

COMP3850

PACE: Computing Industry Project

Session 1, In person-scheduled-weekday, North Ryde 2025

School of Computing

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Disclaimer

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General Information

Unit convenor and teaching staff

Convenor

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Senior Teaching Assistant

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Credit points

10

Prerequisites

130cp at 1000 level or above including COMP2250 OR COMP2270 or COMP2110 or COMP2050 or COMP2200 or COMP2750

Corequisites

20cp from 3000 level units

Co-badged status

Unit description

This PACE unit draws together learning in previous units to prepare students for the workplace through engaging with a partner organisation. Students will work in close collaboration throughout the session with a community-based project sponsor that has provided the specifications for the work that needs to be completed. Students will work in self-managed teams to first understand the problem or opportunity identified the partner and then develop a project plan and scoping or requirements document. Students will create appropriate designs to solve a given problem, potentially delivering a software product or other outputs as needed by the sponsor. All projects will involve the development of supporting project documentation. The project requires an equal focus on process and product, requiring quality control and assurance methods, tools and techniques.

Visit Employability Connect for important information on this unit including required preparation and closing dates for PACE activities.

Learning in this unit enhances student understanding of global challenges identified by the United Nations Sustainable Development Goals (<u>UNSDG</u>s) Industry, Innovation and Infrastructure; Sustainable Cities and Communities

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: Critically analyse and describe the client's problem and apply principles, models, tool, techniques, technology and processes to provide a solution.

ULO2: Demonstrate understanding of the project stages using appropriate process models in an authentic context

ULO3: Apply the basic principles of project management and teamwork while working closely with the project's customer

ULO4: Effectively Communicate results of the project (in both written and oral form)

ULO5: Recognise and address ethical issues when they arise based on an understanding of professional ethics

General Assessment Information

This unit is a Professional and Community Engagement (PACE) Unit.

This unit is particularly focussed in getting you work ready and increasing your employability. To complete the unit you will need to draw together the knowledge and skills you have learnt in

previous units and learn how to identify and gain any missing knowledge and skills needed to solve a real-world problem faced by a client. Furthermore, the unit provides practice in the softskills (see learning outcomes) sought by employers and required to meet the Australian Computer Society accreditation criteria. The unit assessments are structured around multiple deliverables including a final reflective report and exam to ensure these goals are achieved.

This unit includes students from many different majors. Also, sponsors have a wide range of projects. Deliverables have been modified according to the type of project being undertaken. Teams will need to identify the type of project they are delivering, undertake appropriate activities and submit appropriate deliverables according to the identified project type.

PACE units in Science and Engineering, their Unit Convenors, and their students, are supported by a PACE Team within the Faculty. Throughout the unit offering, members of the Team may be in contact with students to provide or collect information. If you have any questions about PACE in Science and Engineering, please email: pace.science@mq.edu.au or visit the following webpages: http://science.mq.edu.au/pace/

If you require more information about PACE in general or access to forms such as those for the PACE Travel Grants, please go to: http://mq.edu.au/about_us/offices_and_units/professional_and_community_engagement/

Release Dates

The specification of what you need to deliver throughout the semester and when is provided in the Deliverable Definition Document in the Assessment Section on iLearn. This document provides instructions and guidance for all deliverables and is available from Week 1.

Late Assessment Submission and Penalties

Late work will not be accepted. As you are working in a team and also are expected to perform risk management where sickness or other misadventure should be planned for and managed. Disruption and special consideration requests will apply to individuals only, not to groups. If there is a significant problem outside the control of the group, they should contact the convenor well before the deliverable deadline to discuss solutions.

Requirements to pass the unit

To pass this unit you need to achieve a total mark equal to or greater than 50%. For more information about "Grading and Passing", please see that section.

Special Consideration

The <u>Special Consideration Policy</u> aims to support students who have been impacted by short-term circumstances or events that are serious, unavoidable and significantly disruptive, and which may affect their performance in assessment. If you experience circumstances or events that affect your ability to complete the assessments in this unit on time, please inform the convenor and submit a Special Consideration request through http://connect.mq.edu.au/.

Assessment Tasks

Name	Weighting	Hurdle	Due
Team Project Induction	25%	No	13/03/2025
Team Project	50%	No	Project documents (D4) 22/05/25, Presentation 5/06/25
Individual Project Retrospective	25%	No	Exam Period

Team Project Induction

Assessment Type 1: Practice-based task Indicative Time on Task 2: 24 hours

Due: **13/03/2025** Weighting: **25%**

Teams will complete a project Feasibility Report, Team manual, Project Plan and Software Requirements Specification or Project Scoping Document

On successful completion you will be able to:

- Critically analyse and describe the client's problem and apply principles, models, tool, techniques, technology and processes to provide a solution.
- Demonstrate understanding of the project stages using appropriate process models in an authentic context
- Apply the basic principles of project management and teamwork while working closely with the project's customer
- Effectively Communicate results of the project (in both written and oral form)
- Recognise and address ethical issues when they arise based on an understanding of professional ethics

Team Project

Assessment Type 1: Project

Indicative Time on Task 2: 70 hours

Due: Project documents (D4) 22/05/25, Presentation 5/06/25

Weighting: 50%

Updated Project Plan and Requirements/Scoping Document, Project Documentation, Prototype/ MVP development and demonstration, Project presentation

On successful completion you will be able to:

- Critically analyse and describe the client's problem and apply principles, models, tool, techniques, technology and processes to provide a solution.
- Demonstrate understanding of the project stages using appropriate process models in an authentic context
- Apply the basic principles of project management and teamwork while working closely with the project's customer
- Effectively Communicate results of the project (in both written and oral form)
- Recognise and address ethical issues when they arise based on an understanding of professional ethics

Individual Project Retrospective

Assessment Type 1: Reflective Writing Indicative Time on Task 2: 24 hours

Due: **Exam Period** Weighting: **25**%

This is a final individual reflection that reviews the project, processes, product and people.

On successful completion you will be able to:

- Critically analyse and describe the client's problem and apply principles, models, tool, techniques, technology and processes to provide a solution.
- Demonstrate understanding of the project stages using appropriate process models in an authentic context
- Apply the basic principles of project management and teamwork while working closely with the project's customer
- Effectively Communicate results of the project (in both written and oral form)
- Recognise and address ethical issues when they arise based on an understanding of professional ethics

- 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.

Delivery and Resources

CLASSES

You are expected to attend class meetings (Weeks 1, 2, 11 and 13) throughout the semester. These classes are to prepare you for your project, working with your team and the assessment tasks. There will be team activities. On campus attendance provides a more engaging and productive experience for everyone and will help the team to bond and hit the ground running. In the event that you are unable to attend on campus, please let the unit convenor know beforehand and watch the live stream portion of the class. For the team activities, arrange with another team how you can connect with the team (e.g. via zoom, phone or other technology) so you are able to fully participate in the activities. Zoom breakout rooms for each team will be provided to facilitate communication.

Week 1 & 2 classes

Please ensure you attend the first lecture session in Week 1. You will meet with your group and industry sponsor who will provide a briefing on your project and allow future methods of communication to be established. By the time of this class, you should have already received information about which group you are in (check private forum on iLearn). If not, speak with the convenor.

In week 2 you will participate in a "Working in Teams" workshop. You are expected to be on campus, but if you can't be, let your team know so they can connect you in.

REQUIRED AND RECOMMENDED TEXTS AND/OR MATERIALS

Lecture and Project Material

The most important document is the **Project Deliverables Definition** document in the Assessments section on iLearn. This document specifies what is required for each deliverable and provides deliverable specific guidance and rubrics. The guidance is at times generic for all projects and projects streams. Some guidance is specific to the four streams (Cybersecurity, Data Science, Games, Software) and you should ensure you are looking at the stream/s relevant for your project.

Some resources including tutorials, standards, templates, examples can be found on iLearn.which may be useful for your project. However, teams are expected to identify the

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

knowledge and skills needed for their project, the knowledge and skills of the team and what knowledge gaps exist and how to bridge the gap. Scoping of projects according to the needs of the industry sponsor and the skills of the team is an essential activity for most projects that may require negotation with the industry partner and the assistance of the unit convenor.

UNIT WEBPAGE

Website

Please login to ilearn http://ilearn.mq.edu.au/

METHOD OF COMMUNICATION

We will communicate with you via your university email and through announcements on iLearn. Queries to the convenor can either be placed on the iLearn discussion board or sent to the unit convenor via the contact email on iLearn. If your query is specific to feedback you have received for D2-D4, your query will be passed onto the marker handling that stream. You will also need to be in contact with your industry sponsor/partner. Your industry partner will receive a list of students in their teams and your university email on the Friday after the first class. Your team manual will specify you methods of communication with all stakeholders in more detail following discussion with your team members and industry partner.

From Week 2 until Week 13, mid-semester weeks are optional, the team is expected to send a Weekly Report to the unit convenor. More information will be provided in classes and in the Deliverables Definition Document.

TECHNOLOGIES USED AND REQUIRED

The technology you use will depend on your client's needs. You will have access to the third year computers and the software on them. You will not be able to add any other software to the machines in the labs. However, you may want to use resources that your sponsor and team members have access to. Your technology needs will be determined and defined by you in your project plan.

Unit Schedule

There are only 4 classes. Attendance should be on campus. However, if this is not possible watch the live stream and coordinate with your team how you can connect electronically with them during the class.

WEEK	TOPIC
1	Team and Project Induction - Meet your team and industry parnter. Receive a project briefing
2	Team Training
3	No classes/lectures

4	No classes/lectures
5	No classes/lectures
6	No classes/lectures
7	No classes/lectures
8	No classes/lectures
9	No classes/lectures
10	No classes/lectures
11	Exam & Presentation preparation including Ethics and Professionalism Training
12	No classes/lectures
13	Group Presentations (Thursday 5-9pm, Location: TBA)

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.e du.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 <u>eStudent</u>, (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 <u>eStudent</u>. For more information visit <u>connect.mq.edu.au</u> or if you are a Global MBA student contact <u>globalmba.support@mq.edu.au</u>

Academic Integrity

At Macquarie, we believe <u>academic integrity</u> – 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 <u>online writing and maths support</u>, 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/

Academic Success

<u>Academic Success</u> 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
- <u>Safety support</u> 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 the Service Connect Portal, 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 <u>Acceptable Use of IT Resources Policy</u>. The policy applies to all who connect to the MQ network including students.

Changes from Previous Offering

New projects and continuations of previous projects are offered each semester involving long term and new industry partners.

The deliverables definition document and use of the rubrics in that document have been significantly modified based on feedback and the new assessment structure.

The assessment structure has been significantly changed. There are now 3 assessments. Within those assessment there are multiple deliverables. Some deliverables will only receive feedback to provide guidance and allow the team to improve. These deliverables are important to submit as they will assist with project management and ensure the team are making steady progress with guidance along the way to ensure they are heading in the right direction. Rubrics for each stream are provided as guidance for teams and should be used to identify and justify what documentation is needed or not needed. Projects that span more than one stream can draw on more than one rubric to identify what project documentation/deliverables are required for their project.

ILearn structure has been significantly modified based on feedback to improve identification of resources and to provide updated examples.

Grading and Passing

Your final grade will depend on your performance in the project and exam. The final mark for the unit will be calculated by combining the marks for all assessment tasks according to the percentage weightings shown in the assessment summary. Note that in order to receive the full marks awarded to your group you must contribute your equal share to the project. Individual contribution forms will be used to identify the contribution of each team member. Every individual in the team will complete this online form. These forms and the process will be explained further in the week 1 induction.

You are expected to attend all compulsory class sessions or provide a reason (to the unit convenor preferably before the class) why you were unable to attend.

All work submitted should be readable and presented in a business-like and professional format.

Late work will not be accepted. As you are working in a team and also are expected to perform risk management, sickness or other misadventure needs to be planned for and managed.

Disruption requests will apply to individuals only, not to groups.

If you receive <u>special consideration</u> for the final exam, a supplementary exam will be scheduled. By making a special consideration application for the final exam you are declaring yourself available for a resit during the supplementary examination period and will not be eligible for a second special consideration approval based on pre-existing commitments. Please ensure you are familiar with the policy prior to submitting an application. Approved applicants will receive an individual notification one week prior to the exam with the exact date and time of their supplementary examination.

Grade Assessment Standards

Р	Has participated in group-based projects which delivered satisfactory outputs throughout the semester and has demonstrated this participation in the final examination.
CR	Has participated in group-based projects throughout the semester which delivered quality outputs and demonstrated in the exam a high degree of contribution to those outputs and good grasp of the concepts relating to working in groups, managing projects and the development of software.
D	Has participated in group-based projects throughout the semester which consistently delivered high quality outputs and demonstrated in the exam a high degeee of contribution to those outputs and strong grasp of the concepts relating to working in groups, managing projects and the development of software. All the assignment, in-class tasks (programming and written) completed to a very high standard. Excellent performance in the written examination.
HD	Has participated in group-based projects throughout the semester which consistently delivered high quality outputs and demonstrated in the exam a high degeee of contribution to those outputs and strong grasp of the concepts relating to working in groups, managing projects and the development of software. Students achieving this grade are often distinguished by a high level of effort, enthusiasm, competence and often leadership in their project groups as well as by excellent performance in the written examination.

PACE Related Policy and WHS

What to do in the case of an emergency:

- 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, and Safety (WHS)

A PACE Activity is a practical experience 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.

WHS and risk for fieldwork-based PACE activities

Certain PACE activities are fieldwork-based. Fieldwork includes professional experience whereby the fieldwork i) forms the majority of the activity; ii) is essential to partner benefit; and iii) requires the application of discipline specific knowledge and skills. Fieldwork-based activities are undertaken in collaboration with a partner and are conducted on a site in the natural and/or built environment in order to collect data (e.g. soil samples, asking questions of humans, documenting information about animals, etc.) for the purposes of informing a study about that environment or site. Fieldwork may be led by students as the discipline experts; however, it requires supervision by an appropriately qualified Macquarie University staff or external partner. Students who will undertake fieldwork-based PACE activities must consult with their unit convenor regarding additional WHS and risk procedures that might be necessary. All fieldwork must be officially approved by relevant staff before it commences.

PACE-related policies, procedures, and other important information

Student Undertaking Form

Before a student begins their activity they will be required to complete the Student Undertaking Form. This form asks students for their contact details, emergency contact information and their agreement to abide by the Roles and Responsibilities as set out in the Governance and Guidelines document. The Student Undertaking form is provided electronically through iParticipate and the Faculty PACE team will alert you when it is available for completion and instructions on how to complete it.

<u>PACE Activity – Early Commencement Procedure:</u> – 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.

<u>PACE - Managing Other Commitments Procedure:</u> 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.

<u>PACE - Reasonable Adjustments, Guideline and Procedure:</u> Macquarie University will endeavour to match students with an appropriate host and feasible PACE activity to maximise student success. These documents provide good practice information for students and staff to encourage early disclosure of circumstances (e.g. disability, medical condition, flexible time arrangements, or leave days for official observances, etc.), which may impact on a student's PACE activity, and the subsequent arrangement of reasonable adjustments when enrolling or participating in a PACE Unit (Guideline).

<u>PACE activities requiring background checks:</u> Some partner organisations may require students to complete certain background checks and/or clearances in cases where they will be working with children, young people, people with disabilities, the frail-aged, at-risk clients, and government/statutory agencies. It's very important that students complete the required background clearances before beginning the PACE activity. Any necessary information on

background checks will be communicated directly to students by the Unit Convenor or the Faculty PACE team. Please note there is an extra verification step required for students who need to to complete a Working with Children Check. Students will be required to provide their WWCC number to the Faculty PACE Team electronically and the result of their check will need to be verified by MQ WWCC Administrator (Governance Services) before they start their activity.

Policy regarding PACE and the AHEGS statement: PACE units will be flagged on student transcripts with the symbol ' π ' after the unit code which corresponds to the following statement on the transcript:

 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.

<u>PACE and Ethical Practice:</u> Ethical considerations feature heavily in the PACE Initiative. As ambassadors of the University, students are expected to engage with the wider community in a responsible and ethically informed manner that respects the rights of individuals, communities and the environment. This expectation applies to all PACE activities regardless of their nature. Ethical practice involves negotiating the ethical complexities of the context with which you are working. This involves critically thinking about issues of power, hierarchy, culture and position, and about the potential risks of your work and interactions with others, immediate and over time. It is important to ensure that risks are mitigated and experiences are enriching and worthwhile for all those involved.

In addition to the role of students as ambassadors, partners must conform to the University's ethical standards; PACE activities must be aligned with the wellbeing of people and planet; there are research-based PACE activities as well as collaborative research with partners; and, the way in which everybody's PACE experiences are captured and shared must be ethical. If a student ever feels that unethical behaviour has occurred during a PACE activity, they should consult with their Unit Convenors and/or the Faculty PACE staff immediately. Further, any students whose PACE activity will involve research that is led by a Macquarie staff member must consult with their convenor prior to commencement to confirm whether or not research ethics permission is required.

<u>PACE and IP:</u> Students enrolled in PACE units 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. Students are encouraged to seek legal advice prior to entering into any such agreement. Students uncertain of their rights relating to IP ownership can seek advice from the Office of the Deputy Vice-Chancellor (Research). This should be done by contacting the relevant Faculty PACE Manager.

<u>PACE Grants and Prizes:</u> There are several ways in which PACE might support students financially to undertake PACE activities. PACE students are also eligible to apply for the prestigious Prof. Judyth Sachs PACE Prizes.

http://students.mq.edu.au/courses/professional_and_community_engagement/pace_grants/ http://students.mq.edu.au/courses/professional_and_community_engagement/pace_prizes/ Unit guide COMP3850 PACE: Computing Industry Project

Unit information based on version 2025.04 of the Handbook