ENGG4099

PACE: Industry Experience

Session 1, In person-placement, On location 2023

School of Engineering

Contents

General Information

Unit convenor and teaching staff
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Unit Convenor
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By appointment

Credit points
0

Prerequisites
Permission by special approval

Corequisites

Co-badged status

Unit description
It is a requirement of the Bachelor of Engineering (Honours) degree that students complete relevant work experience in industry before graduation. Students should enrol in this PACE unit as soon as they complete the prerequisites as part of achieving this. Please note that it is the personal responsibility of students to obtain industry work experience, or equivalent, to satisfy the requirements of the Bachelor of Engineering (Hons) degree. This unit is assessed on the basis of a Final Report, the submission of online timesheets approved by the student's host supervisor, and the host supervisor’s completion of an online Student Evaluation form.

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 4th year thesis project, may be able to fulfil the distinct requirements of both this unit and the relevant thesis unit. These requirements involve not only the completion of professional and technical experience with an industry partner but also a major project and thesis and all relevant curriculum and assessments for this unit. Visit Employability Connect for important information on this unit.

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:

ULO1: Apply engineering skills and attributes relevant to professional engineering practice

ULO2: Demonstrate an understanding of occupational health and safety issues in engineering workplaces

ULO3: Demonstrate professional conduct and workplace behavior appropriate of an early career engineer.

ULO4: Communicate effectively via written reports, and with team work

General Assessment Information

Workshops

Four workshops (up to 1.5 hrs each) must be completed by every student over the course of enrolment in ENGG4099. This can be done in the same session, or in different sessions (NB: ENGG4099 replaced ENGG400 from S1 2020).

In this Session, they are scheduled as follows:

- Workshop 1 - Introduction to ENGG4099 and PACE: To be completed online on or before Friday (23/02/2023).
- Workshop 2 - Career skills; Ethical Practice; Intellectual Property (IP): To be completed online on or before Friday (28/02/2023).
- Workshop 3 - Reflective practice: Online in iLearn. Only students who are planning to complete the requirements of ENGG4099 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 ENGG4099 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

Activity proposals can be submitted at any time in the year. Please complete Online Student Activity Proposal Form as soon as possible. It can take 1-2 weeks for the application to be processed, and is dependent on the quality of the information you provide, cooperation from the host organisation and may be subject to risk assessments.

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.

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.*

Assessments

ALL students are required to submit their final report via turn-it-in (in the assessment submission space on iLearn) and;

If the student has an approved local or regional activity (starting prior to S2, 2019) or if they have completed an approved international activity in any semester, they are required to email FSE PACE a copy of the final report, logbooks and certificates to pace.science@mq.edu.au and/or

If the student has an approved local or regional activity (starting from S2 2019 onwards) they are required to email FSE PACE their final report **only** to pace.science@mq.edu.au. FSE PACE will

check iParticipate for actioned timesheets and the completed student evaluation.

If you have any questions about the above assessment update, please contact Marios Elles at pace.science@mq.edu.au or phone 98506842.

Submission links and due dates can also be found in the ENGG4099 iLearn site under the **Key Dates** section.

Thesis projects

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.

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.

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.

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 ENGG4099 iLearn submission space and they will be marked and graded at the end of 2023 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.

Marks

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	16/06/2023
Timesheets	30%	Yes	16/06/2023
Electronic Student Evaluation	10%	Yes	16/06/2023

Final Report

Assessment Type [1]: Report
Indicative Time on Task [2]: 10 hours
Due: **16/06/2023**
Weighting: **60%**
This is a hurdle assessment task (see assessment policy for more information on hurdle assessment tasks)

The Final Report may be submitted once all of your electronic timesheets have been submitted

and approved by your host supervisor, and your electronic Student Evaluation form has been signed off by your host supervisor. 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 also reflect an engagement with the content presented throughout ENGG4099. In particular the Final Report must address:

- ◦ Briefly summarise all of the professional experience you completed through ENGG4099 (e.g. names of organisations, locations, length of time, key duties/ roles/responsibilities, etc.) and describe what you have come to understand about Work Health and Safety in engineering workplaces.
  - ◦ Address what ENGG4099 has meant to you in relation to your overall program and in particular, the degree to which it has enhanced your employability (e.g. including team management skills, project management skills, time management skills, and communication skills).
  - ◦ Reflect upon a particular event or incident of your choice that occurred during your professional experience in ENGG4099, and link your response to that, or your ability to manage that experience, to specific concepts you have learned through the ethical practice curriculum of ENGG4099.
  - ◦ What specific approach(es) to reflection did you adopt and how did this affect your overall learning as a professional engineer? 5. Conclude by discussing the relevance of ENGG4099, including your PACE activity, to your future

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Timesheets

Assessment Type [1]: Log book
Indicative Time on Task [2]: 10 hours
Due: **16/06/2023**
Weighting: **30%**
This is a hurdle assessment task (see assessment policy for more information on hurdle

assessment tasks)

Once you have received official confirmation that your activity is approved you will be required to submit electronic timesheets for each day of work completed. Each submitted timesheet will be reviewed and approved by your host supervisor. It is important that you engage with this requirement in a considered and reflective way. Writing down the tasks you complete in each timesheet will be of particular use to you when you start drafting your Final Report.

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Electronic Student Evaluation

Assessment Type [1]: Performance
Indicative Time on Task [2]: 0 hours
Due: **16/06/2023**
Weighting: **10%**
This is a hurdle assessment task (see assessment policy for more information on hurdle assessment tasks)

When an activity is completed, your host supervisor will be required to complete an electronc Student Evaluation form to verify that they have actioned all your submitted timesheets. They will also briefly evaluate your performance in terms of (1) your use of engineering techniques, skills and tools, (2) demonstrated awareness of WHS and (3) demonstrated professional conduct.

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[1] If you need help with your assignment, please contact:

- the academic teaching staff in your unit for guidance in understanding or completing this type of assessment

- the Writing Centre for academic skills support.

[2] Indicative time-on-task is an estimate of the time required for completion of the assessment task and is subject to individual variation

Delivery and Resources

ENGG4099 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.

Unit Schedule

Refer to the workshop schedules.

Policies and Procedures

Macquarie University policies and procedures are accessible from Policy Central (https://policies.mq.edu.au). 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
- Assessment Procedure
- Complaints Resolution Procedure for Students and Members of the Public
- Special Consideration Policy

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

To find other policies relating to Teaching and Learning, visit Policy Central (https://policies.mq.edu.au) and use the search tool.

Student Code of Conduct

Macquarie University students have a responsibility to be familiar with the Student Code of Conduct: https://students.mq.edu.au/admin/other-resources/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

Academic Integrity

At Macquarie, we believe academic integrity – honesty, respect, trust, responsibility, fairness and courage – is at the core of learning, teaching and research. We recognise that meeting the expectations required to complete your assessments can be challenging. So, we offer you a range of resources and services to help you reach your potential, including free online writing and maths support, academic skills development and wellbeing consultations.

Student Support

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

The Writing Centre

The Writing Centre provides resources to develop your English language proficiency, academic writing, and communication skills.

- Workshops
- Chat with a WriteWISE peer writing leader
- Access StudyWISE
- Upload an assignment to Studiosity
- Complete the Academic Integrity Module

The Library provides online and face to face support to help you find and use relevant information resources.

- Subject and Research Guides
- Ask a Librarian

Student Services and Support

Macquarie University offers a range of Student Support Services including:

- IT Support
- Accessibility and disability support with study
- Mental health support
- Safety support to respond to bullying, harassment, sexual harassment and sexual assault
- Social support including information about finances, tenancy and legal issues
- Student Advocacy provides independent advice on MQ policies, procedures, and processes

Student Enquiries

Got a question? Ask us via AskMQ, or contact Service Connect.

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.

Changes from Previous Offering

PACE activity proposal can be submitted and evaluated at any time.

Engineers Australia Competency Mapping

EA Competency Standard		Unit Learning Outcomes
Knowledge and Skill Base	1.1 Comprehensive, theory-based understanding of the underpinning fundamentals applicable to the engineering discipline.	
	1.2 Conceptual understanding of underpinning maths, analysis, statistics, computing.	
	1.3 In-depth understanding of specialist bodies of knowledge	

	1.4 Discernment of knowledge development and research directions	
	1.5 Knowledge of engineering design practice	
	1.6 Understanding of scope, principles, norms, accountabilities of sustainable engineering practice.	
Engineering Application Ability	2.1 Application of established engineering methods to complex problem solving	
	2.2 Fluent application of engineering techniques, tools and resources.	
	2.3 Application of systematic engineering synthesis and design processes.	
	2.4 Application of systematic approaches to the conduct and management of engineering projects.	ULO1=50%
Professional and Personal Attributes	3.1 Ethical conduct and professional accountability.	ULO1=50%; ULO3=100%
	3.2 Effective oral and written communication in professional and lay domains.	
	3.3 Creative, innovative and pro-active demeanour.	
	3.4 Professional use and management of information.	ULO2=50%; ULO4=50%
	3.5 Orderly management of self, and professional conduct.	ULO2=50%
	3.6 Effective team membership and team leadership	ULO4=50%

Unit information based on version 2023.02 of the Handbook