

Graduate Attributes / Program Learning Outcomes

The graduate of this course will have developed the following knowledge and skills:

1. KNOWLEDGE AND SKILL BASE

- 1.1 Descriptive, formula-based understanding of the underpinning science and engineering fundamentals applicable to biomedical engineering.
- 1.2 Procedural-level understanding of the mathematics and computer science concepts which underpin biomedical engineering.
- 1.3 In depth practical knowledge and skills in biomedical engineering.
- 1.4 Awareness of current research and emerging technologies in biomedical engineering.
- 1.5 Knowledge and understanding of contemporary workplace practices in biomedical engineering.

2. ENGINEERING APPLICATION ABILITY

- 2.1 Application of problem-solving techniques to conceptualise a solution to an biomedical engineering problem.
- 2.2 Application of analysis, design and implementation techniques to biomedical subsystems comprising hardware and software.
- 2.3 Application of established technical and practical methods to assess the adherence of designed and finished products to specification, regulations and contract details.
- 2.4 Application of established technical and practical methods to assist with commissioning of biomedical equipment, and in supervising operations and maintenance.
- 2.5 Application of project management techniques to actively participate in the management of engineering projects.
- 2.6 Application of established technical and practical methods to collect information, perform calculations and use computers to produce designs, detailed drawings and documentation of biomedical subsystems.

3. PROFESSIONAL AND PERSONAL ATTRIBUTES

- 3.1 Effective participation in team activities and be able to evaluate his/her contribution
- 3.2 Communicate effectively with the engineering team and the broader community
- 3.3 Demonstrate understanding of and commitment to professional and ethical responsibilities
- 3.4 Creative, innovative and pro-active demeanour.
- 3.5 Professional use and management of information.
- 3.6 Orderly management of self and professional conduct.

Note: These graduate attributes are aligned with the Australian Qualifications Framework level 6 and TAFE SA Graduate Attributes.

They also reflect and are mapped against the [Engineers Australia](#)'s Stage 1 Competency Standard for Engineering Associate.