ENGG414

Engineering Project

S1 Day 2019

School of Engineering

Contents

General Information

Unit convenor and teaching staff
Convenor
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By appointment

Credit points
3

Prerequisites
Permission by special approval

Corequisites

Co-badged status

Unit description
This unit is a special topic unit that may be offered from time to time in new areas of Engineering or as a special project under the supervision of a member of staff.

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:

1. The student will demonstrate a knowledge of the requirements of Professional Engineering documentation. 2. The student will demonstrate oral presentation skills at an advanced level. 3.The student will demonstrate advanced knowledge of the topic provided by their academic supervisor.

Assessment Tasks

Name	Weighting	Hurdle	Due
Progress Report	30%	No	Week 7

Name	Weighting	Hurdle	Due
Presentation of work to date	10%	No	Week 10
Final Report	60%	No	14 June 2019

Progress Report

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

This Progress Report will be designed and set by the academic supervisor of each student, by week 1. It may for instance be: a report on progress in a project, and/or documentation such as product websites, and/or patent documentation. The student is expected to produce a report which demonstrates that the student has devoted at least 60 hours to the first part of this unit.

On successful completion you will be able to:

- 1. The student will demonstrate a knowledge of the requirements of Professional Engineering documentation. 2. The student will demonstrate oral presentation skills at an advanced level. 3.The student will demonstrate advanced knowledge of the topic provided by their academic supervisor.

Presentation of work to date

Due: **Week 10**
Weighting: **10%**

Each student will make a 15 minute presentation of their work to date (this might, therefore, be an oral presentation of the progress report).

On successful completion you will be able to:

- 1. The student will demonstrate a knowledge of the requirements of Professional Engineering documentation. 2. The student will demonstrate oral presentation skills at an advanced level. 3.The student will demonstrate advanced knowledge of the topic provided by their academic supervisor.

Final Report

Due: **14 June 2019**
Weighting: **60%**

This Final Report will be designed and set by the academic supervisor of each student, by Week 7. The student is expected to demonstrate that the student has devoted at least 60 hours to the second part of this unit.

On successful completion you will be able to:

- 1. The student will demonstrate a knowledge of the requirements of Professional Engineering documentation. 2. The student will demonstrate oral presentation skills at an advanced level. 3.The student will demonstrate advanced knowledge of the topic provided by their academic supervisor.

Delivery and Resources

This unit will be designed for, and delivered to, students individually, by the academic supervisor of each student.

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

Creative and Innovative

Our graduates will also be capable of creative thinking and of creating knowledge. They will be imaginative and open to experience and capable of innovation at work and in the community. We want them to be engaged in applying their critical, creative thinking.

This graduate capability is supported by:

Learning outcome

- 1. The student will demonstrate a knowledge of the requirements of Professional Engineering documentation. 2. The student will demonstrate oral presentation skills at an advanced level. 3.The student will demonstrate advanced knowledge of the topic

provided by their academic supervisor.

Assessment tasks

- Progress Report
- Final Report

Capable of Professional and Personal Judgement and Initiative

We want our graduates to have emotional intelligence and sound interpersonal skills and to demonstrate discernment and common sense in their professional and personal judgement. They will exercise initiative as needed. They will be capable of risk assessment, and be able to handle ambiguity and complexity, enabling them to be adaptable in diverse and changing environments.

This graduate capability is supported by:

Learning outcome

- 1. The student will demonstrate a knowledge of the requirements of Professional Engineering documentation. 2. The student will demonstrate oral presentation skills at an advanced level. 3.The student will demonstrate advanced knowledge of the topic provided by their academic supervisor.

Assessment tasks

- Progress Report
- Final Report

Commitment to Continuous Learning

Our graduates will have enquiring minds and a literate curiosity which will lead them to pursue knowledge for its own sake. They will continue to pursue learning in their careers and as they participate in the world. They will be capable of reflecting on their experiences and relationships with others and the environment, learning from them, and growing - personally, professionally and socially.

This graduate capability is supported by:

Learning outcome

- 1. The student will demonstrate a knowledge of the requirements of Professional Engineering documentation. 2. The student will demonstrate oral presentation skills at an advanced level. 3.The student will demonstrate advanced knowledge of the topic provided by their academic supervisor.

Assessment tasks

- Progress Report

- Final Report

Discipline Specific Knowledge and Skills

Our graduates will take with them the intellectual development, depth and breadth of knowledge, scholarly understanding, and specific subject content in their chosen fields to make them competent and confident in their subject or profession. They will be able to demonstrate, where relevant, professional technical competence and meet professional standards. They will be able to articulate the structure of knowledge of their discipline, be able to adapt discipline-specific knowledge to novel situations, and be able to contribute from their discipline to inter-disciplinary solutions to problems.

This graduate capability is supported by:

Learning outcome

- 1. The student will demonstrate a knowledge of the requirements of Professional Engineering documentation. 2. The student will demonstrate oral presentation skills at an advanced level. 3.The student will demonstrate advanced knowledge of the topic provided by their academic supervisor.

Assessment tasks

- Progress Report
- Final Report

Critical, Analytical and Integrative Thinking

We want our graduates to be capable of reasoning, questioning and analysing, and to integrate and synthesise learning and knowledge from a range of sources and environments; to be able to critique constraints, assumptions and limitations; to be able to think independently and systemically in relation to scholarly activity, in the workplace, and in the world. We want them to have a level of scientific and information technology literacy.

This graduate capability is supported by:

Learning outcome

- 1. The student will demonstrate a knowledge of the requirements of Professional Engineering documentation. 2. The student will demonstrate oral presentation skills at an advanced level. 3.The student will demonstrate advanced knowledge of the topic provided by their academic supervisor.

Assessment tasks

- Progress Report
- Final Report

Problem Solving and Research Capability

Our graduates should be capable of researching; of analysing, and interpreting and assessing data and information in various forms; of drawing connections across fields of knowledge; and they should be able to relate their knowledge to complex situations at work or in the world, in order to diagnose and solve problems. We want them to have the confidence to take the initiative in doing so, within an awareness of their own limitations.

This graduate capability is supported by:

Learning outcome

- 1. The student will demonstrate a knowledge of the requirements of Professional Engineering documentation. 2. The student will demonstrate oral presentation skills at an advanced level. 3.The student will demonstrate advanced knowledge of the topic provided by their academic supervisor.

Assessment tasks

- Progress Report
- Final Report

Effective Communication

We want to develop in our students the ability to communicate and convey their views in forms effective with different audiences. We want our graduates to take with them the capability to read, listen, question, gather and evaluate information resources in a variety of formats, assess, write clearly, speak effectively, and to use visual communication and communication technologies as appropriate.

This graduate capability is supported by:

Learning outcome

- 1. The student will demonstrate a knowledge of the requirements of Professional Engineering documentation. 2. The student will demonstrate oral presentation skills at an advanced level. 3.The student will demonstrate advanced knowledge of the topic provided by their academic supervisor.

Assessment tasks

- Progress Report
- Presentation of work to date
- Final Report

Engaged and Ethical Local and Global citizens

As local citizens our graduates will be aware of indigenous perspectives and of the nation's

historical context. They will be engaged with the challenges of contemporary society and with knowledge and ideas. We want our graduates to have respect for diversity, to be open-minded, sensitive to others and inclusive, and to be open to other cultures and perspectives: they should have a level of cultural literacy. Our graduates should be aware of disadvantage and social justice, and be willing to participate to help create a wiser and better society.

This graduate capability is supported by:

Learning outcome

- 1. The student will demonstrate a knowledge of the requirements of Professional Engineering documentation. 2. The student will demonstrate oral presentation skills at an advanced level. 3.The student will demonstrate advanced knowledge of the topic provided by their academic supervisor.

Assessment tasks

- Progress Report
- Final Report

Socially and Environmentally Active and Responsible

We want our graduates to be aware of and have respect for self and others; to be able to work with others as a leader and a team player; to have a sense of connectedness with others and country; and to have a sense of mutual obligation. Our graduates should be informed and active participants in moving society towards sustainability.

This graduate capability is supported by:

Learning outcome

- 1. The student will demonstrate a knowledge of the requirements of Professional Engineering documentation. 2. The student will demonstrate oral presentation skills at an advanced level. 3.The student will demonstrate advanced knowledge of the topic provided by their academic supervisor.

Assessment tasks

- Progress Report
- Final Report

Changes since First Published

Date	Description
21/02/2019	Convenor details