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 electrical engineering.
1.2. Procedural-level understanding of the mathematics and computer science concepts which underpin electrical engineering.
1.3. In depth practical knowledge and skills in electrical engineering.
1.4. Awareness of current research and emerging technologies in electrical engineering.
1.5. Knowledge and understanding of contemporary workplace practices in electrical engineering.

2. ENGINEERING APPLICATION ABILITY

2.1. Application of problem-solving techniques to conceptualise a solution to an electrical engineering problem.
2.2. Application of analysis, design and implementation techniques to electrical 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 electrical 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 electrical installations and circuitry.

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 an 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.