ACST201

Financial Modelling

S1 Day 2017

Dept of Applied Finance and Actuarial Studies

Contents

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General Information

Unit convenor and teaching staff
Unit Convenor
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E4A 208
Refer to iLearn

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Credit points
3

Prerequisites
(15cp at 100 level or above) including (ACST101 and (STAT150 or STAT170 or STAT171))

Corequisites

Co-badged status

Unit description
This unit explores some basic concepts of finance, in particular: price; yield; the relationship between price and yield; interest rate risk; reinvestment risk; duration and its uses; volatility; the contingent payments approach; arbitrage pricing theory; pricing forwards; futures and options. To achieve understanding, this unit uses financial mathematics (the techniques learned in ACST101 are developed further here) to analyse transactions involving commonly used financial instruments in the context of the markets in which they are traded. At the same time, students develop skills in solving problems; in explaining financial ideas in simple language; in constructing spreadsheet models; and in working as part of a team. A range of assessment tasks are provided, some to generate feedback on how well the understanding and skills are developing, and others to determine the standard of understanding and skills attained.

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:

> Demonstrate an understanding of the basic concepts and principles of financial analysis.
>
> Design Excel spreadsheets to solve basic problems in financial analysis.
>
> Appraise the work of others in the field of financial analysis.
>
> Construct a solution to a problem in financial analysis as part of a team.

General Assessment Information

Extensions

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

Gradebook

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

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

Assessment Tasks

Name	Weighting	Hurdle	Due
Class tests	20%	No	23/3/17 and 18/5/17
On Line Quiz	10%	No	6/4/17 and 4/5/17
Group Assignment	10%	No	8/5/17 and 29/5/17
Final Examination	60%	No	Exam period

Class tests

Due: **23/3/17 and 18/5/17**
Weighting: **20%**

You will use iLearn to submit your solutions (in a PDF file) to two class tests.

You will use iLearn's peer assessment tool to mark the work of your classmates (due 3/4/17 and 29/5/17).

Please use the first class test as an indicator of whether you are progressing satisfactorily in the unit. If you are having difficulties, please see the Unit Convenor and consider withdrawing before the census date on Friday of Week 04.

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 disruptions to studies is made and approved.

On successful completion you will be able to:

- Demonstrate an understanding of the basic concepts and principles of financial analysis.
- Appraise the work of others in the field of financial analysis.

On Line Quiz

Due: **6/4/17 and 4/5/17**
Weighting: **10%**

You will use iLearn to submit Excel spreadsheets you used to solve a variety of problems.

You will use iLearn's peer assessment tool to mark the work of your classmates (due 18/4/17 and 15/5/17).

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 disruptions to studies is made and approved.

On successful completion you will be able to:

- Demonstrate an understanding of the basic concepts and principles of financial analysis.
- Design Excel spreadsheets to solve basic problems in financial analysis.
- Appraise the work of others in the field of financial analysis.

Group Assignment

Due: **8/5/17 and 29/5/17**
Weighting: **10%**

You will be assigned to a group to work on your Group Spreadsheet Project. There will be six tasks (four of which count towards your final assessment). Your Excel files must be submitted electronically via iLearn.

You will use iLearn's assignment tool to report on the successful location of all group members (due 21/4/17).

You will use iLearn's peer assessment tool to mark the work of your classmates (due 22/5/17).

You will use iLearn's group assessment tool to appraise the contributions of your group mates, first by registering on the system (due 2/6/17) and later completing the evalution (due 9/6/17).

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 disruptions to studies is made and approved.

On successful completion you will be able to:
- Demonstrate an understanding of the basic concepts and principles of financial analysis.
- Design Excel spreadsheets to solve basic problems in financial analysis.
- Appraise the work of others in the field of financial analysis.
- Construct a solution to a problem in financial analysis as part of a team.

Final Examination

Due: **Exam period**
Weighting: **60%**

A three hour final examination for this unit will be held during the University Examination period.

You are permitted ONE A4 page of paper containing reference material printed on both sides. The material may be handwritten or typed.

The page will not be returned to you at the end of the final examination.

On successful completion you will be able to:
- Demonstrate an understanding of the basic concepts and principles of financial analysis.
- Design Excel spreadsheets to solve basic problems in financial analysis.

Delivery and Resources

Reference books

You do NOT have to buy a printed textbook. You may find these books useful as additional references for some topics in ACST201:

- Knox, D M, Zima, P & Brown, R L (1999) *Mathematics of Finance* (Second edition), Irwin/McGraw-Hill
- Sherris, M (1996) Money & *Capital Markets* (Second Edition), Allen & Unwin (available in library only)
- Viney C (2011) *Financial Market Essentials*, McGraw-Hill
- Valentine, T, Ford, G & Copp, R (2006) *Financial Markets & Institutions in Australia*, Prentice Hall

The recommended texts are available in the reserve section of Macquarie University Library.

For those wishing useful reference material on using Microsoft Excel, you may wish to buy a SIMnet online account *http://mq.simnetonline.com*.

Technology Used and Required

Calculators

You may use a calculator in the class tests and at the final exam provided that it is portable, silent and battery operated, but you must show clearly the steps involved in every calculation. In the final exam you may NOT use any calculators that have a text-retrieval capacity, whether or not they have a full alphabet on the keyboard. Calculators may be checked at the commencement of the final exam, and the make/model may be recorded.

Spreadsheet program

Many of the problems you will encounter in this unit can be solved easily with the spreadsheet program, Excel. You can use this spreadsheet program to verify your solutions to many of the problems you are solving. _You will need to use Excel to do the Spreadsheet quizzes and the Group Spreadsheet Project._

Class tests

You need to electronically submit your solutions (using iLearn) to the class tests as PDF files. Some possibilities to produce these files are: scan your handwritten solutions to a PDF file; use WORD (or similar software) to type out your solutions and save your work as a PDF file. For each class test you can only submit one PDF file; it must contain all the pages of your solution (so make sure, if your scanner produces separate PDF pages, that you can combine them into one file).

Unit Schedule

1	Simple interest and short-term financial instruments, compound interest and bonds
2–3	Short-term financial instruments and bond prices
4	Bond prices, bond yields and zero coupon bonds
5	Re-investment risk and TRCY
6	Horizon analysis
	Semester break
7	Horizon analysis, bond duration
8	Bond duration
9	Contingent payments, forward contracts
10	Forward contracts
11–12	Option pricing
13	Revision

Learning and Teaching Activities

Learning & Teaching Activities

A class timetable can be found at http://timetables.mq.edu.au

Policies and Procedures

Macquarie University policies and procedures are accessible from Policy Central. Students should be aware of the following policies in particular with regard to Learning and Teaching:

Academic Honesty Policy http://mq.edu.au/policy/docs/academic_honesty/policy.html

Assessment Policy http://mq.edu.au/policy/docs/assessment/policy_2016.html

Grade Appeal Policy http://mq.edu.au/policy/docs/gradeappeal/policy.html

Complaint Management Procedure for Students and Members of the Public http://www.mq.edu.au/policy/docs/complaint_management/procedure.html

Disruption to Studies Policy (in effect until Dec 4th, 2017): http://www.mq.edu.au/policy/docs/disruption_studies/policy.html

Special Consideration Policy (in effect from Dec 4th, 2017): https://staff.mq.edu.au/work/strategy-planning-and-governance/university-policies-and-procedures/policies/special-consideration

In addition, a number of other policies can be found in the Learning and Teaching Category of 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/support/student_conduct/

Results

Results shown in *iLearn*, 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.

Supplementary Exams

Information regarding supplementary exams, including dates, is available here

http://www.businessandeconomics.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

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

Creative and Innovative

Our graduates will also be capable of creative thinking and of creating knowledge. They will be imaginative and open to experience and capable of innovation at work and in the community. We want them to be engaged in applying their critical, creative thinking.

This graduate capability is supported by:

Learning outcomes

- Design Excel spreadsheets to solve basic problems in financial analysis.
- Appraise the work of others in the field of financial analysis.
- Construct a solution to a problem in financial analysis as part of a team.

Assessment tasks

- Class tests
- On Line Quiz
- Group Assignment
- Final Examination

Discipline Specific Knowledge and Skills

Our graduates will take with them the intellectual development, depth and breadth of knowledge, scholarly understanding, and specific subject content in their chosen fields to make them competent and confident in their subject or profession. They will be able to demonstrate, where relevant, professional technical competence and meet professional standards. They will be able to articulate the structure of knowledge of their discipline, be able to adapt discipline-specific knowledge to novel situations, and be able to contribute from their discipline to inter-disciplinary solutions to problems.

This graduate capability is supported by:

Learning outcomes

- Demonstrate an understanding of the basic concepts and principles of financial analysis.
- Appraise the work of others in the field of financial analysis.
- Construct a solution to a problem in financial analysis as part of a team.

Assessment tasks

- Class tests
- On Line Quiz
- Group Assignment
- Final Examination

Critical, Analytical and Integrative Thinking

We want our graduates to be capable of reasoning, questioning and analysing, and to integrate and synthesise learning and knowledge from a range of sources and environments; to be able to critique constraints, assumptions and limitations; to be able to think independently and systemically in relation to scholarly activity, in the workplace, and in the world. We want them to have a level of scientific and information technology literacy.

This graduate capability is supported by:

Learning outcomes

- Demonstrate an understanding of the basic concepts and principles of financial analysis.
- Design Excel spreadsheets to solve basic problems in financial analysis.
- Appraise the work of others in the field of financial analysis.
- Construct a solution to a problem in financial analysis as part of a team.

Assessment tasks

- Class tests
- On Line Quiz
- Group Assignment

- Final Examination

Problem Solving and Research Capability

Our graduates should be capable of researching; of analysing, and interpreting and assessing data and information in various forms; of drawing connections across fields of knowledge; and they should be able to relate their knowledge to complex situations at work or in the world, in order to diagnose and solve problems. We want them to have the confidence to take the initiative in doing so, within an awareness of their own limitations.

This graduate capability is supported by:

Learning outcomes

- Demonstrate an understanding of the basic concepts and principles of financial analysis.
- Design Excel spreadsheets to solve basic problems in financial analysis.
- Appraise the work of others in the field of financial analysis.
- Construct a solution to a problem in financial analysis as part of a team.

Assessment tasks

- Class tests
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Research and Practice

This unit uses research by Macquarie University researchers and external sources (references will be given in the lectures, tutorials and assignment).