ITEC812

Special Topic in Information Technology

S2 Evening 2017

Dept of Computing

Contents

General Information

Unit convenor and teaching staff
Unit convenor
Manolya Kavakli-Thorne
manolya.kavakli@mq.edu.au
Contact via 029850 9572
E6A 372
Tuesdays,11am-12 noon

Credit points
4

Prerequisites
(Admission to MInfoTech or MEng or MSc) and 16cp from units at 800 level

Corequisites

Co-badged status

Unit description
The content and availability of this unit will vary subject to developments in the information and communications technology discipline and the availability of particular (often industrially-based) expertise. Special topic units present novel material of current interest and provide a context within which students may engage with emerging technologies and trends as they arise. As a requirement of this unit students must participate in an ethics workshop and satisfy the related assessment requirements.

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:

Plan and self-manage a survey, literature review or a cutting edge project demonstrating advanced project management and independent research skills with occasional input from academic staff assigned to supervise them.

Produce a technical document explaining concepts of systems analysis and design, as well as implementation of a novel system - or a detailed critical review and state of the art in a specific domain specifically for individuals who may have no technical

understanding of the topic.

Present a technical topic to experts and non-expects using appropriate software, tools and techniques available. The topic may be the presentation of the highest level of general development, as of a novel device, procedure, process, technique, or science achieved at a particular time, as a result of the existing methodologies employed.

Discuss and debate questions posed, in the given topic area.

Discuss and debate ethical issues relevant to the chosen topic, and investigate options for obtaining Human Ethics approval for further research.

General Assessment Information

Milestone and Final Report Format and Structure

Make sure your submission meets the following requirements.

1. Use formatting guidelines described on iLearn.

2. Your report covers an analysis or a development project. The table below suggests typical lengths for each situation, but note that these should be treated as indicative only: Your report needs to be long enough to describe in detail the work that you have done, but not so long that it discourages someone from reading it. Milestone report is expected to be 4 to 6 pages in length. Final reports are expected to be 8 pages in length.

3. The document should have a separate title page, and begin with an abstract or summary of 150-200 words in length that is able to stand alone as a concise and comprehensive description of the research problem, your project's objectives, significance, approach (methodology) and outcomes.

4. The body of the document should consist of a series of numbered sections and subsections; the exact nature and content of these will depend on the specifics of your project, as will the proportion of the available space accorded to each. Typically, you would have an introductory section that outlines the problem you are aiming to solve, and provides a road-map of the remainder of the document; this would then be followed by a background section that describes related work; then a number of sections which describe the work you have carried out, followed by a conclusion section which summarises what has been achieved, and what future work might be pursued.

5. Finally, you should have a consistently formatted reference list or bibliography that contains full details of all materials cited in your paper. Ensure that you follow appropriate conventions here.

Please ensure that your reports are submitted with a file-name that has the following format:

‹FamilyName_Givenname›_MilestoneReport.pdf

‹FamilyName_Givenname›_FinalReport.pdf

Assessment of Reports

Report marks represent not only the written content of your report, but also the project work that underlies it. Note that for management projects, the report should be more than a literature review, and should provide some real analytical content. For IS/network/security/web engineering projects, a working demonstration of the constructed software may be a component of the marking. Please take note of the following requirements:

• A listing of your code should be provided as an appendix to your final report. If there is some reason why this is not feasible or practicable, you should discuss this with the unit convener no later than one week before the final report is due.

• You should arrange a time to demonstrate the software you have developed to your supervisor, so that he or she can take account of this when marking your work. This demonstration should preferably happen during the last week of semester, or in extreme cases during the week following the last week in semester, when the reports are being marked.

It is not necessary to demonstrate your software during your final presentation, although you may do so if you wish. The final report will be assessed by your supervisor according to the following rubric:

Levels of Attainment

Assessment Attributes: Unsatisfactory (U), Functional (F), Proficient (P), Advanced (A)

Comprehensiveness of Abstract

U: Incomplete, in that it does not provide a brief statement of all three of the problem, approach and outcomes; or, all three are expressed, but the description is muddled and generally unclear. F: Conveys the problem, the approach, and outcomes, but a little less clearly than might be expected, or at an inappropriate level of detail. P: Stands as a surrogate for the full report: a clear summary of the problem, approach and outcomes; but may require some rewording to make it accessible to a nonspecialist. A: An excellent summary of the work carried out, clearly stating the problem, the approach taken, and the outcomes, in a manner that is accessible to a technical but non-specialist audience.

Clarity of Problem Statement U: The introduction to the report does not clearly state the problem the project set out to solve. F: The introduction does state the problem to be solved, but it takes a little effort to disentangle. P: The introduction states the problem clearly, and its significance is clear. A: The introduction provides an exceptionally clear and well-motivated problem statement, presented in a way that makes the reader eager to learn about the details of how the problem was solved.

Review of Related Work

U: Patchy or badly organised review of related work; unclear exactly why the work cited is relevant to the problem addressed. F: The material covered seems comprehensive and relevant, and some attempt has been made at clustering the materials reviewed in a thematic manner. P: Thematic organisation of the review, demonstrating a considered extraction of key ideas from sources and how they impact on the problem at hand. A: Thoughtful analysis of the material that goes beyond the themes identified explicitly by the sources, concisely drawing out the key points to set the stage for the work that follows; leaves no doubt about what's been done already and

what hasn't.

Description of Work Carried Out

U: Hard to work out what was done; the description of the work carried out seems disorganised or incomplete. F: The report indicates what work was carried out in reasonable detail. P: The report indicates clearly indicates the work that was carried out at a level of detail that allows replication of the results, avoiding vague and imprecise abstractions. A: The report clearly describes the work carried out, at an appropriate level of detail for a report of this length, and delivers a sense of maturity in the way in which the work was carried out.

Clarity of Outcomes

U: Unclear what was achieved in the project. F: The report indicates the outcomes of the work, if a little unclearly. P: The report clearly indicates the outcomes of the work carried out. A: The report clearly describes the outcomes of the work, indicates how these relate to the originally stated outcomes, and realistically appraises the scope for future work.

Overall Quality of Writing

U: Very poor; problems with coherent presentation of ideas. F: Understandable, but with some problems in grammar, style and spelling. P: Grammar and style of an acceptable standard; could be safely given to an external party with only minor editing. A: High quality prose; well written; could comfortably be made available via a corporate website.

Appropriate Use of Referencing Conventions

U: The information in the bibliography is incomplete, or there is a lack of consistency in formatting. F: The information in the bibliography is formatted consistently, but with a few missing details. P & A: All references are complete and consistently formatted.

Assessment Tasks

Name	Weighting	Hurdle	Due
Abstract Analysis	5%	No	Week2
Abstract writing	5%	No	Week4
Milestone report	15%	No	Week 5 - Friday 5pm
Ethics assignment	15%	No	Week 9 -Friday 5pm
Final report	50%	No	Week 13- Friday 5pm
Presentation	10%	No	Week 13- Friday 3-9pm

Abstract Analysis

Due: **Week2**
Weighting: **5%**

Students are expected to read a number of abstracts relevant to the chosen topic and analyse the components of a given abstract as a tutorial.

On successful completion you will be able to:

- Plan and self-manage a survey, literature review or a cutting edge project demonstrating advanced project management and independent research skills with occasional input from academic staff assigned to supervise them.

Abstract writing

Due: **Week4**
Weighting: **5%**

Students are expected to write an abstract for the survey paper they will submit as a Milestone report, including 5 components: Research problem, Significance, Goal, Methodology, Findings (or Expected Outcomes).

On successful completion you will be able to:

- Produce a technical document explaining concepts of systems analysis and design, as well as implementation of a novel system - or a detailed critical review and state of the art in a specific domain specifically for individuals who may have no technical understanding of the topic.

Milestone report

Due: **Week 5 - Friday 5pm**
Weighting: **15%**

A draft survey paper is due in week 5 that provides a review of the articles analysed related to the project topic.

On successful completion you will be able to:

- Plan and self-manage a survey, literature review or a cutting edge project demonstrating advanced project management and independent research skills with occasional input from academic staff assigned to supervise them.
- Produce a technical document explaining concepts of systems analysis and design, as well as implementation of a novel system - or a detailed critical review and state of the art in a specific domain specifically for individuals who may have no technical understanding of the topic.

Ethics assignment

Due: **Week 9 -Friday 5pm**

Weighting: **15%**

A report covering the ethical issues related to the project and exploring how to obtain a Human Ethics Committee approval to conduct research on humans working with computers and IT systems.

On successful completion you will be able to:
- Plan and self-manage a survey, literature review or a cutting edge project demonstrating advanced project management and independent research skills with occasional input from academic staff assigned to supervise them.
- Discuss and debate ethical issues relevant to the chosen topic, and investigate options for obtaining Human Ethics approval for further research.

Final report

Due: **Week 13- Friday 5pm**
Weighting: **50%**

The final report will be due at the end of week 13; drawing results from the literature review and presenting a critical analysis of the methodologies available.

On successful completion you will be able to:
- Plan and self-manage a survey, literature review or a cutting edge project demonstrating advanced project management and independent research skills with occasional input from academic staff assigned to supervise them.
- Produce a technical document explaining concepts of systems analysis and design, as well as implementation of a novel system - or a detailed critical review and state of the art in a specific domain specifically for individuals who may have no technical understanding of the topic.
- Discuss and debate ethical issues relevant to the chosen topic, and investigate options for obtaining Human Ethics approval for further research.

Presentation

Due: **Week 13- Friday 3-9pm**
Weighting: **10%**

A presentation to the supervisor and other interested personnel in the outcome of the project.

On successful completion you will be able to:

- Present a technical topic to experts and non-expects using appropriate software, tools and techniques available. The topic may be the presentation of the highest level of general development, as of a novel device, procedure, process, technique, or science achieved at a particular time, as a result of the existing methodologies employed.
- Discuss and debate questions posed, in the given topic area.

Delivery and Resources

Resources (within reason), as provided by the Department of Computing for the student to undertake their project.

ITEC812 is an independent research unit that requires reading and reporting. There are 5 official lectures in week1 (Friday 6-9pm), week3 (Friday 6-9pm), week5 -Ethics lecture (Friday 6-9pm), week9 (Friday 6-9pm) and week13 (Friday 3-9pm) including presentations. Classes and Presentations will be held together with itec810, itec897 and itec898 (internship) classes and timing may change depending on the schedule on the day. The feedback that you receive from your supervisor/unit convenor plays also a crucial role in your learning. Make sure you are completely familiar with the content of the official Unit Outline. You are expected to regularly meet your supervisor by making an appointment, if you have a supervisor. You should attend the lectures at dates and times declared on ilearn. In week1 we will cover basics about the unit, in week3 research methodology, in week5 ethical conduct, and in week9 report writing. In week13, you are expected to give a final presentation in a postgraduate workshop. You should submit the reports on ilearn. Note that we will be using iLearn as the central web-based communication point for this unit. If you are enrolled in the unit, it is essential that you check the iLearn site once a day, since important information will always be posted there in the News Forum. You should be able to login to iLearn using your MQ student ID and password; if you experience any problems, contact the Faculty of Science IT Help Desk. The IT help desk website is located at http://web.science.mq.edu.au/it/doc//helpdesk/.

Unit Schedule

Classes are scheduled for Fridays from 6pm to 9pm and held together with itec810, itec898, and itec897 classes. We will generally meet every second week in the first half of the semester in week1, week3 and week5, and week9 and week13 in the second half. The first scheduled class is in Week 1, and the current schedule for all weeks is shown below. **Note that this schedule is still provisional, and the particular Fridays we use may change at short notice, depending upon circumstances: so you should be prepared for attendance every Friday during semester.**

On each occasion that we meet, around half of the class time will be in the form of a lecture and discussion session on material that is relevant to an upcoming assessable activity; the other half of the class will be occupied by class members giving short presentations on progress on their projects.

WEEK 1	Class Logistics; Assessment and Expectations; Introduction to Independent Research and Writing Up Abstracts	
WEEK 2	NO CLASS THIS WEEK! Analyse Abstracts	Submit Tutorial on Abstract Analysis
WEEK 3	Research Methodology and Writing an abstract Presentation of Project Descriptions by itec810 students	
WEEK 4	NO CLASS THIS WEEK! Write an Abstract	Submit Tutorial on Abstract writing
WEEK 5	Ethics Lecture Presentation of Project proposals by itec810 students	Milestone Report Submission
WEEK 6	NO CLASS THIS WEEK	
WEEK 7	NO CLASS THIS WEEK	
MID-SEMESTER BREAK		

WEEK 8	NO CLASS THIS WEEK!	
WEEK 9	Report Writing ; Report Outline Presentations by itec810 students	
WEEK 10	NO CLASS THIS WEEK!	
WEEK 11	NO CLASS THIS WEEK!	
WEEK 12	NO CLASS THIS WEEK!	
WEEK 13	Postgraduate Workshop Final Project Presentations	Final Project Report & Final Project Presentation

There is no official exam in this unit, but you must submit a final report. If you apply for Disruption to Study for your final report, you must make yourself available in December. If you are not available at that time, there is no guarantee an additional examination time will be offered. Specific examination dates and times will be determined at a later date.

There are no hurdles in this unit.

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.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

PG - Capable of Professional and Personal Judgment and Initiative

Our postgraduates will demonstrate a high standard of discernment and common sense in their professional and personal judgment. They will have the ability to make informed choices and decisions that reflect both the nature of their professional work and their personal perspectives.

This graduate capability is supported by:

Learning outcomes

- Plan and self-manage a survey, literature review or a cutting edge project demonstrating advanced project management and independent research skills with occasional input from academic staff assigned to supervise them.
- Present a technical topic to experts and non-expects using appropriate software, tools and techniques available. The topic may be the presentation of the highest level of general development, as of a novel device, procedure, process, technique, or science achieved at a particular time, as a result of the existing methodologies employed.
- Discuss and debate questions posed, in the given topic area.
- Discuss and debate ethical issues relevant to the chosen topic, and investigate options for obtaining Human Ethics approval for further research.

Assessment tasks

- Milestone report
- Final report
- Presentation

PG - Discipline Knowledge and Skills

Our postgraduates will be able to demonstrate a significantly enhanced depth and breadth of knowledge, scholarly understanding, and specific subject content knowledge in their chosen fields.

This graduate capability is supported by:

Learning outcomes

- Plan and self-manage a survey, literature review or a cutting edge project demonstrating advanced project management and independent research skills with occasional input from academic staff assigned to supervise them.
- Produce a technical document explaining concepts of systems analysis and design, as well as implementation of a novel system - or a detailed critical review and state of the art in a specific domain specifically for individuals who may have no technical understanding of the topic.
- Present a technical topic to experts and non-expects using appropriate software, tools and techniques available. The topic may be the presentation of the highest level of general development, as of a novel device, procedure, process, technique, or science achieved at a particular time, as a result of the existing methodologies employed.
- Discuss and debate questions posed, in the given topic area.

Assessment tasks

- Milestone report
- Final report
- Presentation

PG - Critical, Analytical and Integrative Thinking

Our postgraduates will be capable of utilising and reflecting on prior knowledge and experience, of applying higher level critical thinking skills, and of integrating and synthesising learning and knowledge from a range of sources and environments. A characteristic of this form of thinking is the generation of new, professionally oriented knowledge through personal or group-based critique of practice and theory.

This graduate capability is supported by:

Learning outcomes

- Plan and self-manage a survey, literature review or a cutting edge project demonstrating advanced project management and independent research skills with occasional input from academic staff assigned to supervise them.
- Produce a technical document explaining concepts of systems analysis and design, as well as implementation of a novel system - or a detailed critical review and state of the art in a specific domain specifically for individuals who may have no technical understanding of the topic.
- Discuss and debate questions posed, in the given topic area.

Assessment tasks

- Abstract Analysis
- Abstract writing
- Milestone report
- Final report
- Presentation

PG - Research and Problem Solving Capability

Our postgraduates will be capable of systematic enquiry; able to use research skills to create new knowledge that can be applied to real world issues, or contribute to a field of study or practice to enhance society. They will be capable of creative questioning, problem finding and problem solving.

This graduate capability is supported by:

Learning outcomes

- Plan and self-manage a survey, literature review or a cutting edge project demonstrating advanced project management and independent research skills with occasional input from academic staff assigned to supervise them.
- Produce a technical document explaining concepts of systems analysis and design, as well as implementation of a novel system - or a detailed critical review and state of the art in a specific domain specifically for individuals who may have no technical understanding of the topic.

Assessment tasks

- Abstract writing
- Milestone report
- Final report

PG - Effective Communication

Our postgraduates will be able to communicate effectively and convey their views to different social, cultural, and professional audiences. They will be able to use a variety of technologically supported media to communicate with empathy using a range of written, spoken or visual formats.

This graduate capability is supported by:

Learning outcomes

- Plan and self-manage a survey, literature review or a cutting edge project demonstrating advanced project management and independent research skills with occasional input

from academic staff assigned to supervise them.

- Produce a technical document explaining concepts of systems analysis and design, as well as implementation of a novel system - or a detailed critical review and state of the art in a specific domain specifically for individuals who may have no technical understanding of the topic.
- Present a technical topic to experts and non-expects using appropriate software, tools and techniques available. The topic may be the presentation of the highest level of general development, as of a novel device, procedure, process, technique, or science achieved at a particular time, as a result of the existing methodologies employed.
- Discuss and debate questions posed, in the given topic area.

Assessment tasks

- Milestone report
- Ethics assignment
- Final report
- Presentation

PG - Engaged and Responsible, Active and Ethical Citizens

Our postgraduates will be ethically aware and capable of confident transformative action in relation to their professional responsibilities and the wider community. They will have a sense of connectedness with others and country and have a sense of mutual obligation. They will be able to appreciate the impact of their professional roles for social justice and inclusion related to national and global issues

This graduate capability is supported by:

Learning outcome

- Discuss and debate ethical issues relevant to the chosen topic, and investigate options for obtaining Human Ethics approval for further research.

Assessment task

- Ethics assignment

Changes from Previous Offering

Reports are relatively shorter compared to the previous offerings of this unit. Students may not necessarily have a supervisor assigned. In case of no specific supervisor, they should rely on the feedback provided by the unit convenor as their only supervisor. There are two tutorials added and percentage of the milestone report has been changed.

Standards

We will use standards based assessment to reflect the level of performance students achieve in this unit. Five standard levels for the assessment tasks during the semester (excluding the final exam) are: unsatisfactory (F), developing (P), functional (CR), proficient (D) and advanced (HD). These standard levels summarize different levels of achievement in relation to learning outcomes and are defined below.

Grade	LO 1	LO 2	LO 3	LO 4
	Plan and self-manage projects demosntrating advanced project management abilities with occasional input from academic staff assigned to supervise them	**Produce a lengthy technical document explaining systems analysis and design, as well as coding work completed - specifically for individuals who may have no technical understanding of the topic.**	**Present a technical topic area to experts and non-expects using appropriate software, tools and techniques available**	**Discuss and debate questions posed, in the given topic area**
HD	The student will be effectively self-managing – asking the supervisor for minimal guidance only.	The report is very well written, in a scholarly style, having drawn extensively upon the literature. The report will be understandable by expert and non-expert alike.	The student is very confident in their speech and manner of presentation without necessarily being arrogant. The student clearly knows the subject material very well, interacts with the audience and gets the message across.	The student will have eye contact with the questioner, will involve the wider audience in the answering of the question, and provide an excellent answer -understandable to most people in the room.
D	The student will generally manage themselves but guidance will occasionally be necessary for fear of the project tracking incorrectly.	The report is well structured, but expression may occasionally be clumsy or literature drawn upon may have been more extensive.	The student may occasionally appear nervous, but the presentation is professional, well delivered and understandable by the audience.	The question will be answered correctly, but perhaps only the questioner and speaker are involved in a private conversation.
CR	The student requires fairly constant guidance from the supervisor.	The report is solid, literature is referred to, but the report lacks the sort of polish that would make turning the report in to a conference paper quite an effort.	The presentation presents the material, the slides will be good, but the talk may not be that smooth or may appear dry.	The question will be answered mostly correctly, but there may be a slight flaw. The audience may be slightly disengaged with the response given.
P	The student only progresses with input from the supervisor. Progress is made, but typically driven by the supervisor.	The report explains the work conducted but there is relatively little recourse to the literature, and the writing style and grammar may contain numerous problems or errors.	The talk will be quite boring. The material will be covered, tools will be used in aiding the presentation but there is little audience interaction.	The student only just addresses the questions. There may be some incorrect answers given, or answers presented to different questions. The student is likely to be relatively nervous.

Each assessment task submitted will be given a numerical mark, and an indication of the

standard level reached (according to the above table).

Final Grades

At the end of the semester, you will receive a final grade that reflects your overall achievement in the unit. The different possible final grades are defined in general terms below.

- **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. That is, overall work is unsatisfactory or still developing according to the standards defined above.

- **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 or functional 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. The overall learning attainment is proficient.

- **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. The overall learning attainment is advanced.

- **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 overall learning attainment is outstanding.

Your final grade depends on your performance in each part of the assessment. For each task, you receive a mark that reflects your standard of performance regarding each learning outcome assessed by this task. Then the different component marks are added up (with appropriate weightings applied) to determine your total mark out of 100. Your grade then depends on this

total mark and your overall standards of performance. Concretely, **in order to pass the unit**, you must obtain a total mark above 50% to demonstrate satisfactory understanding of development or analysis methods in IT applications, have a basic understanding of the lecture material, successfully implement or conduct an IT project and demonstrate satisfactory level of achievement in the final report. In order to obtain a grade higher than a Pass, you have to fulfill additional conditions. See below the grade standards made specific for this unit:

High Distinction (A total mark of 85+): Outstanding quality IT projects with the addition of originality and/or creativity achieved by an outstanding understanding of concepts. Students are expected to go beyond the limits of lecture material.

Distinction (A total mark of 75+): Superior quality IT projects achieved by superior understanding of concepts. Students are expected to master the lecture material. They are expected to successfully achieve all the goals defined in the IT project.

Credit (A total mark of 65+): Good understanding of concepts and good quality IT projects. Students are expected to have good understanding of the lecture material. They are expected to successfully achieve most of the goals listed in IT project.