



AFIN3029

Derivative Instruments

Session 2, In person-scheduled-weekday, North Ryde 2026

Department of Applied Finance

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General Information

Unit convenor and teaching staff Unit Convenor Terry Pan terry.pan@mq.edu.au Room 524, Building 4ER 2pm-3pm, Wednesday (in person)
Credit points 10
Prerequisites AFIN2050
Corequisites
Co-badged status
Unit description This unit explores the characteristics and pricing of derivatives. The importance of the principles of hedging and arbitrage in derivative pricing, is considered. Derivatives investigated include forwards, futures, options and various structured products. In particular, the unit covers non-standard securities and numerical methods.

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: Examine the concepts of option pricing theory and the role of derivatives.

ULO2: Apply financial derivatives such as forward/futures and options to solve quantitative problems.

ULO3: Develop skills to price options and other derivatives.

ULO4: Examine the principles of hedging, arbitrage theory and structured products.

General Assessment Information

Late Assessment Submission Penalty

If you submit your assessment late, 5% of the total possible marks will be deducted for each day (including weekends), up to 7 days. Submissions more than 7 days late will receive a mark of 0.

Example 1 (out of 100):

If you score 85/100 but submit **20 hours late**, you will lose **5 marks** and receive **80/100**.

Example 2 (out of 30):

If you score 27/30 but submit **20 hours late**, you will lose **1.5 marks** and receive **25.5/30**.

Extensions

Automatic short extension: Some assessments are eligible for automatic short extension. You can only apply for an automatic short extension before the due date.

Special Consideration: If you need more time due to serious issues and for any assessments that are not eligible for Short Extension, you must apply for Special Consideration. Need help? Review the [Special Consideration page](#) for further details.

Assessment Tasks

Name	Weighting	Hurdle	Due	Groupwork/Individual	Short Extension	AI Approach
Formal examination	50%	No	Exam Period	Individual	No	Observed
Professional practice: Case study	30%	No	16/10/2026	Individual	Yes	Open
Skills development: Derivatives in practice	20%	No	Week 8	Individual	No	Open

Formal examination

Assessment Type ¹: Examination

Indicative Time on Task ²: 30 hours

Due: **Exam Period**

Weighting: **50%**

Groupwork/Individual: Individual

Short extension ³: No

AI Approach: Observed

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(s): Formal exam Individual assessment

On successful completion you will be able to:

- Examine the concepts of option pricing theory and the role of derivatives.
- Apply financial derivatives such as forward/futures and options to solve quantitative problems.
- Develop skills to price options and other derivatives.
- Examine the principles of hedging, arbitrage theory and structured products.

Professional practice: Case study

Assessment Type ¹: Professional task

Indicative Time on Task ²: 20 hours

Due: **16/10/2026**

Weighting: **30%**

Groupwork/Individual: Individual

Short extension ³: Yes

AI Approach: Open

The purpose of this assessment is for you to gain expertise in applications in derivatives instruments.

You will apply frameworks and concepts discussed in the unit to a derivatives instruments case study.

Skills in focus:

- Critical thinking and problem solving
- Discipline knowledge
- Work readiness
- Communication skills

Deliverable(s): Written submission [max 2,000 words] Individual assessment

On successful completion you will be able to:

- Apply financial derivatives such as forward/futures and options to solve quantitative problems.
- Develop skills to price options and other derivatives.
- Examine the principles of hedging, arbitrage theory and structured products.

Skills development: Derivatives in practice

Assessment Type ¹: Problem-based task

Indicative Time on Task ²: 10 hours

Due: **Week 8**

Weighting: **20%**

Groupwork/Individual: Individual

Short extension ³: No

AI Approach: Open

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

You will participate in one quiz. Feedback on your performance will help you assess your progress through the unit content.

Skills in focus:

- Critical thinking and problem solving
- Discipline knowledge

Deliverable(s): Quiz

Individual assessment

On successful completion you will be able to:

- Examine the concepts of option pricing theory and the role of derivatives.
- Develop skills to price options and other derivatives.
- Examine the principles of hedging, arbitrage theory and structured products.

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
- [Academic Success](#) 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.

³ An automatic short extension is available for some assessments. Apply through the [Service Connect Portal](#).

Delivery and Resources

Hull, J. (2023) Fundamentals of Futures and Options Markets, Global Edition, 9th edition, Pearson.

Learning and Teaching Activities

The content for each week will comprise a lecture and a set of tutorial questions.

Students will need to register for a tutorial. Tutorials are considered compulsory but no marks are allocated. The tutorial schedule will be made available on iLearn. Tutorial enrolment or change of tutorial can be made through eStudent in the first two weeks of the session. **No tutorial changes**

are allowed after Week 2. Students should attend their allocated tutorial, but exceptions may occur on a one-off basis. That is, where circumstances prevent you from attending your own tutorial in a given week, you may attend an alternative tutorial if room is available. Students are expected to complete the 'Tutorial Questions' as a self-directed study activity before attending a tutorial.

Unit Schedule

Week	Lecture Date	Lecture Topic	Lecturer	Readings
1	29 July	Introduction to Derivatives and Mechanics of Futures Markets	Terry Pan	Hull et al. Chapters 1 & 2
2	5 August	Hedging Strategies using Futures	Terry Pan	Hull et al. Chapter 3
3	12 August	Interest rates	Terry Pan	Hull et al. Chapter 4
4	19 August	Determination of Forward and Futures Prices	Terry Pan	Hull et al. Chapter 5
5	26 August	Interest Rate Futures	Terry Pan	No readings beyond the lecture notes
6	2 Sept	Swaps	Terry Pan	Hull et al. Chapter 7
7	9 Sept	Mechanics of Option Markets and Properties of Stock Options	Terry Pan	Hull et al. Chapters 9 & 10
8	16 Sept	Trading Strategies Involving Options	Terry Pan	Hull et al. Chapter 11
9	7 Oct	Introduction to Binomial Trees	Terry Pan	Hull et al. Chapter 12
10	14 Oct	Valuing Stock Options: The Black-Scholes-Merton Model	Terry Pan	Hull et al. Chapter 13
11	21 Oct	Options on Stock Indices, Currencies and Futures	Terry Pan	Hull et al. Chapters 15 & 16
12	28 Oct	Greek Letters	Terry Pan	Hull et al. Chapter 17
13	4 Nov	Revision	Terry Pan	

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.

- [Ask a Study Coach](#)
- [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 <https://students.mq.edu.au/support/technology/service-desk>.

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
14/07/2026	Unit Schedule Updated.

Unit information based on version 2026.07 of the [Handbook](#)