



PICT3011

Cyber Security in Practice

Session 2, In person-scheduled-weekday, North Ryde 2026

School of International Studies

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General Information

Unit convenor and teaching staff

Ben Scott

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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

General Assessment Information

Presentation

A professional presentation to be designed and recorded by all students based on a realistic organisational cybersecurity case study.

On successful completion you will be able to:

- Analyse cybersecurity threats, risks and organisational vulnerabilities within a real-world business context.
- Evaluate and communicate appropriate cybersecurity risk treatment strategies and recommendations.
- Demonstrate the ability to present complex cybersecurity concepts clearly and professionally to a business audience

Reflection

A reflective piece completed by all students examining their learning, professional development, and application of cybersecurity concepts to that stage the unit.

On successful completion you will be able to:

- Critically reflect on the development of your cybersecurity knowledge and professional judgement.
- Evaluate how cybersecurity concepts can be applied to organisational practice and decision-making.
- Identify opportunities for continued professional development in cybersecurity.

Essay

A 2,500-word research essay to be completed by all students on one of the prescribed cybersecurity topics.

On successful completion you will be able to:

- Critically analyse contemporary cybersecurity issues, policies and emerging technologies.
- Research and synthesise evidence from academic, government and industry sources.
- Construct a well-supported argument that evaluates cybersecurity challenges and their implications.
- Communicate complex cybersecurity concepts effectively using appropriate academic

conventions.

Assessment support and notes

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.

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

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

Assessment Tasks

Name	Weighting	Hurdle	Due	Groupwork/Individual	Short Extension	AI Approach
Powerpoint Presentation	40%	No	13/09/2026	Individual	No	Open
Reflections	20%	No	05/10/2026	Individual	Yes	Open
Research Essay	40%	No	01/11/2026	Individual	Yes	Open

Powerpoint Presentation

Assessment Type ¹: Presentation task

Indicative Time on Task ²: 33 hours

Due: **13/09/2026**

Weighting: **40%**

Groupwork/Individual: Individual

Short extension ³: No

AI Approach: Open

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

Reflections

Assessment Type ¹: Reflection task

Indicative Time on Task ²: 13 hours

Due: **05/10/2026**

Weighting: **20%**

Groupwork/Individual: Individual

Short extension ³: Yes

AI Approach: Open

Students will submit reflections based on the unit content.

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: Written Submission

Indicative Time on Task ²: 30 hours

Due: **01/11/2026**

Weighting: **40%**

Groupwork/Individual: Individual

Short extension ³: Yes

AI Approach: Open

Students will complete an essay on a provided 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

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

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 activities and discussion forums, and preparing assessments.
- Internal students are expected to attend all seminar or tutorial sessions. External students are expected to make significant contributions to online 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 required readings for this unit are available to enrolled students through the unit iLearn site and the University Library. 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, including word processing, are required.
- This unit has an online presence. Login is via the unit iLearn site.
- Students are required to have regular access to a computer and the internet. Mobile

devices alone are not sufficient.

Submitting assessment tasks

- All text-based assessment tasks are to be submitted, marked, and returned electronically via the unit iLearn site.
- Assessment tasks must be submitted as a Microsoft Word document by the due date specified.
- Assessment tasks may be subject to text-matching software as part of the submission process.

Late submission of assessment tasks

Unless a Special Consideration request has been submitted and approved, a penalty of 5% of the total possible mark will be applied for each calendar day an assessment is submitted late, up to a maximum of 7 days (including weekends). After the 7th day, a mark of zero will be awarded, even if the assessment is submitted.

Submission time for all written assessments is 11.55 pm. A one-hour grace period is provided to students who experience a technical issue.

Late penalties apply to non–time-sensitive assessment tasks, such as essays, reports, portfolios, journals, and recorded submissions. Late submission of time-sensitive assessment tasks, such as tests, examinations, presentations, or scheduled practical assessments, will only be considered through an approved Special Consideration application.

Reassessment and grade review

- 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 assessment tasks are not subject to regrading during the semester.

Staff availability

- Teaching staff will endeavour to respond to student enquiries in a timely manner. However, emails or iLearn messages will not be answered on weekends or public holidays.
- Students are encouraged to consult the Unit Guide and materials available on the iLearn site before contacting teaching staff.

Policies and Procedures

Macquarie University policies and procedures are accessible from [Policy Central \(https://policies.mq.edu.au\)](https://policies.mq.edu.au)

[s.mq.edu.au](https://students.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 \(https://students.mq.edu.au/support/study/policies\)](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 \(https://policies.mq.edu.au\)](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 <https://students.mq.edu.au/support/>

Academic Success

[Academic Success](#) provides resources to develop your English language proficiency, academic writing, and communication skills.

- [Ask a Study Coach](#)
- [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 <https://students.mq.edu.au/support/technology/service-desk>.

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.

Unit information based on version 2026.04 of the [Handbook](#)