



ENGINEERING
EDUCATION
AUSTRALIA

Professional Year in Engineering

Guidelines for Participants

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1. Introduction

As of September 2007, overseas students seeking permanent residency in Australia and who hold a Skilled – Graduate (Temporary) visa (subclass 485), must, within 18 months of graduating from an appropriate course of study, either:

- achieve an IELTS level 7 qualification; or
- be in employment related to their Graduate status, or
- *undertake a professional year program*

Engineers Australia, through its subsidiary company Engineering Education Australia, has been gazetted by the Minister of Immigration and Citizenship to provide a professional year program in engineering.

Engineers Australia is offering a 44- month 'job-readiness' Professional Year program for former international engineering students who have graduated from a university within Australia and are seeking permanent residency.

The Program is designed to enhance the participant's ability obtain employment in their chosen discipline by applying his or her technical skills and knowledge in the Australian workplace to:

- work within Australian legislative requirements applicable to workplaces and operations;
- work safely and participate in occupational safety, health and environment (OSHE) processes;
- work effectively within the organisation's requirements, including those for EEO and diversity;
- communicate effectively in the workplace;
- provide effective service to internal and (as appropriate) external clients;
- participate in a team;
- apply occupation-specific knowledge and skills to complex professional work situations; and
- implement strategies to manage their personal career development.

2. Engineers Australia

Engineers Australia, as the major professional body for engineering in Australia currently undertakes skills assessment for immigration purposes on behalf of the Australian Government, accredits university programs in engineering for their professional content and relevance to benchmarked international standards, and provides continuing professional education for engineering professionals.

With over 100,000 members embracing all disciplines of engineering, Engineers Australia is the largest and most diverse professional body for engineers, technologists and engineering associates in Australia.

3. Engineering Education Australia

Engineering Education Australia is a subsidiary company of Engineers Australia. It brokers training and professional development activities to provide continuing professional development for the engineering profession. EEA is a national organisation which has a history of partnering with training providers, universities and consultants to achieve its outcomes. Engineering Education Australia will manage registration in the Professional Year Program in Engineering (PYear); the relationships with Professional Year Partners (Partners); oversee the quality of outcomes; and monitor participant satisfaction with the program.

4. Professional Year Program Structure and Outcomes

The Program is designed to provide participants with the communicative skills, practical experience and knowledge of the Australian workplace and culture, necessary to pursue employment in their fields of expertise within the Australian workforce. It occurs over at least 44 weeks within a 12 month period and includes:

- An Orientation Day to introduce participants to the program;
- practical classroom based training and workshops provided by accredited providers of education (Professional Year, or PYear, Partners);
- access to learning and career development tools and methods;
- a 12 week supervised engineering intern placement with a host company
- a career episode report addressing units of engineering competency;
- mandatory attendance at least 4 networking and professional development events (two must be run by Engineers Australia); and
- on-going access to networking opportunities, professional development and further professional credentials as a graduate member of Engineers Australia.

At the commencement of Orientation, your provider will provide each applicant with a link to the EEA Professional Year resource page. This link will provide students with forms that they may need information about the program and links on where they can keep up to date with the industry.

Classes will contain no more than **25** participants and no less than **12**.

The Professional Year in Engineering participants in any intake will also include participants from other DIBP approved Professional Year streams. The number of engineering students will be capped accordingly and as per each provider per intake. This is to ensure participants can interact with others of their chosen profession and obtain value from the Program.

Each Professional Year Partner of the Professional Year in Engineering will determine its precise content and structure, and whether the components are conducted full time or part time.

Each Partner will ensure that the contents of the program deliver the outcomes to participants expected by the Department of Immigration and Border Protection. Each successful participant will have demonstrated the ability to:

- work within Australian legislative requirements applicable to workplaces and operations;
- work safely and participate in occupational safety, health and environment (OSHE) processes;
- work effectively within the organisation's requirements, including those for EEO and diversity;
- communicate effectively in the workplace;
- provide effective service to internal and (as appropriate) external clients;
- participate in a team;
- apply occupation-specific knowledge and skills to complex professional work situations; and
- implement strategies to manage their personal career development.

Appendix 1 includes more information on the Professional Year core competencies related to each of the desired outcomes.

On successful completion of the Professional Year program, a participant may be awarded 5 points under the General Skilled Migration points test.

Refer to the Department of Immigration and Border Protection for details of the General Skilled Migration points requirements.

Successful participants will be issued with transcripts of units obtained in the program and a certificate of completion.

5. Eligibility

Former international engineering students at Australian universities who have been issued or have applied for a Skilled – Graduate (Temporary) visa (subclass 485), or who hold a Bridging Visa A or B and who have graduated from an Engineering course of at least 2 years duration undertaken at an Australian university may apply for entry into the Professional Year in Engineering.

Those who do not have a 485 Skilled Graduate, a 476 Recognised Skill Graduate or a Bridging visa should contact the Department of Immigration and Border Protection (DIBP) for further details. The Department's website contains all relevant information regarding eligibility for the Professional Year Program in Engineering.

Application forms and information regarding applicant eligibility can be downloaded [here](#).

The completed application form should be scanned and emailed to professionalyear@eeaust.com.au

The application form must be accompanied by **certified copies** of:

- Applicant's current passport;
- Applicant's current visa;
- Applicant's Letter of Skills Assessment from Engineers Australia or the official receipt;
- Proof of successful completion of an engineering course of study at an Australian University, including date of graduation;
- A current passport size photograph;
- Evidence of IELTS 6 English language proficiency

Fees must be paid to EEA on application to the program. Fees will be refunded in full by EEA if the applicant is not accepted. There is no discount for participants who are already members of Engineers Australia. Acceptance decisions are final and are not subject to appeal.

There will be one Professional Year partner in each participating state of Australia. Information about the content of each partner's Professional Year in Engineering program curriculum can be found on each partner's web site. Refer to the Engineering Education Australia [website](#) for contact details and links to each partner's program.

All enquiries regarding application and registration are to be directed to the EEA website or to the Professional Year email: professionalyear@eeaust.com.au.

Where intake class registrations fall below the minimum number, EEA will endeavour to place participants with another Partner. PYear participants may elect to relocate to undertake the PYear program at their own discretion and expense. The Application Form contains an area in which applicants are to indicate their preferred location and provider for the PYear.

Local Partners may have multiple classes at the same time; however the Partner will place the accepted applicants in the earliest possible intake class. EEA and Partners will ensure that the intake date does not compromise the ability of the participant to complete the PYear within the timelines decreed by DIBP.

Acceptance into the Program will be made on the basis of the applicant's credentials, as well as a face to face interview.

EEA will supply applicants with an application acknowledgment letter should their application be approved by EEA. They will then pass this on to the students preferred provider accordingly.

All application information will be made available to the Department of Immigration and Border Protection.

Information collected about the applicant and about their progress in the Professional Year program will be used only to assess their eligibility, for the assessment of their progress, or to report the completion of their program or a changed participation status to the Department of Immigration and Border Protection.

Permanent residents or Australian citizens may apply for entry to the program, provided they meet the same DIBP stipulated guidelines. As the program is an initiative of the Department of Immigration and Border Protection, international graduates will receive priority access to the program. Applicants should be aware that the program is full fees paying and HECS does not apply.

6. Internship

Participants will be placed in suitable industry internships engineering or engineering related Australian based Host Companies (Host Companies) after they have completed the Orientation and the theoretical components of the Professional Year Program.

The internships will be structured so that the theoretical elements of the Professional Year are incorporated into a practical engineering work situation. The internships should enhance the ability of the participant to work effectively in the Australian environment.

The internships will be based on a training plan that provides participants information about the industry in which they are seeking to work; the company in which they are undertaking the internship; and the relationship between their role and other aspects of the business. The interns must also participate in a specific engineering task during their time with the organisation, where they can demonstrate their engineering capability and enhance their engineering competencies.

Engineers Australia's Stage 1 Engineering Competencies will be used as a guide by participating Host Companies when devising the engineering content of the internship for each participant. The Competencies include technical as well as business and cultural elements, which can largely be directly related to the expected Professional Year outcomes.

6.1 Internship Outcomes

During the internships, participants are expected to:

- Demonstrate knowledge of the industry.
- Demonstrate knowledge of the specific company, including its structure and the functions of various sections of the company, particularly the section within which the professional internship is located.
- Demonstrate the practical use of the learning outcomes from the other components of the Professional Year in the internship.
- Develop a Career Episode Report of the internship period, relating the work performed to the Engineers Australia Stage 1 Engineering Competencies.
- Demonstrate knowledge of OSH&E, equal opportunity in the workplace, and follow OSH&E regulations.
- Maintain appropriate standards of dress and punctuality.
- Demonstrate the capacity to work independently and as a member of a team.
- Perform assigned engineering and administrative tasks and demonstrate a variety of job-seeking and job-keeping skills.
- Demonstrate and evaluate their employability skills.
- Understand a variety of management and organisational structures existing in Australian workplaces.
- Relate legislation governing employment to their experiences in the workplace.
- Use their experiences in the workplace to evaluate personal, educational, and career plans.
- Evaluate the effect of lifestyle choices on society and the workplace.
- Relate emotional health and well-being to personal productivity.
- Evaluate components needed to build and maintain healthy relationships in their adult lives.
- Set short-term goals and evaluate long-term goals, revising as necessary.
- Access, use, and evaluate services, resources, and advice related to the work performed during the internship and their educational, career, and personal goals.

7. Assessments

Every component of the program must be passed within 12 months of acceptance into the program. For the face-to-face learning components, the assessment will be based solely on the Partner facilitator's report of the work undertaken by the participant. There will be no exams. Participants will either pass or fail each unit. The Partner will determine whether a participant who has not passed an individual Program unit is capable of successfully completing the program, and, if so, how the Partner will ensure all components are completed within the twelve (12) months.

To be successful, participants must complete all tasks in each component of the program to a satisfactory standard in English (IELTS level 6).

EEA will receive periodic reports from the Partners regarding the progress of every participant.

Assessment of the internship component will be based on an internship report by the participant's allocated industry supervisor within the host company.

The program Partner will also visit the internship work site a number of times during the internship to ensure the placement activities and environment are consistent with the desired outcomes.

Participants must attend at least two (2) technical and two (2) non-technical Engineers Australia events during the program to enhance their ability to network in the local environment.

Attendance at Orientation is mandatory. Failure to attend will prohibit the participant from commencing the Professional Year face-to-face classroom components.

Program participants must maintain a 100% attendance rate for all classes and the internship.

Participants must supply a medical certificate for any illness necessitating absence. Continued participation in the program in the event of a prolonged absence will be at the discretion of the Partner in consultation with EEA.

Participants will be encouraged to provide feedback on the quality and usefulness of the program and the learning facilitators through a number of surveys and face-to-face conversations during the course of and at the end of the program.

8. Fees

There are two fee options for the Professional Year in Engineering program. The first is \$15,200, including GST if the student wishes to pay the fee in full. Should the student wish to pay in three instalments, the amount is \$15,500 including GST. The full payment or deposit (if paying in instalments) is to be paid on application to the program. Fees will be refunded if the applicant is not accepted. HECS does not apply.

The amount includes all core components of the program including an Engineers Australia Graduate membership.

Membership of Engineers Australia

Becoming a member of Engineers Australia is vital to the professional development for Overseas Graduates. Benefits include status and recognition, opportunities to build a network of professional engineering contacts in Australia, keeping up to date via the monthly hardcopy publication Engineers Australia, employment and careers services, and access to discounts on a wide range of exclusive benefits and services. . Engineers Australia will determine the appropriate membership class for each applicant.

8.1 Refund Policy

All fees will be refunded if the applicant is not accepted into the Professional Year program.

In no other circumstances will any fees be refunded.

9. Appeals and Complaints

Acceptance into the Professional Year in Engineering program is based on presented credentials and a face to face interview and is at the discretion of Engineering Education Australia and its accredited Partners. There is no appeal process.

Complaints regarding any component of the program, including the assessment processes, are to be made, firstly, to the accredited Partner, through their standard complaints and appeal processes.

Any further complaints should be made in writing to Engineering Education Australia, who will nominate an officer to investigate the merits of the complaint and communicate the outcome to the complainant.

Appendix 1 - Core competencies for the Professional Year Program

Core Outcomes:	Graduates of the program should be able to demonstrate that they would be able to:
Work within Australian legislative requirements applicable to workplaces and operations	<ul style="list-style-type: none"> - Access and apply to their work current, relevant information about the range of domestic and international legislation - Clarify compliance requirements to confirm their understanding and ensure consistency of interpretation and application, including implications of non-compliance - Access and apply an organisation's procedures and practices to their work practices to meet compliance requirements - Seek feedback and review their work to identify areas of uncertainty related to legislation and compliance requirements and take action to clarify issues, including obtaining advice - Contribute to continuous improvement within organisation to ensure ongoing compliance with organisation's procedures and practices and with legislation - Follow organisation's procedures for dealing with concerns regarding the practices of external organisations that could compromise compliance
Work safely and participate in safety, health & environment (OSHE) processes	<ul style="list-style-type: none"> - Identify designated personnel for OSHE matters - Identify existing and potential hazards in the workplace - Apply reporting and recording procedures for emergency incidents and injuries - Implement workplace procedures and work instructions for controlling risks - Participate in OSHE consultative processes - Follow safety procedures, including responding to emergency incidents.
Work effectively within the organisation's requirements, including those for EEO and diversity	<ul style="list-style-type: none"> - Access and relate personal work role and responsibilities to the organisation's goals and objectives - Identify and apply the organisation's standards, values and guidelines, including ethical standards, duty of care and EEO, seeking advice from appropriate persons, where necessary - Appropriately apply to work role a working knowledge of employee and employer rights and responsibilities - Measure and maintain personal performance in varying work conditions, work contexts and contingencies - Identify the roles and responsibilities of colleagues and immediate supervisors within the organisation - Recognise and respect individual differences in colleagues, clients and customers and respond appropriately to create effective work relationships - Accommodate diversity using appropriate verbal and non-verbal communication
Communicate effectively in the workplace	<ul style="list-style-type: none"> - Communicate complex concepts to a wide range of audiences, including: - Articulating, presenting and debating ideas - Using appropriate mode of communication - Using appropriate language for target audience - Writing complex documents - Making presentations

Core Outcomes:	Graduates of the program should be able to demonstrate that they would be able to:
	<ul style="list-style-type: none"> – Give and receive instructions and feedback in the workplace, including: – Using effective listening and speaking skills – Using effective questioning techniques – Complete workplace documentation and correspondence within designated timelines to organisational standards of style, format and accuracy. – Plan and carry out effective negotiations, including use of strategic communication techniques such as conflict resolution.
Provide effective service to internal and (as appropriate) external clients	<ul style="list-style-type: none"> – Maintain personal presentation in line with organisational requirements including dress and observation of appropriate protocols of interaction – Develop and maintain relationships to promote benefits consistent with client requirements – Seek specialist advice in the development of contacts, as appropriate – Use appropriate interpersonal skills and behaviour to facilitate the exchange of accurate and relevant information, including the identification of client needs – Follow organisational procedures for client service, including requirements for recording and reporting – Accurately match available services to client needs – Provide services in a timely fashion – Identify and act on opportunities for the promotion and enhancement of client service – Recognise, seek and act on client feedback – Identify and implement organisational requirements for response to and reporting of complaints by clients – Monitor client service delivery – Identify and contribute to opportunities for improvement of client services
Participate in a team	<ul style="list-style-type: none"> – Observe routine meeting protocols as appropriate – Contribute to small group discussions to reach agreement on workplace related issues – Acknowledge information and feedback provided by other team members – Identify and utilise skills and experience of others in relation to team objectives – Interact respectfully, effectively and supportively with team members – With team members, identify team and individual goals, tasks, responsibilities and schedules – Share information relevant to work to enhance outcomes of team's work – Renegotiate responsibilities, tasks and schedules to meet changes in the workplace – Contribute to evaluation of the team's performance.
Apply occupation-specific knowledge and skills to complex professional work situations	<ul style="list-style-type: none"> – Reflect analytically on work-related issues and situations – Develop effective questioning processes to apply to diverse situations – Distil key issues of a situation – Identify and access information needed to find solutions, including other work personnel, as appropriate – Sort facts in developing a solution

Core Outcomes:	Graduates of the program should be able to demonstrate that they would be able to:
	<ul style="list-style-type: none"> - Evaluate validity of solution, including consideration of personal preconceptions and assumptions
	<ul style="list-style-type: none"> - Apply solutions effectively with respect to cost, timing, etc. - Evaluate outcomes of application of solution to achieve continuous improvement of processes with respect to subsequent situations
Implement strategies to manage their personal career development	<ul style="list-style-type: none"> - Identify key industry sectors and occupations relevant to their career - Consult with appropriate persons regarding possible career directions - Articulate career objectives - Identify and articulate personal and professional skills, knowledge and achievements appropriately for a range of situations (job applications, performance reviews, etc) - Identify, prioritise and plan for professional development needs in consideration of career objectives - Identify and use dedicated job-search instruments and strategies appropriate to their profession - Identify and use supplementary strategies for furthering career and job opportunities, e.g. industry events - Develop and maintain professional networks and associations to obtain and maintain personal knowledge and skills and to provide access to potential job opportunities - Prepare and submit effective job applications appropriate to the job opportunity.

Appendix 2 – Australian Engineering Competency Standard Stage 1

The Stage 1 competency standards are the profession's expression of the knowledge and skills base, engineering application abilities, and professional skills, values and attitudes that **must be demonstrated** at the point of entry into the practice.

Table 1 – Knowledge and Skills Base: Elements & Indicators

ELEMENT OF COMPETENCY	INDICATORS OF ATTAINMENT
1.1 Comprehensive, theory based understanding of the underpinning natural and physical sciences and the engineering fundamentals applicable to the engineering discipline	a) Engages with the engineering discipline at a phenomenological level, applying sciences and engineering fundamentals to systematic investigation, interpretation, analysis and innovative solution of complex problems and broader aspects of engineering practice.
1.2 Conceptual understanding of the, mathematics, numerical analysis, statistics, and computer and information sciences which underpin the engineering discipline.	a) Develops and fluently applies relevant investigation analysis, interpretation, assessment, characterisation, prediction, valuation, modelling, decision making, measurement, evaluation, knowledge management and communication tools and techniques pertinent to the engineering discipline.
1.3 In depth understanding of specialist bodies of knowledge within the engineering discipline	a) Proficiently applies advanced technical knowledge and skills in at least one specialist practice domain of the engineering discipline
1.4 Discernment of knowledge development and research directions within the engineering discipline.	<p>a) Identifies and critically appraises current developments, advanced technologies, emerging issues and interdisciplinary linkages in at least one specialist practice domain of the engineering discipline.</p> <p>b) Interprets and applies selected research literature to inform engineering application in at least one specialist domain of the engineering discipline.</p>
1.5 Knowledge of contextual factors impacting the engineering discipline	a) Identifies and understands the interactions between engineering systems and people in the social, cultural, environmental, commercial, legal and political contexts in which they operate, including both the positive role of engineering in sustainable development and the potentially

	<p>adverse impacts of engineering activity in the engineering discipline.</p> <p>b) Is aware of the founding principles of human factors relevant to the engineering discipline.</p> <p>c) Is aware of the fundamentals of business and enterprise management.</p> <p>d) Identifies the structure, roles and capabilities of the engineering workforce.</p> <p>e) Appreciates the issues associated with international engineering practice and global operating contexts.</p>
<p>1.6 Understanding of the scope, principles, norms, accountabilities and bounds of contemporary engineering practice in the engineering discipline.</p>	<p>a) Applies systematic principles of engineering design relevant to the engineering discipline.</p> <p>b) Appreciates the basis and relevance of standards and codes of practice, as well as legislative and statutory requirements applicable to the engineering discipline.</p> <p>c) Appreciates the principles of safety engineering, risk management and the health and safety responsibilities of the professional engineer, including legislative requirements applicable to the engineering discipline.</p> <p>d) Appreciates the social, environmental and economic principles of sustainable engineering practice.</p> <p>e) Understands the fundamental principles of engineering project management as a basis for planning, organising and managing resources.</p> <p>f) Appreciates the formal structures and methodologies of systems engineering as a holistic basis for managing complexity and sustainability in engineering practice.</p>

Table 2 – Engineering Application Ability: Elements & Indicators

ELEMENT OF COMPETENCY	INDICATORS OF ATTAINMENT
<p>2.1 Application of established engineering methods to complex engineering problem solving.</p>	<p>a) Proficiently applies technical knowledge and open ended problem solving skills as well as appropriate tools and resources to design components, elements, systems, plant, facilities and/or processes to satisfy user requirements.</p> <p>b) Addresses broad contextual constraints such as social, cultural, environmental, commercial, legal political and human factors, as well as health, safety and sustainability imperatives as an integral part of the design process.</p> <p>c) Executes and leads a whole systems design cycle approach including tasks such as:</p> <ul style="list-style-type: none"> - determining client requirements and identifying the impact of relevant contextual factors, including business planning and costing targets; - systematically addressing sustainability criteria; - working within projected development, production and implementation constraints; - eliciting, scoping and documenting the required outcomes of the design task and defining acceptance criteria; - identifying assessing and managing technical, health and safety risks integral to the design process; - writing engineering specifications, that fully satisfy the formal requirements; - ensuring compliance with essential engineering standards and codes of practice; - partitioning the design task into appropriate modular, functional elements; that can be separately addressed and subsequently integrated through defined interfaces; - identifying and analysing possible design approaches and justifying an optimal approach; - developing and completing the design using appropriate engineering principles, tools, and processes; - integrating functional elements to form a coherent design solution;

	<ul style="list-style-type: none"> - quantifying the materials, components, systems, equipment, facilities, engineering resources and operating arrangements needed for implementation of the solution; - checking the design solution for each element and the integrated system against the engineering specifications; - devising and documenting tests that will verify performance of the elements and the integrated realisation; - prototyping/implementing the design solution and verifying performance against specification; - documenting, commissioning and reporting the design outcome. <p>d) Is aware of the accountabilities of the professional engineer in relation to the 'design authority' role.</p>
<p>2.2 Fluent application of engineering techniques, tools and resources.</p>	<p>a) Proficiently identifies, selects and applies the materials, components, devices, systems, processes, resources, plant and equipment relevant to the engineering discipline.</p> <p>b) Constructs or selects and applies from a qualitative description of a phenomenon, process, system, component or device a mathematical, physical or computational model based on fundamental scientific principles and justifiable simplifying assumptions.</p> <p>c) Determines properties, performance, safe working limits, failure modes, and other inherent parameters of materials, components and systems relevant to the engineering discipline.</p> <p>d) Applies a wide range of engineering tools for analysis, simulation, visualisation, synthesis and design, including assessing the accuracy and limitations of such tools, and validation of their results.</p> <p>e) Applies formal systems engineering methods to address the planning and execution of complex, problem solving and engineering projects.</p> <p>f) Designs and conducts experiments, analyses and interprets result data and formulates reliable conclusions.</p> <p>g) Analyses sources of error in applied models and experiments; eliminates, minimises or compensates for such errors; quantifies significance of errors to any conclusions drawn.</p> <p>h) Safely applies laboratory, test and experimental procedures appropriate to the engineering discipline.</p> <p>i) Understands the need for systematic management of the acquisition, commissioning, operation, upgrade, monitoring and maintenance of engineering plant, facilities, equipment and systems.</p> <p>j) Understands the role of quality management systems, tools and processes within a culture of continuous improvement.</p>
<p>2.3 Application of systematic engineering synthesis and design processes.</p>	<p>a) Proficiently applies technical knowledge and open ended problem solving skills as well as appropriate tools and resources to design components, elements, systems, plant, facilities and/or processes to satisfy user requirements.</p> <p>b) Addresses broad contextual constraints such as social, cultural, environmental, commercial, legal political and human factors, as well as health, safety and sustainability imperatives as an integral part of the design process.</p> <p>c) Executes and leads a whole systems design cycle approach including tasks such as:</p> <ul style="list-style-type: none"> - determining client requirements and identifying the impact of relevant contextual factors, including business planning and costing targets; - systematically addressing sustainability criteria; - working within projected development, production and implementation constraints; - eliciting, scoping and documenting the required outcomes of the design task and defining acceptance criteria; - identifying assessing and managing technical, health and safety risks integral to the design process; - writing engineering specifications, that fully satisfy the formal requirements;

	<ul style="list-style-type: none"> - ensuring compliance with essential engineering standards and codes of practice; - partitioning the design task into appropriate modular, functional elements; that can be separately addressed and subsequently integrated through defined interfaces; - identifying and analysing possible design approaches and justifying an optimal approach; - developing and completing the design using appropriate engineering principles, tools, and processes; - integrating functional elements to form a coherent design solution; - quantifying the materials, components, systems, equipment, facilities, engineering resources and operating arrangements needed for implementation of the solution; - checking the design solution for each element and the integrated system against the engineering specifications; - devising and documenting tests that will verify performance of the elements and the integrated realisation; - prototyping/implementing the design solution and verifying performance against specification; - documenting, commissioning and reporting the design outcome. <p>d) Is aware of the accountabilities of the professional engineer in relation to the 'design authority' role.</p>
<p>2.4 Application of systematic approaches to the conduct and management of Engineering projects.</p>	<p>a) Contributes to and/or manages complex engineering project activity, as a member and/or as leader of an engineering team.</p> <p>b) Seeks out the requirements and associated resources and realistically assesses the scope, dimensions, scale of effort and indicative costs of a complex engineering project.</p> <p>c) Accommodates relevant contextual issues into all phases of engineering project work, including the fundamentals of business planning and financial management</p> <p>d) Proficiently applies basic systems engineering and/or project management tools and processes to the planning and execution of project work, targeting the delivery of a significant outcome to a professional standard.</p> <p>e) Is aware of the need to plan and quantify performance over the full life-cycle of a project, managing engineering performance within the overall implementation context.</p> <p>f) Demonstrates commitment to sustainable engineering practices and the achievement of sustainable outcomes in all facets of engineering project work.</p>

Table 3 - Professional and Personal Attributes: Elements & Indicators

ELEMENT OF COMPETENCY	INDICATORS OF ATTAINMENT
3.1 Ethical conduct and professional accountability	<p>a) Demonstrates commitment to uphold the Engineers Australia - Code of Ethics, and established norms of professional conduct pertinent to the engineering discipline.</p> <p>b) Understands the need for 'due-diligence' in certification, compliance and risk management processes.</p> <p>c) Understands the accountabilities of the professional engineer and the broader engineering team for the safety of other people and for protection of the environment.</p> <p>d) Is aware of the fundamental principles of intellectual property rights and protection.</p>
3.2 Effective oral and written communication in professional and lay domains.	<p>a) Is proficient in listening, speaking, reading and writing English, including:</p> <ul style="list-style-type: none"> - comprehending critically and fairly the viewpoints of others; - expressing information effectively and succinctly, issuing instruction, engaging in discussion, presenting arguments and justification, debating and negotiating - to technical and non-technical audiences and using textual, diagrammatic, pictorial and graphical media best suited to the context;

	<ul style="list-style-type: none"> - representing an engineering position, or the engineering profession at large to the broader community; - appreciating the impact of body language, personal behaviour and other non-verbal communication processes, as well as the fundamentals of human social behaviour and their cross-cultural differences. <p>b) Prepares high quality engineering documents such as progress and project reports, reports of investigations and feasibility studies, proposals, specifications, design records, drawings, technical descriptions and presentations pertinent to the engineering discipline.</p>
3.3 Creative, innovative and pro-activeemeanour	<p>a) Applies creative approaches to identify and develop alternative concepts, solutions and procedures, appropriately challenges engineering practices from technical and non-technical viewpoints; identifies new technological opportunities.</p> <p>b) Seeks out new developments in the engineering discipline and specialisations and applies fundamental knowledge and systematic processes to evaluate and report potential.</p> <p>c) Is aware of broader fields of science, engineering, technology and commerce from which new ideas and interfaces may be may drawn and readily engages with professionals from these fields to exchange ideas.</p>
3.4 Professional use and management of information.	<p>a) Is proficient in locating and utilising information - including accessing, systematically searching, analysing, evaluating and referencing relevant published works and data; is proficient in the use of indexes, bibliographic databases and other search facilities.</p> <p>b) Critically assesses the accuracy, reliability and authenticity of information.</p> <p>c) Is aware of common document identification, tracking and control procedures.</p>
3.5 Orderly management of self and professional conduct.	<p>a) Demonstrates commitment to critical self-review and performance evaluation against appropriate criteria as a primary means of tracking personal development needs and achievements.</p> <p>b) Understands the importance of being a member of a professional and intellectual community, learning from its knowledge and standards, and contributing to their maintenance and advancement.</p> <p>c) Demonstrates commitment to life-long learning and professional development.</p> <p>d) Manages time and processes effectively, prioritises competing demands to achieve personal, career and organisational goals and objectives.</p> <p>e) Thinks critically and applies an appropriate balance of logic and intellectual criteria to analysis, judgment and decision making.</p> <p>f) Presents a professional image in all circumstances, including relations with clients, stakeholders, as well as with professional and technical colleagues across wide ranging disciplines.</p>
3.6 Effective team membership and team leadership.	<p>a) Understands the fundamentals of team dynamics and leadership.</p> <p>b) Functions as an effective member or leader of diverse engineering teams, including those with multilevel, multi-disciplinary and multi-cultural dimensions.</p> <p>c) Earns the trust and confidence of colleagues through competent and timely completion of tasks.</p> <p>d) Recognises the value of alternative and diverse viewpoints, scholarly advice and the importance of professional networking.</p> <p>e) Confidently pursues and discerns expert assistance and professional advice.</p> <p>f) Takes initiative and fulfils the leadership role whilst respecting the agreed roles of others.</p>

