details of the modes of delivery eg lecture, tutorial, workshop, studio, laboratory, assignment, problem or project based learning, individual and teamwork, distance interaction, industry interaction and the contributions each of these elements is expected to make.

(The above requirement may well be satisfied by a compilation of the published unit (subject or course) outline documents distributed to students and supplemented with additional information as necessary.)

- Clearly demonstrate how the educational design of the program assures delivery of the Stage 1 Competencies for Engineering Technologist, and thus a satisfactory level of attainment of the Engineers Australia generic attributes in all graduates.

#### 3.2.5. Exposure to Professional Practice

- Document any formal work placement requirements for students and the processes and procedures for disseminating, tracking, reviewing and assessing experiences and learning outcomes.

- Provide an overview of the range and depth of professional practice exposure (other than formal work placement) embedded as part of the educational experience within academic units and within the program as a whole. Describe how this aspect of learning forms an integral part of the overall educational design and how the learning outcomes of these exposure episodes are tracked and assessed.

### 3.3. Quality Systems

In responding to each of the criterion in this category, the following analysis and specific items of supporting evidence are suggested as appropriate. ***In many circumstances a unified response for the School as a whole will be appropriate for this category.***

#### 3.3.1. Engagement with External Constituencies

- Describe the mechanism(s) for seeking advice from industry, the community and professional bodies. Provide evidence to substantiate the level of interaction and influence exercised by external constituents, including the terms of reference and representative activities of any formally constituted advisory bodies.
- For each advisory body, provide lists of member's names and affiliations.
- Describe the influence that industry advisory bodies have at the individual program level.
- Describe how the school's industry linkages are able to enrich the learning experience of students through professional practice exposure and any direct project opportunities.

#### 3.3.2. Feedback and Stakeholder Input to Continuous Improvement Processes

- Outline in detail the specific mechanisms for gaining input and feedback from students, employers, graduates and the wider community. Demonstrate the impact these measures have on the quality assurance system.
- In particular emphasise any mechanisms for engagement of the student body in the quality cycle. Describe the scope for student input to review and improvement of the operating environment, the program and academic unit outcome targets, the program structure, the curriculum detail, the learning approaches and the assessment measures.
- Specifically outline any involvement of external constituencies in establishing and reviewing the educational outcomes specification, in the educational design processes and in monitoring the attainment of program objectives and graduate capabilities at the individual program level.

#### 3.3.3. Processes for Setting and Reviewing the Educational Outcomes Specification

- Outline the approach to setting and reviewing program level objectives and targeted graduate capabilities as a specification of outcomes. Clearly indicate the level of engagement and staff accountabilities for this process and the frequency of review.

- Demonstrate how these processes are influenced by the Engineers Australia National Generic Competency Standards – Stage 1 Competency Standard for Engineering Technologist (Reference 4).
- Explain the mechanisms for ensuring that projected program outcomes reflect the needs of external constituents.

#### **3.3.4. Approach to Educational Design and Review**

- Outline the approach to educational design and review. Clearly indicate the mandate and staff accountabilities for this task, the forum, breadth of input and frequency of review and the nature of the approach.
- Particularly outline any processes that map and track the aggregated learning outcomes and assessment mechanisms from individual academic units to ensure delivery of the targeted outcomes set for the program as a whole, thus closing the quality loop at the program level.
- Also, outline any processes that monitor and review the links between the designated learning outcomes, the learning activities and assessment measures within the individual academic units, thus closing the quality loop at the academic unit level.
- Provide evidence that the results of assessment of student performance and learning outcomes and the feedback and input from all constituencies are being systematically applied to the continuous improvement of the program and curriculum, the delivery approach and the operating environment.

#### **3.3.5. Approach to Assessment and Performance Evaluation**

- Provide an overview of the processes for management and review of assessment. Highlight the details of any systematic or holistic process that maps and links assessment within academic units to assure the broad capabilities of graduates and the maintenance of appropriate standards. Provide details of moderation processes that operate at the academic unit level, assuring the rigour and validity of assessment measures.
- Provide an overview of the range of approaches to assessment, how the deployment of these is controlled within individual academic units, and the strategies for ensuring that the aggregated assessment measures reflect the true capability and level of achievement of the individual.
- Describe the criteria for the award of honours, and the processes for determining honours gradings.

#### **3.3.6. Management of Alternative Implementation Pathways and Delivery Modes**

- Describe the mechanisms for assuring the equivalence of learning outcomes where alternative implementation pathways are offered.

#### **3.3.7. Dissemination of Educational Philosophy**

- Provide evidence of any documentation that communicates for the benefit of stakeholders, and in particular students, a 'big picture' description of the program objectives, outcomes and design philosophy. Such documentation would

be expected to show how the individual learning elements and performance measures within academic units map and aggregate to assure the delivery of the program objectives and outcomes and in turn assure a satisfactory level of attainment of the Engineers Australia generic attributes. Examples of overview and outline publications should be made available at both the program and individual academic unit level to demonstrate the clarity of presentation.

### **3.3.8. Benchmarking**

- Outline the details and outcomes of any comparative analysis that has been undertaken with national and/or international practices and where these activities have influenced standards for establishing educational outcomes and assessment processes.

### **3.3.9. Approval Processes for Program Development and Amendment**

- Describe the formal processes at institution, school and sub-entity level for approval of proposed programs, and program amendments. Summarise the requirements that must be satisfied for approval to be considered.

### **3.3.10. Student Administration**

- Provide evidence to demonstrate the robustness of the student administration system. In particular provide details of policy and processes for retention and progress monitoring; performance warning, exclusion and appeal; student advisory services, as well as retention and progress monitoring. Describe how these indicators provide input to the processes of continuous quality improvement.
- Provide details of published admission requirements and demonstrate the integrity of the admissions processes to ensure that only appropriately qualified applicants enter the programs.
- Describe the processes in place to ensure that each individual graduand has met the program requirements.

## **4. SUBMISSION OF INITIAL DOCUMENTATION**

The documentation should be bound in one or more volumes, (as suggested in section 1.1 above), and should include a Table of Contents clearly indicating the structural layout of the submission

- The educational institution should submit sufficient copies of the initial documentation to provide:
  - one copy for each member of the evaluation panel (normally 4 – 8 copies),
  - one reference copy for filing.

The number of copies required will be advised when Engineers Australia acknowledges the request for accreditation and schedules key dates.

The initial documentation should be accompanied by:

- the institution's Calendar (one copy),
- the Handbook, Calendar supplement, or other official publication relating to the engineering school, and containing the public statement of program details (4 copies),
- major current items of promotional literature concerning engineering programs (4 sets) and/or website references to these items.

It is appreciated that some detailed items may be more appropriately provided in electronic format rather than hard copy. (In this case the provision of a CDROM image is suggested as in Section 1.1 above.)

All documentation should be submitted to:

The Accreditation Officer  
Australian Engineering Accreditation Centre  
Engineers Australia  
Suite 206, 2nd Floor, 21 Bedford St  
North Melbourne Vic 3051

The Accreditation Officer will arrange distribution of documentation to the individual panel members.

Documentation should be received by Engineers Australia 8 weeks prior to the scheduled visit date.

## **5. INFORMATION TO BE AVAILABLE FOR INSPECTION DURING THE PANEL VISIT**

- Copies of all current promotional literature.
- A list showing the name/s of the staff member/s currently responsible for delivery of each academic unit.
- For a representative range of example academic units at each year level and for each program, a dossier of materials including the unit outline document distributed to students, examples of teaching materials and resources, examples of formative and summative assessment materials including examination papers, and specifications for assignments, projects and laboratory activity, examples of graded student work including submissions and examination scripts, journals and portfolios, assignment, project reports, laboratory reports, professional practice log books. Examples of low, medium and high achievement should be available in each case, demonstrating a distinction in grading across the various performance thresholds.
- Of particular interest are graded student design and project report submissions at various year levels. A range of graded final year (capstone) project reports are vitally necessary where full accreditation is being considered. Displayed materials should be organised clearly against year levels and the records for each academic unit separately identified. The range of displayed materials should be selected in order to demonstrate the delivery of the full range of generic capabilities in graduates including a clear indication of the standard of technical competence.
- Prime documentation associated with teaching and learning planning, review, management and quality improvement should be made available. Any appro-

priate records of formal proceedings, reports and submissions, trend and data analysis, quality system records or evidence of action implemented should be presented for perusal. This should include records of meetings of program teaching teams, staff-student consultative forums, industry advisory body meetings, key documents associated with formal program reviews as well as appropriate meeting records and documented action follow ups at all organisational levels.

- Details of stakeholder surveys including teaching quality and unit/program evaluations, student destination surveys, employer or graduate surveys. As well as access to the survey instruments, any outcome summaries, subsequent reporting, follow up action and information describing influences this data has had on the continuous improvement processes should be presented.
- Available school and/or research annual reports.
- Access to the school's records management system.
- Access to the institution's and/or engineering school's human resource policy documents, including:
  - appointment and tenure (an example of selection criteria would be welcome);
  - promotion (an example of promotion criteria would be welcome);
  - professional development – as an engineering academic and professional educator;
  - supervision and staff counselling;
  - appointment, training, supervision and counselling of sessional staff;
  - any merit-based reward systems.

## 6. ELECTRONIC TEMPLATES

Sample templates for the following submission documents provided in the appendices, can also be downloaded from the Engineers Australia website <http://www.engineersaustralia.org.au/education/program-accreditation/accredited-programs/>

- A suggested proforma for staff CV;
- Listing of Programs Submitted for Accreditation;
- Summary of Permitted Dual Degree Combinations;
- Engineering School Academic Staff Profile; and
- Admissions and Enrolments

## 7. REFERENCES

- 1 S03ET Governing and Consultative Bodies, International Framework.
- 2 S02ET Accreditation Criteria Summary
- 3 G02ET Accreditation Criteria Guidelines
- 4 P05ET Engineers Australia National Generic Competency Standards – Stage 1 Competency Standard for Engineering Technologist

# APPENDIX

## SUGGESTED PROFORMA FOR STAFF CVs

**NAME:**

**TITLE:**

**CURRENT POSITION AND LEVEL OF ACADEMIC APPOINTMENT:**

**QUALIFICATIONS:**

**MEMBERSHIP OF PROFESSIONAL BODIES:**

**PREVIOUS INDUSTRY APPOINTMENTS:**

**ACADEMIC APPOINTMENT RECORD:**

**PROFESSIONAL CONTRIBUTIONS TO EDUCATIONAL DEVELOPMENT:**

**ENGINEERING RESEARCH FIELD AND PUBLICATION COUNT:**

**CONSULTING RECORD:**

**OTHER PROFESSIONAL DEVELOPMENT ACTIVITY:**



<b>TABLE 1</b>		<b>Listing of Programs Submitted for Accreditation</b>						
<b>Title of Educational Institution:</b>					<b>Title of Engineering Faculty/School:</b>			
.....					.....			
Full title of Program	Full title of degree(s) to be awarded on completion of program	Abbreviation of degree(s) title	Campus of delivery	Program duration in semesters / years - full time basis	Current accreditation status	Level of accreditation sought	Engineers Australia Accreditation start date)	Year of first student cohort commencement
Bachelor of Engineering Technology (XXXX)								
Bachelor of Engineering Technology (XXXX)								
Bachelor of Engineering Technology (XXXX)								
Bachelor of Engineering Technology (XXXX)								
<b>Programs for which Accreditation is No Longer Sought</b>								



<b>MATRIX 1 Summary of Permitted Dual Degree Combinations</b>							
<b>Title of Educational Institution:</b>				<b>Title of Engineering Faculty/School:</b>			
.....				.....			
	BA	BBus	BSc	BCompSc	BMath	LLB	
BEng Technology(XXXX)	✓ <input type="checkbox"/>	✓ <input type="checkbox"/>	<input type="checkbox"/>	✓ <input type="checkbox"/>	✓ <input type="checkbox"/>	✓ <input type="checkbox"/>	<input type="checkbox"/>
BEng Technology (XXXX)	✓ <input type="checkbox"/>	✓ <input type="checkbox"/>	✓ <input type="checkbox"/>	<input type="checkbox"/>	✓ <input type="checkbox"/>	✓ <input type="checkbox"/>	<input type="checkbox"/>
BEng Technology (XXXX)	✓ <input type="checkbox"/>	✓ <input type="checkbox"/>	✓ <input type="checkbox"/>	✓ <input type="checkbox"/>	✓ <input type="checkbox"/>	✓ <input type="checkbox"/>	<input type="checkbox"/>
BEng Technology (XXXX)	<input type="checkbox"/>	✓ <input type="checkbox"/>	✓ <input type="checkbox"/>	✓ <input type="checkbox"/>	✓ <input type="checkbox"/>	✓ <input type="checkbox"/>	<input type="checkbox"/>
BEng Technology (XXXX)	✓ <input type="checkbox"/>	✓ <input type="checkbox"/>	✓ <input type="checkbox"/>	✓ <input type="checkbox"/>	<input type="checkbox"/>	✓ <input type="checkbox"/>	<input type="checkbox"/>
BEng Technology (XXXX)	✓ <input type="checkbox"/>	✓ <input type="checkbox"/>	✓ <input type="checkbox"/>	✓ <input type="checkbox"/>	✓ <input type="checkbox"/>	✓ <input type="checkbox"/>	<input type="checkbox"/>
BEng Technology (XXXX)	✓ <input type="checkbox"/>	✓ <input type="checkbox"/>	<input type="checkbox"/>	✓ <input type="checkbox"/>	✓ <input type="checkbox"/>	✓ <input type="checkbox"/>	<input type="checkbox"/>
BEng Technology (XXXX)	✓ <input type="checkbox"/>	✓ <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✓ <input type="checkbox"/>	✓ <input type="checkbox"/>	<input type="checkbox"/>
BEng Technology (XXXX)	✓ <input type="checkbox"/>	<input type="checkbox"/>	✓ <input type="checkbox"/>	✓ <input type="checkbox"/>	✓ <input type="checkbox"/>	✓ <input type="checkbox"/>	<input type="checkbox"/>
BEng Technology (XXXX)	✓ <input type="checkbox"/>	✓ <input type="checkbox"/>	✓ <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✓ <input type="checkbox"/>	<input type="checkbox"/>



<b>TABLE 2</b>		<b>Engineering School Academic Staff Profile</b>								
<b>Title of Educational Institution:</b>					<b>Title of Engineering Faculty/School:</b>					
.....					.....					
...										
Organisational sub-entity within School	Academic staff name	Male /Female M/F	Role Title	Academic level of appointment A to E	% EFT of appointment	Key undergraduate program(s) of teaching contribution	% of workload assigned to undergrad teaching	Discipline of expertise – based on qualifications, industry experience, academic achievement	Engineers Australia membership level or equivalent professional body membership and level	Professional status - Chartered or Registered – state the post-nominal and institution / jurisdiction
Department (XXXX)										
Department (YYYY)										



<b>TABLE 3</b>													<b>Admissions and Enrolments</b>				
<i>For each program to be accredited please complete enrolment figures for the past three years C = Current Year, C - 1 = Current year - 1, C - 2 = Current Year - 2. EFT = Effective Full Time Students M = Male and F = Female Dis-aggregation as indicated.</i>																	
<b>Title of Educational Institution:</b>													<b>Title of Engineering Faculty/School:</b>				
Name of Program	Total Commencing students EFT HECS + AFPS + OFPS Past 3 years						Entry Rank Cut-off Score for HECS places			Total Enrolments EFT HECS + AFPS + OFPS	% of Total Enrolments which are for part time study	Total Enrolments EFT AFPS Current Year	Total Enrolments EFT OFPS Current Year	% of Total Enrolments in a Dual Degree combination Current Year	Degree Completions Head count		Degree Completions with Honours % Headcount
	C-2		C-1		C		C-2	C-1	C	C	C				C-2	C-1	C-1
	M+F	%F	M+F	%F	M+F	%F				M+F		M+F	M+F				
BEng Technology (....)																	
BEng Technology (....)																	
BEng Technology (....)																	
BEng Technology (....)																	