



MONASH University

**FIT5159
IT for financial decisions**

Unit guide

Semester 1, 2009

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FIT5159 IT for financial decisions - Semester 1, 2009

Unit leader :

vincent Lee

Lecturer(s) :

Clayton

- Vincent Lee

Tutors(s) :

Clayton

- Vincent lee
- Zhigang Liao
- Mehran Vahid

Introduction

Welcome to FIT5159 IT for financial decisions for semester 1, 2009. This 6 point unit is a core unit in the Business Systems professional track of the MBIS degree, and an elective unit for the MBIS and other postgraduate courses within the Faculty of IT. The unit has been designed to provide students a broad understanding of IT tools and related techniques that can aid in the analysis and interpretation of real financial problems. This Unit will look at 6 real business related financial issues set in the context of specific case studies. You will gain an understanding of organizational environments, the contexts within which information technologies are used to aid financial decision making. This unit explores many aspects of IT with emphasis on the relationship between theoretical knowledge and its practical application using cases and real examples.

Unit synopsis

ASCED Code 020399 IS not elsewhere classified

Financial Modelling using modern computer tools. The subject covers both financial theory and modelling and includes computer modelling methodology, DCF analysis, risk measurement, shareholder value analysis, spreadsheet modelling, capital budgeting, project management, optimal capital budgets, short-term planning and financing, accounts receivable and inventory, statement analysis and forecasting.

Learning outcomes

At the end of this unit, participants will:

1. Understand the core foundations of finance, as appropriate to key financial analysis and decision making;
2. Understand the core technologies which support financial analysis and decision making;
3. Understand the quantitative techniques supporting financial analysis and decision making;
4. Be able to apply the technologies and techniques to financial issues;
5. Be able to analyse financial issue solution requirements and select appropriate technical and quantitative decision

aids;

6. Be able to interpret outputs from quantitative and technology based finance tools to aid in decision making.

Workload

Unit relationships

Prerequisites

Before attempting this unit you must have satisfactorily completed

FIT9004

, or equivalent.

Relationships

FIT5159 is a core unit in the Business Systems professional track of the MBIS degree, and an elective unit for the MBIS and other postgraduate courses within the Faculty of IT.

Before attempting this unit you must have satisfactorily completed

FIT9004

or equivalent.

You may not study this unit and

BUS5003 (previous MBT unit)

in your degree.

Continuous improvement

Monash is committed to 'Excellence in education' (Monash Directions 2025 - <http://www.monash.edu.au/about/monash-directions/directions.html>) 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. One of the key formal ways students have to provide feedback is through Unit Evaluation Surveys. The University's Unit Evaluation policy (<http://www.policy.monash.edu/policy-bank/academic/education/quality/unit-evaluation-policy.html>) requires that every unit offered is 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.

Faculties have the option of administering the Unit Evaluation survey online through the my.monash portal or in class. Lecturers will inform students of the method being used for this unit towards the end of the semester.

Student Evaluations

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

Improvements to this unit

This unit is second time offer.

Unit staff - contact details

Unit leader

Associate Professor Vincent Lee

Associate Professor

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Fax +613-99055159

Contact hours : 3:00 - 5.00 pm Thursday

Lecturer(s) :

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Associate Professor

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Contact hours : 3.00 - 5.00 pm Thursday

Tutor(s) :

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Mr Zhigang Liao

Additional communication information

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Teaching and learning method

Lectures and hands on practical finance problem solving (modelling)

Timetable information

please refer to MUTTS, <http://mutts.monash.edu.au/MUTTS/>

Tutorial allocation

All students should register for tutorials/laboratories using Allocate+.

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.

Unit Schedule

Week	Topic	Key dates
1	Introduction and Financial Statement Analysis	5 Mar (11:00 am - 1:00pm)
2	Capital Budgetting (spreadsheet modelling)	10 Mar (Tuesday, 5:00 pm to 7:00 pm, lecture theatre R3)
3	Financial Processes (System Dynamics Fundamentals)	19 Mar (11:00 am to 1:00pm)
4	System Dynamics Modelling Examples	26 Mar (11:00 am to 7:00 pm)
5	Financial Benchmarking Techniques and tools	2 Apr (11:00 pm to 1:00 pm)
6	Real Options and Project valuations	9 Apr (11:00 am to 1:00 pm)
Mid semester break		
7	Financial clustering/classifications methods	21 Apr (Tuesday, 5:00 pm to 7:00 pm) lecture theatre R3
8	Financial Clustering/classification problems and solution tools	30 Apr (11:00 am to 1:00 pm)
9	Financial forecasting (statistical and machine learning approach)	7 May (11:00 am to 1:00 pm)
10	Some samples with empirical result	15 May (11:00 am to 1:00pm)
11	Capital Structure Decision Basic	

		22 May (11:00 am to 1:00 pm)
12	Capital structure Decision extension	29 May (11:00 am to 1:00 pm)
13	Revision	4 June (11:00 am to 1:00 pm)

Unit Resources

Prescribed text(s) and readings

Brigham E F & Ehrhardt, M.C. (2008), "Finance Management-Theory and Practice" (12th Edition), Thomson South-western, ISBN-13: 978-0-324-42269-6

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

Brigham E F & Ehrhardt, M.C. (2008), "Finance Management-Theory and Practice" (12th Edition), Thomson South-western, ISBN-13: 978-0-324-42269-6

Required software and/or hardware

The following softwares are useful tools to carry out laboratory tasks

Excel Spreadsheet and Crystal Ball

MATLAB version 7.1

Neuroshell version 2

Viscovery SOMINE

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. On-campus students, and 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 **n** 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:

- Weekly detailed lecture notes outlining the learning objectives, discussion of the content, required readings and exercises;
- Weekly tutorial or laboratory tasks and exercises with sample solutions provided one to two weeks later;
- Assignment specifications and sample solutions;
- A sample examination and suggested solution;

- Access to past examination papers;
- Discussion groups;
- This Unit Guide outlining the administrative information for the unit;
- The unit web site on MUSO, where resources outlined above will be made available.

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 <http://www.lib.monash.edu.au>.

The Educational Library and Media Resources (LMR) is also a very resourceful place to visit at <http://www.education.monash.edu.au/library/>

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 <http://www.lib.monash.edu.au>.

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 (<http://moodle.monash.edu.au>) 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:

<http://www.monash.edu.au/muso/support/students/contact.html>

Further information can be obtained from the MUSO support site:

<http://www.monash.edu.au/muso/support/index.html>

Assessment

Unit assessment policy

At FEC meeting 5/07 (Item 4.1.1) the following assessment policy was adopted for all Faculty units that have an exam component:

<http://www.infotech.monash.edu.au/about/committees-groups/fec/2007/meet/fec507min.html>

"To pass a unit which includes an examination as part of the assessment a student must obtain:

- 40% or more in the unit's examination and
- 40% or more in the unit's non-examination assessment 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."

Please ensure that this policy is incorporated in the unit guides for all applicable units.

The following are examples that detail how the policy works:

Example 1:

Student A

Assignment 1 - 10 marks out of 20

Assignment 2 - 2 marks out of 20

Exam - 35 marks out of 60

To pass the hurdle requirements set by the above Faculty policy the student would need:

- at least 16 marks out of the 40 available marks for the assignments (student has received 12 marks - has not met the hurdle requirement)
- at least 24 marks out of the 60 available marks for the exam (student has received 35 marks)
- at least 50 marks overall (student has received 47 marks overall)

Because the student has not met the Assignment hurdle and their overall mark is greater than 44, their mark of 47 N will be downgraded to a 44 N. This ensures that the student does not become eligible for an NP.

Example 2:

Student B

Assignment 1 - 15 marks out of 20

Assignment 2 - 17 marks out of 20

Exam - 20 marks out of 60

To pass the hurdle requirements set by the above Faculty policy the student would need:

- at least 16 marks out of the 40 available marks for the assignments (student has received 32 marks)
- at least 24 marks out of the 60 available marks for the exam (student has received 20 marks - has not met the hurdle requirement)
- at least 50 marks overall (student has received 52 marks overall)

Because the student has not met the Exam hurdle and their overall mark is greater than 44, their mark of 52 P will be downgraded to a 44 N.

Example 3:

Student C

Assignment 1 - 9 marks out of 20

Assignment 2 - 7 marks out of 20

Exam - 24 marks out of 60

To pass the hurdle requirements set by the above Faculty policy the student would need:

- at least 16 marks out of the 40 available marks for the assignments (student has received 16 marks)
- at least 24 marks out of the 60 available marks for the exam (student has received 24 marks)
- at least 50 marks overall (student has received 40 marks overall)

Because the student has not met the overall unit mark of 50%, they will fail the unit, and since their overall mark is less than 44, their mark of 40 N remains unchanged.

Assignment tasks

• Assignment Task

Title : Assignment Tasks - Hands on practical problem solving

Description :

Task 1- Capital Budgetting Spread sheet modelling

Task 2 - Discounted Cash flow and cash flow estimation

Task 3- Benchmarking using Envelope Analysis

Task 4 - System dynamics modelling problem

Task 5 - visualisation of self organising Map for financial clustering (beta criteria)

Task 6 - Modelling of operational risk in financial institutions (Fuzzy neuro inference System)

Weighting : 10% for first task; 15% each for tasks 2 to 6; tasks 5 and 6 are optional.

Criteria for assessment :

Laboratory demonstration with oral presentation (inclusive of Q & A) during laboratory classes (continuous assessment). Students are expected to have at least 6 hours of prior preparation for each task.

This is a group assignment and final assignment marks are based on first task (10%) and best two other tasks (15% each) i.e. the final total assignment mark will be out of the total score of 40%.

Due date : At least three out of six tasks must be completed by last laboratory session (wk 13)

Examinations

• **Examination 1**

Weighting : 60 %

Length : 2 hours

Type (open/closed book) : Closed book

Remarks (optional - leave blank for none) :

Multiple choice questions plus discussion questions

Assignment submission

Assignment are assessed on continuous basis. On average each task must be completed and assessed by one week after the following laboratory session. All task assignment must be submitted in hard and electronic copies with duly signed assignment cover sheet.

Each group task report should be of not less than 2400 words length with each member of the group (of 2 to 4 students) contributes at least 600 words of the writeup. The group task report will be graded according to:

- 1) Technical content (problem formulation and solutions approach) (40%)
- 2) Discussion of results (40%)
- 3) Conclusion and further works recommended (10% each)

Note that prior approval from the lecturer must be obtained for student who wishes to work alone.

Assignment coversheets

Continuous assessment during laboratory session. Assignment coversheet is not applicable.

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.

No extension of hands on assignment task is permitted

Late assignment

Only on very exception situation, no approval will be given to late assessment of task. Task(s) not assessment will be given mark(s).

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 <http://www.policy.monash.edu/policy-bank/academic/education/assessment/>

Only on very exceptional situation, all hands on task assessment must be completed by wk 13.

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 the University Plagiarism policy and procedure (<http://www.policy.monash.edu/policy-bank/academic/education/conduct/plagiarism-procedures.html>) which applies to students detected plagiarising.

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.