



ENGG400

Industry Experience

S1 External 2015

Dept of Engineering

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General Information

Unit convenor and teaching staff

Dr Nazmul Huda

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Credit points

0

Prerequisites

39cp and permission of Executive Dean of Faculty

Corequisites

Co-badged status

Unit description

It is a requirement of the Bachelor of Engineering degree that students complete at least 12 weeks (ie, 60 days, full-time) of relevant work experience in industry before graduation.

Students should enrol in this unit when they are ready to have their work experience assessed and formally recognised as completed. This unit is assessed on the basis of detailed records of work experience recorded in a dedicated log book.

Please note that it is the personal responsibility of students to obtain industry work experience to satisfy the requirements of the Bachelor of Engineering degree. Industry experience gained during the last two years of candidature is more likely to be counted fully than experience gained in earlier years. Students who have completed an equivalent final-year industry project are regarded as having satisfied the industry experience requirements of the Bachelor of Engineering degree.

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:

- Develop engineering techniques, skills and tools

- Build report writing skills in a professional manner

- Understand problems in context of work experience activities

- Place aims and outcomes in context of work experience activities

- Demonstrate awareness of occupational health and safety issues

Demonstrate professional conduct

Assessment Tasks

Name	Weighting	Due
Project Report	50%	12/06/2015
Log Book	30%	12/06/2015
Certificate	20%	12/06/2015

Project Report

Due: **12/06/2015**

Weighting: **50%**

Students need to submit the project report by the end of the working experience

On successful completion you will be able to:

- Develop engineering techniques, skills and tools
- Build report writing skills in a professional manner
- Understand problems in context of work experience activities
- Place aims and outcomes in context of work experience activities
- Demonstrate awareness of occupational health and safety issues
- Demonstrate professional conduct

Log Book

Due: **12/06/2015**

Weighting: **30%**

Students need to submit the logbook in the end of the working experience

On successful completion you will be able to:

- Develop engineering techniques, skills and tools
- Build report writing skills in a professional manner
- Understand problems in context of work experience activities
- Place aims and outcomes in context of work experience activities
- Demonstrate awareness of occupational health and safety issues
- Demonstrate professional conduct

Certificate

Due: **12/06/2015**

Weighting: **20%**

Certificate from industrial supervisor

On successful completion you will be able to:

- Develop engineering techniques, skills and tools
- Build report writing skills in a professional manner
- Understand problems in context of work experience activities
- Place aims and outcomes in context of work experience activities
- Demonstrate awareness of occupational health and safety issues
- Demonstrate professional conduct

Delivery and Resources

- ENGG400 is a PACE unit. PACE stands for Professional and Community Engagement. By connecting students with partner organisations, PACE gives Macquarie students the chance to contribute their academic learning, enthusiasm and fresh perspective to the professional workplace.
- PACE is Macquarie's way of integrating practical experience into your degree so it counts for credit, gives you the chance to work with different communities, and ultimately gives you the edge in your career.
- PACE is a key component of the University's strategic direction, emphasising the University's commitment to excellence in research, learning and teaching and community engagement. It is the third pillar of the undergraduate curriculum; People, Planet and Participation.
- PACE units provide an academic framework through which students can engage with the community, learn through participation, develop their capabilities and build on the skills that employers value. By completing a PACE unit, students develop all these skills and capabilities, and also gain academic credit towards their degree.

- In this unit you will undertake a PACE activity – the experiential component of a PACE unit whereby students engage with the community through Participation. The activity may be carried out in a variety of modes such as block (a concentrated period) or over the course of the whole semester (e.g. limited hours per week), depending on the design of the unit. Similarly, the timing of the PACE activity for each student or group of students may be different depending on arrangements with the community-based partner.

Please refer to the link below for further details and all the resources:

http://www.engineering.mq.edu.au/students/undergrad/work_experience/

Policies and Procedures

Macquarie University policies and procedures are accessible from [Policy Central](#). Students should be aware of the following policies in particular with regard to Learning and Teaching:

Academic Honesty Policy http://mq.edu.au/policy/docs/academic_honesty/policy.html

Assessment Policy <http://mq.edu.au/policy/docs/assessment/policy.html>

Grading Policy <http://mq.edu.au/policy/docs/grading/policy.html>

Grade Appeal Policy <http://mq.edu.au/policy/docs/gradeappeal/policy.html>

Grievance Management Policy http://mq.edu.au/policy/docs/grievance_management/policy.html

Disruption to Studies Policy http://www.mq.edu.au/policy/docs/disruption_studies/policy.html *The Disruption to Studies Policy is effective from March 3 2014 and replaces the Special Consideration Policy.*

In addition, a number of other policies can be found in the [Learning and Teaching Category](#) of 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/support/student_conduct/

Results

Results shown in *iLearn*, 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.

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

IT Help

For help with University computer systems and technology, visit <http://informatics.mq.edu.au/help/>.

When using the University's IT, you must adhere to the [Acceptable Use 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 outcomes

- Develop engineering techniques, skills and tools
- Build report writing skills in a professional manner

Assessment task

- Project 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 outcomes

- Develop engineering techniques, skills and tools
- Build report writing skills in a professional manner
- Understand problems in context of work experience activities
- Place aims and outcomes in context of work experience activities
- Demonstrate awareness of occupational health and safety issues
- Demonstrate professional conduct

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 outcomes

- Develop engineering techniques, skills and tools
- Understand problems in context of work experience activities
- Place aims and outcomes in context of work experience activities

Assessment task

- Certificate

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 outcomes

- Develop engineering techniques, skills and tools

- Understand problems in context of work experience activities
- Place aims and outcomes in context of work experience activities

Assessment tasks

- Project Report
- Certificate

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 outcomes

- Develop engineering techniques, skills and tools
- Build report writing skills in a professional manner
- Understand problems in context of work experience activities

Assessment tasks

- Project Report
- Certificate

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 outcomes

- Develop engineering techniques, skills and tools
- Build report writing skills in a professional manner
- Understand problems in context of work experience activities
- Place aims and outcomes in context of work experience activities

Assessment task

- Project 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 outcomes

- Develop engineering techniques, skills and tools
- Build report writing skills in a professional manner
- Place aims and outcomes in context of work experience activities
- Demonstrate professional conduct

Assessment tasks

- Project Report
- Log Book

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 outcomes

- Develop engineering techniques, skills and tools
- Demonstrate awareness of occupational health and safety issues
- Demonstrate professional conduct

Assessment task

- Log Book

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 outcomes

- Build report writing skills in a professional manner
- Demonstrate awareness of occupational health and safety issues
- Demonstrate professional conduct

Changes from Previous Offering

Internal activities may be considered as working experience, such as: Formal mentoring through FIRST Robotics, Human Powered Racing team or any other on campus similar activities, 2-weeks TAFE training at Meadowbank TAFE for 2nd year students, Assisting in organising the end-of-4th year project symposium and/or any other conference or symposium in the campus.