



# ITEC600

## IT and the Future of Society

S2 Day 2018

*Dept of Computing*

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#### **Disclaimer**

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## General Information

Unit convenor and teaching staff

Unit Convenor

Matthew Mansour

[matthew.mansour@mq.edu.au](mailto:matthew.mansour@mq.edu.au)

Contact via [matthew.mansour@mq.edu.au](mailto:matthew.mansour@mq.edu.au)

Post the lecture or by appointment.

Credit points

4

Prerequisites

Admission to MInfoTech or MEng or MSc

Corequisites

Co-badged status

Unit description

This unit investigates the trends in technology, especially in information technology (IT), and the impact those advances will have for individuals, organisations, the society, and the wider environment. The unit aims at improving the students' proficiency in using current and emerging IT applications. It aims also at prompting a reflection on the consequences of those rapid changes of technology on the society. Students consider the relevance of current and future IT applications and research in a range of diverse fields including artificial intelligence, human computer interaction, games, social software and networks. Issues to be explored in relation to new technologies include ethics, sustainability, intellectual property, censorship, social networks, and addictions. Students gain enhanced computer literacy and competence through practical activities and exploration of applications relevant to each topic.

## 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:

An intermediate understanding of a range of the important future IT & IS issues, such as:  
Robotics, Future Employment, Social Networking, Addiction, Cloud Gaming,  
Transportation etc

Demonstrate an understanding of the impacts of constant connectivity and distractions on quality of life, customer service and business operations, privacy and security and interpersonal relationships.

Effectively able to orally communicate clearly about information technology applications.

Describe the key trends of information technology of the future and the implications for individuals, organisations and society.

## Assessment Tasks

Name	Weighting	Hurdle	Due
<u>Group Workshop Assessment</u>	18%	No	Weeks 3, 4 & 9
<u>In class Quizzes</u>	27%	No	Wk 5 & 8 & 11
<u>Reflection Assessment</u>	15%	No	Weeks: 3,7 & 10
<u>Research paper</u>	40%	No	End of Week 13

### Group Workshop Assessment

Due: **Weeks 3, 4 & 9**

Weighting: **18%**

#### Group Workshop Assessment:

Within ITEC600 you will be expected to be able to utilise the information from the previous weeks discussion to do the assessment. This will be conducted within 3 designated weeks. They will be a mix between presentations and debates. A Marking Rubric will be provided on ilearn. Each group workshop assessment is worth 6 % each (Total of 18%)

You will not be able to prepare for this as the idea is about you reflecting on the lecture from the previous week and then delivering a polished presentation within the class. Each group will be provided with 20mins to prepare within the workshop time.

#### Submission

This will be in your formally enrolled workshop. Students will participate in a group task allocated by their tutor in the workshop. Tasks are undertaken and marked in the workshop.

#### Extension

Not applicable - undertaken in class. Students that do not attend class will be awarded a mark of zero (0) for the task, except for cases in which the unit convenor approves an alternative assessment task. An alternative assessment task will only be considered if it meets the following criteria:

1. The student emails their respective tutor with the reason for the non-attendance. This must be done within a week of the non-attendance.

2. The student provides evidence for the non-attendance (for example, a doctors certificate) or explains the circumstances to the unit convenor.

Penalties

Not applicable - see rubric for details on marking criteria.

On successful completion you will be able to:

- An intermediate understanding of a range of the important future IT & IS issues, such as: Robotics, Future Employment, Social Networking, Addiction, Cloud Gaming, Transportation etc
- Demonstrate an understanding of the impacts of constant connectivity and distractions on quality of life, customer service and business operations, privacy and security and interpersonal relationships.
- Effectively able to orally communicate clearly about information technology applications.
- Describe the key trends of information technology of the future and the implications for individuals, organisations and society.

## In class Quizzes

Due: **Wk 5 & 8 & 11**

Weighting: **27%**

### In class Quizzes

In weeks 5, 8 and 11 there will be a short test in the tutorials. Each quiz is worth 9% towards your final grade (i.e 27% in total) These quizzes will cover important parts of the unit material and, as well as assessing you current level of mastery of it, give you and your tutor an opportunity to address any problem areas before the final research paper. The quizzes will normally not take the whole class and will be followed by in-class problems. Please be on time to these classes, as the quiz will be the first thing in the class.

Submission

This quiz will be in your formally enrolled workshop. **NB.** Your quiz may not be marked if you go to a class that you are not enrolled in.

Extension

Not applicable - undertaken in class. Students that do not attend class will be awarded a mark of zero (0) for the task, except for cases in which the unit convenor approves an alternative assessment task. An alternative assessment task will only be considered if it meets the following criteria:

1. The student emails their respective tutor with the reason for the non-attendance. This must be done within a week of the non-attendance.

2. The student provides evidence for the non-attendance (for example, a doctors certificate) or explains the circumstances to the unit convenor.

NB. We will determine when the assessment will be done, this means it may be conducted at a different time to your traditional workshop.

Penalties

Not applicable.

On successful completion you will be able to:

- An intermediate understanding of a range of the important future IT & IS issues, such as: Robotics, Future Employment, Social Networking, Addiction, Cloud Gaming, Transportation etc
- Demonstrate an understanding of the impacts of constant connectivity and distractions on quality of life, customer service and business operations, privacy and security and interpersonal relationships.

## Reflection Assessment

Due: **Weeks: 3,7 & 10**

Weighting: **15%**

### Unit Reflection

Every few weeks you will be expected to write a unit reflection entry (400 words approx) via ilearn. You will create your reflection via ilearn. This will be done in your own time. The reflection assessment is intended to help you consider, reflect upon, and learn from class activities, lessons. Each reflection post is marked out of 10 and worth 5% each. (**NB.** Your marks will be released for this assessment every 3 weeks or so)

Submission

This assessment is done within your own time. The assessment will be marked at the end of each week. (NB. This is between weeks 3,7 & 10 inclusively)

Extension

Not applicable. Students that do not submit a reflection entry on time will be awarded a mark of zero (0) for the task, except for cases in which the unit convenor approves an alternative assessment task. An alternative assessment task will only be considered if it meets the following criteria:

1. The student emails their respective tutor with the reason for the non-attendance. This must be done within a week of the non-attendance.
2. The student provides evidence for the non-attendance (for example, a doctors certificate) or explains the circumstances to the unit convenor.

Penalties

Not applicable.

On successful completion you will be able to:

- An intermediate understanding of a range of the important future IT & IS issues, such as: Robotics, Future Employment, Social Networking, Addiction, Cloud Gaming, Transportation etc
- Demonstrate an understanding of the impacts of constant connectivity and distractions on quality of life, customer service and business operations, privacy and security and interpersonal relationships.

## Research paper

Due: **End of Week 13**

Weighting: **40%**

## Research Paper

You will be provided in week 11 with several candidate questions that you can use for your Research Paper. The paper will be approximately 2400 words. You will need to create the paper in an essay format. The paper will be due at the end of the semester. (Date: **End of Week 13**) It is sometimes also known as a take-home examination. With any original work you will need to demonstrate an understanding of how to reference all materials that you have used. Your tutor and/or practical teacher can also give you guidance on this. (Specific time cutoffs etc will be confirmed when released in week 13)

On successful completion you will be able to:

- An intermediate understanding of a range of the important future IT & IS issues, such as: Robotics, Future Employment, Social Networking, Addiction, Cloud Gaming, Transportation etc
- Describe the key trends of information technology of the future and the implications for individuals, organisations and society.

## Delivery and Resources

### Teaching and Learning Strategy

Mode of delivery is face-to-face. ITEC600 is taught via lectures and workshop sessions in the laboratory. Lectures are used to introduce new material and discuss the use of information technology within society. While lectures are largely one-to-many presentations, you are encouraged to ask questions of the lecturer to clarify anything you might not be sure of. Workshops are small group classes, which give you the opportunity to interact with your peers and with a tutor who has a sound knowledge of the subject.

Each week you should:

- Attend lectures, take notes, ask questions.
- Attend your workshop, seek feedback from your tutor on your work. See them in consultation times!
- Read appropriate sections of the text, add to your notes and prepare questions for your lecturer or tutor.
- Prepare answers to the following week's workshop.

Lecture notes will be made available each week but these notes are intended as an outline of the lecture only and are not a substitute for your own notes.

### **Classes**

Each week you should attend two hours of lectures and a one-hour workshop class.

(For details of days, times and rooms consult the [timetables webpage](#).)

**Note that workshops start in week 1.**

### **What has changed from previous semesters?**

We have modified the assessments in alignment with feedback from the previous offering.

### **Textbook**

- N/A

### **Technology used and required**

iLecture/echo

Digital recordings of lectures are available.

ITEC600 makes use of the following software/technologies:

- Microsoft Windows 10
- Microsoft Office 2010 / 2013 / 2016
- Internet Explorer / Mozilla Firefox / Chrome
- ilearn

### **Website**

The web page for this unit can be found at: <http://ilearn.mq.edu.au>.

Discussion Boards

The discussion board for this unit can be accessed through <http://ilearn.mq.edu.au>.

### **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. The minutes reflect the issues raised and the proposed outcomes. Copies of the minutes are posted on the web at <http://comp.mq.edu.au/undergrad/liaison>.

If your issue is unable to be addressed through the Staff-Student Liaison Committee, then you should consult the Director of Teaching (Dr. Steve Cassidy) or the Head of Department (Dr. Michael Sheng). You are entitled to have your concerns raised, discussed and resolved.

### **Student Support Services**

Macquarie University provides a range of Academic Student Support Services. Details of these services can accessed at <http://www.student.mq.edu.au>.

### **Assumed knowledge**

Basic computer use skills.

## **Unit Schedule**

Week	Topic	
1	Introduction to IT and the Future of Society	
2	Future of the Cloud	
3	Future of Transportation "Will I be living in Sydney but working in China?"	
4	Internet of Things	
5	Quantum Computing "More relevant than ever before"	
6	IT Ethics and the Future of Society	
7	We are all addicts – "Addiction to the Web and beyond"	



8	Cloud Gaming and AI	
9	Future of Robotics "Will we really be having robots do everything?"	
10	Human Computer Interface "What is next when we don't use a keyboard anymore?"	
11	Future of Social Networking "What is next?"	
12	Cyber Security and Privacy "Can you really stay safe in the future?"	
13	<b>Research Paper discussion.</b>	

## Policies and Procedures

Macquarie University policies and procedures are accessible from [Policy Central](https://staff.mq.edu.au/work/strategy-planning-and-governance/university-policies-and-procedures/policy-central) (<https://staff.mq.edu.au/work/strategy-planning-and-governance/university-policies-and-procedures/policy-central>). Students should be aware of the following policies in particular with regard to Learning and Teaching:

- [Academic Appeals Policy](#)
- [Academic Integrity Policy](#)
- [Academic Progression Policy](#)
- [Assessment Policy](#)
- [Fitness to Practice Procedure](#)
- [Grade Appeal Policy](#)
- [Complaint Management Procedure for Students and Members of the Public](#)
- [Special Consideration Policy](#) (**Note:** *The Special Consideration Policy is effective from 4 December 2017 and replaces the Disruption to Studies Policy.*)

Undergraduate students seeking more policy resources can visit the [Student Policy Gateway](https://students.mq.edu.au/support/study/student-policy-gateway) (<https://students.mq.edu.au/support/study/student-policy-gateway>). It is your one-stop-shop for the key policies you need to know about throughout your undergraduate student journey.

If you would like to see all the policies relevant to Learning and Teaching visit [Policy Central](https://staff.mq.edu.au/work/strategy-planning-and-governance/university-policies-and-procedures/policy-central) (<https://staff.mq.edu.au/work/strategy-planning-and-governance/university-policies-and-procedures/policy-central>).

## Student Code of Conduct

Macquarie University students have a responsibility to be familiar with the Student Code of Conduct: <https://students.mq.edu.au/study/getting-started/student-conduct>

## Results

Results 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](http://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](http://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/](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 outcomes

- An intermediate understanding of a range of the important future IT & IS issues, such as: Robotics, Future Employment, Social Networking, Addiction, Cloud Gaming, Transportation etc
- Effectively able to orally communicate clearly about information technology applications.

## Assessment tasks

- Group Workshop Assessment
- Reflection Assessment

## 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

- An intermediate understanding of a range of the important future IT & IS issues, such as: Robotics, Future Employment, Social Networking, Addiction, Cloud Gaming, Transportation etc
- Demonstrate an understanding of the impacts of constant connectivity and distractions on quality of life, customer service and business operations, privacy and security and interpersonal relationships.

## Assessment tasks

- Reflection Assessment
- Research paper

## 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

- An intermediate understanding of a range of the important future IT & IS issues, such as: Robotics, Future Employment, Social Networking, Addiction, Cloud Gaming, Transportation etc

## 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

- An intermediate understanding of a range of the important future IT & IS issues, such as: Robotics, Future Employment, Social Networking, Addiction, Cloud Gaming, Transportation etc
- Demonstrate an understanding of the impacts of constant connectivity and distractions on quality of life, customer service and business operations, privacy and security and interpersonal relationships.
- Effectively able to orally communicate clearly about information technology applications.
- Describe the key trends of information technology of the future and the implications for individuals, organisations and society.

## Assessment tasks

- Group Workshop Assessment
- In class Quizzes
- Reflection Assessment
- Research paper

## 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

- An intermediate understanding of a range of the important future IT & IS issues, such as: Robotics, Future Employment, Social Networking, Addiction, Cloud Gaming, Transportation etc
- Demonstrate an understanding of the impacts of constant connectivity and distractions on quality of life, customer service and business operations, privacy and security and interpersonal relationships.
- Describe the key trends of information technology of the future and the implications for individuals, organisations and society.

## Assessment tasks

- In class Quizzes
- Research paper

## 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

- An intermediate understanding of a range of the important future IT & IS issues, such as: Robotics, Future Employment, Social Networking, Addiction, Cloud Gaming, Transportation etc
- Effectively able to orally communicate clearly about information technology applications.

## Assessment task

- Group Workshop Assessment

## 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

- An intermediate understanding of a range of the important future IT & IS issues, such as: Robotics, Future Employment, Social Networking, Addiction, Cloud Gaming, Transportation etc
- Demonstrate an understanding of the impacts of constant connectivity and distractions on quality of life, customer service and business operations, privacy and security and interpersonal relationships.
- Effectively able to orally communicate clearly about information technology applications.
- Describe the key trends of information technology of the future and the implications for individuals, organisations and society.

## 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 outcomes

- An intermediate understanding of a range of the important future IT & IS issues, such as: Robotics, Future Employment, Social Networking, Addiction, Cloud Gaming, Transportation etc
- Demonstrate an understanding of the impacts of constant connectivity and distractions on quality of life, customer service and business operations, privacy and security and interpersonal relationships.
- Effectively able to orally communicate clearly about information technology applications.
- Describe the key trends of information technology of the future and the implications for individuals, organisations and society.

## Changes from Previous Offering

Updated lectures from previous sessions to keep up to date with the future of society

## Standards and Grading

Unlike many units, ISYS200 covers a wide range of areas, but at limited depth. Therefore it is not appropriate to identify core knowledge and assess each student's mastery of that at increasing levels of complexity. Instead, the assessment of Learning Outcome #1 is based in large part on the amount of knowledge the student gains across the range of the unit, as assessed by performance in the workshops, quizzes and final research paper.

**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.** In order to obtain a grade of Pass (P) or higher in this unit if you satisfy the following:

- obtain an overall mark of at least 50% (calculated according to the weightings given above).

Obtaining a higher grade 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);
- obtain a mark of at least 70% overall for the Group Workshop Assessments;
- obtain a mark of at least 70% in the final research paper; and
- obtain an overall mark of at least 70% (calculated according to the weightings given above).