

# FIT5019 Financial Modelling

# Unit guide

Semester 2, 2008

Last updated : 25 Jun 2008

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# Unit leader :

Dr. Madhu Chetty

# Lecturer(s) :

# Gippsland

• Dr. Madhu Chetty

# Tutors(s) :

# Gippsland

• Dr. Dengsheng Zhang

# Introduction

In this unit students will learn how financial management principles can be used effectively in current and future corporate management as well as obtain the knowledge about roles and responsibilities of financial managers in promoting organizations.

Topics to be studied include:

- *Fundamental Concepts of Financial Management:* introduction to business modelling, time value of money, stocks, risks and returns, account receivable and inventory management.
- *Projects, Securities and their valuation:* Project cash flow analysis, Introduction to futures, options and option pricing, capital budgeting techniques, and activity based costing.
- Corporate valuation: Financial statement analysis and Market forecasting.
- *Strategic and Tactical Financial Decisions:* Break-even point analysis, Analysis and Impact of leverage, and shareholder value analysis.

# **Unit synopsis**

The unit introduces the financial management principles that help to maximize a corporate value. The objective of the unit is to provide students an easy to understand unified discussion of a number of major principles in finance along with an early exposure to risk analysis, discounted cash flow techniques, valuation procedures, stock and bond valuation models, and rates of return. Most financial decisions today are analyzed using spreadsheets, say Microsoft Excel. With the emphasis on spreadsheets, financial statements can provide an excellent starting point to illustrate its usefulness. Therefore, Microsoft Excel is regarded an important part of the unit for analysing financial information.

# Learning outcomes

On completion of the unit, students will have:

#### Knowledge of

- 1. developing business financial models and analysing its limitations;
- 2. applying methods for risk management and analysing impacts of portfolios on risks;
- 3. applying different forecasting methods in controlling financial functions and responsibilities;
- 4. interpreting and calculating present and future values of cash flows;
- 5. Analysing break-even point and calculating leverage and its impact on risk management; and
- 6. determining product profitability using activity based cost analysis.

#### Understanding of

- 1. the concepts of shareholder value analysis;
- 2. performing the analysis of financial statements;
- 3. the issues of account receivable management and implementation of Economic Ordering Quantity inventory ordering model;
- 4. necessity of market forecasting tools for applying principles and strategies of effective financial management;
- 5. the basic principle of capital budgeting; and
- 6. analysing the futures, options and option pricing.

#### Attitude of

- 1. appreciating the financial modelling principles that determine the capabilities, performance, and ultimately, the success of financial management policies; and
- 2. encouraging the consideration of advanced IT based financial analysing tools for financial decision making policies in organizational management.

#### Skills in

- 1. accessing financial management principles and applying these in case studies; and
- 2. identifying the processes and potential financial problems involved in business and trying to solve them using a suitable analysing technique;
- 3. Applying computer spreadsheets or other tools for all short of financial analysis.

# Workload

This unit is being offered in off- campus mode only. Since the off-campus students do not attend lecture and tutorial sessions, they should plan to spend equivalent time (of an on-camous student ) working through the relevant resources and participating in discussion groups each week.

For any 6 credit point unit, the commitments of an on-campus students work are (totalling approx. 12 hours/ week):

- Two- hour lecture and
- Two hour tutorial (or laboratory)
- Minimum of 8 hours for self-study to satisfy the reading and assignment expectations, use of computer, including time for newsgroups/discussion forums etc.

# **Unit relationships**

### **Prerequisites**

The prerequisite knowledge for the study of this unit is basic numeracy skills; some knowledge of elementary statistics and ability for operation of a personal computer will be an advantage.

# Relationships

This is an elective unit offered by the Gippsland School of Information Technology for the postgraduate students studying in off-campus mode.

There are no prerequisite units required to be completed for enrolment in this unit.

You may not study this unit if you have already completed GCO5802 in your degree.

# **Continuous improvement**

Monash is committed to 'Excellence in education' and strives for the highest possible quality in teaching and learning. To monitor how successful we are in providing quality teaching and learning Monash regularly seeks feedback from students, employers and staff. Two of the formal ways that you are invited to provide feedback are through Unit Evaluations and through Monquest Teaching Evaluations.

One of the key formal ways students have to provide feedback is through Unit Evaluation Surveys. It is Monash policy for every unit offered to be evaluated each year. Students are strongly encouraged to complete the surveys as they are an important avenue for students to "have their say". The feedback is anonymous and provides the Faculty with evidence of aspects that students are satisfied and areas for improvement.

# **Student Evaluations**

The Faculty of IT administers the Unit Evaluation surveys online through the my.monash portal, although for some smaller classes there may be alternative evaluations conducted in class.

If you wish to view how previous students rated this unit, please go to <u>http://www.monash.edu.au/unit-evaluation-reports/</u>

Over the past few years the Faculty of Information Technology has made a number of improvements to its courses as a result of unit evaluation feedback. Some of these include systematic analysis and planning of unit improvements, and consistent assignment return guidelines.

Monquest Teaching Evaluation surveys may be used by some of your academic staff this semester. They are administered by the Centre for Higher Education Quality (CHEQ) and may be completed in class with a facilitator or on-line through the my.monash portal. The data provided to lecturers is completely anonymous. Monquest surveys provide academic staff with evidence of the effectiveness of their teaching and identify areas for improvement. Individual Monquest reports are confidential, however, you can see the summary results of Monquest evaluations for 2006 at <a href="http://www.adm.monash.edu.au/cheq/evaluations/monquest/profiles/index.html">http://www.adm.monash.edu.au/cheq/evaluations/monquest/profiles/index.html</a>

# Unit staff - contact details

### **Unit leader**

Dr. Madhu Chetty Lecturer(s) :

Dr. Madhu Chetty **Tutor(s)**:

#### Dr. Dengsheng Zhang Additional communication information

Any queries related to discussion forums related to assignments or content, will be responded by Dr. Dengsheng Zhang. Dr. Zhang is also responsible for all assignment marking and feedback for this unit.

I expect you to maintain the following sequence while facing any problem related to this unit:

- 1. Always post your problems in the appropriate newsgroup first. You must also provide your own views regarding the problems so that others can join the discussion at least by commenting on your views.
  - To encourage peer discussion, the lecturer may not answer your newsgroup postings immediately unless situation demands.
  - ♦ The discussion forum will be attended as often as possible but definitely twice a week (days to be announced later).
- 2. If you are not satisfied with the responses from the newsgroups or in case of emergency, e-mail directly to Dengsheng.Zhang@infotech.monash.edu.au
- 3. If you are still concerned about the response, you can contact me at madhu.chetty@infotech.monash.edu.au

# **Teaching and learning method**

The unit is taught in an off-campus learning mode. All students are provided with study guides and weekly learning schedule. There will be assignments issued during the semester to test your understanding of the content of the unit. Students will be able to communicate with the unit leader and the tutor via discussion forums. They can also contact by email or phone, if necessary.

# Communication, participation and feedback

Monash aims to provide a learning environment in which students receive a range of ongoing feedback throughout their studies. You will receive feedback on your work and progress in this unit. This may take the form of group feedback, individual feedback, peer feedback, self-comparison, verbal and written feedback, discussions (on line and in class) as well as more formal feedback related to assignment marks and grades. You are encouraged to draw on a variety of feedback to enhance your learning.

It is essential that you take action immediately if you realise that you have a problem that is affecting your study. Semesters are short, so we can help you best if you let us know as soon as problems arise. Regardless of whether the problem is related directly to your progress in the unit, if it is likely to interfere with your progress you should discuss it with your lecturer or a Community Service counsellor as soon as possible.

Week	Торіс	Study guide	Key dates
1	Introduction to Business Modelling: A Structured Methodology	1	
2	Stocks (shares) and Risk	2	
3	An Introduction to Futures, Options and Option Pricing	3	
4	Market Forecasting	4	
5	Discounted Cash Flow (DCF) Analysis	5	
6	Basic Capital Budgeting Technique	6	
7	Project Cash Flow Analysis	7	Assignment 1 due
8	Break-Even Analysis and the Analysis and Impact of Leverage	8	
9	Accounts Receivable and Inventory Management	9	
10	Analysis of Financial Statements	10	
11	Activity Based Costing	11	
	Mic	l semester break	
12	Shareholder Value Analysis	12	Assignment 2 due
13	Revision		

## **Unit Schedule**

# **Unit Resources**

## Prescribed text(s) and readings

Eugene F. Brigham and Michael C. Ehrhardt, Financial Management: Theory and Practice, 12th edition, 2007, Cincinnati, Ohio : South-Western ; London : Thomson Learning, ISBN: **9780324422696** 

Text books are available from the Monash University Book Shops. Availability from other suppliers cannot be assured. The Bookshop orders texts in specifically for this unit. You are advised to purchase your text book early.

### Recommended text(s) and readings

- R. Kolb, Financial Derivatives, 3rd edition 2002, Blackwell Publishing, 1996, ISBN: 9780471232322
- M. C. Ehrhardt and E. F. Brigham, Corporate Finance: A Focused Approach, South-Western Publishers, 2005, ISBN: 0-324-28931-6
- J. Swan, Practical Financial Modelling: A Guide to Current Practice, CIMA Publishing, 2004, ISBN: 0-750-66356-1.
- Scott, Martin, Petty and Keown, Financial Management: Principles and Applications, 10th edition, Prentice Hall, 2004, ISBN: 0-131-45065-4.

### Required software and/or hardware

Since spreadsheet models are the most relevant to practical business modelling, you must be able to use or learn Microsoft Excel. You are also required to use a word processing package for written assignment work.

### Equipment and consumables required or provided

Students studying off-campus are required to have the minimum system configuration specified by the Faculty as a condition of accepting admission, and regular Internet access. Those studying at supported study locations may use the facilities available in the computing labs. Information about computer use for students is available from the ITS Student Resource Guide in the Monash University Handbook. You will need to allocate up to **2** hours per week for use of a computer, including time for newsgroups/discussion groups.

### **Study resources**

Study resources we will provide for your study are:

- An online Unit Book containing 12 Study Guides.
- This Unit Information outlining the administrative information for the unit.
- The FIT5019 Website, where assignment specifications and solutions, a sample examination paper (but no solutions) etc will be posted.
- access to past exam papers (no solutions)
- Discussion forums that are available from the Unit website.

It is essential for all students to have the textbook.

### Library access

The Monash University Library site contains details about borrowing rights and catalogue searching. To learn more about the library and the various resources available, please go to <u>http://www.lib.monash.edu.au</u>. Be sure to obtain

a copy of the Library Guide, and if necessary, the instructions for remote access from the library website.

## Monash University Studies Online (MUSO)

All unit and lecture materials are available through MUSO (Monash University Studies Online). Blackboard is the primary application used to deliver your unit resources. Some units will be piloted in Moodle. If your unit is piloted in Moodle, you will see a link from your Blackboard unit to Moodle (<u>http://moodle.monash.edu.au</u>) and can bookmark this link to access directly. In Moodle, from the Faculty of Information Technology category, click on the link for your unit.

You can access MUSO and Blackboard via the portal: http://my.monash.edu.au

Click on the Study and enrolment tab, then Blackboard under the MUSO learning systems.

In order for your Blackboard unit(s) to function correctly, your computer needs to be correctly configured.

For example:

- Blackboard supported browser
- Supported Java runtime environment

For more information, please visit: http://www.monash.edu.au/muso/support/students/downloadables-student.html

#### You can contact the MUSO Support by: Phone: (+61 3) 9903 1268

For further contact information including operational hours, please visit: <u>http://www.monash.edu.au/muso/support/students/contact.html</u>

Further information can be obtained from the MUSO support site: <u>http://www.monash.edu.au/muso/support/index.html</u>

### Assessment

### Unit assessment policy

This unit's assessment consists of two major components:

- Assignments: 30% overall weighting; and
- Examination: 70% overall weighting.

To pass this unit, a student must obtain :

- 40% or more in the unit's non-examination assessment and
- 40% or more in the unit's examination and
- an overall unit mark of 50% or more

If a student does not achieve 40% or more in the unit examination or the unit non-examination assessment then a mark of no greater than 44-N will be recorded for the unit.

There will be 2 assignments. Assignment specifications with due dates will be posted on the FIT5910 web site before the first week of the semester. It is the responsibility of the students to check the unit web site for the assignments.

### Assignment tasks

#### Assignment Task

Title : Assignment 1

**Description :** 

Any description necessary will be provided along with the assignment 1 specifications

Weighting: 15%

Criteria for assessment :

Any criteria necessary will be provided along with the assignment 1 specifications

**Due date :** 2 September 2008 • **Assignment Task** 

Title : Assignment 2

**Description :** 

Any description necessary will be provided with the assignment 2 specifications.

Weighting: 15%

#### Criteria for assessment :

Any criteria necessary will be included with the assignment 2 specifications.

Due date : 5 October 2008

## **Examinations**

#### • Examination

Weighting: 70%

Length: 3 hours

 $Type \ ( \ open/closed \ book \ ) : Closed \ book$ 

#### Remarks ( optional - leave blank for none ) :

Students are allowed to use non-progammable scientific calculators in the exam.

## **Assignment submission**

Assignments will be submitted by **electronically** via the assignment submission system from the FIT5910 unit web site.

# University and Faculty policy on assessment

## Due dates and extensions

The due dates for the submission of assignments are given in the previous section. Please make every effort to submit work by the due dates. It is your responsibility to structure your study program around assignment deadlines, family, work and other commitments. Factors such as normal work pressures, vacations, etc. are seldom regarded as appropriate reasons for granting extensions. Students are advised to NOT assume that granting of an extension is a matter of course.

Assignment specifications with the due dates will be posted on the FIT5910 web site. If there is a discrepancy between the due dates announced here on this page and the due dates on the actual assignment specifications released during the semester, the date on the actual assignment will be taken as final.

Requests for extensions must be made by email **at least two days** before the due date. You will be asked to forward original medical certificates in case of illness, and may be asked to provide other forms of documentation where necessary.

Contact the Unit Adviser by email to request extensions.

## Late assignment

An assignment must be submitted by the *cut-off date*, which is usually seven days after the *due date*. Any assignment submitted after the cut-off date will not be accepted by the Assignment submission system and therefore, it will be marked automatically to zero. Any assignment submitted after the due date will be penalised by 5% of the full marks for each 24 hours of delay.

This policy is strict because comments or guidance will be given on assignments as they are returned, and sample solutions may also be published and distributed, after assignment marking or with the returned assignment.

# **Return dates**

Students can expect assignments to be returned within two weeks of the submission date or after receipt, whichever is later.

Assessment for the unit as a whole is in accordance with the provisions of the Monash University Education Policy at <a href="http://www.policy.monash.edu/policy-bank/academic/education/assessment/">http://www.policy.monash.edu/policy-bank/academic/education/assessment/</a>

We will aim to have assignment results made available to you within two weeks after assignment receipt.

# Plagiarism, cheating and collusion

Plagiarism and cheating are regarded as very serious offences. In cases where cheating has been confirmed, students have been severely penalised, from losing all marks for an assignment, to facing disciplinary action at the Faculty level. While we would wish that all our students adhere to sound ethical conduct and honesty, I will ask you to acquaint yourself with Student Rights and Responsibilities

(http://www.infotech.monash.edu.au/about/committees-groups/facboard/policies/studrights.html) and the Faculty regulations that apply to students detected cheating as these will be applied in all detected cases.

In this University, cheating means seeking to obtain an unfair advantage in any examination or any other written or practical work to be submitted or completed by a student for assessment. It includes the use, or attempted use, of any means to gain an unfair advantage for any assessable work in the unit, where the means is contrary to the

instructions for such work.

When you submit an individual assessment item, such as a program, a report, an essay, assignment or other piece of work, under your name you are understood to be stating that this is your own work. If a submission is identical with, or similar to, someone else's work, an assumption of cheating may arise. If you are planning on working with another student, it is acceptable to undertake research together, and discuss problems, but it is not acceptable to jointly develop or share solutions unless this is specified by your lecturer.

Intentionally providing students with your solutions to assignments is classified as "assisting to cheat" and students who do this may be subject to disciplinary action. You should take reasonable care that your solution is not accidentally or deliberately obtained by other students. For example, do not leave copies of your work in progress on the hard drives of shared computers, and do not show your work to other students. If you believe this may have happened, please be sure to contact your lecturer as soon as possible.

Cheating also includes taking into an examination any material contrary to the regulations, including any bilingual dictionary, whether or not with the intention of using it to obtain an advantage.

Plagiarism involves the false representation of another person's ideas, or findings, as your own by either copying material or paraphrasing without citing sources. It is both professional and ethical to reference clearly the ideas and information that you have used from another writer. If the source is not identified, then you have plagiarised work of the other author. Plagiarism is a form of dishonesty that is insulting to the reader and grossly unfair to your student colleagues.

## Register of counselling about plagiarism

The university requires faculties to keep a simple and confidential register to record counselling to students about plagiarism (e.g. warnings). The register is accessible to Associate Deans Teaching (or nominees) and, where requested, students concerned have access to their own details in the register. The register is to serve as a record of counselling about the nature of plagiarism, not as a record of allegations; and no provision of appeals in relation to the register is necessary or applicable.

# Non-discriminatory language

The Faculty of Information Technology is committed to the use of non-discriminatory language in all forms of communication. Discriminatory language is that which refers in abusive terms to gender, race, age, sexual orientation, citizenship or nationality, ethnic or language background, physical or mental ability, or political or religious views, or which stereotypes groups in an adverse manner. This is not meant to preclude or inhibit legitimate academic debate on any issue; however, the language used in such debate should be non-discriminatory and sensitive to these matters. It is important to avoid the use of discriminatory language in your communications and written work. The most common form of discriminatory language in academic work tends to be in the area of gender inclusiveness. You are, therefore, requested to check for this and to ensure your work and communications are non-discriminatory in all respects.

# Students with disabilities

Students with disabilities that may disadvantage them in assessment should seek advice from one of the following before completing assessment tasks and examinations:

- Faculty of Information Technology Student Service staff, and / or
- your Unit Coordinator, or
- Disabilities Liaison Unit

### Deferred assessment and special consideration

Deferred assessment (not to be confused with an extension for submission of an assignment) may be granted in cases of extenuating personal circumstances such as serious personal illness or bereavement. Information and forms for Special Consideration and deferred assessment applications are available at

http://www.monash.edu.au/exams/special-consideration.html. Contact the Faculty's Student Services staff at your campus for further information and advice.