



MONASH University
Information Technology

FIT5111
Information systems development practices

Unit Guide

Semester 1, 2010

The information contained in this unit guide is correct at time of publication. The University has the right to change any of the elements contained in this document at any time.

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FIT5111 Information systems development practices - Semester 1, 2010

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Unit synopsis

This unit is designed to provide students with an understanding of a range of tools and techniques for systems development and knowledge of a number of specific systems development methodologies. The main topics include the tools and techniques for systems development, the evaluation of the tools and techniques, evolution of development methodologies, the organisational context in which systems development takes place and a number of systems development approaches. These include participative development, soft systems approaches, object-oriented development, structured systems development approaches, data and information-oriented approaches and rapid application development.

Learning outcomes

At the completion of this unit students will:

- understand the evolution of systems development methodologies;
- understand the tools and techniques that are used in the development of information systems;
- be able to select appropriate tools and/or techniques for the development of information systems;
- understand the strategies that are used to improve productivity and quality during systems development;
- understand the organisational context within which systems development takes place;
- be able to evaluate and critique different system development methodologies.

Contact hours

2 hrs lectures/wk, 2 hrs tutorial/wk

Further unit information

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Workload

Workload commitments for FIT5111 are:

- 2 hour lecture
- 2 hour tutorial
- 3 hours of personal study per one hour of contact time in order to satisfy the reading and assignment expectations

Unit relationships

Prerequisites

FIT9003 and FIT9006, or one of IMS9001, BUS5021

Prohibitions

IMS5006, IMS5024

Teaching and learning method

Teaching approach

The approach to teaching and learning include a weekly two-hour lecture and a two-hour tutorial/seminar. Additionally, each student should spend a minimum of 8 to 12 hours for personal study every week and should allocate up to 5 hours per week in some weeks for use of a computer, including time for newsgroup and discussion.

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	01/03/10	Introduction, Overview of systems development concepts -traditional SDLC; evolution of system development approaches	PLEASE NOTE: Schedule and topics may be subject to change. Please check Unit website for up-to-date information.----- Assignment 1, Critical Review handed out.
2	08/03/10	Guest Lecture; Learning Skills Unit, Monash Library - Writing Critical Reviews and Presentation Skills	
3	15/03/10	Philosophical perspectives. (paradigms, ontology, epistemology). Frameworks for understanding, comparing, selecting and adopting System Development practices/ methodologies	
4	22/03/10	Structured systems analysis and design and ER modelling practices; ISD methodologies SSADM, I.E. Objected-oriented development practices; ISD methodologies, RUP OOA	
5	29/03/10	Soft approaches/practices - ISD methodologies - SSM	Assignment 1:Critical review due Assignment 2 (Case Study) handed out
Mid semester break			
6	12/04/10	Soft approaches/practices - ISD methodologies - SSM review; Effective Technical Human Implementation of Computer Systems (ETHICS)	Presentation of Assignment 1 findings
7	19/04/10	People/organisational themes in IS development approaches/practices â organisational cultures,	Presentation of Assignment 1 findings

		stakeholders, communities of interest	
8	26/04/10	Participative development approaches/practices - JAD; Prototyping; RAD - JMRAD, DSDM	
9	03/05/10	Participative development approaches/practices - Agile methods -SCRUM	
10	10/05/10	External development practices - application packages, out sourcing, off shoring	
11	17/05/10	Other delivery methods and issues: web development, software as a service; reusable frameworks, cloud computing, inter organisational systems	Assignment 2: Case Study report due Case Study Presentation
12	24/05/10	Other delivery methods and issues: web development, software as a service; reusable frameworks, cloud computing, inter organisational systems	Case Study Presentation
13	31/05/10	Summary and 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.

Improvements to this unit

We will involve the Learning Skills Unit from Monash Library to provide additional support for critical academic writing and support for delivering presentations.

Unit Resources

Prescribed text(s) and readings

Avison, D.E. & Fitzgerald, G. (2006). *Information Systems Development: Methodologies, Techniques and Tools* (4th edn). London: McGraw-Hill.

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

Appropriate readings and references will be provided on the unit website during the semester.

Required software and/or hardware

Students will be required to use word processing to finalise their assignments.

Additionally, students will be expected to use the online facilities available through the unit website. In particular students will need to use the discussion forums and wiki.

Study resources

Study resources we will provide for your study are:

- Unit guide
- The FIT5111 website on Muso where lecture slides, weekly tutorial requirements, assignment specifications and supplementary material will be posted.
- Students will be expected to make extensive use of library resources

Assessment

Overview

Examination (2 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 task 1

Title:

Critical review plus presentation of findings

Description:

This will be an individual assignment. Specific tasks and marking criteria will be distributed at the appropriate time during the semester. Presentations will be held in weeks 6 and 7

Weighting:

20%

Due date:

Critical review due Week 5, Presentation of findings due in Weeks 6 and 7, semester 1, 2010

• Assignment task 2

Title:

A Case Study report and presentation

Description:

The assignment will be a case study, using an appropriate methodology, to evaluate a real world situation. This will be a group assignment and will involve reports and a presentation. Specific tasks and marking criteria will be distributed at the appropriate time during the semester. Presentations will be held on week 11 and 12.

Weighting:

20%

Due date:

Submission due Week 11; Presentations due in Week 11 and 12, semester 1, 2010

• **Assignment task 3**

Title:

Participation Assessment - Tutorial Portfolio

Description:

Individual reviews and commentaries on journal papers presented in tutorials. Assessment will be based on both written submission and peer assessment.

Details will be provided on unit website.

Weighting:

10%

Due date:

Throughout semester

Examination

• **Weighting:** 50%

Length: 2 hours

Type (open/closed book): Closed book

Remarks:

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 in this unit are no less important than those of other units. Your inability to manage your time or computing resources will not be accepted as a valid excuse. (Several assignments falling due at the same time is an unavoidable fact of university life.)

Hardware failures are not normally recognised as a valid reason for obtaining an extension or handing in a late assignment.

Late assignments submitted without an approved extension **may** be accepted up to one week late at the discretion of your lecturer, but will be penalised at the rate of 5% of total assignment marks per day (including weekends).

Example:

Total marks available for the assignment = 100 marks

Marks received for the assignment = 70 marks

Marks deducted for 2 days late submission (10% of 100) = 10 marks

Final mark received for assignment = 60 marks

Return dates

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

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