

GRADUATE ATTRIBUTES & PROFESSIONAL COMPETENCIES (GAPC)

Professional Competence Profiles

To meet the minimum standard of competence a person must demonstrate that they are able to practice competently, within a practice area, to the standard expected of a reasonable Professional Engineer/Engineering Technologist/Engineering Technician.

The extent to which the person is able to perform each of the following elements in practice area must be taken into account in assessing whether or not the individual meets the overall standard.

Differentiating Characteristic	Professional Engineer
Comprehend and apply universal knowledge: Breadth and depth of education and type of knowledge	EC1: Comprehend and apply advanced knowledge of the widely-applied principles underpinning good practice
Comprehend and apply local knowledge: Type of local knowledge	EC2: Comprehend and apply advanced knowledge of the widely-applied principles underpinning good practice specific to the jurisdiction of practice
Problem analysis: Complexity of analysis	EC3: Define, investigate and analyze complex problems using data and information technologies where applicable

Differentiating Characteristic	Professional Engineer
Design and development of solutions: Nature of the problem and uniqueness of the Solution	EC4: Design or develop solutions to complex problems considering a variety of perspectives and taking account of stakeholder views
Evaluation: Type of activity	EC5: Evaluate the outcomes and impacts of complex activities
Protection of society: Types of activity and responsibility to consider sustainable outcomes	EC6: Recognize the foreseeable economic, social, and environmental effects of complex activities and seek to achieve sustainable outcomes*
Legal, regulatory, and cultural: No differentiation in this characteristic	EC7: Meet all legal, regulatory, and cultural requirements and protect public health and safety in the course of all activities
Ethics: No differentiation in this Characteristic	EC8: Conduct activities ethically
Manage engineering activities: Types of Activity	EC9: Manage part or all of one or more complex activities
Communication and Collaboration: Requirement for inclusive communications. No differentiation in this characteristic	EC10: Communicate and collaborate using multiple media clearly and inclusively with a broad range of stakeholders in the course of all activities.
Continuing Professional Development (CPD) and Lifelong learning: Preparation for and depth of continuing learning. No differentiation in this characteristic	EC11: Undertake CPD activities to maintain and extend competences and enhance the ability to adapt to emerging technologies and the ever-changing nature of work.

Differentiating Characteristic	Professional Engineer
<p>Judgement: Level of developed knowledge, and ability and judgement in relation to type of activity</p>	<p>EC12: Recognize complexity and assess alternatives in light of competing requirements and incomplete knowledge. Exercise sound judgement in the course of all complex activities</p>
<p>Responsibility for decisions: Type of activity for which responsibility is taken</p>	<p>EC13: Be responsible for making decisions on part or all of complex activities</p>