



ISYS358

Computing Industry Project

S2 Day 2017

Dept of Computing

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Disclaimer

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General Information

Unit convenor and teaching staff

Lecturer

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E6A 328

email for an appointment

Convenor

Stephen Smith

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Credit points

3

Prerequisites

(39cp at 100 level or above) including (COMP247 or COMP249 or COMP255 or COMP257 or ISYS254)

Corequisites

6cp from 300 level units

Co-badged status

ISYS355 COMP355 COMP356

Unit description

This unit draws together learning in previous units to prepare students for the workplace. Students work in teams to develop a project plan which is used to manage gathering, modelling and specification of requirements, and develop an appropriate design to solve a given problem, potentially delivering a substantial software product. All projects will involve the development of supporting project documentation appropriate to an information systems setting. 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://www.mq.edu.au/study/calendar-of-dates>

Learning Outcomes

On successful completion of this unit, you will be able to:

Critically analyse, describe and apply principles and models of software development and how they fit within the larger context of systems engineering

Understand and perform the stages of the software development life-cycle (requirements analysis, design, construction, testing) and its different process models in an authentic context

Understand and make use of the basic principles of project management, teamwork, the roles and responsibilities of the project manager and appreciate the importance of working closely with the project's customer and the delivered system's end-user(s)

Effectively Communicate results of the software development process (in both written and oral form)

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/

Assessment Tasks

Name	Weighting	Hurdle	Due
<u>Working in Teams Workshop</u>	1%	No	Thursday 10/8/17 5-7pm
<u>Feasibility Study</u>	7%	No	Monday 14/08/17 5pm
<u>Project Plan & SRS</u>	13%	No	Friday 1/09/17 5pm
<u>Increment 1</u>	13%	No	Wednesday 4/10/17 5pm
<u>Increment 2</u>	13%	No	Thursday 26/10/17 5pm
<u>Presentation/Demonstration</u>	20%	No	Thursday 9/11/17, 5pm
<u>Delivery of Product to Sponsor</u>	8%	No	10/11/17 - 30/11/17
<u>Final Examination</u>	25%	No	TBA

Working in Teams Workshop

Due: **Thursday 10/8/17 5-7pm**

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:

- Understand and make use of the basic principles of project management, teamwork, the roles and responsibilities of the project manager and appreciate the importance of working closely with the project's customer and the delivered system's end-user(s)

Feasibility Study

Due: **Monday 14/08/17 5pm**

Weighting: **7%**

Submit in paper form - E6A assignment boxes (level 1)

On successful completion you will be able to:

- Critically analyse, describe and apply principles and models of software development and how they fit within the larger context of systems engineering
- Understand and perform the stages of the software development life-cycle (requirements analysis, design, construction, testing) and its different process models in an authentic

context

Project Plan & SRS

Due: **Friday 1/09/17 5pm**

Weighting: **13%**

Project Plan and Software Requirements Specification

Submit in paper form - E6A assignment boxes (level 1)

On successful completion you will be able to:

- Critically analyse, describe and apply principles and models of software development and how they fit within the larger context of systems engineering
- Understand and perform the stages of the software development life-cycle (requirements analysis, design, construction, testing) and its different process models in an authentic context
- Understand and make use of the basic principles of project management, teamwork, the roles and responsibilities of the project manager and appreciate the importance of working closely with the project's customer and the delivered system's end-user(s)

Increment 1

Due: **Wednesday 4/10/17 5pm**

Weighting: **13%**

Increment 1: Updated Plan, Requirements, Design, Test Cases, Prototype

Submit in paper form - E6A assignment boxes (level 1)

On successful completion you will be able to:

- Critically analyse, describe and apply principles and models of software development and how they fit within the larger context of systems engineering
- Understand and perform the stages of the software development life-cycle (requirements analysis, design, construction, testing) and its different process models in an authentic context

Increment 2

Due: **Thursday 26/10/17 5pm**

Weighting: **13%**

Increment 2: Updated Plan, Requirements, Design, Test Cases, Prototype

Submit in paper form - E6A assignment boxes (level 1)

On successful completion you will be able to:

- Critically analyse, describe and apply principles and models of software development and how they fit within the larger context of systems engineering
- Understand and perform the stages of the software development life-cycle (requirements analysis, design, construction, testing) and its different process models in an authentic context

Presentation/Demonstration

Due: **Thursday 9/11/17, 5pm**

Weighting: **20%**

Presentation/Demonstration (8 - includes individual component), RTM , User Manual(4) and Final Report(8)

On successful completion you will be able to:

- Understand and make use of the basic principles of project management, teamwork, the roles and responsibilities of the project manager and appreciate the importance of working closely with the project's customer and the delivered system's end-user(s)
- Effectively Communicate results of the software development process (in both written and oral form)
- Recognise and address ethical issues when they arise based on an understanding of professional ethics

Delivery of Product to Sponsor

Due: **10/11/17 - 30/11/17**

Weighting: **8%**

Delivery of Final Product (e.g. documentation, files and software running on sponsor's machine) as agreed with Sponsor (8). 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:

- Effectively Communicate results of the software development process (in both written and oral form)
- Recognise and address ethical issues when they arise based on an understanding of professional ethics

Final Examination

Due: **TBA**

Weighting: **25%**

2 hour Final Examination.

On successful completion you will be able to:

- Critically analyse, describe and apply principles and models of software development and how they fit within the larger context of systems engineering
- Understand and make use of the basic principles of project management, teamwork, the roles and responsibilities of the project manager and appreciate the importance of working closely with the project's customer and the delivered system's end-user(s)
- Effectively Communicate results of the software development process (in both written and oral form)
- Recognise and address ethical issues when they arise based on an understanding of professional ethics

Delivery and Resources

ISYS355/ISYS358/COMP355/COMP356 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 on Thursday 3rd August 2017. 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
2	"Working in Teams" workshop - location E7B T3 - required attendance
3	Lectures on project plans, requirements documents, UML, Design and testing
4	No classes/lectures
5	No classes/lectures
6	Guest Lecture on Agile Methods - required attendance
7	No classes/lectures
8	No classes/lectures
9	No classes/lectures
10	No classes/lectures
11	Exam. preparation and ethics module
12	No classes/lectures
13	Group presentation of system (5-9pm) - required attendance

Learning and Teaching Activities

Week 1 Team Allocation

COMPULSORY - groups allocated, project management introduction

Week 2 "Working in Teams" workshop

COMPULSORY - location E7B T3

Week 3 Lectures/Revision

on project plans, requirements documents, UML, Design and testing

Week 6 Guest Lecture

COMPULSORY - Guest Lecture

Week 11 Exam preparation

Exam preparation and ethics module (examinable)

Week 13

COMPULSORY - Group presentation of system

Learning and Teaching Tips

To be successful you should: Meet with your group regularly, ideally weekly. Make sure you take notes, set agendas and action items and at the start of each meeting check the status of all action items. Attend the compulsory class sessions. Read appropriate material to support the technical and management aspects of your project. Perform the tasks assigned to you.

Undertake self-study to acquire missing knowledge and skills needed for your particular project.

Continually review and revise your project plan and ensure you are working to meet delivery of milestones by the specified time.

Learning and Teaching Strategies

COMP355/6 & ISYS355/8 is taught through the involvement in a group project. Much of what is learnt is gained through experience and problem solving at the individual and group level. The unit will require the student to apply knowledge and skills gained in previous units and also require the student to acquire new knowledge and skills which will vary for each student and project according to the problem needing to be solved. The content of the unit includes: Self-study of previous learning material and resources found online and at your organisation.

Identification of knowledge and skill gaps and how to address these training needs via self-study.

Preparation of a detailed project proposal and plan. Undertaking an extended group project.

Preparation of intermediate and final project deliverables. Acceptance of project deliverable(s) by customer. Preparation of a final reflective report. A group project presentation.

Policies and Procedures

Macquarie University policies and procedures are accessible from [Policy Central](#). Students should be aware of the following policies in particular with regard to Learning and Teaching:

Academic Honesty Policy http://mq.edu.au/policy/docs/academic_honesty/policy.html

Assessment Policy http://mq.edu.au/policy/docs/assessment/policy_2016.html

Grade Appeal Policy <http://mq.edu.au/policy/docs/gradeappeal/policy.html>

Complaint Management Procedure for Students and Members of the Public <http://www.mq.edu.a>

[u/policy/docs/complaint_management/procedure.html](http://www.mq.edu.au/policy/docs/complaint_management/procedure.html)

Disruption to Studies Policy (in effect until Dec 4th, 2017): http://www.mq.edu.au/policy/docs/disruption_studies/policy.html

Special Consideration Policy (in effect from Dec 4th, 2017): <https://staff.mq.edu.au/work/strategy-planning-and-governance/university-policies-and-procedures/policies/special-consideration>

In addition, a number of other policies can be found in the [Learning and Teaching Category](#) of Policy Central.

Student Code of Conduct

Macquarie University students have a responsibility to be familiar with the Student Code of Conduct: https://students.mq.edu.au/support/student_conduct/

Results

Results shown in *iLearn*, 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.

Student Support

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

Learning Skills

Learning Skills (mq.edu.au/learningskills) provides academic writing resources and study strategies to improve your marks and take control of your study.

- [Workshops](#)
- [StudyWise](#)
- [Academic Integrity Module for Students](#)
- [Ask a Learning Adviser](#)

Student Services and Support

Students with a disability are encouraged to contact the [Disability Service](#) who can provide appropriate help with any issues that arise during their studies.

Student Enquiries

For all student enquiries, visit Student Connect at ask.mq.edu.au

IT Help

For help with University computer systems and technology, visit http://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 outcome

- Understand and perform the stages of the software development life-cycle (requirements analysis, design, construction, testing) and its different process models in an authentic context

Assessment tasks

- Feasibility Study
- Increment 1
- Increment 2

Learning and teaching activities

- COMPULSORY - groups allocated, project management introduction
- COMPULSORY - location E7B T3
- on project plans, requirements documents, UML, Design and testing
- COMPULSORY - Guest Lecture
- To be successful you should: Meet with your group regularly, ideally weekly. Make sure you take notes, set agendas and action items and at the start of each meeting check the status of all action items. Attend the compulsory class sessions. Read appropriate material to support the technical and management aspects of your project. Perform the tasks assigned to you. Undertake self-study to acquire missing knowledge and skills needed for your particular project. Continually review and revise your project plan and ensure you are working to meet delivery of milestones by the specified time.
- COMP355/6 & ISYS355/8 is taught through the involvement in a group project. Much of what is learnt is gained through experience and problem solving at the individual and group level. The unit will require the student to apply knowledge and skills gained in previous units and also require the student to acquire new knowledge and skills which will vary for each student and project according to the problem needing to be solved. The content of the unit includes: Self-study of previous learning material and resources found

online and at your organisation. Identification of knowledge and skill gaps and how to address these training needs via self-study. Preparation of a detailed project proposal and plan. Undertaking an extended group project. Preparation of intermediate and final project deliverables. Acceptance of project deliverable(s) by customer. Preparation of a final reflective report. A group project presentation.

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

- Understand and make use of the basic principles of project management, teamwork, the roles and responsibilities of the project manager and appreciate the importance of working closely with the project's customer and the delivered system's end-user(s)
- Recognise and address ethical issues when they arise based on an understanding of professional ethics

Assessment tasks

- Working in Teams Workshop
- Project Plan & SRS
- Presentation/Demonstration
- Delivery of Product to Sponsor
- Final Examination

Learning and teaching activities

- Exam preparation and ethics module (examinable)
- To be successful you should: Meet with your group regularly, ideally weekly. Make sure you take notes, set agendas and action items and at the start of each meeting check the status of all action items. Attend the compulsory class sessions. Read appropriate material to support the technical and management aspects of your project. Perform the tasks assigned to you. Undertake self-study to acquire missing knowledge and skills needed for your particular project. Continually review and revise your project plan and ensure you are working to meet delivery of milestones by the specified time.
- COMP355/6 & ISYS355/8 is taught through the involvement in a group project.

Much of what is learnt is gained through experience and problem solving at the individual and group level. The unit will require the student to apply knowledge and skills gained in previous units and also require the student to acquire new knowledge and skills which will vary for each student and project according to the problem needing to be solved. The content of the unit includes: Self-study of previous learning material and resources found online and at your organisation. Identification of knowledge and skill gaps and how to address these training needs via self-study. Preparation of a detailed project proposal and plan. Undertaking an extended group project. Preparation of intermediate and final project deliverables. Acceptance of project deliverable(s) by customer. Preparation of a final reflective report. A group project presentation.

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 outcome

- Understand and perform the stages of the software development life-cycle (requirements analysis, design, construction, testing) and its different process models in an authentic context

Assessment task

- Feasibility Study

Learning and teaching activity

- Exam preparation and ethics module (examinable)
- To be successful you should: Meet with your group regularly, ideally weekly. Make sure you take notes, set agendas and action items and at the start of each meeting check the status of all action items. Attend the compulsory class sessions. Read appropriate material to support the technical and management aspects of your project. Perform the tasks assigned to you. Undertake self-study to acquire missing knowledge and skills needed for your particular project. Continually review and revise your project plan and ensure you are working to meet delivery of milestones by the specified time.
- COMP355/6 & ISYS355/8 is taught through the involvement in a group project. Much of what is learnt is gained through experience and problem solving at the individual

and group level. The unit will require the student to apply knowledge and skills gained in previous units and also require the student to acquire new knowledge and skills which will vary for each student and project according to the problem needing to be solved. The content of the unit includes: Self-study of previous learning material and resources found online and at your organisation. Identification of knowledge and skill gaps and how to address these training needs via self-study. Preparation of a detailed project proposal and plan. Undertaking an extended group project. Preparation of intermediate and final project deliverables. Acceptance of project deliverable(s) by customer. Preparation of a final reflective report. A group project presentation.

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

- Critically analyse, describe and apply principles and models of software development and how they fit within the larger context of systems engineering
- Understand and perform the stages of the software development life-cycle (requirements analysis, design, construction, testing) and its different process models in an authentic context
- Understand and make use of the basic principles of project management, teamwork, the roles and responsibilities of the project manager and appreciate the importance of working closely with the project's customer and the delivered system's end-user(s)

Assessment tasks

- Project Plan & SRS
- Increment 1
- Increment 2
- Final Examination

Learning and teaching activities

- on project plans, requirements documents, UML, Design and testing

- To be successful you should: Meet with your group regularly, ideally weekly. Make sure you take notes, set agendas and action items and at the start of each meeting check the status of all action items. Attend the compulsory class sessions. Read appropriate material to support the technical and management aspects of your project. Perform the tasks assigned to you. Undertake self-study to acquire missing knowledge and skills needed for your particular project. Continually review and revise your project plan and ensure you are working to meet delivery of milestones by the specified time.
- COMP355/6 & ISYS355/8 is taught through the involvement in a group project. Much of what is learnt is gained through experience and problem solving at the individual and group level. The unit will require the student to apply knowledge and skills gained in previous units and also require the student to acquire new knowledge and skills which will vary for each student and project according to the problem needing to be solved. The content of the unit includes: Self-study of previous learning material and resources found online and at your organisation. Identification of knowledge and skill gaps and how to address these training needs via self-study. Preparation of a detailed project proposal and plan. Undertaking an extended group project. Preparation of intermediate and final project deliverables. Acceptance of project deliverable(s) by customer. Preparation of a final reflective report. A group project presentation.

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 outcome

- Critically analyse, describe and apply principles and models of software development and how they fit within the larger context of systems engineering

Assessment tasks

- Feasibility Study
- Increment 1
- Increment 2
- Final Examination

Learning and teaching activities

- on project plans, requirements documents, UML, Design and testing
- Exam preparation and ethics module (examinable)
- To be successful you should: Meet with your group regularly, ideally weekly. Make sure you take notes, set agendas and action items and at the start of each meeting check the status of all action items. Attend the compulsory class sessions. Read appropriate material to support the technical and management aspects of your project. Perform the tasks assigned to you. Undertake self-study to acquire missing knowledge and skills needed for your particular project. Continually review and revise your project plan and ensure you are working to meet delivery of milestones by the specified time.
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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 outcome

- Understand and perform the stages of the software development life-cycle (requirements analysis, design, construction, testing) and its different process models in an authentic context

Assessment tasks

- Feasibility Study

- Increment 1
- Increment 2
- Final Examination

Learning and teaching activities

- on project plans, requirements documents, UML, Design and testing
- Exam preparation and ethics module (examinable)
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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

- Understand and make use of the basic principles of project management, teamwork, the roles and responsibilities of the project manager and appreciate the importance of working closely with the project's customer and the delivered system's end-user(s)

- Effectively Communicate results of the software development process (in both written and oral form)

Assessment tasks

- Working in Teams Workshop
- Feasibility Study
- Project Plan & SRS
- Increment 1
- Increment 2
- Presentation/Demonstration
- Delivery of Product to Sponsor
- Final Examination

Learning and teaching activities

- COMPULSORY - groups allocated, project management introduction
- COMPULSORY - location E7B T3
- on project plans, requirements documents, UML, Design and testing
- COMPULSORY - Group presentation of system
- To be successful you should: Meet with your group regularly, ideally weekly. Make sure you take notes, set agendas and action items and at the start of each meeting check the status of all action items. Attend the compulsory class sessions. Read appropriate material to support the technical and management aspects of your project. Perform the tasks assigned to you. Undertake self-study to acquire missing knowledge and skills needed for your particular project. Continually review and revise your project plan and ensure you are working to meet delivery of milestones by the specified time.
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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

- Understand and make use of the basic principles of project management, teamwork, the roles and responsibilities of the project manager and appreciate the importance of working closely with the project's customer and the delivered system's end-user(s)
- Recognise and address ethical issues when they arise based on an understanding of professional ethics

Assessment tasks

- Presentation/Demonstration
- Delivery of Product to Sponsor

Learning and teaching activities

- on project plans, requirements documents, UML, Design and testing
- To be successful you should: Meet with your group regularly, ideally weekly. Make sure you take notes, set agendas and action items and at the start of each meeting check the status of all action items. Attend the compulsory class sessions. Read appropriate material to support the technical and management aspects of your project. Perform the tasks assigned to you. Undertake self-study to acquire missing knowledge and skills needed for your particular project. Continually review and revise your project plan and ensure you are working to meet delivery of milestones by the specified time.
- COMP355/6 & ISYS355/8 is taught through the involvement in a group project. Much of what is learnt is gained through experience and problem solving at the individual and group level. The unit will require the student to apply knowledge and skills gained in previous units and also require the student to acquire new knowledge and skills which will vary for each student and project according to the problem needing to be solved. The content of the unit includes: Self-study of previous learning material and resources found online and at your organisation. Identification of knowledge and skill gaps and how to address these training needs via self-study. Preparation of a detailed project proposal

and plan. Undertaking an extended group project. Preparation of intermediate and final project deliverables. Acceptance of project deliverable(s) by customer. Preparation of a final reflective report. A group project presentation.

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 outcome

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

Assessment tasks

- Presentation/Demonstration
- Delivery of Product to Sponsor

Learning and teaching activities

- Exam preparation and ethics module (examinable)
- To be successful you should: Meet with your group regularly, ideally weekly. Make sure you take notes, set agendas and action items and at the start of each meeting check the status of all action items. Attend the compulsory class sessions. Read appropriate material to support the technical and management aspects of your project. Perform the tasks assigned to you. Undertake self-study to acquire missing knowledge and skills needed for your particular project. Continually review and revise your project plan and ensure you are working to meet delivery of milestones by the specified time.
- COMP355/6 & ISYS355/8 is taught through the involvement in a group project. Much of what is learnt is gained through experience and problem solving at the individual and group level. The unit will require the student to apply knowledge and skills gained in previous units and also require the student to acquire new knowledge and skills which will vary for each student and project according to the problem needing to be solved. The content of the unit includes: Self-study of previous learning material and resources found online and at your organisation. Identification of knowledge and skill gaps and how to address these training needs via self-study. Preparation of a detailed project proposal and plan. Undertaking an extended group project. Preparation of intermediate and final project deliverables. Acceptance of project deliverable(s) by customer. Preparation of a

final reflective report. A group project presentation.

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 a Supplementary Examination is granted as a result of the Special Consideration process the examination will be scheduled after the conclusion of the official examination period.

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/