

**FINANCIAL TECHNIQUES, INSTRUMENTS & MARKETS**  
**Second Semester, 2006**

**ACST201 UNIT OUTLINE**

**ACST201 Teaching Team**

<b>Team Member</b>	<b>Team Role</b>
Clare Bellis	Workshop presenter, convenor
Gail Curry	Workshop presenter
Oliver Carson	Tutor
Phillip Chan	Tutor
Jody Li	Tutor
Nam Nguyen	Tutor
Sean McCann	Tutor
Anthony Passe-De Silva	Tutor
Ren (Dillon) Tan	Tutor
Brennan Wood	Tutor
Zhiming Cheng	Tutor
Zifei (Ronald) Wang	Tutor
Grace Zhao	Administrator, tutor

**How to contact the staff involved in the unit**

You will normally contact the teaching team at tutorials and workshops and via the ACST201 WebCT site.

If you have an administrative question, please post it in the “Admin” topic in the Discussion board. This way, all students benefit from seeing the question and the answer. Similarly, if you would like to ask a question about the content of the unit, please post your question in the relevant topic of the Discussion board. You are encouraged to answer questions posted by other students – explaining to other people is a great way to learn! The teaching team will check the Discussion board frequently, but will generally leave a little time for questions to be answered first by other students as this is an excellent way for you to check your understanding of the material. You may post Discussion messages anonymously if you prefer.

If you have an administrative question of a private nature, please contact Grace by sending her a Private Mail message via WebCT to Administration Enquiries (admin\_acst1). Only if you cannot use WebCT (for example if the website is temporarily out of action), then you should contact Grace by email to [xzhao@efs.mq.edu.au](mailto:xzhao@efs.mq.edu.au), or you can telephone her on 9850 8571.

**ACST201 Subject Details**

Unit Name: **Financial Techniques, Instruments & Markets** (3 credit points)

Prerequisites: 18 credit points including ACST101(P)

Not Counted for Credit With (NCCW): ACST200; ACST229; ECFS200

## ACST201 WebCT site

Make sure that you regularly visit the ACST201 WebCT site at <http://online.mq.edu.au>. It will be used for:

- communication – announcements and reminders of important dates will be posted there;
- answering your questions about what you are learning, about what’s happening when, etc;
- you will be able to download copies of ACST201 handouts of all kinds;
- copies of problems and sample solutions (workshop problems, tute tests, In-Class Tests, etc);
- posting details of Learning Portfolio tasks from time to time.

Check all messages on the Discussion Board regularly. You will often find that if you want to ask a question, someone else has already asked the same question, and it’s been answered already.

## Learning Objectives

Our main aim in ACST201 is to use financial mathematics to understand some of the basic concepts and principles of financial analysis. The concepts and principles covered include finding the price of a financial instrument, the yield earned on an investment, the relationship between price and yield, break-even analysis, horizon analysis, reinvestment risk, interest rate risk, volatility and duration, arbitrage pricing, pricing forwards, futures and options, and contingent payments.

By applying these concepts to short term and long term financial instruments, forwards and futures, options, loans, insurances and other financial transactions, and allowing for the effects of transaction costs, borrowing costs and taxes, you will have the chance to recognise the basics principles involved so that you can apply them to situations you have not previously encountered.

In ACST201 you will also have opportunities to develop your skills in building Excel worksheets and in using the internet, your problem solving skills and your ability to work as part of a team. You will develop your skills in explaining technical concepts in clear and simple language.

## Workshop Classes

Your main 2-hour class each week is called a “lecture” in the Timetable, but it is really a workshop. Each workshop will be a combination of mini-lectures (10-15 minutes), problem-solving exercises and demonstrations and interactive small group work. You can expect to be actively involved, and need to think a lot, not just passively listening and taking notes. So make sure you arrive on time, or you will find it difficult to pick up what is happening in the class. Please bring your calculator to every class (workshops and tutorials) .... you will need it.

You will have one 2-hour workshop each week:

<b>Enrolment stream</b>	<b>Day</b>	<b>Time</b>	<b>Location</b>
Day	Wednesday	4-6 pm	Macquarie Theatre
Evening	Tuesday	7-9 pm	C5C T1

*Any changes to workshop times/locations will be advised in class and also on the ACST201 WebCT site.*

## Tutorial groups

There are seventeen tutorial groups spread across several timeslots. Each group will meet once every week (except in Week 1). You should attend the tutorial class for which you are registered. When you enrolled you will have been given the day, time and classroom location of your tutorial class.

Day	Time	Tutorial Location (Except for week 6)	Computer Lab (Week 6 only)	Tutor
Tuesday	1-2 pm	W5A 103	E4B 111	Brennan Wood
Tuesday	5-6 pm	C5A 313	E4B 111	Sean McCann
Tuesday	6-7 pm	W5C 303	E4B 118	Phillip Chan
Tuesday	6-7 pm	W5A 205	E4B 118	Sean McCann
Tuesday	6-7 pm	E5A 309	E4B 111	Zifei (Ronald) Wang
Wednesday	10-11am	E7B 163	E4B 111	Anthony Passe-de Silva
Wednesday	11-12am	W6B 286	E4B 111	Anthony Passe-de Silva
Wednesday	1-2pm	W5A 205	E4B 111	Oliver Carson
Wednesday	1-2pm	C5A 310	E4B 208	Nam Nguyen
Wednesday	2-3 pm	W5A 101	E4B 104	Oliver Carson
Wednesday	2-3 pm	W5A 103	E4B 111	Ren (Dillon) Tan
Wednesday	2-3 pm	C5A 310	E4B 208	Zhiming Cheng
Wednesday	3-4 pm	W5A 101	E4B 214	Oliver Carson
Wednesday	3-4 pm	W5A 103	E4B 214	Jody Li
Wednesday	3-4 pm	E5A 118	E4B 208	Grace Zhao
Wednesday	6-7 pm	W5A 101	E4B 214	Nam Nguyen
Wednesday	6-7 pm	C5A 310	E4B 111	Oliver Carson

In most weeks, your tutorial will begin with a short Tutorial Test (see further details on page 6). In some weeks, students will work together in groups on the Tutorial Tests. We believe that working within a group framework will be beneficial for the educational and personal development of students.

At your tutorial, your graded In-Class Tests will be returned to you, and your tutor will work through the solutions to the Test problems with you. The tutorials in Weeks 6 and 8 will be used to build the skills you will apply in your Learning Portfolio (see further details on page 6). At all tutorials, your tutor will be available to help you with any questions you have about workshop or e-workbook problems, etc.

### Electronic Workbook

You will use an internet based electronic workbook in ACST201 this semester. This e-workbook has been specifically designed for ACST201 to support your learning and to help you understand and practise what you learn in ACST201.

**You need to purchase your e-workbook** for \$29.70 (including GST) from its publisher Perdisco. See the separate handout about the ACST201 e-workbook. This tells you how to purchase your copy. Limited free access is also available as explained in the handout.

The e-book includes Revision Topics (revising assumed knowledge from ACST101) and Practice Topics (giving you practice at applying what you learn in ACST201 to solving financial problems), as well as the five assignments. You can access your e-workbook from the computing labs on campus, from the library, from home, from work, from internet cafes – from anywhere you can get access to the internet. Your e-workbook is available 24 hours a day, 7 days a week.

### Reference books

You do **NOT** have to buy a printed textbook. ACST201 uses an electronic workbook (see details above). You may find these books useful as references for some topics in ACST201:

- Knox, David M, Zima, Peter & Brown, Robert L (1999) *Mathematics of Finance* (Second edition), Irwin/McGraw-Hill
- Sherris, Michael (1996) *Money & Capital Markets* (Second Edition), Allen & Unwin

- Viney, Christopher (2003) *Financial Institutions, Instruments & Markets* (Fourth edition), Irwin/McGraw-Hill (or third edition by McGrath & Viney)
- Valentine, Tom, Ford, Guy & Copp, Richard (2003) *Financial Markets & Institutions in Australia*, Pearson Education Australia

### Grading your learning in ACST201

Macquarie University uses the grades HD (High Distinction), D (Distinction), CR (Credit), P (Pass), PC (Pass Conceded) and F (Fail) for grading the achievements of students in units of study. In ACST201, your grade will be determined by how well you show you understand the basic principles and concepts covered. This table is a guide to the meaning of each grade for the purposes of ACST201:

Grade	Level of understanding represented by that grade
<b>HD</b>	<ul style="list-style-type: none"> <li>• Able to apply basic principles to solve unfamiliar, non-standard problems</li> <li>• Able to explain solutions &amp; interpret results in clear, simple, non-technical language</li> <li>• Able to combine two or more unrelated numeric procedures in solving a composite problem</li> </ul>
<b>D</b>	<ul style="list-style-type: none"> <li>• Able to apply basic principles to solve problems which differ significantly from the familiar</li> <li>• Able to explain solutions &amp; interpret results clearly and concisely</li> <li>• Able to combine two unrelated numeric procedures in solving a composite problem</li> </ul>
<b>CR</b>	<ul style="list-style-type: none"> <li>• Able to apply basic principles to solve problems which differ slightly from the familiar</li> <li>• Able to explain rationale for calculations &amp; interpret results in those cases</li> <li>• Able to combine two related numeric procedures in solving a composite problem</li> </ul>
<b>P</b>	<ul style="list-style-type: none"> <li>• Able to perform basic numeric procedures on standard problems in familiar scenarios</li> <li>• Able to explain rationale for calculations &amp; interpret results for standard problems</li> </ul>
<b>PC</b>	<ul style="list-style-type: none"> <li>• Marginally satisfactory achievement of P level understanding</li> <li>• Able to perform basic numeric procedures, but not able to explain them clearly</li> </ul>
<b>F</b>	<ul style="list-style-type: none"> <li>• No evidence of achieving P level of understanding</li> </ul>

### How to approach your learning in ACST201

The emphasis in ACST201 is not on how many marks you can accumulate over the semester, but on how well you learn – how well you understand, and can apply, the basic principles and concepts of financial mathematics. This means, amongst other things, that we will be asking you not only to do financial calculations, but also to explain what you are doing, why you are doing it, and how the answer would change if some of the underlying data were different. We also want you to be able to explain the results of your calculations to people (like directors, managers and clients) who don't know (and don't want to know) how to do the calculations, but want to know what the results mean.

Mistakes are opportunities to learn. We want you to feel free to make mistakes, because that's how you know you have not learned well, and can do something about it. That's why we give you two attempts at each assignment – if you make mistakes the first time, you can work out why, then try again to make sure you now understand.

This means that when you tackle an assessment task, you should make sure that what you are submitting for feedback or for grading as an individual is your own work. Where the task involves group work, you should participate fully in the task, and make sure you fully understand the final version and how it was produced. We will be giving you as much feedback as we can, but you will be wasting our time – and yours – if you

submit someone else's work as your own. ACST201 is about learning – you learn by doing it yourself. No one else can do the learning for you.

**Assessment in ACST201**

There are basically two kinds of assessment, and we use both in ACST201:

- **Formative assessment**, which is designed to give you feedback on your learning so far, so you know whether there are any gaps in your learning that you need to spend more time and effort on. The Tutorial Tests are examples of formative assessment – their main purpose is to give you feedback.
- **Summative assessment**, which aims to “sum up” your learning over a set of topics or over the whole semester. The final exam is the best example of summative assessment.

Some assessment tasks (eg the assignments) are a combination of formative and summative assessment.

**Assessment Tasks**

Assessment component		
	Each	Total
Three (3) In-Class Tests	7.5%	22.5%
Five (5) Assignments	3%	15%
Learning Portfolio		12.5%
Final Examination		50%

**In-Class Tests (Formative/Summative)**

There will be three In-Class Tests for each workshop stream, as follows:

Workshop stream	In-Class Test	Date and time
Evening (Tuesdays)	Test 1	Tuesday, 29 August at 7pm
	Test 2	Tuesday, 3 October at 7pm
	Test 3	Tuesday, 31 October at 7pm
Day (Wednesdays)	Test 1	Wednesday, 30 August at 4pm
	Test 2	Wednesday, 4 October at 4pm
	Test 3	Wednesday, 1 November at 4pm

Normal University examination rules apply to the conduct of In-Class Tests. These rules are set out under the heading “Rules governing students’ conduct in examinations” in the Macquarie University Handbook. You are responsible for familiarising yourself with these rules prior to the first In-Class Test.

The topics to be covered by each In-Class Test will be advised, in advance, in workshop classes and on the ACST201 WebCT site. The In-Class Test dates and times may be subject to change. Any alterations will be advised in classes and on the ACST201 WebCT site.

Your graded In-Class Tests, with feedback, will be returned to you, and discussed, at your Tutorial class. Your In-Class Test results will count 22.5% towards your final grade.

### **Tutorial Tests (Formative)**

Your tutorial class in each of Weeks 2, 3, 4, 7, 9, 10, 11 and 13 will begin with a short Tutorial Test. This will be marked and discussed during the Tutorial so that you will have immediate feedback on your performance. Each Tutorial Test will be based on the work done in the previous week's workshop class.

Your scores from these Tutorial Tests will **NOT** count directly towards your final result. However, to be eligible for a passing grade in ACST201 **you MUST complete at least 5 of the 8 Tutorial Tests.**

### **Electronic Workbook Revision and Practice Problems (Formative/Summative)**

For each major topic in ACST201, you will find a set of Practice problems in your Perdisco electronic workbook. You will also find sets of Revision problems for part or all of the unit. Trying to solve these problems will help you to understand the subject better by giving you practice at applying the basic ideas in solving a range of problems. You can tackle as many different sets of problems as you like, without limit. Your e-workbook will not only generate new problems and give you feedback on whether or not your answers are correct, it will provide you with **complete step-by-step solutions** to all problems.

The Revision and Practice problem sets will **NOT** count towards your final grade in this unit. Their purpose is to help you learn and to give you feedback, not to be used in grading your learning.

### **Assignments (Formative/ Summative)**

There will be five assignments, each consisting of several problems to be solved. You will access the assignments using your internet based e-workbook (published by Perdisco) - the same e-workbook as you will use for your revision and practice problems. The assignments will count 15% towards your final grade.

Each assignment will be available for a period of ten days. You must complete it within that ten day period. You will have two attempts at each assignment, with the higher result to count. Assignment availability dates are shown in the e-workbook, and you will be reminded of them in the workshop classes and on the WebCT site.

### **Learning Portfolio (Formative/Summative)**

A Learning Portfolio is a collection of pieces of work you have done that demonstrate what you have learned. Gradually over the semester you will be given details of several tasks that will make up your Learning Portfolio, and how to go about completing them. Your Learning Portfolio will count 12.5% towards your final grade. **When you are producing work on the computer, make sure that you create and keep a backup copy at all times.** All members of the group should keep their own backups.

You will be assigned to a group to work on your Learning Portfolio. You should work with your group on the tasks as they are set throughout the semester. You are expected to have made reasonable progress on your Portfolio in time to benefit from the tutorial in Week 8, which will focus on ways you can improve in your Learning Portfolio tasks. The completed Portfolio should be submitted to ERIC (see below) by 7pm on Wednesday 1 November. Your group will be able to collect your graded Portfolio and feedback from ERIC after the end of semester, at a date to be advised.

### **Final exam (Summative)**

The final exam will be a 3-hour paper with ten minutes reading time. It may include some multiple choice questions, so bring two 2B pencils with you to the exam. We will show you plenty of examples of typical questions ahead of the exam. The exam will be held during the period 15 November to 1 December 2006. The actual date will be announced in the University Examination Timetable, available in Draft form

approximately eight weeks before the commencement of the examinations and in Final form approximately four weeks before the commencement of the examinations, on <http://www.timetables.mq.edu.au/exam>

The final exam will count 50% towards your final grade.

### **Reference material in Tests and final exam**

For the In-Class Tests and the final exam you may bring with you and refer to one A4-size sheet of paper containing anything you like (written or printed) on both sides. (This does not apply to Tutorial Tests.)

### **EFS Resource & Information Centre (ERIC) and other support services**

The EFS Resource & Information Centre (ERIC) in Room E4B 106 can help you with advice and information in various areas. Your Learning Portfolio will be submitted and collected at ERIC. For more information, including opening hours, visit the ERIC web site at: [www.efs.mq.edu.au/student\\_support/eric](http://www.efs.mq.edu.au/student_support/eric). For other university student support services, please check the web site [www.student.mq.edu.au](http://www.student.mq.edu.au).

### **Calculators**

You may use calculators in the tests and the final exam provided that they are portable, silent and battery operated, but you must show clearly the steps involved in every calculation. You may NOT use any machines 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 class tests and final exam, and the make/model may be recorded.

Many of the problems you will encounter in this unit can be solved easily with a spreadsheet program such as Excel. You can use a spreadsheet program to verify your solutions to many of the problems you are solving. The Learning Portfolio tasks will require you to use Excel.

### **Special Consideration**

If you suffer from an illness or disruption beyond your control, you may be able to ask for special consideration. You can find out more about the conditions for this on [http://www.efs.mq.edu.au/student\\_support/important\\_processes/special\\_consideration](http://www.efs.mq.edu.au/student_support/important_processes/special_consideration)

If a Supplementary Examination is granted as a result of the Special Consideration process, the examination will be scheduled after the conclusion of the official examination period.

If the Special Consideration process finds that you have a valid reason for missing or performing poorly in an In-Class Test, then your result in that Test will be ignored, and more weight given to the other assessment tasks. Only in very extreme cases would we consider requests for Special Consideration in respect of the Tutorial Tests, Assignments or Learning Portfolio. The requirement to complete 5 out of 8 Tutorial Tests already makes allowance for the possibility that you might miss up to 3 tutorials for reasons beyond your control. Each Assignment is available for a 10 day period – don't leave it till the last minute! We won't allow any extension of time for the Learning Portfolios or accept a Portfolio which is submitted late, because you should work on your Learning Portfolio steadily throughout the semester, and not leave it till the last minute.

Applications in respect of the final exam must be made on the "Request for Special Consideration" form. These forms are available from and should be submitted to the Academic Program Section on Level 4 of the Lincoln Building. Applications for special consideration in respect of the assessment tasks other than the final exam (as explained above, this normally would mean only the In-Class tests) must be made on the "Advice of Absence or other Circumstances" form. These are available from and should be submitted to the Student Enquiry Service on level 1 of the Lincoln Building.

Applications based on medical grounds **must** be accompanied by the Professional Authority Form. Applications omitting this form (such as those which only supply a doctor's certificate) will be ignored.

The application forms are also on line at <http://www.reg.mq.edu.au/academic-index.htm>

### Mobile Phones, etc

Communication devices, including but not restricted to mobile phones, text message receivers, pagers and wireless-equipped calculators, may not be used in classrooms and must not be brought into the exam room for the final exam. If a student is found to have brought such a device into the examination room, the argument that the device was turned off will NOT be regarded as an acceptable excuse. For the In-Class tests, they must be turned off and kept out of reach.

### ACST201 Timetable (2006)

Week No	Week Beginning	Workshop Presenter	Topics	In-Class Test	Tutorial Test	Assignment becomes available
1	31 July	Gail Curry	Where are we starting from, and where are we going?			
2	7 August	Gail Curry	Prices and yields of short term financial instruments		1	
3	14 August	Gail Curry	Prices and yields of long term financial instruments		2	1
4	21 August	Gail Curry	Zero Coupon Bonds and bond yields		3	
5	28 August	Gail Curry	Reinvestment risk	Test 1		2
6	4 September	Gail Curry	Horizon analysis (bonds & bills) Effect of fees and charges		<i>Tutes in computer labs</i>	
7	11 September	Clare Bellis	Duration		4	3
	18 September		<b>NO CLASSES</b>			
	25 September		<b>NO CLASSES</b>			
8	2 October	Clare Bellis	Uses of duration	Test 2	<i>Discuss Learning Portfolio</i>	
9	9 October	Clare Bellis	Contingent payments		5	
10	16 October	Clare Bellis	Forward & future contracts (1)		6	4
11	23 October	Clare Bellis	Forward & future contracts (2)		7	
12	30 October	Clare Bellis	Option pricing (1)	Test 3	<i>Learning Portfolio due 1 Nov</i>	5
13	6 November	Clare Bellis	Option pricing (2)		8	

**Note:**

(1) There will be no tutorial classes during Week 1 (beginning 31 July). Your first tutorial class will be during Week 2 (beginning 7 August). The tutorials in Week 6 are held in computer labs instead of the usual rooms.

(2) Changes to the timetable may occur. Any alterations will be advised in classes and on the ACST201 WebCT site.