COMP3770

Management of IT Systems and Projects

Session 1, In person-scheduled-weekday, North Ryde 2022

School of Computing

Contents

General Information

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Credit points
10

Prerequisites
130cp at 1000 level or above including 20cp in COMP or ISYS or ACCG or STAT or BUS or BBA or MGMT units at 2000 level

Corequisites

Co-badged status
COMP6770

Unit description
This unit aims to provide an understanding of how information technology systems and projects can be efficiently managed. This unit includes detailed study of techniques for planning, tracking and measuring software projects. Issues covered include: quality evaluation; estimation measurement techniques; and project risk planning and management. The unit provides a sound grounding in how projects can be managed in regards to quality assurance and risk assessment. The unit also covers issues in the management of IT systems, including: change management; configuration management and planning; people management; hardware asset management; and capacity planning and availability.

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: Demonstrate competence in planning, tracking and measuring Information technology projects; including the ability to undertake quality evaluation and estimation measurement techniques, and project risk planning and management.
ULO2: Analyse, describe and summarise appropriate techniques relating to: change management; configuration management and planning; human resource management; hardware asset management and capacity planning and availability.
ULO3: Demonstrate an understanding of the role of the CIO in analysing the information technology strategic direction of a firm, with the aim of recommending investment appropriate to the business context.
ULO4: Demonstrate confidence in leadership skills; communication skills; critical analysis skills; problem-solving skills and creative thinking skills.

General Assessment Information

Late submission:

Late submissions will be accepted but will incur a penalty unless there is an approved Special Consideration request. A 12-hour grace period will be given after which the following deductions will be applied to the awarded assessment mark: 12 to 24 hours late = 10% deduction; for each day thereafter, an additional 10% per day or part thereof will be applied until five days beyond the due date. After this time, a mark of zero (0) will be given. For example, an assessment worth

20% is due 5 pm on 1 January. Student A submits the assessment at 1 pm, 3 January. The assessment received a mark of 15/20. A 20% deduction is then applied to the mark of 15, resulting in the loss of three (3) marks. Student A is then awarded a final mark of 12/20.

Assessment Tasks

Name	Weighting	Hurdle	Due
Assignment 3	20%	No	19th May
Assignment 2	20%	No	14th April
Assignment 1	10%	No	17th March
Final examination	50%	No	6-24th June

Assignment 3

Assessment Type [1]: Project
Indicative Time on Task [2]: 20 hours
Due: **19th May**
Weighting: **20%**

Extensive background information is available for a failed system. Groups of 4 students will work on a new project plan outlining the context and business benefits and consider a more flexible project process model and formulate an effective risk management plan. A comprehensive report is required.

On successful completion you will be able to:

- Demonstrate competence in planning, tracking and measuring Information technology projects; including the ability to undertake quality evaluation and estimation measurement techniques, and project risk planning and management.
- Analyse, describe and summarise appropriate techniques relating to: change management; configuration management and planning; human resource management; hardware asset management and capacity planning and availability.
- Demonstrate an understanding of the role of the CIO in analysing the information technology strategic direction of a firm, with the aim of recommending investment appropriate to the business context.
- Demonstrate confidence in leadership skills; communication skills; critical analysis skills; problem-solving skills and creative thinking skills.

Assignment 2

Assessment Type [1]: Modelling task

Indicative Time on Task [2]: 20 hours
Due: **14th April**
Weighting: **20%**

A briefing on a contemporary IT project is given. The assignment involves planning the project with the assistance of MS Project and then providing a succinct Project Management Plan which includes the Gantt Chart, Network Diagram, Resource Allocation and addresses scope, objectives, success metrics, controls and risk management.

On successful completion you will be able to:

- Demonstrate competence in planning, tracking and measuring Information technology projects; including the ability to undertake quality evaluation and estimation measurement techniques, and project risk planning and management.
- Analyse, describe and summarise appropriate techniques relating to: change management; configuration management and planning; human resource management; hardware asset management and capacity planning and availability.

Assignment 1

Assessment Type [1]: Literature review
Indicative Time on Task [2]: 10 hours
Due: **17th March**
Weighting: **10%**

A literature review on an area of IT Project Management.

On successful completion you will be able to:

- Demonstrate competence in planning, tracking and measuring Information technology projects; including the ability to undertake quality evaluation and estimation measurement techniques, and project risk planning and management.

Final examination

Assessment Type [1]: Examination
Indicative Time on Task [2]: 40 hours
Due: **6-24th June**
Weighting: **50%**

A final closed book examination will cover all lecture, reference and tutorial material.

On successful completion you will be able to:

- Demonstrate competence in planning, tracking and measuring Information technology projects; including the ability to undertake quality evaluation and estimation

measurement techniques, and project risk planning and management.
- Analyse, describe and summarise appropriate techniques relating to: change management; configuration management and planning; human resource management; hardware asset management and capacity planning and availability.
- Demonstrate an understanding of the role of the CIO in analysing the information technology strategic direction of a firm, with the aim of recommending investment appropriate to the business context.
- Demonstrate confidence in leadership skills; communication skills; critical analysis skills; problem-solving skills and creative thinking skills.

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

- the academic teaching staff in your unit for guidance in understanding or completing this type of assessment
- the Writing Centre for academic skills support.

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

Delivery and Resources

Classes

Each week you should attend two hours of lectures and a practical (from week 2). For details of days, times and rooms consult the timetables webpage.

Note that practicals commence in week 2.

Resources to assist your learning

Digital recordings of lectures are available as **Echo360** through iLearn login.

Textbook

The textbook for COMP3770/6770 used this semester is:

- **Schwalbe, K., (2019) *Information Technology Project Management* 9th Ed. Thomson Course Technology Boston Mass. U.S.A**

Technology used

Use will be made of MS Project, Google Code, JIRA, TRAC and GitHub. Students are also expected to make use of MS Word and MS Powerpoint.

Submission methods for assessment tasks:

Only soft copy assignment submissions are required and submitted. Marks returned will be done through the COMP3770/6770 page on iLearn.

Extensions

The current process is for the student or group to contact student services and apply for a disruption. Medical causes will require a Macquarie University Professional Authority Form. Once a disruption has been approved, the convenor can grant special consideration which is usually an appropriate extension.

Exam:

The final exam will focus on content covered in the classes throughout the semester. Please see the assessments section for details on the final exam.

Unit Schedule

Week	Lecture	Lecture References	Practicals	Assignments
1 - Peter	Unit outline Introduction to PM The IT context	Unit guide Schwalbe Chap 1 Schwalbe Chap 2		**Assign 1 released – PM report**
2 - Peter	Scope management	Schwalbe Chap 5	MS Project, Part 1	
3 - Peter	Time/schedule management	Schwalbe Chap 6	MS Project, Part 2	**Assign 2 released: Project planning - due 14/4/22**
4 - Peter	Cost management	Schwalbe Chap 7	Google Code	**Assign 1 due 17/3/22**
5 - Peter	Quality management	Schwalbe Chap 8	GitHub	
6 - Peter	Project Management Process Integration management	Schwalbe Chap 3 Schwalbe Chap 4	JIRA and TRAC	
7 - Jian	HR/resource management	Schwalbe Chap 9		**Assign 3 released: due week 11 (19/5/22)**
Mid Semester Break - 9-25th April				**Assign 2 due 14/4/22**
8 - Jian	**No lecture - ANZAC DAY**		Group time	
9 - Jian	Communication management	Schwalbe Chap 10	Group time	
10 - Jian	Risk management	Schwalbe Chap 11	Group time	
11 - Jian	Procurement management Stakeholder management	Schwalbe Chap 12 Schwalbe Chap 13	Group time	**Assign 3 due 19/5/22**

12 - Jian	The Internet of Things	BI Intelligence, 2014		
13 - Peter/ Jian	Exam revision	Exam topics will be outlined		
Exam	6-24th June	Check online for details		50% of Final Mark

Policies and Procedures

Macquarie University policies and procedures are accessible from Policy Central (https://policies.mq.edu.au). Students should be aware of the following policies in particular with regard to Learning and Teaching:

- Academic Appeals Policy
- Academic Integrity Policy
- Academic Progression Policy
- Assessment Policy
- Fitness to Practice Procedure
- Assessment Procedure
- Complaints Resolution Procedure for Students and Members of the Public
- Special Consideration Policy

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

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

Student Code of Conduct

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

Results

Results published on platform other than eStudent, (eg. iLearn, Coursera etc.) or released directly by your Unit Convenor, are not confirmed as they are subject to final approval by the University. Once approved, final results will be sent to your student email address and will be made available in eStudent. For more information visit ask.mq.edu.au or if you are a Global MBA student contact globalmba.support@mq.edu.au

Academic Integrity

At Macquarie, we believe academic integrity – honesty, respect, trust, responsibility, fairness and courage – is at the core of learning, teaching and research. We recognise that meeting the expectations required to complete your assessments can be challenging. So, we offer you a

range of resources and services to help you reach your potential, including free online writing and maths support, academic skills development and wellbeing consultations.

Student Support

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

The Writing Centre

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

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

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

- Subject and Research Guides
- Ask a Librarian

Student Services and Support

Macquarie University offers a range of Student Support Services including:

- IT Support
- Accessibility and disability support with study
- Mental health support
- Safety support to respond to bullying, harassment, sexual harassment and sexual assault
- Social support including information about finances, tenancy and legal issues

Student Enquiries

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

IT Help

For help with University computer systems and technology, visit http://www.mq.edu.au/about_us/offices_and_units/information_technology/help/.

When using the University's IT, you must adhere to the Acceptable Use of IT Resources Policy. The policy applies to all who connect to the MQ network including students.

Changes from Previous Offering

There is some change in the ordering of the material and the weeks in which the material is presented.

Mr Zhang has been unable to continue to demonstrate on this unit and so has been replaced by Ms. Soltani and Mr. Sagar

Standards

Four standards, namely HD, D, CR, P summarize as many different levels of achievement. Each standard is precisely defined to help students know what kind of performance is expected to deserve a certain mark. The standards corresponding to the learning outcomes of this unit are given below:

HD	Apply techniques and knowledge in new contexts, show breadth and depth of understanding of quality evaluation, estimation measurement, project risk planning and measurement. Can use MS Project and Sharepoint to solve problems with high accuracy.	A sound grounding in how projects can be managed in regards to quality assurance and risk assessment. Show breadth and depth of understandings on issues in the management of IT systems, including: change management, configuration management and plannig, People management, hardware asset management and capacity planning and availability. Able to apply these techniques and knowledge in new contexts.	Demonstrate leadership, creativity,critical thinking and analysis skills. Enthusiatic in acquring new knowledge in the IS project management area. Demonstrate capability in applying new IS project management knowledge to solve real-world problems. Conduct team work effectively and play a key role in moving the whole project team forward.
D	Apply techniques and knowledge in some new contexts, show breadth and depth of understanding across most of the topics including: quality evaluation, estimation measurement, project risk planning and measurement. Can use MS Project to solve problems, with limited errors.	A sound grounding in most topics related to how projects can be managed in regards to quality assurance and risk assessment. Show breadth and depth of understandings on most issues in the management of IT systems, including: change management, configuration management and plannig, People management, hardware asset management and capacity planning and availability. Able to apply these techniques and knowledge in some new contexts.	Demonstrate some leadership occasionally. Show creativity, critical thinking and analysis skills. Have the capability in applying IS project management knowledge to solve real-world problems. Collaborate with team members well and finish assigned tasks on time and with good quality.
CR	Show breadth of understanding across most of the topics including: quality evaluation, estimation measurement, project risk planning and measurement. Have fundamental knowledge about how to use MS Project, but with some non-major errors.	Understands some aspects of how projects can be managed in regards to quality assurance and risk assessment. Show breadth of understandings on most issues in the management of IT systems, including: change management, configuration management and plannig, People management, hardware asset management and capacity planning and availability.	Demonstrate analysis skills in some occasions. Know how to apply IS project management knowledge to solve some of the real-world problems. Able to finish assigned tasks on time and with good quality most of the time.

P	Can reproduce definitions and ideas, show some breadth of understanding of the topics including: quality evaluation, estimation measurement, project risk planning and measurement. Some knowledge about MS Project with a few major misunderstandings or mistakes.	Can reproduce some defintions and ideas, show some breadth on issues in the management of IT systems, including: change management, configuration management and plannig, People management, hardware asset management and capacity planning and availability.	Demonstrate limited analysis skills. Can apply IS project management knowledge to solve limited real-world problems. Able to finish all assigned tasks on time and with acceptable quality.

Grading

At the end of the semester, you will receive a grade that reflects your achievement in the unit

- **Fail (F)**: does not provide evidence of attainment of all learning outcomes. There is missing or partial or superficial or faulty understanding and application of the fundamental concepts in the field of study; and incomplete, confusing or lacking communication of ideas in ways that give little attention to the conventions of the discipline.
- **Pass (P)**: provides sufficient evidence of the achievement of learning outcomes. There is demonstration of understanding and application of fundamental concepts of the field of study; and communication of information and ideas adequately in terms of the conventions of the discipline. The learning attainment is considered satisfactory or adequate or competent or capable in relation to the specified outcomes.
- **Credit (Cr)**: provides evidence of learning that goes beyond replication of content knowledge or skills relevant to the learning outcomes. There is demonstration of substantial understanding of fundamental concepts in the field of study and the ability to apply these concepts in a variety of contexts; plus communication of ideas fluently and clearly in terms of the conventions of the discipline.
- **Distinction (D)**: provides evidence of integration and evaluation of critical ideas, principles and theories, distinctive insight and ability in applying relevant skills and concepts in relation to learning outcomes. There is demonstration of frequent originality in defining and analysing issues or problems and providing solutions; and the use of means of communication appropriate to the discipline and the audience.
- **High Distinction (HD)**: provides consistent evidence of deep and critical understanding in relation to the learning outcomes. There is substantial originality and insight in identifying, generating and communicating competing arguments, perspectives or problem solving approaches; critical evaluation of problems, their solutions and their implications; creativity in application.

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.

Changes since First Published

Date	Description
22/02/2022	Behnaz's email address now reflects her staff one (which has just been activated).
16/02/2022	Mr. Zhang is being replaced by Ms. Soltani and Mr. Sagar.