MONASH University
Information Technology

# FIT2011
# Decision support systems fundamentals

## Unit Guide

## Semester 2, 2010



*Last updated: 19 Jul 2010*

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# FIT2011 Decision support systems fundamentals - Semester 2, 2010

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## Lecturer(s) / Leader(s):

### Clayton

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## Additional communication information:

You can contact teaching staff during their consultation sessions, or via email at any time. Active use of Moodle discussion forums will be made, and students are strongly encouraged to post questions relating to unit content.

You can contact the lecturer at his office in Caulfield, Building H, 7.38 when he is not at Clayton (ie. Tuesday-Friday).

# Introduction

Welcome to FIT2011 Decision support systems fundamentals.

# Unit synopsis

FIT2011 is the foundation unit for the Decision Making/Decision Support sequence of units. The unit will introduce the history of decision support systems (DSS), the types of decision support systems, the ideas of normative and descriptive models for decision making and management. Descriptive models of decision making will be based on behavioral decison theory and cognitive biases. Evolutionary systems development methods for DSS will be discussed in detail. Current practice in personal DSS, data warehousing, and business intelligence will be the underlying focus of the unit.

# Learning outcomes

At the completion of this unit students will have:
A knowledge and understanding of:

- the major approaches to using IT to support management decision making;
- the nature of managerial work to a level required for DSS systems analysis;
- how managers make decisions and what processes can be followed to improve managerial decision making;
- a systems development methodology for personal DSS;
- data warehousing and business intelligence;
- the principles of DSS strategy and governance.

# Contact hours

2 hrs lectures/wk, 2 hrs laboratories/wk

# Workload

This is a six-point unit that requires you to spend 12 hours per week (a total of at least 156 hours per semester). It is anticipated that, on average, you will spend, per week:

- 2 hours in the lecture each week,
- 2 hours in a tutorial or lab session each week, starting in Week 1.
- 3 hours preparing for the tutorial or lab,
- 5 hours of your own reading and assignment work.

# Unit relationships

## Prerequisites

Completion of 12 points at level 1 from FIT or BusEco.

# Teaching and learning method

## Teaching approach

The main teaching method is a weekly two-hour lecture. This is complemented by a two-hour weekly tutorial or laboratory session. Students are encouraged to form informal study groups to regularly discuss the unit materials. The main source of information for the unit is the FIT2011 Moodle site.

Additionally, a podcast will recorded for all lectures with audio and slides, as well as supplementary episodes for some tutorials and other useful material.

Weekly readings will be set, and students will be expected to complete each week's reading during that week.

## Timetable information

For information on timetabling for on-campus classes please refer to MUTTS,
http://mutts.monash.edu.au/MUTTS/

## Tutorial allocation

On-campus students should register for tutorials/laboratories using the Allocate+ system:
http://allocate.its.monash.edu.au/

## Unit Schedule

| Week | Date* | Topic | Key dates |
|---|---|---|---|
| 1 | 19/07/10 | Overview: IT for managerial decision making | |
| 2 | 26/07/10 | DSS Users: Managers | |
| 3 | 02/08/10 | Normative and Descriptive Decision Theories | |
| 4 | 09/08/10 | Behavioural Decision Theory 1 | |
| 5 | 16/08/10 | Behavioural Decision Theory 2 | |
| 6 | 23/08/10 | DSS Development Methods 1 | |
| 7 | 30/08/10 | DSS Development Methods 2 | |
| 8 | 06/09/10 | Systems Dynamics | Assignment 1 Due - 06/09/10 |
| 9 | 13/09/10 | Personal Decision Support Systems | |
| 10 | 20/09/10 | Data Warehousing | |
| Mid semester break | | | |
| 11 | 04/10/10 | Business Intelligence | Assignment 2 Due - 04/10/10 |
| 12 | 11/10/10 | DSS Applications and Strategy | Assignment 2 Interviews |
| 13 | 18/10/10 | Review | |

*Please note that these dates may only apply to Australian campuses of Monash University. Off-shore students need to check the dates with their unit leader.

# Unit Resources

## Prescribed text(s) and readings

There are no required textbooks for FIT2011.

## Recommended text(s) and readings

Recommended reading:

A list of readings will be provided on the FIT2011 Moodle site. In addition, the textbook used in previous years covers around half the unit's topics.

Turban, E., Aronson, J.F., Liang, T-P., & Sharda, R. (2007). *Decision Support and Business Intelligence Systems* (8th Edn), New York: Pearson-Prentice Hall.

This book is useful but not essential. Copies are avilable in the Library.

## Required software and/or hardware

You will need access to:

- iThink simulation software
- Firefox or Internet Explorer browser
- Word processor
- Spreadsheet

Students may use this software which is installed in the computing labs. Information about computer use for students is available from the ITS Student Resource Guide in the Monash University Handbook.

## Study resources

Study resources we will provide for your study are:

- Weekly detailed lecture slides, required readings;
- Weekly tutorial or laboratory tasks and exercises;
- Assignment specifications and marking guides;
- Access to past examination papers;
- Discussion groups;
- A podcast with lecture, tutorial and other material relevant to the unit;
- This Unit Guide outlining the administrative information for the unit;
- The unit web site on Moodle, where resources outlined above will be made available.

# Assessment

## Overview

Examination (3 hours): 50%; In-semester assessment: 50%

## Faculty assessment policy

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 total 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 total assessment, and the total mark for the unit is greater than 50% then a mark of no greater than 49-N will be recorded for the unit.

## Assignment tasks

### Assignment coversheets

Assignment coversheets are available via "Student Forms" on the Faculty website:
http://www.infotech.monash.edu.au/resources/student/forms/
You MUST submit a completed coversheet with all assignments, ensuring that the plagiarism declaration section is signed.

**Assignment submission and return procedures, and assessment criteria will be specified with each assignment.**

Assignment submission and preparation requirements will be detailed in each assignment specification. Submission must be made by the due date otherwise penalties will be enforced. You must negotiate any extensions formally with your campus unit leader via the in-semester special consideration process: http://www.infotech.monash.edu.au/resources/student/equity/special-consideration.html.

- **Assignment task 1**

  **Title:**
  Assignment 1
  **Description:**
  The objective of this assignment is to analyse a decision process and to identify ways of improving the process. Mastery of this task is essential for systems analysts working in a decision support role.

  Details are available on the FIT2011 Moodle site.
  **Weighting:**
  25% of the unit
  **Criteria for assessment:**
  Student submissions will be assessed according to the following criteria:

  - Clear introduction
  - Logical structure

- Critical analysis/synthesis
- Major elements/issues identified and analysed/discussed
- Literature utilised and referencing technique
- Quality of writing
- Conclusions drawn

**Due date:**
Monday 6 September 2010

- **Assignment task 2**

**Title:**
Assignment 2
**Description:**
The objective of this assignment is to gain a critical understanding of a software application for personal decision support. A key aspect of the assignment is an insight into the role of a systems analyst in a DSS engagement.

Details are available on the FIT2011 Moodle site.
**Weighting:**
25% of the unit
**Criteria for assessment:**
Submissions for the assignment include two key deliverables - System documentation and iThink models. These will be assessed according to the following criteria:

*System documentation*

- Content and quality of writing

*iThink models*

- Modelcorrectness and quality
- Performance during model walkthrough
- Ability to manipulate the model to reflect changed requirements

**Due date:**
Monday 4 October 2010
**Remarks:**
The assessment of this assignment will take place in a simulated work environment. Students are required to attend an assessment session (15 to 30 minutes) allocated to them in the week following submission of the assignment deliverables. Deliverables will be submitted in Week 11, and assessment sessions will be held in Week 12.

## Examination

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**Weighting:**
50% of the unit
**Length:**
3 hours
**Type (open/closed book):**
Closed book
**Electronic devices allowed in the exam:**
None

**See Appendix for End of semester special consideration / deferred exams process.**

## Due dates and extensions

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 not regarded as appropriate reasons for granting extensions. Students are advised to NOT assume that granting of an extension is a matter of course.

Students requesting an extension for any assessment during semester (eg. Assignments, tests or presentations) are required to submit a Special Consideration application form (in-semester exam/assessment task), along with original copies of supporting documentation, directly to their lecturer within two working days before the assessment submission deadline. Lecturers will provide specific outcomes directly to students via email within 2 working days. The lecturer reserves the right to refuse late applications.

A copy of the email or other written communication of an extension must be attached to the assignment submission.

Refer to the Faculty Special consideration webpage or further details and to access application forms: http://www.infotech.monash.edu.au/resources/student/equity/special-consideration.html

## Late assignment

Assignments received after the due date will be subject to a penalty of 5% per day, excluding weekends. Assignments received later than one week (seven days) after the due date will not be accepted.

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.

## Feedback

Types of feedback you can expect to receive in this unit are:

Informal feedback on progress in labs/tutes

Graded assignments with comments

Interviews

Solutions to tutes, labs and assignments

Students are encouraged to post questions and other material on the unit discussion forum hosted on Moodle. Staff will regularly monitor the forums and provide feedback in a timely manner.

# Appendix

Please visit the following URL: http://www.infotech.monash.edu.au/units/appendix.html for further information about:

- Continuous improvement
- Unit evaluations
- Communication, participation and feedback
- Library access
- Monash University Studies Online (MUSO)
- Plagiarism, cheating and collusion
- Register of counselling about plagiarism
- Non-discriminatory language
- Students with disability
- End of semester special consideration / deferred exams