



# AFIN8014

## FinTech and Innovation

Session 1, Special circumstance 2021

*Department of Applied Finance*

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#### **Disclaimer**

Macquarie University has taken all reasonable measures to ensure the information in this publication is accurate and up-to-date. However, the information may change or become out-dated as a result of change in University policies, procedures or rules. The University reserves the right to make changes to any information in this publication without notice. Users of this publication are advised to check the website version of this publication [or the relevant faculty or department] before acting on any information in this publication.

#### **Notice**

As part of [Phase 3 of our return to campus plan](#), most units will now run tutorials, seminars and other small group activities on campus, and most will keep an online version available to those students unable to return or those who choose to continue their studies online.

To check the availability of face-to-face activities for your unit, please go to [timetable viewer](#). To check detailed information on unit assessments visit your unit's iLearn space or consult your unit convenor.

## General Information

Unit convenor and teaching staff Unit Convenor Cynthia Cai <a href="mailto:cynthia.cai@mq.edu.au">cynthia.cai@mq.edu.au</a>
Credit points 10
Prerequisites (AFIN6012 and (AFIN613 or AFIN6013)) or (admission to MBkgFin or MBusAnalytics or MFin)
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

Assessment criteria for all assessment tasks will be provided on the unit iLearn site.

It is the responsibility of students to view their marks for each within-session-assessment on iLearn within 20 days of posting. If there are any discrepancies, students must contact the unit convenor immediately. Failure to do so will mean that queries received after the release of final results regarding assessment tasks (not including the final exam mark) will not be addressed.

### Late submissions and extensions

Tasks 10% or less – No extensions will be granted. Students who have not submitted the task prior to the deadline will be awarded a mark of 0 for the task, except for cases in which an application for special consideration is made and approved.

Tasks above 10% - No extensions will be granted. There will be a deduction of 10% of the total available marks made from the total awarded mark for each 24 hour period or part thereof that the submission is late (for example, 25 hours late in submission – 20% penalty). This penalty does not apply for cases in which an application for special consideration is made and approved. No submission will be accepted after solutions have been posted.

## Assessment Tasks

Name	Weighting	Hurdle	Due
<u>Assignment</u>	20%	No	Week 5
<u>Group Project</u>	40%	No	Week 10
<u>Final Examination</u>	40%	No	During University Exam Period

### Assignment

Assessment Type <sup>1</sup>: Report

Indicative Time on Task <sup>2</sup>: 15 hours

Due: **Week 5**

Weighting: **20%**

The assignment will cover quantitative and/or qualitative analysis of a finance scenario or problem. Student will be required to produce a report of 800 to 1200 words

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

## Group Project

Assessment Type <sup>1</sup>: Project

Indicative Time on Task <sup>2</sup>: 40 hours

Due: **Week 10**

Weighting: **40%**

The project will cover quantitative and/or qualitative analysis specific to FinTech. In groups of 3-4, students will be required to conduct analysis and produce a business report. Please note that 50% of the marks will be based on student's individual contribution via individual essay and/or presentation.

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.

## Final Examination

Assessment Type <sup>1</sup>: Examination

Indicative Time on Task <sup>2</sup>: 15 hours

Due: **During University Exam Period**

Weighting: **40%**

An online open book two hour examination will be held during University Examination Period.

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.

<sup>1</sup> 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.

<sup>2</sup> 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: Peer-to-Peer Lending and Crowdfunding
4	Blockchain-A Disruptive Technology: Bitcoin and Cryptocurrencies
5	Blockchain-A Disruptive Technology: Beyond Coins
6	Machine Learning: from 'Traditional' to 'Deep'
7	Big Data: Harnessing Data with Artificial Intelligence

8	InsurTech and PropTech: Financial Innovations in Insurance and Real Estate
9	Financial Inclusion with Innovations
10	Issues of FinTech: Risks and Regulations
11	FinTech: Possible Improvements in Financial Behaviours
12	FinTech: The Future
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](#)
- [Grade Appeal Policy](#)
- [Complaint Management 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 [ask.mq.edu.au](https://ask.mq.edu.au) or if you are a Global MBA student contact [globalmba.support@mq.edu.au](mailto: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](http://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](http://ask.mq.edu.au)

If you are a Global MBA student contact [globalmba.support@mq.edu.au](mailto: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/](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.