COMP3300

Data Privacy and Information Security

Session 2, Special circumstances 2021

School of Computing

Contents

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Session 2 Learning and Teaching Update

The decision has been made to conduct study online for the remainder of Session 2 for all units WITHOUT mandatory on-campus learning activities. Exams for Session 2 will also be online where possible to do so.

This is due to the extension of the lockdown orders and to provide certainty around arrangements for the remainder of Session 2. We hope to return to campus beyond Session 2 as soon as it is safe and appropriate to do so.

Some classes/teaching activities cannot be moved online and must be taught on campus. You should already know if you are in one of these classes/teaching activities and your unit convenor will provide you with more information via iLearn. If you want to confirm, see the list of units with mandatory on-campus classes/teaching activities.

Visit the MQ COVID-19 information page for more detail.

General Information

Unit convenor and teaching staff
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Credit points
10

Prerequisites
COMP2300 and (MATH1007 or DMTH137)

Corequisites

Co-badged status

Unit description
This unit deals with the concepts, techniques, tools, and management processes that contribute to the design and implementation of data privacy and information security requirements for IT systems and business practices. Building on techniques from probability, statistics, cryptography, and algorithms, the unit addresses topics such as encryption, privacy-preserving techniques in statistical and machine learning analysis, content security solutions, or secure data management.

Important Academic Dates

Information about important academic dates including deadlines for withdrawing from units are available at https://www.mq.edu.au/study/calendar-of-dates

Learning Outcomes

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

ULO1: Understand and explain the concepts of data privacy and information security.

ULO2: Perform risk assessment (including privacy risk) on digital information and

datasets.

ULO3: Embed privacy in the design and architecture of IT systems and business practices.

ULO4: Apply adapted privacy and security technologies and tools to enhance the security properties of data.

ULO5: Analyse the trends for managing data security.

General Assessment Information

ASSESSMENT

All necessary assessment information is available in the iLearn. Please ensure you check the updated assessment information.

LATE SUBMISSION

No extensions will be granted without an approved application for Special Consideration. There will be a deduction of 10% of the total available marks made from the total awarded mark for each 24 hour period or part thereof that the submission is late. For example, 25 hours late in submission of a report worth 2 marks – 20% penalty or 0.4 marks deducted from the total.

Assessment Tasks

Name	Weighting	Hurdle	Due
Module Exam 1	24%	No	Week 5
Assignment	18%	No	Week 12
Weekly Tasks	10%	No	Weekly
Module Exam 3	24%	No	Week 13
Module Exam 2	24%	No	Week 9

Module Exam 1

Assessment Type [1]: Examination
Indicative Time on Task [2]: 12 hours
Due: **Week 5**
Weighting: **24%**

A 50-minute, online examination, worth 24%, that will be held in Week 5. This will test understanding of the material covered in Weeks 1 to 4.

On successful completion you will be able to:

- Understand and explain the concepts of data privacy and information security.

- Perform risk assessment (including privacy risk) on digital information and datasets.

- Embed privacy in the design and architecture of IT systems and business practices.

- Apply adapted privacy and security technologies and tools to enhance the security properties of data.

Assignment

Assessment Type [1]: Project
Indicative Time on Task [2]: 19 hours
Due: **Week 12**
Weighting: **18%**

This assignment deals with concepts learned in data privacy and information security and is due in Week 12. The assignment is to be submitted via iLearn.

On successful completion you will be able to:

- Understand and explain the concepts of data privacy and information security.

- Perform risk assessment (including privacy risk) on digital information and datasets.

- Embed privacy in the design and architecture of IT systems and business practices.

- Apply adapted privacy and security technologies and tools to enhance the security properties of data.

- Analyse the trends for managing data security.

Weekly Tasks

Assessment Type [1]: Quiz/Test
Indicative Time on Task [2]: 20 hours
Due: **Weekly**
Weighting: **10%**

Each week, a set of exercises related to that week's lecture topic will be worked out during the practical class. One or two questions from those exercises will be the weekly quiz task.

On successful completion you will be able to:

- Understand and explain the concepts of data privacy and information security.

- Perform risk assessment (including privacy risk) on digital information and datasets.

- Embed privacy in the design and architecture of IT systems and business practices.

- Apply adapted privacy and security technologies and tools to enhance the security properties of data.

Module Exam 3

Assessment Type [1]: Examination
Indicative Time on Task [2]: 12 hours
Due: **Week 13**
Weighting: **24%**

A 50-minute, online examination, worth 24%, that will be held in Week 13. This will test understanding of the material covered in Weeks 9 to 12.

On successful completion you will be able to:
- Embed privacy in the design and architecture of IT systems and business practices.
- Apply adapted privacy and security technologies and tools to enhance the security properties of data.
- Analyse the trends for managing data security.

Module Exam 2

Assessment Type [1]: Examination
Indicative Time on Task [2]: 12 hours
Due: **Week 9**
Weighting: **24%**

A 50-minute, online examination, worth 24%, that will be held in Week 9. This will test understanding of the material covered in Weeks 5 to 8.

On successful completion you will be able to:
- Understand and explain the concepts of data privacy and information security.
- Perform risk assessment (including privacy risk) on digital information and datasets.
- Apply adapted privacy and security technologies and tools to enhance the security properties of data.

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[1] If you need help with your assignment, please contact:
- the academic teaching staff in your unit for guidance in understanding or completing this type of assessment
- the Writing Centre for academic skills support.

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

Delivery and Resources

COMPUTING FACILITIES

COMP3300 is a BYOD (Bring Your Own Device). You will be expected to bring your own laptop computer (Windows, Mac, or Linux) to the workshop, install and configure the required software, and incorporate secure practices into your daily work (and play!) routines.

CLASSES

Each week you should complete any assigned readings and review the lecture slides in order to prepare for the lecture. There are two hours of lectures and a one-hour workshop every week. The hands-on exercises in workshops help to reinforce concepts introduced during the lectures. You should have chosen a practical on enrollment. You will find it helpful to read the workshop instructions before attending - that way, you can get to work quickly! For details of days, times, and rooms consult the timetables webpage. Note that Workshops commence in Week 1. Please note that you will be required to submit work every week.

RECOMMENDED TEXTS

The following textbooks contain the bulk of weekly readings:

1. Corporate computer security, by Randall J. Boyle and Raymond R. Panko (available online from the library).
2. Information privacy engineering and privacy by design, by William Stallings (available online from the library).
3. The Science of Quantitative Information Flow, by M. Alvim, K. Chatzikokolakis, A. McIver, C. Morgan, C. Palamidessi, G. Smith. (available online from the library)
4. Other material in the form of scientific papers will be made available as needed.

WEB RESOURCES

Unit Websites. COMP3300 is administered via iLearn (http://ilearn.mq.edu.au/).

Lecture recordings. Digital recordings of lectures may be available. When available they will be linked from iLearn.

DISCUSSION BOARDS

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

GENERAL NOTES

• Attend lectures, take notes, ask questions.

• Attend weekly practical sessions.

• Read appropriate sections of the text, add to your notes, and prepare questions for your lecturer/tutor.

• Work on any assignments that have been released.

Unit Schedule

Tentative teaching schedule, subject to change:				
Week	**Module**	**Lecture Topics**	**Assessment**	**Weight**
1	Module 1	Introduction to privacy and security of data - privacy and security requirements	Weekly tutorial task	1%
2			Weekly tutorial task	1%
3			Weekly tutorial task	1%
4			Weekly tutorial task	1%
5	Module 2	Privacy and security techniques	Module 1 exam	24%
6			Weekly tutorial task	1%
Mid Semester Break - Recess				
7	Module 2	Privacy and security techniques	Weekly tutorial task	1%
8			Weekly tutorial task	1%
9	Module 3	Frontier and applications	Module 2 exam	24%
10			Weekly tutorial task	1%
11			Weekly tutorial task	1%
12			Weekly tutorial task	1%
			Assignment	18%
13	Review		Module 3 exam	24%

Policies and Procedures

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

- Academic Appeals Policy
- Academic Integrity Policy
- Academic Progression Policy
- Assessment Policy
- Fitness to Practice Procedure
- Grade Appeal Policy
- Complaint Management Procedure for Students and Members of the Public
- Special Consideration Policy

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

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

Student Code of Conduct

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

Results

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

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 help you improve your marks and take control of your study.

- Getting help with your assignment
- Workshops
- StudyWise

- Academic Integrity Module

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

- Subject and Research Guides
- Ask a Librarian

Student Services and Support

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

If you are a Global MBA student contact globalmba.support@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.