ENGG400

Industry Experience

S2 External 2014

Dept of Engineering

Contents

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General Information

Unit convenor and teaching staff
Unit Convenor
Dr Nazmul Huda
nazmul.huda@mq.edu.au
Contact via nazmul.huda@mq.edu.au
E6B 1.08
Tuesday 2.00 - 3.00/ Wednesday 11.00 - 12.00 / or Otherwise by prior appointment

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%	21/11/2014
Logbook	30%	21/11/2014
Certificate	20%	21/11/2014

Project Report

Due: **21/11/2014**
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

Logbook

Due: **21/11/2014**
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: **21/11/2014**
Weighting: **20%**

Certificate from the industrial supervisor.

On successful completion you will be able to:
- 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/

Unit Schedule

NA

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/

In conjunction with the implementation of the PACE Initiative at Macquarie University, a number of PACE-specific procedures, policies and frameworks have been developed. These can be reviewed online and include

1. **PACE Activity – Commencement Prior to Unit Enrolment Procedure**: to outline the conditions under which the unit convenor of a PACE unit will consider a request from a student to commence or complete a PACE activity prior to the official start date of the associated PACE unit.

https://mq.edu.au/policy/docs/participation_activity/procedure_commencement.pdf

2. **Disruption due to PACE Activity Procedure**: to outline the University's approach to an absence or other form of disruption during the session due to a student undertaking a PACE activity.

http://mq.edu.au/policy/docs/participation_activity/procedure.pdf

3. **Reasonable Adjustments in PACE Units Procedure**: To outline the key stakeholders involved and the required steps to be taken that: encourage an early disclosure of a disability and/or mental health concern, and the subsequent arrangement of reasonable adjustments in PACE units.

Consult Faculty PACE Team for more information

4. **Reasonable Adjustments in PACE Units Guideline:** To provide good practice information for students and staff to encourage early disclosure of a disability and/or mental health concern and the subsequent arrangement of reasonable adjustments when enrolling or participating in a PACE Unit.

Consult Faculty PACE Team for more information

5. **PACE Local and Regional Critical Incident Response Plan**: developed to ensure the PACE Local and Regional Program at Macquarie University is able to respond in a timely and effective manner to an emergency situation occurring whilst students are undertaking a PACE activity locally and regionally.

http://staff.mq.edu.au/teaching/participation_and_community_engagement/student_management/management_during_activity/emergency_critical_incident_plan/

6. **Policy regarding PACE and the AHEGS statement:** As a PACE unit, ENGG400 will be flagged on student transcripts with the symbol 'π' after the unit code and before the unit title. Students can highlight this designation to future employers and academic institutions as the following definition, which details the value of such units, will also be included after the list of units and before Special Achievements, Recognition and Prizes (if included) or the Key to Grading:

π: Units marked with a π are designated PACE units. These units provide students with an opportunity to learn through practical experience and make a valuable contribution to the community by applying knowledge and skills acquired at the University.

www.senate.mq.edu.au/sltc/ltminutes/ltminutes_0711.pdf

7. **Ethical Practice and PACE:** Ethical Practice has been identified as a core value of Macquarie University's revised curriculum and ethical considerations feature heavily in the PACE Initiative. Regardless of the nature of their PACE activity, students should download information on ethics from the following site:

http://students.mq.edu.au/opportunities/professional_and_community_engagement/ethics/

8. **PACE and IP**: Students enrolled in this unit may be working with external industry partners. Although it is uncommon, during some activities Intellectual Property may be created and there may be some instances when the partner requires the assignment of IP. For more information please refer to page 14 of the PACE Activity Handbook and feel free to consult with the Unit Convenor or Faculty PACE Team.

9. **PACE Grants and Prizes**: There are several ways in which PACE might support students financially to undertake PACE activities. Further, from 2013 students of PACE units from the year prior will be eligible to apply for the prestigious Prof. Judyth Sachs PACE Prizes.

http://students.mq.edu.au/opportunities/participation_and_community_engagement/grants_prizes/

10. **PACE Ambassadors:** PACE Student Ambassadors play a very important role in promoting the PACE initiative and communicating the PACE experience to other students.

http://students.mq.edu.au/opportunities/professional_and_community_engagement/local_regional_opportunities/student_ambassadors/

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

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
- Place aims and outcomes in context of work experience activities
- Demonstrate awareness of occupational health and safety issues
- Demonstrate professional conduct

Assessment task

- Project 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 outcomes

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

- Demonstrate awareness of occupational health and safety issues

Assessment task

- Project 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 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 tasks

- Project Report
- Logbook
- 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

- 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 tasks

- Project Report

- Logbook

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 tasks

- Project Report
- Logbook

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
- Place aims and outcomes in context of work experience activities

Assessment tasks

- Project Report
- Logbook

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

- Build report writing skills in a professional manner
- Place aims and outcomes in context of work experience activities
- Demonstrate awareness of occupational health and safety issues
- Demonstrate professional conduct

Assessment tasks

- Project Report
- Logbook

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

- Build report writing skills in a professional manner
- Place aims and outcomes in context of work experience activities
- Demonstrate awareness of occupational health and safety issues
- Demonstrate professional conduct

Assessment task

- Project 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 outcomes

- 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 task

- Project Report

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

Emergency Procedures to be Followed by Students

Students should note the information below in case they find themselves in any emergency situations:

1. Remove yourself from any danger.

2. Call 000, if necessary.

3. Speak to your partner-based supervisor, if possible. The Organisation may have emergency procedures to follow.

THEN - if the emergency occurs in office hours (i.e. Monday - Friday 9am-5pm)

4. Contact your Unit Convenor by phone/email as soon as you can.

5. If you cannot reach your Unit Convenor, contact your Faculty PACE Manager by phone/email.

OR - if the emergency occurs outside of office hours (i.e. outside of Monday - Friday 9am-5pm)

6. Phone Campus Security Office on (02) 9850-9999 as soon as you can. This is a 24 hour, 7 days a week service and it does not matter where in Australia you are when you call. Please identify yourself as a PACE student when you call.

N.B. For any minor issues with your participation activity, please speak to your partner-based Supervisor. If the problem is more serious, please contact your Unit Convenor or your Faculty PACE Manager.

If you are experiencing difficulties and need to speak to a counsellor:

Contact the MQ Counselling Service at Campus Wellbeing on 9850-7497 (Monday - Friday, 8am-6pm)

1800 MQ CARELINE (1800-227-367) - information and referral service (24 hours, 7 days a week)

If you would like to speak to a counsellor outside of office hours, you can also contact Lifeline on 13 11 14 (24 hours, 7 days a week).

Work Health & Safety Responsibilities for Students

A PACE Activity (ENGG400) is an experiential activity allocated to, and undertaken by, a student within a PACE unit which may take place in premises other than the University (usually the Partner Organisation's premises). When working or studying in non-University premises, the primary responsibility for the health and safety of our students becomes that of the Partner Organisation hosting the student. However, as a student, you also have a legal responsibility under the Workplace Health & Safety Act 2011 and the Macquarie University Health & Safety Policy to ensure the health and safety of yourself and of others in the workplace.

Each student has a moral and legal responsibility for ensuring that his or her work environment is conducive to good health and safety, by:

- ensuring that their work and work area is without risk to the health and safety of themselves and others
- complying with the University's and Partner Organisation's Work Health & Safety Policy and Procedures
- reporting hazards and incidents as they occur in accordance with University and Partner Organisation's policy
- actively participating in all health and safety activities and briefing sessions (eg emergency evacuation procedures, site inspections etc)

Each student is also required to advise their Unit Convenor or Faculty PACE Manager as soon as possible when:

- he/she feels unsafe at any stage during the PACE activity
- he/she did not receive a safety induction prior to the commencement of the activity covering: First aid, Fire and emergency evacuation; and Injury/incident reporting
- he/she did not receive any specialised instructions/training necessary to carry out the role
- an incident/accident happens (even when reported to the Partner Organisation/ supervisor and managed by them)

Non-compliance with the above may result in withdrawal of the student from the PACE Activity.

Students in the Faculty of Science should also be familiar with Faculty-specific practices as appropriate:

http://web.science.mq.edu.au/intranet/ohs/

In addition, those students undertaking a PACE International activity should be aware of the following Risk Management procedures:

http://staff.mq.edu.au/teaching/participation_and_community_engagement/student_management/risk_management/

Changes since First Published

Date	Description
28/02/2014	The Description was updated.