

AQF LEVEL

AQF LEVEL 7 CRITERIA –

PROGRAM LEARNING OUTCOMES

BACHELOR DEGREE

PURPOSE

The Bachelor Degree qualifies individuals who apply a broad and coherent body of knowledge in a range of contexts to undertake professional work and as a pathway for further learning.

KNOWLEDGE

Graduates of a Bachelor Degree will have a broad and coherent body of knowledge, with depth in the underlying principles and concepts in one or more disciplines as a basis for independent lifelong learning. Graduates of the Bachelor of Engineering Science will have a broad and coherent, theory based knowledge and understanding of the underpinning natural and physical sciences as well as the engineering fundamentals applicable to their chosen branch of engineering with an in depth understanding of the specialist bodies of knowledge within that engineering discipline of sufficient depth to gain employment at a technologist level with advanced technical knowledge and skills in at least one of these domains.

SKILLS

Graduates of a Bachelor Degree will have:

- cognitive skills to review critically, analyse, consolidate and synthesise knowledge
- cognitive and technical skills to demonstrate a broad understanding of knowledge with depth in some areas
- cognitive and creative skills to exercise critical thinking and judgement in identifying and solving problems with intellectual independence
- communication skills to present a clear, coherent and independent exposition of knowledge and ideas

Graduates of the Bachelor of Engineering Science will have:

- The cognitive and technical skills to identify, interpret and analyse stakeholder needs, establish priorities and the goals, constraints and uncertainties of the system, using systems thinking, while recognising ethical implications of professional practice
- The communication skills to communicate and coordinate proficiently by listening, speaking, reading and writing English for professional practice, working as an effective member or leader of diverse teams.
- The cognitive and technical skills to apply abstraction, mathematics and discipline fundamentals to analysis, design and operation, using appropriate computer software, laboratory equipment and other devices ensuring model applicability, accuracy and limitations.

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APPLICATION OF KNOWLEDGE & SKILLS

Graduates of a Bachelor Degree will demonstrate the application of knowledge and skills:

- with initiative and judgement in planning, problem solving and decision making in professional practice and/or scholarship
- to adapt knowledge and skills in diverse contexts
- with responsibility and accountability for own learning and professional practice and in collaboration with others within broad parameters

Graduates of the Bachelor of Engineering Science will demonstrate the application of knowledge and skills:

- To analyse, design and operate, using abstraction, mathematics and discipline fundamentals, appropriate computer software, laboratory equipment and other devices ensuring model applicability, accuracy and limitations
- By adopting problem solving design and decision-making methodologies to develop components, systems and/or processes to meet specified requirements, including innovative approaches to synthesise alternative solutions, concepts and procedures, while demonstrating information skills.
- By managing own time and processes effectively by prioritising competing demands to achieve
 personal and team goals, with regular review of personal performance as a primary means of
 managing continuing professional development.

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