

Engineers Australia - Professional Attributes for Engineering Technologists

1. Ability to communicate effectively, with the engineering team and with the community at large

- a. Fluency in written and spoken English
- b. Ability to make effective oral and written communications to technical and non-technical audiences
- c. Capacity to hear and comprehend others' viewpoints as well as convey information
- d. Effectiveness in discussion and in presenting arguments clearly and concisely
- e. Ability to represent engineering issues and the engineering profession to the broader community

2. Ability to manage information and documentation

- a. Ability to locate, analyse, catalogue and utilize relevant information, including proficiency in accessing, systematically searching, analysing and evaluating relevant publications
- b. Ability to assess the accuracy, reliability, and authenticity of information relevant to the field
- c. Ability to produce clear diagrams and engineering sketches
- d. Fluency in current computer-based word-processing and graphics packages
- e. Ability to maintain a professional journal and records to produce clear and well-constructed engineering documents such as progress reports, project reports, reports of investigation, proposals, designs, briefs, and technical directions

3. Capacity for creativity and innovation

- a. Readiness to challenge engineering and technological practices from a technical and non-technical viewpoint, to identify opportunities for improvement
- b. Ability to apply creative approaches to identify and develop alternative solutions
- c. Awareness of other fields of engineering and technology with which interfaces may develop, and openness to such interactions
- d. Propensity to seek information from widest practicable range of sources
- e. Readiness to engage in wide-ranging exchanges of ideas, and receptiveness to change

4. Understanding of professional and ethical responsibilities, and commitment to them

- a. Familiarity with Engineers Australia's Code of Ethics, and any other compatible codes of ethics relevant to the technology and its areas of application, and commitment to their tenets
- b. Awareness of legislation and statutory requirements relevant to the technology and its areas of application
- c. Familiarity with standards and codes of practice relevant to the technology and its areas of application

5. Ability to function effectively as an individual and in multidisciplinary and multicultural teams with the capacity to be a team leader or manager as well as an effective team member

- a. Manage own time and processes effectively, prioritising competing demands to achieve personal and teams goals and objectives
- b. Earn trust and confidence of colleagues through competent and timely completion of tasks
- c. Communicate frequently and effectively with other team members
- d. Recognise the value of cultural diversity, develop effective intercultural skills, and build network relationships that value and sustain a team ethic
- e. Mentor others, and accept mentoring from others, in technical and team issues
- f. Demonstrate capacity for initiative and leadership while respecting others' agreed roles

6. Capacity for lifelong learning and professional development

- a. Recognise limits to own knowledge and seek advice, or undertake research, to supplement knowledge and experience
- b. Take charge of own learning and development. Understand the need continually to review own strengths, determine areas for development and undertake appropriate learning programs
- c. Commit to the importance of being part of a professional community: leaning from its knowledge and standards, and contributing to their maintenance and advancement
- d. Improve non-engineering knowledge and skills to assist in achieving engineering outcomes

7. Professional attitudes

- a. Present a professional image in all circumstances, including relationships with clients, suppliers and stakeholders as well as professional and technical colleagues
- b. Demonstrate intellectual rigour and readiness to tackle new issues in a responsible way
- c. Demonstrate a sense of the physical and intellectual dimensions of projects and programs, and related information requirements, based on reasoning from first principles and on developing experience.