COMP1300

Introduction to Cyber Security

Session 1, Weekday attendance, North Ryde 2020

Dept of Computing

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General Information

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Credit points
10

Prerequisites

Corequisites

Co-badged status

Unit description
This unit tackles cyber security as a multidisciplinary issue. It introduces information security and important technology concepts as well as cyber hygiene principles to remain safe in the digital world. It discusses cybercriminality (perpetrators and activities on the dark web) and its impact on society and prompts to critically think about the relationship between cyber security and privacy, from a legal standpoint. Finally, this unit provides insights into the cybersecurity risks faced by business and the role that risk management plays in addressing those risks in the context of corporate governance.

Important Academic Dates
Information about important academic dates including deadlines for withdrawing from units are available at https://students.mq.edu.au/important-dates
Learning Outcomes

ULO1: Demonstrate an understanding of technical concepts related to information security, computing, networking, and emerging technologies.

ULO3: Report on cyber criminality (in terms of activities, perpetrators and their motives) as well as its impact on society.

ULO4: Critically evaluate the relation between cyber security and privacy in the context of a legal and regulatory framework.

ULO2: Apply cyber hygiene principles to achieve personal security in the digital world.

ULO5: Identify cybersecurity risks faced by business and relate the management of those risks to the enterprise governance.

General Assessment Information

Late Submission(s): “Late assessment must also be submitted through Turnitin. No extensions will be granted. 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 incurs a 20% penalty). Late submissions will not be accepted after solutions have been discussed and/or made available. This penalty does not apply for cases in which an application for Special Consideration is made and approved. Note: applications for Special Consideration Policy must be made within 5 (five) business days of the due date and time.”

Assessment Tasks

<table>
<thead>
<tr>
<th>Name</th>
<th>Weighting</th>
<th>Hurdle</th>
<th>Due</th>
</tr>
</thead>
<tbody>
<tr>
<td>In class participation</td>
<td>8%</td>
<td>Yes</td>
<td>Weeks 3-12</td>
</tr>
<tr>
<td>In class assessment</td>
<td>18%</td>
<td>No</td>
<td>Weeks 3-5 &amp; 7-12</td>
</tr>
<tr>
<td>In-class quiz</td>
<td>10%</td>
<td>No</td>
<td>Week 6</td>
</tr>
<tr>
<td>Individual report</td>
<td>24%</td>
<td>No</td>
<td>Week 7</td>
</tr>
<tr>
<td>Final Examination</td>
<td>40%</td>
<td>No</td>
<td>Examination Period</td>
</tr>
</tbody>
</table>

In class participation

Assessment Type: Participatory task
Indicative Time on Task: 4 hours
Due: Weeks 3-12
Weighting: 8%

This is a hurdle assessment task (see assessment policy for more information on hurdle
assessment tasks)

In accordance with the Faculty Board all 100-level units in the Faculty will have a compulsory (hurdle) requirement on participation in tutorials, practicals and laboratories.

In-class voluntary participation will be assessed randomly for 10 tutorials during the session. The best 8 out of 10 in-class participation marks will be taken into consideration.

Each week you will be working on different tasks that maybe and not limited to: Group Presentations, Quiz, Debates.

On successful completion you will be able to:

- Demonstrate an understanding of technical concepts related to information security, computing, networking, and emerging technologies.
- Report on cyber criminality (in terms of activities, perpetrators and their motives) as well as its impact on society.
- Critically evaluate the relation between cyber security and privacy in the context of a legal and regulatory framework.
- Apply cyber hygiene principles to achieve personal security in the digital world.
- Identify cybersecurity risks faced by business and relate the management of those risks to the enterprise governance.

In class assessment

Assessment Type 1: Debate
Indicative Time on Task 2: 9 hours
Due: Weeks 3-5 & 7-12
Weighting: 18%

This assessment task takes place in class. It involves group work, debate and presentations for 9 weeks, except in week 6 which is allocated to the in-class quiz.

On successful completion you will be able to:

- Demonstrate an understanding of technical concepts related to information security, computing, networking, and emerging technologies.
- Report on cyber criminality (in terms of activities, perpetrators and their motives) as well as its impact on society.
- Critically evaluate the relation between cyber security and privacy in the context of a legal and regulatory framework.
- Apply cyber hygiene principles to achieve personal security in the digital world.
- Identify cybersecurity risks faced by business and relate the management of those risks to the enterprise governance.
In-class quiz

Assessment Type: Quiz/Test
Indicative Time on Task: 5 hours
Due: Week 6
Weighting: 10%

In week 6 there will be a quiz in the tutorial. The quiz will cover important parts of the unit material from weeks 1 - 5 and, as well as assessing your current level of mastery of it, give you and your tutor an opportunity to address any problem areas before the final exam. The quiz will normally not take the whole class and will be followed by in-class discussion. Please be on time to these classes, as the quiz will be the first thing in the class.

NB. In the circumstances that a public holiday falls on your workshop time for the quiz, you will be doing the quiz in the week following. More details will be provided on ilearn if required.

On successful completion you will be able to:
• Demonstrate an understanding of technical concepts related to information security, computing, networking, and emerging technologies.
• Report on cyber criminality (in terms of activities, perpetrators and their motives) as well as its impact on society.
• Critically evaluate the relation between cyber security and privacy in the context of a legal and regulatory framework.
• Apply cyber hygiene principles to achieve personal security in the digital world.
• Identify cybersecurity risks faced by business and relate the management of those risks to the enterprise governance.

Individual report

Assessment Type: Report
Indicative Time on Task: 12 hours
Due: Week 7
Weighting: 24%

The assessment task is to write a report with scholarly references that will address a contemporary topic relating to Cyber Security.

On successful completion you will be able to:
• Demonstrate an understanding of technical concepts related to information security, computing, networking, and emerging technologies.
• Report on cyber criminality (in terms of activities, perpetrators and their motives) as well
as its impact on society.

- Critically evaluate the relation between cyber security and privacy in the context of a legal and regulatory framework.
- Apply cyber hygiene principles to achieve personal security in the digital world.
- Identify cybersecurity risks faced by business and relate the management of those risks to the enterprise governance.

Final Examination

Assessment Type 1: Examination
Indicative Time on Task 2: 20 hours
Due: Examination Period
Weighting: 40%

A final examination is included as an assessment task for this unit to provide assurance that:

i) the product belongs to the student and
ii) the student has attained the knowledge and skills tested in the exam.

A two and a half (2.5) hour final examination for this unit will be held during the University Examination period.

On successful completion you will be able to:

- Demonstrate an understanding of technical concepts related to information security, computing, networking, and emerging technologies.
- Report on cyber criminality (in terms of activities, perpetrators and their motives) as well as its impact on society.
- Critically evaluate the relation between cyber security and privacy in the context of a legal and regulatory framework.
- Apply cyber hygiene principles to achieve personal security in the digital world.
- Identify cybersecurity risks faced by business and relate the management of those risks to the enterprise governance.

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1 If you need guidance or support to understand or complete this type of assessment, please contact the Learning Skills Team

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

Teaching and Learning Strategy
COMP1300 is taught via lectures, tutorials (in practical labs). The feedback that you receive plays also a crucial role in your learning.

Lectures are used to introduce new material, give examples of the advances in Cyber Security and technologies and put them in a wider context. The unit is an introduction which in turn will be explored further in other units at Macquarie University.

Tutorials 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. This also gives you a chance to practice your soft skills. **NB. For this semester for COMP1300, tutorials start in week 2 and the Lectures start in week 1.**

You have many opportunities to seek for and to receive feedback. During lectures, you are encouraged to ask the lecturer questions to clarify anything you might not be sure of.

Each week you should:

- Attend lectures, take notes, ask questions
- Attend your tutorials and seek feedback from your tutor on your work
- Read assigned reading material, add to your notes and prepare questions for your lecturer or tutor
- Start working on any assessments immediately after they have been released.

Lecture notes are 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 or reading additional material.

**Classes**

Each week you should attend two hours of lectures, and a one hour tutorial class.

Please note that you are **required** to submit a certain number of assessments. Failure to do so may result in you failing the unit.

**Textbook.**

Being a fast paced ever evolving unit, it was deemed that a textbook would not validate the complexity of Cyber Security. In turn we have used resources from 3 Faculties to give you as much exposure to Cyber Security and the real world.

**Technology used and required**

**Echo**

Digital recordings of lectures are available.

COMP1300 makes use of the following software in the lab:

- Microsoft Windows 10
- Microsoft Office 2016
- Internet Explorer or Mozilla Firefox or Chrome

**Website**
Unit guide COMP1300 Introduction to Cyber Security

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

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

Assumed knowledge
Basic computer use skills.

Unit Schedule

<table>
<thead>
<tr>
<th>Week</th>
<th>Lecture Topics/Events</th>
<th>Assessments</th>
</tr>
</thead>
</table>
| 1    | When... not if… Intro to Cyber Security unit. (MM)        | N/A Tutorials start in week 2
      |                                                          | Lectures start in week 1                        |
| 2    | Cyber Hygiene – How clean are you? (MM)                   | Practice in_class assessment – Data Breach Poster|
| 3    | The Human Factor (MM)                                    | In class assessment                              |
| 4    | Basics of Protection (EM)                                | In class assessment                              |
| 5    | Computing Basics for Cyber Security (EM)                 | In class assessment                              |
| 6    | Societal Security (YB)                                   | Mid Semester in_class Quiz                       |
| 7    | Impact on Business and Cyber Governance – Who’s loses their job? (YB) | In class assessment
      |                                                          | Individual Report Due                            |
| 8    | Cybercriminal’s - Who is really running the show (SMC)    | In class assessment                              |
| 9    | Cybercrime – Are all crimes the same? (SMC)               | In class assessment                              |
| 10   | Effective Cyber Security incident response (SMC)          | In class assessment                              |
| 11   | Industry Experts (MM)                                    | In class assessment                              |
| 12   | The Future – How is Cyber Security going to impact us (MM) | In class assessment                              |
| 13   | Discussion about the Final Exam (MM)                      | No tutorial in week 13                           |
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). 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.)*

Students seeking more policy resources can visit the 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).

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 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 improve your marks and take control of your study.
Unit guide COMP1300 Introduction to Cyber Security

- Workshops
- StudyWise
- Academic Integrity Module for Students
- Ask a Learning Adviser

Student Enquiry Service
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

Equity 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.

IT Help
For help with University computer systems and technology, visit http://www.mq.edu.au/about_us/offices_and_units/information_technology/help/.
When using the University’s IT, you must adhere to the Acceptable Use of IT Resources Policy. The policy applies to all who connect to the MQ network including students.

Changes since First Published

<table>
<thead>
<tr>
<th>Date</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>20/02/2020</td>
<td>Swapped week 12 and 11 as the industry experts are available in week 11 and not week 12</td>
</tr>
<tr>
<td>13/02/2020</td>
<td>Small typos in the weekly Unit Schedule fixed</td>
</tr>
<tr>
<td>12/02/2020</td>
<td>As discussed we needed to change tutorials to start in week 2 as we have had some enrolment issues with the unit</td>
</tr>
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</table>