PICT3011

Cyber Security in Practice

Session 2, In person-scheduled-weekday, North Ryde 2025

School of International Studies

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General Information

Unit convenor and teaching staff Jeffrey Foster jeff.foster@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	Groupwork/Individual	Short Extension	AI Approach
Powerpoint Presentation	40%	No	14/09/2025		No	
Weekly Quizzes	20%	No	Various times/ Weeks; See iLearn		No	
Research Essay	40%	No	02/11/2025		No	

Powerpoint Presentation

Assessment Type [1]: Media presentation
Indicative Time on Task [2]: 33 hours
Due: **14/09/2025**
Weighting: **40%**
Groupwork/Individual:
Short extension [3]: No
AI Approach:

A presentation to be designed and recorded by all students based on topics within the unit.

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]: 13 hours
Due: **Various times/Weeks; See iLearn**

Weighting: **20%**
Groupwork/Individual:
Short extension [3]: No
AI Approach:

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

Research Essay

Assessment Type [1]: Essay
Indicative Time on Task [2]: 30 hours
Due: **02/11/2025**
Weighting: **40%**
Groupwork/Individual:
Short extension [3]: No
AI Approach:

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
- Academic Success 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.

[3] An automatic short extension is available for some assessments. Apply through the Service Connect Portal.

Delivery and Resources

Lectures will be live for in-person students on Mondays from 9am-11am. Lectures will be recorded and made available via Echo360 immediately after the lecture for online students.

All readings and resources will be made available via iLearn.

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

LATE SUBMISSION OF ASSESSMENT TASKS

Unless a Special Consideration request has been submitted and approved, a 5% penalty (of the total possible mark) will be applied each day a written assessment is not submitted, up until the 7th day (including weekends). After the 7th day, a mark of, 0 (zero) will be awarded even if the assessment is submitted. Submission time for all written assessments is set at 11.55pm. A 1-hour grace period is provided to students who experience a technical issue.

This late penalty will apply to non-timed sensitive assessment (incl essays, reports, posters, portfolios, journals, recordings etc). Late submission of time sensitive tasks (such as tests/ exams, performance assessments/presentations, scheduled practical assessments/labs etc) will only be addressed by the unit convenor in a Special consideration application. Special Consideration outcome may result in a new question or topic

WORD LIMITS FOR ASSESSMENT TASKS

Stated word limits include footnotes and footnoted references, but not bibliography, or title page.

Word limits can generally deviate by 10% either over or under the stated figure.

If the number of words deviates from the limit by more than 10%, then penalties will apply. These

penalties are 5% of the awarded mark for every 100 words deviation from the word limit. If a paper is 300 words over, for instance, it will lose 3 x 5% = 15% of the total mark awarded for the assignment. This percentage is taken off the total mark, i.e. if a paper was graded at a credit (65%) and was 300 words over, it would be reduced by 15 marks to a pass (50%).

The application of this penalty is at the discretion of the course convener.

REASSESSMENT OF ASSIGNMENTS DURING THE SEMESTER

Macquarie University operates a Final Grade Appeal procedure as part of the Assessment policy in cases where students feel their work was graded inappropriately: https://policies.mq.edu.au/document/view.php?id=277

In accordance with the Grade Appeal procedure, individual works are not subject to regrading.

STAFF AVAILABILITY

Department staff will endeavour to answer student enquiries in a timely manner. However, emails or iLearn messages will not usually be answered over the weekend or public holiday period.

Students are encouraged to read the Unit Guide and look at instructions posted on the iLearn site before sending email requests to staff.

Unit Schedule

Module	Date	Topic		Assessments
1	28 Jul 2024	Cyber Security Concepts		Quiz 1
2	4 Aug 2025	Cyber Hygiene	Tutorial 1	Quiz 2
3	11 Aug 2026	Risk Management	Tutorial 2	Quiz 3
4	18 Aug 2027	Regulations	Tutorial 3	Quiz 4
5	25 Aug 2028	Threat Intelligence	Tutorial 4	Quiz 5
6	1 Sep 2029	Frameworks	Tutorial 5	Quiz 6
7	8 Sep 2030	Protecting Digital Assets	Tutorial 6	Powerpoint Presentation Due/Quiz 7
8	15 Sep 2031	Physical Security		Quiz 8
InterSession Break	22 Sep 2032			

InterSession Break	29 Sep 2033			
9	6 Oct 2034	Identity and Access Management	Tutorial 7	Quiz 9
10	13 Oct 2035	Digital Forensics & Ethics	Tutorial 8	Quiz 10
11	20 Oct 2036	Network Security	Tutorial 9	Quiz 11
12	27 Oct 2037	Incident Response	Tutorial 10	Research Essay Due/Quiz 12
13	3 Nov 2038	What's Next		

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
- Assessment Procedure
- Complaints Resolution 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 connect.mq.edu.au or if you are a Global MBA student contact globalmba.support@mq.edu.au

Academic Integrity

At Macquarie, we believe academic integrity – honesty, respect, trust, responsibility, fairness and courage – is at the core of learning, teaching and research. We recognise that meeting the expectations required to complete your assessments can be challenging. So, we offer you a range of resources and services to help you reach your potential, including free online writing and maths support, academic skills development and wellbeing consultations.

Student Support

Macquarie University provides a range of support services for students. For details, visit http://students.mq.edu.au/support/

Academic Success

Academic Success provides resources to develop your English language proficiency, academic writing, and communication skills.

- Workshops
- Chat with a WriteWISE peer writing leader
- Access StudyWISE
- Upload an assignment to Studiosity
- Complete the 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

Macquarie University offers a range of Student Support Services including:

- IT Support
- Accessibility and disability support with study
- Mental health support
- Safety support to respond to bullying, harassment, sexual harassment and sexual assault
- Social support including information about finances, tenancy and legal issues
- Student Advocacy provides independent advice on MQ policies, procedures, and processes

Student Enquiries

Got a question? Ask us via the Service Connect Portal, or contact Service Connect.

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

Date	Description
20/07/2025	Modified the UC (remove myself) and joined with the online offering.

Unit information based on version 2025.04 of the Handbook