

Graduate Attribute 7

Sustainability and impact of engineering activity

Demonstrate critical awareness of the sustainability and impact of engineering activity on the social, industrial and physical environment.

RANGE STATEMENT

The combination of social, workplace (industrial) and physical environmental factors must be appropriate to the discipline or other designation of the qualification. Comprehension of the role of engineering in society and identified issues in engineering practice in the discipline: health, safety and environmental protection; risk assessment and management and the impacts of engineering activity: economic, social, cultural, environmental and sustainability.

AWARENESS

Critical thinking:

- Demonstrate critical thinking
- Evaluate alternatives
- Develop legal frameworks
- Develop methods to minimise/mitigate impacts outlined in terms of occupational health, public health and the physical environment

DIVERSITY

Reflective practices (awareness of positionality):

- Self-reflection (exposure to real-world design)
- Critical awareness (finding resources)
- Bigger picture mindset (understand root cause)

COMPLIANCE

Empathy:

- Ability to comply with regulations and code of practice
- Acquaintance with case studies, engagement with society

Finding resources:

- Ability to think 5 to 10 steps ahead
- Make judgements and make decisions
- Understand social and environmental impact

REFLECTIVE PRACTICES

RESPONSIBILITY

Risk assessment:

- Ability to listen and interpret
- Understand the consequences of choices (trade-offs)