



AFIN2060

FinTech Foundations and Applications

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

50cp at 1000 level or above

Corequisites

Co-badged status

Unit description

Technology has been transforming the finance industry, with the potential to disrupt traditional industry structure and practice. This unit introduces the main building blocks of FinTech (blockchain, big data, machine learning and artificial intelligence) and how these technologies could provide transformative solutions to underlying finance problems (including economic and psychological issues) and reshape the finance industry with innovations. Cutting-edge cases will be used to illustrate the core concepts.

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: Identify fundamental economic and psychological issues in the current financial system.

ULO2: Explore fundamental techniques in blockchain, machine learning and artificial intelligence

ULO3: Work productively in a group to evaluate how major advances in blockchain, machine learning and artificial intelligence are applicable to finance problems.

ULO4: Analyse recent developments in FinTech and its impact in transforming the

finance industry.

ULO5: Discover the risks arising from FinTech and understand the dynamics between the innovations and regulations.

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 11.59 pm. 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 apply for **Special Consideration**.

Assessment Tasks

Name	Weighting	Hurdle	Due
Skills development: FinTech in practice	20%	No	Week 5, Week 8
Professional practice: Business report	40%	No	Week 11
Formal and observed learning: Exam	40%	No	Exam Period

Skills development: FinTech in practice

Assessment Type ¹: Quiz/Test

Indicative Time on Task ²: 15 hours

Due: **Week 5, Week 8**

Weighting: **20%**

The purpose of this assessment is for you to apply your understanding and knowledge of key topics from the unit.

You will undertake two quizzes. Feedback on your performance will help you assess your progress through the unit content.

Skills in focus: - Critical thinking - Discipline knowledge - Problem solving

Deliverable: Two quizzes Individual assessment

On successful completion you will be able to:

- Identify fundamental economic and psychological issues in the current financial system.
- Explore fundamental techniques in blockchain, machine learning and artificial intelligence
- Work productively in a group to evaluate how major advances in blockchain, machine learning and artificial intelligence are applicable to finance problems.

Professional practice: Business report

Assessment Type ¹: Report

Indicative Time on Task ²: 30 hours

Due: **Week 11**

Weighting: **40%**

The purpose of this assessment is for students to gain expertise in applications of FinTech. You will work in teams to conduct an analysis and produce a business report. **Skills in focus:** - Collaboration - Communication - Critical Thinking **Deliverable:** Business report and presentation Individual and Group assessment

On successful completion you will be able to:

- Identify fundamental economic and psychological issues in the current financial system.
- Explore fundamental techniques in blockchain, machine learning and artificial intelligence
- Work productively in a group to evaluate how major advances in blockchain, machine learning and artificial intelligence are applicable to finance problems.
- Analyse recent developments in FinTech and its impact in transforming the finance industry.
- Discover the risks arising from FinTech and understand the dynamics between the innovations and regulations.

Formal and observed learning: Exam

Assessment Type ¹: Examination

Indicative Time on Task ²: 30 hours

Due: **Exam Period**

Weighting: **40%**

The purpose of this assessment is for you to demonstrate the expertise you have gained in this unit.

You will participate in a 2-hour exam held during the University Examination period. Important information about the exam will be made available on the unit iLearn page. You should also review the [MQ Exams website](#) for general tips.

Deliverable: Formal exam Individual assessment

On successful completion you will be able to:

- Identify fundamental economic and psychological issues in the current financial system.
- Explore fundamental techniques in blockchain, machine learning and artificial intelligence
- Analyse recent developments in FinTech and its impact in transforming the finance industry.
- Discover the risks arising from FinTech and understand the dynamics between the innovations and regulations.

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

Required Text	No prescribed textbook is required. The unit will utilize various library resources, including research papers, book chapters, case studies, etc. All materials will be provided via iLearn or during the lecture.
Recommended Readings	We will supplement the lecture materials with readings from journals and other textbooks. A list of relevant material will be provided via iLearn.
Technology Used and Required	Necessary technology: Computer with MS Excel and Word, scientific or business calculator and internet access.

Unit Schedule

Teaching Weeks	Topics
1	Introduction of FinTech: History and Today
2	Digital Transformation

3	Raising Money with Alternatives
4	Payment Innovations
5	Blockchain-A Disruptive Technology: Bitcoin and Cryptocurrencies
6	Blockchain-A Disruptive Technology: Beyond Coins
7	Blockchain-A Disruptive Technology: Value and Investment
8	Machine Learning: from ' Traditional' to 'Deep'
9	Big Data: Harnessing Data with Artificial Intelligence
10	Issues of FinTech: Risks and Regulations
11	FinTech: Possible Improvements in Financial Behaviors
12	FinTech: Social and Environmental Impacts
13	Revision

Policies and Procedures

Macquarie University policies and procedures are accessible from [Policy Central \(https://policies.mq.edu.au\)](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 \(https://students.mq.edu.au/support/study/policies\)](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 <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
07/02/2025	Update staff contacts.

Unit information based on version 2025.03 of the [Handbook](#)