# ENGG400

## Industry Experience

S3 External 2019

*School of Engineering*

## Contents




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# General Information

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Credit points
0

Prerequisites
(39cp at 100 level or above) including ENGG200

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 as soon as they complete the prerequisites. 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. This unit is assessed on the basis of a Final Report and detailed records of work experience recorded in a dedicated log book. Students who have the opportunity to undertake professional experience for this unit at the same partner organisation where they will also complete technical work which results in the completion of a thesis for ENGG411, may be able to fulfill the distinct requirements of both this unit and ENGG411. These requirements involve not only the completion of professional and technical experience with an industry partner but also a thesis (ENGG411) and all relevant curriculum and assessments for this unit. Please consult with the unit convenor for more information.

## 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 skills related to professional engineering practice

Build awareness of occupational health and safety issues in engineering workplaces

Develop professional conduct and learn workplace behavior required for an early career engineer

Build strong communication skills through report writing and team work

# General Assessment Information

**General Assessment Information**

Four workshops (up to 1.5 hrs each) must be completed by every student over the course of enrolment in ENGG400.

This can be done in the same session, or in different sessions (NB: ENGG4099 will replace ENGG400 from S1 2020).

In this Session, they are scheduled as follows:

- **Workshop 1** - Introduction to ENGG400 and PACE: To be completed online in iLearn on or before Friday of Week 1 (6/12/2019).

- **Workshop 2** - Career skills; Ethical Practice; Intellectual Property (IP): To be completed online on or before the Friday of Week 2 (13/12/2019).
- **Workshop 3** - Reflective practice: Online in iLearn. Only students who are planning to complete the requirements of ENGG400 in this session should complete this workshop online before starting to write the final report. Otherwise complete it in a later session.
- **Workshop 4** - Report checklist and Unit Overview: Online in iLearn. Only students who are planning to complete the requirements of ENGG400 in this session should complete this workshop online before starting to write the final report. Otherwise complete it in a later session.

The Duration of your Industry Experience Activity

The total length of the activity should be at least 420 hours (12 weeks full-time equivalent). An Industry Experience activity can be done with the same partner organisation (or additional partner organisations) in several different periods with breaks in between, over 2 years.

Industry Experience Approvals

** Each ENGG400/ENGG4099 Industry Experience activity you undertake MUST BE APPROVED by PACE and the School of Engineering as soon as possible before the session in which the activity starts, and no later than the relevant submission due date (see below).

Local and Regional Activities

The due date for submitting a WV Activity (the activity is scheduled to start in WV of 2020) is **Friday Week 12 S1 (29/5/2020)**

The due date for submitting a Session 2 Activity (the activity is scheduled to start in Session 2 of 2020) is **last Friday before Mid-Year Recess (26/6/2020)**

The due date for submitting a Session 3 Activity (the activity is scheduled to start in Session 3 of 2020) is **Friday Week 12 S2 (30/10/2020).**

International Activities

PACE International will not accept proposals for student-nominated activities overseas unless the activity is in student's home country. Proposals for overseas activities involving students returning to their home country will continue to be processed by PACE. All overseas PACE activities that are deemed "Faculty-led" will continue to be supported. Proposals for "Faculty-led" activities are submitted by academics or partners and not by individual students.

There are two main application rounds for international activities: WV and S3. Requests to undertake an international activity outside of these sessions will be assessed on a case by cases basis and approval will depend on available staffing and resources, and a minimum notice of no less than 3 months prior to planned departure.

Due dates for 2020 will be communicated in the ENGG4099 Unit Guide, S1 2020 (replacing ENGG400).

** Due to FSE PACE and the School of Engineering workload demands, please understand that exceptions cannot be made for late submissions. **

Submission Due Dates do not affect students who:

• Are already doing a PACE approved activity, or

• Have successfully applied to a PACE Partner activity, promoted via PACE Opportunities.

Students who miss a particular submission date can still submit their Student Activity Proposal after the deadline, but the proposal will not be reviewed and processed until after the next deadline. (This includes both unpaid and paid activities).

** Please note that students who start an activity, whether unpaid or paid, without approval from PACE and the School of Engineering:

• May not be insured for the activities they undertake, and

• May not have the activity count towards the learning outcomes of ENGG400/ENGG4099, and

• Will not have their hours retrospectively approved, if they enrolled in ENGG400 in Session 2 2016 or later

• Are strongly advised to negotiate a later start date or reconsider the viability of the activity.

**Please do not leave your application until the last minute.**

If you have any questions or concerns about this reminder, please contact Marios Elles at pace.science@mq.edu.au or phone + 61 2 9850 6566.

Submission links and due dates can also be found in the ENGG400 iLearn site under the **Key Dates** section.

Students conducting an industry project for Thesis A and Thesis B may, subject to separate ENGG400/ENG4099 approval, count some of those hours towards ENGG400/ENGG4099. The process is as follows:

1. After a project is allocated in the Thesis A unit, the student submits an ENGG400/ ENGG4099 Activity Proposal to PACE for either the WV or S3 submission due dates.
2. Industry hours completed in the Thesis A unit cannot count towards ENGG400/ ENGG4099.
3. If the Activity Proposal is approved, industry hours completed in the Thesis B unit (starting in Session 1 or Session 2) and any additional industry hours completed during WV (if Thesis A is taken in Session 1) or S3 session (if Thesis A is taken in Session 2) can be counted towards ENGG400/ENGG4099.

Thesis-A students whose research has been pre-approved for ENGG400/ENGG4099 Industry Experience and are starting Thesis-A in Session 1 2020 are required to submit their ENGG400/ ENGG4099 Student Activity Proposal **by the WV submission due date, above**. Note that Thesis-A activities are not counted for ENGG400/ENGG4099 and Thesis-B activities often do not have 420 hours required for ENGG400/ENGG4099. Hence, additional industry hours are required and they may be acquired in the WV (Winter Vacation) and S3 Sessions.

**ENGG400 Completion**

If you commenced a placement in S2 2019, or later, please see the ENGG400/ENGG4099 Fact Sheet in iLearn for information on tracking and reporting your activity (only the report, item 3 below, is required to be submitted via iLearn).

For students who commenced their placement prior to S2 2019, upon completion of 420 hours of such approved work-experience internship, the following documents must be submitted electronically, as **one PDF document**, through iLearn in the appropriate submission space provided in iLearn **on or before the last week of semester**:

1. Cover page and checklist (provided in iLearn)

2. Log book(s) – template provided in iLearn

3. Report (6-10 pages long, as specified in Unit Guide and should address all points listed in Workshop 4 slides)

4. Certification form(s) - signed by industry partner(s)

Successful completion of this unit requires the submission of the above documents by the deadline. To pass the Unit, the student must complete satisfactorily each of the three Assessment Tasks described below. **Each Assessment Task is a hurdle**.

A student submitting an incomplete or unsatisfactory submission will be given one (and **only one**) more opportunity to resubmit revised document(s) before a deadline. If the second submission is also unsatisfactory and/or incomplete, the student may receive a Fail (F) or Continuing (K) grade. Then, **no more re-submissions will be allowed in this session**; the Student will have to submit documents and pass the unit in a future session.

**Late submissions will not be accepted** unless there are exceptional circumstances**.** For example, any students who miss the submission deadline in S1 will have to submit the documents to the WV ENGG400 iLearn submission space and they will be marked and graded at the end of 2019 WV Session. **Students should be aware that this could delay the graduation or completion of the degree requirements.** Meeting deadlines is an essential requirement in many industry positions and hence the **final submission deadline will be strictly enforced in this unit**.

All submissions will be marked at the end of the session, during the exam marking period, and grades will be reported around the time grades are released for the other units in the same session. Requests to mark or grade a submission early will not be entertained unless there are exceptional circumstances.

The student will receive 'S' (Pass - no mark) grade for the unit when the unit requirements are met.

A student who neither completes the requirement for ENGG400/ENGG4099 in the enrolled session nor fails the unit will receive 'K' (enrolment continuing) grade. This allows the student to keep the enrolment active until the requirements for ENGG400/ENGG4099 are met in a future session but **within two years**. The University may change this time limit in the future.

# Assessment Tasks

| Name | Weighting | Hurdle | Due |
|---|---|---|---|
| Final Report | 60% | Yes | 17/1/2020 |
| Logbook(s) | 30% | Yes | 17/1/2020 |
| Certificate(s) | 10% | Yes | 17/1/2020 |

## Final Report

Due: **17/1/2020**
Weighting: **60%**
**This is a hurdle assessment task (see assessment policy for more information on hurdle assessment tasks)**

Final report on your internship in which all the reported activities have been approved by the FSE PACE Office BEFORE starting the internship. The total length of the internship should be at least 420 hours. Internship can include multiple activities in different locations with breaks in between if necessary. The report should be 6-10 pages long, excluding the cover sheet and Table of Contents. One report should cover all internship activities and should address points mentioned in Workshop 4 slides.

On successful completion you will be able to:

- Develop engineering skills related to professional engineering practice
- Build awareness of occupational health and safety issues in engineering workplaces
- Develop professional conduct and learn workplace behavior required for an early career engineer
- Build strong communication skills through report writing and team work

## Logbook(s)

Due: **17/1/2020**
Weighting: **30%**
**This is a hurdle assessment task (see assessment policy for more information on hurdle assessment tasks)**

Logbook(s) of daily activities in your internship in which all the reported activities have been approved by the FSE PACE Office BEFORE starting the internship. The total length of the internship should be at least 420 hours. Internship can include multiple activities in different locations with breaks in between if necessary. The template in iLearn must be used for the logbook. There must be a separate row in the table for each day.

On successful completion you will be able to:

- Develop engineering skills related to professional engineering practice
- Build awareness of occupational health and safety issues in engineering workplaces

## Certificate(s)

Due: **17/1/2020**
Weighting: **10%**
**This is a hurdle assessment task (see assessment policy for more information on hurdle assessment tasks)**

Certificate(s) from Industrial Supervisor(s) on the internship in which all the reported activities have been approved by the FSE PACE Office BEFORE starting the internship. The total length of the internship should be at least 420 hours. Internship can include multiple activities in different locations with breaks in between if necessary. Then, a certificate is required from each supervisor. The latest template in iLearn must be used for each certificate.

On successful completion you will be able to:

- Develop engineering skills related to professional engineering practice
- Build awareness of occupational health and safety issues in engineering workplaces
- Develop professional conduct and learn workplace behavior required for an early career engineer

# 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 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 a community-based partner.

# 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 outcomes

- Develop engineering skills related to professional engineering practice
- Develop professional conduct and learn workplace behavior required for an early career engineer

## Assessment tasks

- Final Report
- Logbook(s)
- Certificate(s)

# 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

- Build awareness of occupational health and safety issues in engineering workplaces
- Build strong communication skills through report writing and team work

## Assessment tasks

- Final Report
- Logbook(s)
- Certificate(s)

# 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 skills related to professional engineering practice
- Build awareness of occupational health and safety issues in engineering workplaces
- Develop professional conduct and learn workplace behavior required for an early career engineer
- Build strong communication skills through report writing and team work

## Assessment tasks

- Final Report

- Logbook(s)
- Certificate(s)

## 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 skills related to professional engineering practice
- Develop professional conduct and learn workplace behavior required for an early career engineer

### Assessment tasks

- Final Report
- Logbook(s)
- Certificate(s)

## 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 skills related to professional engineering practice
- Develop professional conduct and learn workplace behavior required for an early career engineer

### Assessment tasks

- Final Report
- Logbook(s)
- Certificate(s)

# 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 skills related to professional engineering practice
- Develop professional conduct and learn workplace behavior required for an early career engineer

## Assessment tasks

- Final Report
- Logbook(s)
- Certificate(s)

# 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 skills related to professional engineering practice
- Build awareness of occupational health and safety issues in engineering workplaces
- Develop professional conduct and learn workplace behavior required for an early career engineer
- Build strong communication skills through report writing and team work

## Assessment tasks

- Final Report
- Logbook(s)
- Certificate(s)

## 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 awareness of occupational health and safety issues in engineering workplaces
- Build strong communication skills through report writing and team work

### Assessment tasks

- Final Report
- Logbook(s)
- Certificate(s)

## 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 awareness of occupational health and safety issues in engineering workplaces
- Build strong communication skills through report writing and team work

### Assessment tasks

- Final Report
- Logbook(s)
- Certificate(s)

# Changes since First Published

| Date | Description |
| --- | --- |
| 02/12/2019 | Updated contacted details for PACE |