



AFIN8016

Payments, Cryptocurrencies and Blockchain

Session 1, In person-scheduled-weekday, North Ryde 2025

Department of Applied Finance

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General Information

Unit convenor and teaching staff

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Credit points

10

Prerequisites

(Admission to MFin or MActPrac or MBkgFin or MCom or MBusAnalytics and (ACST6003 or AFIN8014)) or ACCG6003

Corequisites

Co-badged status

Unit description

The development of Cryptocurrencies, using the fundamentals of cryptography and blockchain, is predicted to have significant impact on banks, financial institutions, governments, economies and business in general. The decentralization of payment networks and the establishment of an ecosystem of various stakeholders results in various benefits and challenges that will influence their adoption and diffusion in the marketplace. This unit examines cryptocurrencies and blockchain and their emergence and role in financial markets. This unit discuss the technical underpinnings of blockchain and key concepts such as decentralization and consensus algorithms. Students will learn how these new financial instruments and technologies are disrupting traditional ways of doing business.

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 the fundamentals of blockchain and demonstrate knowledge of theoretical crypto-currency concepts and their applications.

ULO2: Critically evaluate the use of cryptocurrencies from a social and economic

perspective with regard to regulatory frameworks that govern adoption and use.

ULO3: Apply different financial instruments and technology infrastructures including digital currencies and blockchain that facilitate the operation of financial markets.

ULO4: Compare and contrast how these new instruments and technologies are disrupting traditional ways of doing business in the financial industry.

General Assessment Information

Late Assessment Submission Penalty (written assessments)

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 grade of '0' 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 concern.

For any late submissions of time-sensitive tasks, such as scheduled tests/exams, performance assessments/presentations, and/or scheduled practical assessments/labs, students need to submit an application for [Special Consideration](#).

Unit assessments

Students will undertake continuous weekly assessment via multiple choice quizzes. Their assignments will be practical in nature and provide a deeper understanding of Blockchain issues and DeFi protocols.

Assessment Tasks

Name	Weighting	Hurdle	Due
<u>Quizzes</u>	20%	No	Weekly
<u>Assignment 1</u>	20%	No	11/04/2025
<u>Assignment 2</u>	20%	No	30/05/2025
<u>Final Examination</u>	40%	No	Final Exam Period

Quizzes

Assessment Type ¹: Quiz/Test

Indicative Time on Task ²: 15 hours

Due: **Weekly**

Weighting: **20%**

Online quizzes will be held during the session.

On successful completion you will be able to:

- Understand the fundamentals of blockchain and demonstrate knowledge of theoretical crypto-currency concepts and their applications.
- Critically evaluate the use of cryptocurrencies from a social and economic perspective with regard to regulatory frameworks that govern adoption and use.
- Apply different financial instruments and technology infrastructures including digital currencies and blockchain that facilitate the operation of financial markets.
- Compare and contrast how these new instruments and technologies are disrupting traditional ways of doing business in the financial industry.

Assignment 1

Assessment Type ¹: Report

Indicative Time on Task ²: 15 hours

Due: **11/04/2025**

Weighting: **20%**

The assignment will cover quantitative and/or qualitative analysis and students will be required to produce a report regarding their find(s). The report should not exceed 1,500 words.

On successful completion you will be able to:

- Understand the fundamentals of blockchain and demonstrate knowledge of theoretical crypto-currency concepts and their applications.
- Critically evaluate the use of cryptocurrencies from a social and economic perspective with regard to regulatory frameworks that govern adoption and use.
- Apply different financial instruments and technology infrastructures including digital currencies and blockchain that facilitate the operation of financial markets.
- Compare and contrast how these new instruments and technologies are disrupting traditional ways of doing business in the financial industry.

Assignment 2

Assessment Type ¹: Project

Indicative Time on Task ²: 20 hours

Due: **30/05/2025**

Weighting: **20%**

Students will conduct a quantitative analysis / financial modelling project and present their solutions and outcomes.

On successful completion you will be able to:

- Critically evaluate the use of cryptocurrencies from a social and economic perspective with regard to regulatory frameworks that govern adoption and use.
- Apply different financial instruments and technology infrastructures including digital currencies and blockchain that facilitate the operation of financial markets.
- Compare and contrast how these new instruments and technologies are disrupting traditional ways of doing business in the financial industry.

Final Examination

Assessment Type ¹: Examination

Indicative Time on Task ²: 25 hours

Due: **Final Exam Period**

Weighting: **40%**

A two hour exam will be held during University Examination Period.

On successful completion you will be able to:

- Understand the fundamentals of blockchain and demonstrate knowledge of theoretical crypto-currency concepts and their applications.
- Critically evaluate the use of cryptocurrencies from a social and economic perspective with regard to regulatory frameworks that govern adoption and use.
- Apply different financial instruments and technology infrastructures including digital currencies and blockchain that facilitate the operation of financial markets.
- Compare and contrast how these new instruments and technologies are disrupting traditional ways of doing business in the financial industry.

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

Lecture slides provide the bulk of the material, with additional readings provided.

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.

Unit information based on version 2025.02 of the [Handbook](#)