



COMP3850

Computing Industry Project

Session 1, Weekday attendance, North Ryde 2020

Dept of Computing

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General Information

Unit convenor and teaching staff

Convenor

Deborah Richards

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Contact via 98509567

Room 369, 4 Research Park Drive

please email for appointment

Tutor

Carl Svensson

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Credit points

10

Prerequisites

130cp at 1000 level or above including ((COMP2250 or COMP247) or (COMP2110 or COMP249) or (COMP2050 or COMP255) or (COMP2200 or COMP257) or (COMP2750 or ISYS254))

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 the product, requiring the use of quality control and assurance methods, tools and techniques.

Important Academic Dates

Information about important academic dates including deadlines for withdrawing from units are available at <https://students.mq.edu.au/important-dates>

Learning Outcomes

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.

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/

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. For further information about "Grading and Passing", please see that section.

Assessment Tasks

Name	Weighting	Hurdle	Due
Working in Teams Workshop	1%	No	05/03/2020

Name	Weighting	Hurdle	Due
<u>Feasibility Study</u>	7%	No	12/03/20
<u>Project Plan & Scoping/ Requirements Document</u>	13%	No	2/04/20
<u>Increment 1</u>	13%	No	30/04/20
<u>Increment 2</u>	13%	No	21/05/20
<u>Final Reflective Report</u>	8%	No	4/06/20
<u>Project Presentation</u>	10%	No	4/06/20
<u>Delivery of Product to Sponsor</u>	10%	No	After Week 13 – Up to Thursday of Week 16, June 25th
<u>Final Examination</u>	25%	No	Week 14 or 15 Time and location TBA

Working in Teams Workshop

Assessment Type ¹: Participatory task

Indicative Time on Task ²: 2 hours

Due: **05/03/2020**

Weighting: **1%**

You are required to attend this workshop to learn about working in teams and to participate in a group activity with your team.

On successful completion you will be able to:

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

Feasibility Study

Assessment Type ¹: Practice-based task

Indicative Time on Task ²: 10 hours

Due: **12/03/20**

Weighting: **7%**

A feasibility Report to understand the business problem and consider solutions

On successful completion you will be able to:

- Demonstrate understanding of the project stages using appropriate process models in an

authentic context

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

Project Plan & Scoping/Requirements Document

Assessment Type ¹: Practice-based task

Indicative Time on Task ²: 20 hours

Due: **2/04/20**

Weighting: **13%**

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)

Increment 1

Assessment Type ¹: Practice-based task

Indicative Time on Task ²: 25 hours

Due: **30/04/20**

Weighting: **13%**

Updated Deliverable 2, Design and Testing Document, Prototype development and demonstration

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)

Increment 2

Assessment Type ¹: Practice-based task

Indicative Time on Task ²: 25 hours

Due: **21/05/20**

Weighting: **13%**

Updated Deliverable 3 and demonstration to client

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)

Final Reflective Report

Assessment Type ¹: Reflective Writing

Indicative Time on Task ²: 10 hours

Due: **4/06/20**

Weighting: **8%**

This report reviews the semester and all project goals, activities and outcomes

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
- 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

Project Presentation

Assessment Type ¹: Presentation

Indicative Time on Task ²: 10 hours

Due: **4/06/20**

Weighting: **10%**

Teams will present their project including problem being addressed, solution proposed, methods and technology used. Presentations may include demonstration of the product/prototype.

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.
- Effectively Communicate results of the project (in both written and oral form)

Delivery of Product to Sponsor

Assessment Type ¹: Clinical performance evaluation

Indicative Time on Task ²: 6 hours

Due: **After Week 13 – Up to Thursday of Week 16, June 25th**

Weighting: **10%**

Delivery of Final Product (e.g. documentation, files and software running on sponsor's machine) as agreed with Sponsor. When the sponsor has checked that they have the final product and are able to utilise it, they will provide Individual marks for each student to the unit convenor.

On successful completion you will be able to:

- 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)

Final Examination

Assessment Type ¹: Examination

Indicative Time on Task ²: 10 hours

Due: **Week 14 or 15 Time and location TBA**

Weighting: **25%**

Final Examination

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 guidance or support to understand or complete this type of assessment, please contact the Learning Skills Team

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

ISYS358 projects will be sponsored by clients from industry.

CLASSES

You are expected to attend at least all compulsory class meetings throughout the year. These are to prepare you for project, working with your team and the assessment tasks.

Please ensure you attend the first lecture session. You should have already received information about which group you are in. If not, check on the first night. You will meet with your group and sponsor.

In week 2 the Careers Development Office will run a "Working in Teams" workshop. Attendance is compulsory. If you have a valid reason not to attend a class (work is not a valid reason), you must get approval from the convenor before the class. In the event of illness or misadventure, contact the convenor ASAP.

REQUIRED AND RECOMMENDED TEXTS AND/OR MATERIALS

Lecture and Project Material

Some resources useful for your project can be found on iLearn under resources

Please read carefully the document at the Project Deliverables Definition link under Project Description and Deliverables on the unit iLearn website. Follow the instructions provided in that document for the group project work (worth 75% of the course mark).

UNIT WEBPAGE

Website

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

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

WEEK	TOPIC
1	Groups allocated, project management introduction - required attendance (Location: 14 Sir Christopher Ondaatje Ave - Mason Theatre)
2	"Working in Teams" workshop - required attendance (Location: 14 Sir Christopher Ondaatje Ave - Mason Theatre)
3	No classes/lectures
4	No classes/lectures
5	No classes/lectures
6	Guest Lecture on Agile Methods/ Minimum Viable Product/Presentations - required attendance (Location: 14 Sir Christopher Ondaatje Ave - Mason Theatre)
7	No classes/lectures
8	No classes/lectures
9	No classes/lectures
10	No classes/lectures
11	No classes/lectures
12	Exam preparation including Ethics and Professionalism Training. (Location: 14 Sir Christopher Ondaatje Ave - Mason Theatre)
13	Group presentation (5-9pm) - required attendance (Location: TBA)

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) (<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.*)

Students seeking more policy resources can visit the [Student Policy Gateway](https://students.mq.edu.au/support/study/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](http://staff.mq.edu.au/work/strategy-planning-and-governance/university-policies-and-procedures/policy-central) (<http://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 Enquiry Service

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

Equity 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.

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

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.

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 special consideration 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

P	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 degree 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, practical and tutorial 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 degree 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.

https://www.mq.edu.au/_data/assets/pdf_file/0015/162501/MU-PACE-Governance-and-Guidelines-Booklet-Mar16-WEB.pdf

PACE Activity – Early Commencement 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.html

PACE - Managing Other Commitments 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://www.mq.edu.au/policy/docs/participation_activity/procedure.html

PACE - Reasonable Adjustments, Guideline and Procedure: 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).

http://mq.edu.au/policy/docs/reasonable_adjust_pace/guideline.html

http://www.mq.edu.au/policy/docs/reasonable_adjust_pace/procedure.html

PACE activities requiring background checks: 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 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.

PACE and Ethical Practice: 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.

PACE and IP: 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.

PACE Grants and Prizes: 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/