



AFIN701

Finance Theory

S1 Block 2019

Department of Applied Finance

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Disclaimer

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General Information

Unit convenor and teaching staff

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Contact via Refer to ilearn

Refer to ilearn

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Credit points

4

Prerequisites

Permission by special approval

Corequisites

Co-badged status

Unit description

This unit is designed to introduce students to the major models of asset pricing and to rational expectations models. By using various asset pricing models, the unit will examine the economic intuition behind each model as well as providing a mathematically rigorous derivation of the model. The important features of these models, and their testable implications, will also be discussed.

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:

Illustrate and apply modern portfolio theory;

Examine discrete time asset pricing models, for example CAPM, APT, State Preference models, and the Lucas model and consider the economic intuition behind each model.

Evaluate continuous time models like Black-Scholes Pricing model, Merton model, Breeden model, and CIR model;

Understand advanced rational expectations models including Grossman model, Admati model, Kyle model, and the extensions.

Encourage peer learning, peer support and collaborative work.

General Assessment Information

It is the responsibility of students to view their marks for each within session assessment on iLearn within 20 working 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 marks (not including the final exam mark) will not be addressed.

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

Feedback prior to census date

The course is taught in block mode. Students will be required to do some in class exercises during the first block class. This will enable you to understand if you are progressing well in the unit. If you are experiencing any difficulty in learning, please discuss with the unit convenor for advice or withdraw from the unit before census date.

Assessment Tasks

Name	Weighting	Hurdle	Due
Assignment 1	20%	No	Refer to ilearn
Assignment 2	20%	No	Refer to ilearn
Final Exam	60%	No	Refer to ilearn

Assignment 1

Due: **Refer to ilearn**

Weighting: **20%**

Task Description:

The assignment can be done either individually or in groups but group work is encouraged as this helps to develop a cohort which is very valuable to you as your research career goes forward.

Each group will get a chance to present solutions to the problems in class. This gives the other students in the class a chance to see how a particular group approached the problems, and also provide members of the presenting group with an opportunity to develop their presentation skills.

Type of Collaboration: Individual or or group **Submission:** In class **Format:** Refer to ilearn **Length:** Refer to ilearn **Inherent Task Requirement:** Refer to ilearn **Late Submission:** 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.

On successful completion you will be able to:

- Illustrate and apply modern portfolio theory;
- Encourage peer learning, peer support and collaborative work.

Assignment 2

Due: **Refer to ilearn**

Weighting: **20%**

Task Description:

The assignment can be done either individually or in groups but group work is encouraged as this helps to develop a cohort which is very valuable to you as your research career goes forward.

Each group will get a chance to present solutions to the problems in class. This gives the other students in the class a chance to see how a particular group approached the problems, and also provide members of the presenting group with an opportunity to develop their presentation skills.

Type of Collaboration: Individual or or group **Submission:** In class **Format:** Refer to ilearn **Length:** Refer to ilearn **Inherent Task Requirement:** Refer to ilearn **Late Submission:** 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.

On successful completion you will be able to:

- Illustrate and apply modern portfolio theory;
- Examine discrete time asset pricing models, for example CAPM, APT, State Preference models, and the Lucas model and consider the economic intuition behind each model.
- Evaluate continuous time models like Black-Scholes Pricing model, Merton model, Breeden model, and CIR model;
- Understand advanced rational expectations models including Grossman model, Admati model, Kyle model, and the extensions.
- Encourage peer learning, peer support and collaborative work.

Final Exam

Due: **Refer to ilearn**

Weighting: **60%**

Task Description:

Final Examination will test topics covered throughout the session.

Type of Collaboration: Individual **Submission:** In class **Format:** Closed book, no notes
Length: 3 hours **Inherent Task Requirements:** Refer to iLearn **Late Submission:** No extensions will be granted. Students who do not sit the test will be awarded a mark of 0 for the task, except for cases in which an application for special consideration is made and approved.
 On successful completion you will be able to:

- Illustrate and apply modern portfolio theory;
- Examine discrete time asset pricing models, for example CAPM, APT, State Preference models, and the Lucas model and consider the economic intuition behind each model.
- Evaluate continuous time models like Black-Scholes Pricing model, Merton model, Breeden model, and CIR model;
- Understand advanced rational expectations models including Grossman model, Admati model, Kyle model, and the extensions.

Delivery and Resources

Recommended Text:	<p>There are no required texts for this course. The following books are useful references:</p> <ul style="list-style-type: none"> • Huang and Litzenberger, 1988 <i>Foundations for Financial Economics</i>, North-Holland (Elsevier Science Publishing, New York). • Ingersoll, 1987 <i>Theory of Financial Decision Making</i>, Rowan and Littlefield (Totowa, NJ). • Cochrane, 2005 <i>Asset Pricing Revised Edition</i>, Princeton University Press. • O'Hara, 1995 <i>Market Microstructure Theory</i>, Blackwell Publishers, Cambridge Mass.
Unit Web Page:	<p>Course material is available on the learning management system (iLearn)</p> <p>Students should consult the web page frequently. Learning, teaching and other reference materials are posted to this site throughout the session.</p>
Technology Used and Required:	<p>Access to iLearn and unit webpage.</p>
Timetable Summary:	<p>Module 1 Saturday/Sunday 16th-17th March</p> <p>Module 2 Saturday/ Sunday 4th -5th May</p> <p>Module 3 Saturday/ Sunday 18th-19th May</p>
Venue:	<p>The class is at the Macquarie University City Campus, Floor 24, 123 Pitt Street Sydney. We are booked in room 2408 and we will have access to all the syndicate rooms on level 23. The lifts are programmed to be free running between 8.15am & 3.30pm.</p> <p>A staff member will be at the Pitt St entrance to support access during peak times.</p> <p>It is a secure Building so you should aim to enter the building from 8.30am and before 9.00am & report to reception on level 24. Anyone outside that time will need to use the intercom at the Pitt St entrance and identify themselves. Staff will check with the Attendee List before providing access. We will have to use the intercom when we return after break times.</p>

Unit Schedule

Date	Module	Topic	Reading/ References
Saturday/Sunday 16 th -17 th March	Module 1 Discrete Time Models	The Capital Asset Pricing Model (CAPM)	Class Notes Huang and Litzenberger chapters 3 and 4 Ingersoll chapters 3 and 4
		The Arbitrage Pricing Theory (APT)	Class Notes Ingersoll chapters 2 and 7
		State Preference Models	Class Notes Huang and Litzenberger chapters 5, 6, and 7
		The Lucas Model	Class Notes Ingersoll chapters 10 and 11
		The Pricing Kernel Approach: Putting the Models together	Class Notes
Saturday/ Sunday 4 th -5 th May	Module 2 Continuous Time Models	Continuous Time Mathematics	Class Notes Ingersoll chapters 12 and 16
		The Black--Scholes Option Pricing Model	Class Notes Ingersoll chapter 14
		The Merton Model	Class Notes Ingersoll chapter 13
		The Breeden Model	Class Notes Ingersoll chapter 15
		The Cox--Ingersoll--Ross Model (CIR)	Class Notes Ingersoll chapter 18
Saturday/ Sunday 18 th -19 th May	Module 3 Rational Expectations Models	The Grossman Model	Class Notes
		The Admati Model	Class Notes
		The Kyle Model	Class Notes

		Extensions of the Kyle Model and future directions	Class Notes
	Review of the Course		

Policies and Procedures

Macquarie University policies and procedures are accessible from [Policy Central \(https://staff.mq.edu.au/work/strategy-planning-and-governance/university-policies-and-procedures/policy-central\)](https://staff.mq.edu.au/work/strategy-planning-and-governance/university-policies-and-procedures/policy-central). 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](#) (**Note:** *The Special Consideration Policy is effective from 4 December 2017 and replaces the Disruption to Studies Policy.*)

Undergraduate students seeking more policy resources can visit the [Student Policy Gateway \(https://students.mq.edu.au/support/study/student-policy-gateway\)](https://students.mq.edu.au/support/study/student-policy-gateway). It is your one-stop-shop for the key policies you need to know about throughout your undergraduate student journey.

If you would like to see all the policies relevant to Learning and Teaching visit [Policy Central \(https://staff.mq.edu.au/work/strategy-planning-and-governance/university-policies-and-procedures/policy-central\)](https://staff.mq.edu.au/work/strategy-planning-and-governance/university-policies-and-procedures/policy-central).

Student Code of Conduct

Macquarie University students have a responsibility to be familiar with the Student Code of Conduct: <https://students.mq.edu.au/study/getting-started/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

Supplementary exams

Information regarding supplementary exams, including dates, is available at: <http://www.business>

andeconomics.mq.edu.au/current_students/undergraduate/how_do_i/special_consideration

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) provides academic writing resources and study strategies to improve your marks and take control of your study.

- [Workshops](#)
- [StudyWise](#)
- [Academic Integrity Module for Students](#)
- [Ask a Learning Adviser](#)

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

If you are a Global MBA student contact 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/.

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.

Graduate Capabilities

PG - Discipline Knowledge and Skills

Our postgraduates will be able to demonstrate a significantly enhanced depth and breadth of knowledge, scholarly understanding, and specific subject content knowledge in their chosen fields.

This graduate capability is supported by:

Learning outcomes

- Illustrate and apply modern portfolio theory;
- Examine discrete time asset pricing models, for example CAPM, APT, State Preference models, and the Lucas model and consider the economic intuition behind each model.

- Evaluate continuous time models like Black-Scholes Pricing model, Merton model, Breeden model, and CIR model;
- Understand advanced rational expectations models including Grossman model, Admati model, Kyle model, and the extensions.

Assessment tasks

- Assignment 1
- Assignment 2

PG - Research and Problem Solving Capability

Our postgraduates will be capable of systematic enquiry; able to use research skills to create new knowledge that can be applied to real world issues, or contribute to a field of study or practice to enhance society. They will be capable of creative questioning, problem finding and problem solving.

This graduate capability is supported by:

Learning outcomes

- Examine discrete time asset pricing models, for example CAPM, APT, State Preference models, and the Lucas model and consider the economic intuition behind each model.
- Evaluate continuous time models like Black-Scholes Pricing model, Merton model, Breeden model, and CIR model;

Assessment tasks

- Assignment 1
- Assignment 2
- Final Exam

PG - Effective Communication

Our postgraduates will be able to communicate effectively and convey their views to different social, cultural, and professional audiences. They will be able to use a variety of technologically supported media to communicate with empathy using a range of written, spoken or visual formats.

This graduate capability is supported by:

Learning outcome

- Encourage peer learning, peer support and collaborative work.

Assessment tasks

- Assignment 1
- Assignment 2

