PICT3011

Cyber Security in Practice

Session 2, Fully online/virtual 2020

Department of Security Studies and Criminology

Contents

Notice

As part of Phase 3 of our return to campus plan, most units will now run tutorials, seminars and ot her small group learning activities on campus for the second half-year, while keeping an online ver sion available for those students unable to return or those who choose to continue their studies onli ne.

To check the availability of face-to-face and onlin e activities for your unit, please go to timetable vi ewer. To check detailed information on unit asses sments visit your unit's iLearn space or consult yo ur unit convenor.

General Information

Unit convenor and teaching staff Ed Moore ed.moore@mq.edu.au
Credit points 10
Prerequisites 50cp at 2000 level or above
Corequisites
Co-badged status
Unit description Computer systems and networks, and the applications that they support, are essential to information flows, economic transactions and critical infrastructure in the twenty-first century. This unit will present an overview of modern cyber security with reference to both public and private sector organisations. The unit will look at the motives and perpetrators of cybercrime. It will explore how individuals and organisations face specific threats from their use of technology and identify challenges in maintaining cyber and information security. It further examines the protective security measures required to protect physical and digital access to information through people, infrastructure and computer systems.

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: Integrate and analyse relevant theoretical and case-based literature to present a sustained, coherent and logical consideration to cybercrime and cyber security

ULO2: Demonstrate a comprehensive understanding of the key procedures and practices relevant to the management of cyber security risks and countermeasures.

ULO3: Demonstrate a comprehensive understanding of threats to computer networks and physical infrastructure.

ULO4: Critique and evaluate key security vulnerabilities of data storage infrastructure.

ULO5: Apply advanced cyber hygiene practices to improve both personal and professional security

Assessment Tasks

Name	Weighting	Hurdle	Due
Tutorial Participation	10%	No	Ongoing
Weekly Quizzes	20%	No	Ongoing
Seminal Article Critique	20%	No	Week 7
Research Essay	50%	No	Week 11

Tutorial Participation

Assessment Type [1]: Participatory task
Indicative Time on Task [2]: 13 hours
Due: **Ongoing**
Weighting: **10%**

Student engagement within tutorial exercises (or weekly forums for external students).

On successful completion you will be able to:

- Demonstrate a comprehensive understanding of the key procedures and practices relevant to the management of cyber security risks and countermeasures.
- Demonstrate a comprehensive understanding of threats to computer networks and physical infrastructure.
- Critique and evaluate key security vulnerabilities of data storage infrastructure.
- Apply advanced cyber hygiene practices to improve both personal and professional security

Weekly Quizzes

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

Online weekly quizzes based on the content from the previous week to be completed by all

students.

On successful completion you will be able to:

- Demonstrate a comprehensive understanding of the key procedures and practices relevant to the management of cyber security risks and countermeasures.
- Demonstrate a comprehensive understanding of threats to computer networks and physical infrastructure.
- Critique and evaluate key security vulnerabilities of data storage infrastructure.
- Apply advanced cyber hygiene practices to improve both personal and professional security

Seminal Article Critique

Assessment Type [1]: Essay
Indicative Time on Task [2]: 20 hours
Due: **Week 7**
Weighting: **20%**

Seminal article critique based on an article of student's choice relevant to a topic from the course to be completed by all students.

On successful completion you will be able to:

- Integrate and analyse relevant theoretical and case-based literature to present a sustained, coherent and logical consideration to cybercrime and cyber security
- Demonstrate a comprehensive understanding of the key procedures and practices relevant to the management of cyber security risks and countermeasures.
- Critique and evaluate key security vulnerabilities of data storage infrastructure.
- Apply advanced cyber hygiene practices to improve both personal and professional security

Research Essay

Assessment Type [1]: Essay
Indicative Time on Task [2]: 40 hours
Due: **Week 11**
Weighting: **50%**

Research essay to be completed by all students on the given question.

On successful completion you will be able to:

- Integrate and analyse relevant theoretical and case-based literature to present a sustained, coherent and logical consideration to cybercrime and cyber security
- Demonstrate a comprehensive understanding of the key procedures and practices relevant to the management of cyber security risks and countermeasures.
- Demonstrate a comprehensive understanding of threats to computer networks and physical infrastructure.
- Critique and evaluate key security vulnerabilities of data storage infrastructure.
- Apply advanced cyber hygiene practices to improve both personal and professional security

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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

UNIT REQUIREMENTS AND EXPECTATIONS

- You should spend an average of 12 hours per week on this unit. This includes listening to lectures prior to seminar or tutorial, reading weekly required materials as detailed in iLearn, participating in Ilearn discussion forums and preparing assessments.
- Internal students are expected to attend all seminar or tutorial sessions, and external students are expected to make significant contributions to on-line activities.
- In most cases students are required to attempt and submit all major assessment tasks in order to pass the unit.

REQUIRED READINGS

- The citations for all the required readings for this unit are available to enrolled students through the unit iLearn site, and at Macquarie University's library site. Electronic copies

of required readings may be accessed through the library or will be made available by other means.

TECHNOLOGY USED AND REQUIRED

- Computer and internet access are essential for this unit. Basic computer skills and skills in word processing are also a requirement.
- This unit has an online presence. Login is via: https://ilearn.mq.edu.au/
- Students are required to have regular access to a computer and the internet. Mobile devices alone are not sufficient.
- Information about IT used at Macquarie University is available at http://students.mq.edu.au/it_services/

SUBMITTING ASSESSMENT TASKS

- All text-based assessment tasks are to be submitted, marked and returned electronically. This will only happen through the unit iLearn site.
- Assessment tasks must be submitted as a MS word document by the due date.
- Most assessment tasks will be subject to a 'TurnitIn' review as an automatic part of the submission process.
- The granting of extensions is subject to the university's Special Consideration Policy. Extensions will not be granted by unit conveners or tutors, but must be lodged through Special Consideration: https://students.mq.edu.au/study/my-study-program/special-consideration

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 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.