AFIN8014
FinTech and Innovation
Session 1, In person-scheduled-weekday, North Ryde 2024

Department of Applied Finance

Contents

- General Information 2
- Learning Outcomes 2
- General Assessment Information 3
- Assessment Tasks 3
- Delivery and Resources 6
- Unit Schedule 6
- Policies and Procedures 6

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.
General Information

Unit convenor and teaching staff
Cynthia Cai
cynthia.cai@mq.edu.au

Credit points
10

Prerequisites
((Admission to MBkgFin or MCom) and (AFIN8008 or ACST6003)) or (Admission to MBusAnalytics or MFin or MActPrac) or ACCG6003

Corequisites

Co-badge 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

<table>
<thead>
<tr>
<th>Name</th>
<th>Weighting</th>
<th>Hurdle</th>
<th>Due</th>
</tr>
</thead>
<tbody>
<tr>
<td>Online Quiz</td>
<td>10%</td>
<td>No</td>
<td>Week 4</td>
</tr>
<tr>
<td>Assignment</td>
<td>10%</td>
<td>No</td>
<td>Week 7</td>
</tr>
<tr>
<td>Group Project</td>
<td>40%</td>
<td>No</td>
<td>Week 10</td>
</tr>
<tr>
<td>Final Examination</td>
<td>40%</td>
<td>No</td>
<td>Exam Period</td>
</tr>
</tbody>
</table>

**Online Quiz**

Assessment Type: Quiz/Test  
Indicative Time on Task: 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
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.

**Assignment**

**Assessment Type**: Report

**Indicative Time on Task**: 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

**Group Project**

**Assessment Type**: Project

**Indicative Time on Task**: 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.

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:
• 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. |
| Recommendation 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

<table>
<thead>
<tr>
<th>Teaching Weeks</th>
<th>Topics</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Introduction of FinTech: History and Today</td>
</tr>
<tr>
<td>2</td>
<td>Digital Transformation</td>
</tr>
<tr>
<td>3</td>
<td>Raising Money with Alternatives: Peer-to-Peer Lending and Crowdfunding</td>
</tr>
<tr>
<td>4</td>
<td>Blockchain - A Disruptive Technology: Bitcoin and Cryptocurrencies</td>
</tr>
<tr>
<td>5</td>
<td>Blockchain - A Disruptive Technology: Beyond Coins</td>
</tr>
<tr>
<td>6</td>
<td>Machine Learning: from ‘Traditional’ to ‘Deep’</td>
</tr>
<tr>
<td>7</td>
<td>Big Data: Harnessing Data with Artificial Intelligence</td>
</tr>
<tr>
<td>8</td>
<td>InsurTech and PropTech: Financial Innovations in Insurance and Real Estate</td>
</tr>
<tr>
<td>9</td>
<td>Issues of FinTech: Risks and Regulations</td>
</tr>
<tr>
<td>10</td>
<td>Financial Inclusion with Innovations</td>
</tr>
<tr>
<td>11</td>
<td>FinTech: Possible Improvements in Financial Behaviours</td>
</tr>
<tr>
<td>12</td>
<td>FinTech: The Future</td>
</tr>
<tr>
<td>13</td>
<td>Revision</td>
</tr>
</tbody>
</table>

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.

Unit information based on version 2024.03 of the Handbook