ENGG860

Society, Sustainability, and Engineering

S2 Day 2019

School of Engineering

Contents

General Information

Unit convenor and teaching staff
Unit Convenor
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Credit points
4

Prerequisites
Admission to MEng

Corequisites

Co-badged status

Unit description
Engineering is the application of science to solve problems in society. As such, engineers must operate within accepted norms of society. Today's global economy and emphasis on corporate responsibility makes the engineers job more complicated. This unit will introduce concepts in engineering around the need for sustainability in engineering in different societal contexts as preparation for incorporating these same issues in real world problems and projects.

Important Academic Dates

Information about important academic dates including deadlines for withdrawing from units are available at https://www.mq.edu.au/study/calendar-of-dates

Learning Outcomes

On successful completion of this unit, you will be able to:

At the end of this unit students will be able to demonstrate an understanding of the important responsibilities held by a professional engineer

At the end of this unit students will be able to demonstrate the ability to investigate and

objectively report in a professional manner on a major engineering project

At the end of this unit students will be able to demonstrate a knowledge of the purpose of Codes of Ethics in the Engineering Profession

At the end of this unit students will be able to demonstrate an understanding of the importance of responsible ethical behaviour as a professional engineer in the community

General Assessment Information

Grading and passing requirement for unit

In order to pass this unit a student must obtain a mark of 50 or more for the unit (i.e. obtain a passing grade P/ CR/ D/ HD).

For further details about grading, please refer below in the policies and procedures section.

Late submissions and Resubmissions

Late submissions will attract a penalty of 10% marks per day. Extenuating circumstances will be considered upon lodgement of a formal notice of disruption of studies.

Resubmissions of work are not allowed after due date.

Assessment Tasks

Name	Weighting	Hurdle	Due
Participation and Engagement	10%	No	All Session
Exercise on Presentation Skill	20%	No	Week 3-12
Assignment on Code of Ethics	30%	No	Week 7
Engineering Error Reporting	40%	No	Week 11

Participation and Engagement

Due: **All Session**
Weighting: **10%**

A grade value will be determined based on the participation of each student in classroom discussions and tutorial sessions.

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Exercise on Presentation Skill

Due: **Week 3-12**
Weighting: **20%**

In-class oral presentation exercise on a particular topic. Schedule of presentation to be advised through iLearn during the session. Suggested topics of oral presentation could include:

1. The way human ethical values and behaviour in an individual is developed and implemented based on your personal family, cultural and religious background
2. Introduce an important person or event that you believe to be of great significance
3. Introduce yourself to the group

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Assignment on Code of Ethics

Due: **Week 7**
Weighting: **30%**

Obtain a copy of a Code of Ethics from either the Institution of Engineering Technology (IET) or the Institute of Electrical and Electronic Engineers Inc. (IEEE). In no more than 2000 words explain how you interpret this document as it relate to yourself as a practising engineer.

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Engineering Error Reporting

Due: **Week 11**
Weighting: **40%**

Assignment on Engineering error or accident reporting. Investigate and prepare a summary report on a major engineering project where considerable damage and loss of life has resulted from the way in which the work was carried out or operated; This investigation should include any reports from Coroners, Royal Commissions, etc.; In no more than 2000 words explain how you consider the situation could have been handled with a better outcome. Provide details of all references used.

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Delivery and Resources

The unit convener will provide web links to reading material and lecture handouts for self-study.

Policies and Procedures

Macquarie University policies and procedures are accessible from Policy Central (https://staff.mq.edu.au/work/strategy-planning-and-governance/university-policies-and-procedures/policy-central). Students should be aware of the following policies in particular with regard to Learning and Teaching:

- Academic Appeals Policy
- Academic Integrity Policy
- Academic Progression Policy
- Assessment Policy
- Fitness to Practice Procedure

- Grade Appeal Policy
- Complaint Management Procedure for Students and Members of the Public
- Special Consideration Policy *(**Note:** The Special Consideration Policy is effective from 4 December 2017 and replaces the Disruption to Studies Policy.)*

Undergraduate students seeking more policy resources can visit the Student Policy Gateway (https://students.mq.edu.au/support/study/student-policy-gateway). It is your one-stop-shop for the key policies you need to know about throughout your undergraduate student journey.

If you would like to see all the policies relevant to Learning and Teaching visit Policy Central (https://staff.mq.edu.au/work/strategy-planning-and-governance/university-policies-and-procedures/policy-central).

Student Code of Conduct

Macquarie University students have a responsibility to be familiar with the Student Code of Conduct: https://students.mq.edu.au/study/getting-started/student-conduct

Results

Results published on platform other than eStudent, (eg. iLearn, Coursera etc.) or released directly by your Unit Convenor, are not confirmed as they are subject to final approval by the University. Once approved, final results will be sent to your student email address and will be made available in eStudent. For more information visit ask.mq.edu.au or if you are a Global MBA student contact globalmba.support@mq.edu.au

Student Support

Macquarie University provides a range of support services for students. For details, visit http://students.mq.edu.au/support/

Learning Skills

Learning Skills (mq.edu.au/learningskills) provides academic writing resources and study strategies to improve your marks and take control of your study.

- Workshops
- StudyWise
- Academic Integrity Module for Students
- Ask a Learning Adviser

Student Services and Support

Students with a disability are encouraged to contact the Disability Service who can provide appropriate help with any issues that arise during their studies.

Student Enquiries

For all student enquiries, visit Student Connect at ask.mq.edu.au

If you are a Global MBA student contact globalmba.support@mq.edu.au

IT Help

For help with University computer systems and technology, visit http://www.mq.edu.au/about_us/offices_and_units/information_technology/help/.

When using the University's IT, you must adhere to the Acceptable Use of IT Resources Policy. The policy applies to all who connect to the MQ network including students.

Graduate Capabilities

PG - Critical, Analytical and Integrative Thinking

Our postgraduates will be capable of utilising and reflecting on prior knowledge and experience, of applying higher level critical thinking skills, and of integrating and synthesising learning and knowledge from a range of sources and environments. A characteristic of this form of thinking is the generation of new, professionally oriented knowledge through personal or group-based critique of practice and theory.

This graduate capability is supported by:

Learning outcomes

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Assessment tasks

- Participation and Engagement
- Exercise on Presentation Skill
- Assignment on Code of Ethics
- Engineering Error Reporting

PG - Effective Communication

Our postgraduates will be able to communicate effectively and convey their views to different social, cultural, and professional audiences. They will be able to use a variety of technologically supported media to communicate with empathy using a range of written, spoken or visual formats.

This graduate capability is supported by:

Learning outcomes

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PG - Engaged and Responsible, Active and Ethical Citizens

Our postgraduates will be ethically aware and capable of confident transformative action in relation to their professional responsibilities and the wider community. They will have a sense of connectedness with others and country and have a sense of mutual obligation. They will be able to appreciate the impact of their professional roles for social justice and inclusion related to national and global issues

This graduate capability is supported by:

Learning outcomes

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