



# ISYS302

## Management of IT Systems and Projects

S1 Day 2014

*Computing*

### Contents

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<u>General Information</u>	2
<u>Learning Outcomes</u>	2
<u>Assessment Tasks</u>	3
<u>Delivery and Resources</u>	5
<u>Unit Schedule</u>	7
<u>Policies and Procedures</u>	8
<u>Graduate Capabilities</u>	11
<u>Standards</u>	15
<u>Changes since First Published</u>	17

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## General Information

Unit convenor and teaching staff

Unit Convenor

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Credit points

3

Prerequisites

39cp including [(ISYS254(P) or COMP255(P) or ISYS227(P) or COMP227(P)) and (6cp(P) in COMP or ISYS or ACCG or STAT or BUS or BBA units at 200 level)]

Corequisites

Co-badged status

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:

Competence in planning, tracking and measuring Information Technology projects;

including the ability to undertake quality evaluation estimation measurement techniques, and project risk planning and management.

Competence in techniques relating to: change management; configuration management and planning; human resource management; hardware asset management and capacity planning and availability.

Confidence in leadership skills; communication skills; critical analysis skills; problem-solving skills and creative thinking skills.

## Assessment Tasks

Name	Weighting	Due
<a href="#"><u>Individual assignment 1</u></a>	15%	27/3/2014
<a href="#"><u>Group Assignment 3</u></a>	20%	3/6/14
<a href="#"><u>Presentation Assignment 3</u></a>	10%	Week 12
<a href="#"><u>Individual assignment 2</u></a>	15%	1/5/14
<a href="#"><u>Exam</u></a>	40%	June 16 - 28

### Individual assignment 1

Due: **27/3/2014**

Weighting: **15%**

Project Plan using MS Project 2013

On successful completion you will be able to:

- Competence in planning, tracking and measuring Information Technology projects; including the ability to undertake quality evaluation estimation measurement techniques, and project risk planning and management.
- Competence in techniques relating to: change management; configuration management and planning; human resource management; hardware asset management and capacity planning and availability.
- Confidence in leadership skills; communication skills; critical analysis skills; problem-solving skills and creative thinking skills.

### Group Assignment 3

Due: **3/6/14**

Weighting: **20%**

Extensive background information is available for the failed Queensland Health Payroll system including a 2012 Commission of Enquiry Report. 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 consideration of an effective risk management plan.

This group assignment is individually marked.

On successful completion you will be able to:

- Competence in planning, tracking and measuring Information Technology projects; including the ability to undertake quality evaluation estimation measurement techniques, and project risk planning and management.
- Competence in techniques relating to: change management; configuration management and planning; human resource management; hardware asset management and capacity planning and availability.
- Confidence in leadership skills; communication skills; critical analysis skills; problem-solving skills and creative thinking skills.

## Presentation Assignment 3

Due: **Week 12**

Weighting: **10%**

Group presents their Assignment 3 Report as a group but each team member is marked individually.

On successful completion you will be able to:

- Competence in planning, tracking and measuring Information Technology projects; including the ability to undertake quality evaluation estimation measurement techniques, and project risk planning and management.
- Competence in techniques relating to: change management; configuration management and planning; human resource management; hardware asset management and capacity planning and availability.
- Confidence in leadership skills; communication skills; critical analysis skills; problem-solving skills and creative thinking skills.

## Individual assignment 2

Due: **1/5/14**

Weighting: **15%**

A review is required of the tools used in the practical sessions including Google Code, Jira Project and GitHub.

On successful completion you will be able to:

- Competence in planning, tracking and measuring Information Technology projects; including the ability to undertake quality evaluation estimation measurement techniques, and project risk planning and management.
- Competence in techniques relating to: change management; configuration management and planning; human resource management; hardware asset management and capacity planning and availability.
- Confidence in leadership skills; communication skills; critical analysis skills; problem-solving skills and creative thinking skills.

## Exam

Due: **June 16 - 28**

Weighting: **40%**

Final closed book exam in June.

On successful completion you will be able to:

- Competence in planning, tracking and measuring Information Technology projects; including the ability to undertake quality evaluation estimation measurement techniques, and project risk planning and management.
- Competence in techniques relating to: change management; configuration management and planning; human resource management; hardware asset management and capacity planning and availability.
- Confidence in leadership skills; communication skills; critical analysis skills; problem-solving skills and creative thinking skills.

## Delivery and Resources

### Classes

Each week you should attend three hours of lectures, and a mixed class. For details of days, times and rooms consult the [timetables webpage](#).

Note that Tutorials/Practicals commence in week 1.

You should have selected a Mixed Class during enrolment. If you do not have a class, or if you wish to change one, you should see the enrolment operators in the E7B courtyard during the first two weeks of the semester. Thereafter you should go to the Student Centre.

Please note it is to your benefit to attend most of the tutorials/practicals.

### Resources to assist your learning

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

## Textbook

The textbook for ISYS302 used this semester is:

- Schwalbe, K., (2014) *Information Technology Project Management* 7th Ed. Thomson Course Technology Boston Mass. U.S.A

The following is a recommended textbook and is used for the series of IT Management lectures:

- Holtsnider, B. and Jaffe, B, (2012) *IT Manager's Handbook* 3rd Ed. Wiley.
- There is a low cost (USD 40) e-book that you can purchase from Elsevier: <http://store.elsevier.com/product.jsp?isbn=9780124159495&pagename=search>

Unit material

Material for the unit can be found at <http://learn.mq.edu.au>

## Technology used

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

## Discussion Boards

The unit makes use of discussion boards hosted within iLearn. Please post questions there, they are monitored by the staff on the unit.

### **Submission methods for assessment tasks:**

All soft copy assignment submissions / marks will be done through the ISYS302 page on iLearn. This will be the official form of assignment submission accepted for this course unless otherwise stated in the specification or through the discussion process of an extension (see below).

### **Late submission:**

Late submission of individual work will incur a 10% penalty for every 24 hours, or part thereof, it is late. So within 24 hours, the maximum mark that can be obtained is 90% of the full grade for that assessment task; between 24 and 48 hours, the maximum mark that can be obtained is 80% of the full grade; and so on. No extra documentation is required unless the student wishes to have an extension (see below) applied.

Late submissions of group based assignments are not permitted unless under exceptional circumstances with documentary evidence provided to the unit convenor which may include medical certificates as per the Department of Computing policy. One person being sick does not mean the group cannot submit work. Students are recommended to have a backup plan for group based submissions.

### **Extensions:**

Extensions without a grade penalty may be provided to groups or individuals who contact the

unit convenor BEFORE the submission deadline, and can provide documentary evidence of illness or other misadventure. If approved, a new submission timeline and submission method will be discussed on a case by case basis.

Students are strongly advised to contact the unit convenor as early as possible if there are any issues that will not make an on-time submission possible.

## 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.

## Website and access to unit material:

The web page and content for this unit can be found at iLearn: <https://ilearn.mq.edu.au/login/MQ/>. Note that the unit content is not publicly available and requires for you to log in to access.

## What has changed from last year:

The unit has been restructured to suit the new delivery with Ian Krycer and Eng Lim. A new textbook, Holtsnider, has been added to support the IT Management module and new case study workshops added to Weeks 8 to 11 to support the management material and Assignment 3. New assignments have been developed. The tools used to support IT project management have been updated.

## Unit Schedule

Week	Ian's Lecture	Eng's Lecture	Practicals and Tutorials	Assignments
1	Introduction to Project Management (Shwalbe Chap 1)	Scope Management (Shwalbe Chap 5)	MS Project (Eng)	Assign 1 – Project Plan using MS Project 2013, 15%, Due Week 4
2	IT Projects (Shwalbe Chap 2)	Project Process – Part 1 (Shwalbe Chap 3)	Google Code (Eng)	
3	Project HRM (Shwalbe Chap 9)	No Session	No Session	
4	Project Communications (Shwalbe Chap 10)	Project Process – Part 2 (Shwalbe Chap 3)	GitHub (Eng)	Assign 1 Due 5:00 pm on 27/3/14 Assign 2: Assessment of PM Tools, 15%, Due Week 7
5	Project Risk Management (Shwalbe Chap 11)	Project Integration – Part 1 (Shwalbe Chap 4)	JIRA (Eng)	

6	Project Procurement Management (Shwalbe Chap 12)	Project Integration – Part 2 (Shwalbe Chap 4)	No session	
7	Stakeholder Management (Shwalbe Chap 13)	Time Management – Part 1 (Shwalbe Chap 6)	No session	Assign 2 Due 5:00 pm on 1/5/14  Assign 3: QLD Payroll System Project Plan, 30%, Due Week 12
8	Succeeding as a Professional (Guest)  Managing IT Infrastructure (Holtsnider Chap 5)	Time Management – Part 2 (Shwalbe Chap 6)	Project Selection Case Study (Ian)	
9	Security and Compliance (Holtsnider Chap 8)  Disaster Recovery (Holtsnider Chap 9)	Cost Management – Part 1 (Shwalbe Chap 7)	Project Organisation Case Study (Ian)	
10	Project Management Challenges (Guest)	Cost Management – Part 2 (Shwalbe Chap 7)	Project Leadership Case Study (Ian)	
11	Working with Users (Holtsnider Chap 10)  Connectivity (Holtsnider Chap 11)	Quality Management – (Shwalbe Chap 8)	Work on Group Project (Ian)	
12	Group Presentations	Exam Briefing	No Session	Assign 3 Due 9:00 am on 3/6/14
13	Group Presentations	No Session	No Session	
Exam		Check online for details		40% of Final Mark

## 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](http://mq.edu.au/policy/docs/academic_honesty/policy.html)

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

Grading Policy <http://mq.edu.au/policy/docs/grading/policy.html>



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

Grievance Management Policy [http://mq.edu.au/policy/docs/grievance\\_management/policy.html](http://mq.edu.au/policy/docs/grievance_management/policy.html)

Disruption to Studies Policy [http://www.mq.edu.au/policy/docs/disruption\\_studies/policy.html](http://www.mq.edu.au/policy/docs/disruption_studies/policy.html) *The Disruption to Studies Policy is effective from March 3 2014 and replaces the Special Consideration Policy.*

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/](https://students.mq.edu.au/support/student_conduct/)

## Staff-Student Liaison Committee

The Department has established a Staff-Student Liaison Committee at each level (100, 200, 300) to provide all students studying a Computing unit the opportunity to discuss related issues or problems with both students and staff.

The committee meets three times during the semester. For each meeting, an agenda is issued and minutes are taken. These are posted on the web at <http://www.comp.mq.edu.au/undergrad/info/liaison/300-level/>

If you have exhausted all other avenues, then you should consult the Director of Teaching (Dr. Rolf Schwitter) or the Head of Department (Prof. Bernard Mans). You are entitled to have your concerns raised, discussed and resolved.

## Assessment policy

If you cannot complete a piece of work please see the convenor **before** the due date. Check also the [special consideration](#) policy. A more detailed description of each task is given below.

## Assessment tasks explained

As the table under assessment tasks indicates, there will be 6 assessment tasks.

- One individual diagnostic assignment
- One main individual assignment.
- One initial group document - marked individually
- One group assignment
- A presentation (in week 12) on the group assignment. Attendance at the presentation is compulsory.
- One final examination.

Your final grade will depend on your performance in each part separately. In particular:

- You must perform satisfactorily in the examination in order to pass this unit.
- You must submit a reasonable attempt the assignments to pass this unit.
- Failure to appear at your group presentation (without a very good reason) will count as 0.

All assignments should be handed in via the online system at <http://learn.mq.edu.au/> by the time specified in the assignment description.

All work submitted should be readable and well presented.

Late work will be accepted with a penalty of 10% of the marks for the assignment per day submitted late. Hence, an assignment submitted five days late will get at most half the marks. If you cannot submit on time because of illness or other circumstances, please contact the lecturer **before** the due date.

## Final Examination

For this unit, a final examination is fully appropriate to test learning and knowledge of all learning outcomes. In particular, It allows for accurate reflection of the degree of understanding of learning outcomes LO1 and LO2.

The final examination accounts for 50% of the final mark. The 2 sections of the unit:

1. Techniques for planning, tracking and measuring software projects
2. Issues in the management of IT systems.

are equally weighted.

Regarding the examination process, note that

- the University Examination period for Mid-Year 2013 is from Tuesday 11th June to Friday 28th June 2013
- you are expected to present yourself for examination at the time and place designated in the [University Examination Timetable](#)
- the timetable will be available in Draft form approximately eight weeks before the commencement of the examinations and in Final form approximately four weeks before the commencement of examinations
- no early examinations for individuals or groups of students will be set. All students are expected to ensure that they are available until the end of the teaching semester, that is the final day of the official examination period
- the only exception to not sitting an examination at the designated time is because of documented illness or unavoidable disruption. In these circumstances you may wish to consider applying for [Special Consideration](#).

## Student Support

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

[dents.mq.edu.au/support/](https://dents.mq.edu.au/support/)

## Learning Skills

Learning Skills ([mq.edu.au/learningskills](https://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](https://ask.mq.edu.au)

## IT Help

For help with University computer systems and technology, visit <http://informatics.mq.edu.au/help/>.

When using the University's IT, you must adhere to the [Acceptable Use Policy](#). The policy applies to all who connect to the MQ network including students.

## Graduate Capabilities

### 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 outcome

- Confidence in leadership skills; communication skills; critical analysis skills; problem-solving skills and creative thinking skills.

### Assessment tasks

- Individual assignment 1
- Group Assignment 3
- Individual assignment 2

## 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:

### Assessment tasks

- Group Assignment 3
- Presentation Assignment 3

## 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

- Competence in techniques relating to: change management; configuration management and planning; human resource management; hardware asset management and capacity planning and availability.
- Confidence in leadership skills; communication skills; critical analysis skills; problem-solving skills and creative thinking skills.

### Assessment tasks

- Individual assignment 1
- Group Assignment 3
- Individual assignment 2
- Exam

## 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 outcomes**

- Competence in planning, tracking and measuring Information Technology projects; including the ability to undertake quality evaluation estimation measurement techniques, and project risk planning and management.
- Competence in techniques relating to: change management; configuration management and planning; human resource management; hardware asset management and capacity planning and availability.

### **Assessment tasks**

- Individual assignment 1
- Group Assignment 3

## **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 outcomes**

- Competence in techniques relating to: change management; configuration management and planning; human resource management; hardware asset management and capacity planning and availability.
- Confidence in leadership skills; communication skills; critical analysis skills; problem-solving skills and creative thinking skills.

### **Assessment tasks**

- Individual assignment 1
- Group Assignment 3

## **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:

## Assessment task

- Group Assignment 3

## 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

- Competence in planning, tracking and measuring Information Technology projects; including the ability to undertake quality evaluation estimation measurement techniques, and project risk planning and management.
- Confidence in leadership skills; communication skills; critical analysis skills; problem-solving skills and creative thinking skills.

## Assessment tasks

- Group Assignment 3
- Presentation Assignment 3
- Individual assignment 2

## 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 outcome

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

## 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

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

## Assessment tasks

- Group Assignment 3
- Presentation Assignment 3

## Standards

### 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 planning, 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 acquiring 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 planning, 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 planning, 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 definitions and ideas, show some breadth on issues in the management of IT systems, including: change management, configuration management and planning, 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.

In this unit, your final grade depends on your performance in each part of the assessment. For each task, you receive a mark that combines your standard of performance regarding each learning outcome assessed by this task. Then the different component marks are added up to determine your total mark out of 100. Your grade then depends on this total mark and your overall standards of performance.

### In particular, **in order to pass the unit**, you must

- Have performed satisfactorily in the internal (assessment) components of the course.
- Have satisfactory performance in the final examination.

This means that you may fail the unit if you do not submit satisfactory submissions for the assignments or do not perform satisfactorily in the exam.

**Department of Computing expectations are that students have to perform satisfactorily in the final exam as well as in their internal work/assignments.**

Obtaining a grade higher than a Pass (P) in this unit will require a student to obtain (in addition to the above):

- the required total number of marks (Credit - 65, Distinction - 75, High Distinction - 85).

## Changes since First Published

Date	Description
14/01/2014	The Prerequisites was updated.