AFIN8014

FinTech and Innovation

Session 1, Online-scheduled-weekday 2023

Department of Applied Finance

Contents

General Information

Unit convenor and teaching staff
Unit Convenor
Cynthia Cai
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Credit points
10

Prerequisites
(AFIN6012 and (AFIN613 or AFIN6013)) or (admission to MBkgFin or MBusAnalytics or MFin or MActPrac)

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 11.55pm. 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.

Assessment Tasks

Name	Weighting	Hurdle	Due
Group Project	40%	No	Week 10
Assignment	10%	No	Week 7
Final Examination	40%	No	Exam Period
Online Quiz	10%	No	Week 4

Group Project

Assessment Type [1]: Project
Indicative Time on Task [2]: 35 hours
Due: **Week 10**
Weighting: **40%**

The project will cover quantitative and/or qualitative analysis specific to FinTech. In groups, 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.

Assignment

Assessment Type [1]: Report
Indicative Time on Task [2]: 5 hours
Due: **Week 7**
Weighting: **10%**

The assignment will cover quantitative and/or qualitative analysis of a finance scenario or problem. Students 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

Final Examination

Assessment Type [1]: Examination
Indicative Time on Task [2]: 10 hours
Due: **Exam Period**
Weighting: **40%**

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

On successful completion you will be able to:

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Online Quiz

Assessment Type [1]: Quiz/Test

Indicative Time on Task [2]: 5 hours
Due: **Week 4**
Weighting: **10%**

The online quiz will consist of 5 to 10 questions and will be available on iLearn. Please use the quiz result as an indicator of whether you are progressing satisfactorily in the unit.

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.

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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
- 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 utilise 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	Issues of FinTech: Risks and Regulations
10	Financial Inclusion with Innovations
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). 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 ask.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/

The Writing Centre

The Writing Centre 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 AskMQ, 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
07/02/2023	Joined unit guides of both offerings.