



MONASH University
Information Technology

FIT5111
Information systems development practices

Unit Guide

Semester 1, 2012

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, 2012

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.

Mode of Delivery

Caulfield (Day)

Contact Hours

2 hrs lectures/wk, 2 hrs tutorial/wk

Workload

Students will be expected to spend a total of 12 hours per week during semester on this unit as follows:

- 2 hour lecture
- 2 hour tutorial
- and up to an additional 8 hours of personal study in order to satisfy the reading and assignment expectations

Unit Relationships

Prohibitions

IMS5006, IMS5024

Prerequisites

FIT9003 and FIT9006, or one of IMS9001, BUS5021

Chief Examiner

Dr Henry Linger

Campus Lecturer

Caulfield

Gail Bourne

Consultation hours: By appointment

Henry Linger

Consultation hours: By appointment

Tutors

Caulfield

Dr. Dora Constantinidis

Consultation hours: By appointment

David Grant

Consultation hours: By appointment

Academic Overview

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.

Graduate Attributes

Monash prepares its graduates to be:

1. responsible and effective global citizens who:
 - a. engage in an internationalised world
 - b. exhibit cross-cultural competence
 - c. demonstrate ethical values

critical and creative scholars who:

- a. produce innovative solutions to problems
- b. apply research skills to a range of challenges
- c. communicate perceptively and effectively

Assessment Summary

Examination (2 hours): 40%; In-semester assessment: 60%

Assessment Task	Value	Due Date
Critical review plus presentation of findings	20%	Submission due Week 5. Presentation of findings due in weeks 5 and 6 tutorials.
A Case Study report and presentation	25%	Submission due Week 11. Presentations due in weeks 11 and 12 tutorials
Participation Assessment - Tutorial - Critical reviews of journal articles.	15%	Review tutorials will be in weeks 3,4,7,8,9 and 10.
Examination 1	40%	To be advised

Teaching Approach

Lecture and tutorials or problem classes

Teaching of the unit will comprise of lecture presentations, tutorial discussions and practical assignments. These sessions will raise significant issues related to weekly topics and provide students with the knowledge of fundamental theories and concepts. The issues will be critically examined through discussions based on reading materials and case studies. Reference to reading materials will be posted on the Unit website in advance of the scheduled discussion. It is expected that students will have prepared for the session by reading the set material

Feedback

Our feedback to You

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

- Informal feedback on progress in labs/tutes
- Graded assignments with comments

Your feedback to Us

Monash is committed to excellence in education and regularly seeks feedback from students, employers and staff. One of the key formal ways students have to provide feedback is through SETU, Student Evaluation of Teacher and Unit. The University's student evaluation policy requires that every unit is evaluated each year. Students are strongly encouraged to complete the surveys. The feedback is anonymous and provides the Faculty with evidence of aspects that students are satisfied and areas for improvement.

For more information on Monash's educational strategy, and on student evaluations, see:

<http://www.monash.edu.au/about/monash-directions/directions.html>

<http://www.policy.monash.edu/policy-bank/academic/education/quality/student-evaluation-policy.html>

Previous Student Evaluations of this unit

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

More visiting experts (from industry) will be invited to speak.

If you wish to view how previous students rated this unit, please go to

<https://emuapps.monash.edu.au/unitevaluations/index.jsp>

Required Resources

Please check with your lecturer before purchasing any Required Resources. Prescribed texts are available for you to borrow in the library, and prescribed software is available in student labs.

Students must use the online facilities available through the unit MUSO website (Moodle). Information regarding references, schedules, assessment tasks and so on will be available there. Students will also be expected to access and use the discussion forums. Students are also expected to use Library resources to support their assignment and tutorial work.

Academic Overview

Students are required to word process their assignments for submission. Handwritten assignments will not be accepted.

Recommended Resources

It is recommended that you refer to:

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

Unit Schedule

Week	Activities	Assessment
0		No formal assessment or activities are undertaken in week 0.
1	Introduction, Overview of systems development concepts -traditional SDLC; evolution of system development approaches	Assignment 1, Critical Review handed out. References for papers 1-2 for tutorial review handed out.
2	Guest Lecture; Learning Skills Unit, Monash Library - Writing Critical Reviews and Presentation Skills	Assignment 1 discussion
3	Philosophical perspectives. (paradigms, ontology, epistemology). Frameworks for understanding, comparing, selecting and adopting System Development practices/ methodologies	Review of first paper in tutorial.
4	People/organisational themes in IS development approaches/practices - organisational cultures, stakeholders, communities of interest	Review of second paper in tutorial.
5	Structured systems analysis and design and ER modelling practices; ISD methodologies SSADM, I.E. Objected-oriented development practices; ISD methodologies, RUP OOA	Assignment 1:Critical review due. Presentation of Assignment 1 findings.
6	Soft approaches/practices - ISD methodologies - SSM	Presentation of Assignment 1 findings.References for papers 3, 4, 5 and 6 for review handed out.
7	Soft approaches/practices - ISD methodologies - SSM review; Effective Technical Human Implementation of Computer Systems (ETHICS)	Review of third paper in tutorial. Assignment 2 (Case Study) handed out
8	Participative development approaches/practices - JAD; Prototyping; RAD - JMRAD, DSDM	Review of fourth paper in tutorial.
9	Participative development approaches/practices - Agile methods -SCRUM	Review of fifth paper in tutorial.
10	External development practices - application packages, out sourcing, off shoring.	Review of sixth paper in tutorial.
11	Other delivery methods and issues.	Assignment 2: Case Study report due: Case Study Presentation
12	Summary and Review	Case Study Presentation
	SWOT VAC	No formal assessment is undertaken in SWOT VAC
	Examination period	LINK to Assessment Policy: http://policy.monash.edu.au/policy-bank/academic/education/assessment/assessment-in-coursework-policy.html

*Unit Schedule details will be maintained and communicated to you via your MUSO (Blackboard or Moodle) learning system.

Assessment Requirements

Assessment Policy

Faculty Policy - Unit Assessment Hurdles

(<http://www.infotech.monash.edu.au/resources/staff/edgov/policies/assessment-examinations/unit-assessment-hu>)

Assessment Tasks

Participation

It is expected that you will attend at least 70% of the lectures, including all lectures given by the industry experts.

Please note that you should attend all of the student presentations, as outlined in the individual assessment descriptions below, and attend at least four out of the six review presentations in tutorials.

• Assessment task 1

Title:

Critical review plus presentation of findings

Description:

This will be an individual assignment. It will be a critical review of a published journal article that explores aspects of Information Systems Development (ISD) methodologies or approaches. Specific tasks and marking criteria will be distributed at the appropriate time during the semester. Presentations will be held in weeks 5 and 6. The presentation given earlier by the Language and Learning unit from the library will assist with skills needed to carry out such a critical evaluation.

Weighting:

20%

Criteria for assessment:

This assignment will be assessed on:

- ◆ Originality and clarity of the argument and its development
- ◆ Ability to synthesise and reflect on relevant issues in ISD and the depth and breadth of those reflections
- ◆ Use of current and relevant literature
- ◆ Layout, structure, spelling, etc. and adherence to style guides including to citation and reference standards
- ◆ Presentation of findings
- ◆ Review and feedback of other student's findings (during presentations)

Due date:

Submission due Week 5. Presentation of findings due in weeks 5 and 6 tutorials.

• Assessment 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

Assessment Requirements

during the semester. Presentations will be held in weeks 11 and 12 tutorials.

Weighting:

25%

Criteria for assessment:

The submission and presentation will be assessed on completeness of the assessment task and the format of both the written presentation and the oral presentation of the task findings. As a group activity, assessment will include peer reviews and tutor observation in order to assess different contributions of group members, both quantitative and qualitative. Feedback and constructive criticism will be assessed on other group's work observed (during their presentations).. Assistance and practical work will be given during the preceding tutorials in order to assist team building and team communication. The presentation given earlier in the semester by the Language and Learning unit from the library will assist with the formal presentation part of this assignment.

Due date:

Submission due Week 11. Presentations due in weeks 11 and 12 tutorials

• Assessment task 3

Title:

Participation Assessment - Tutorial - Critical reviews of journal articles.

Description:

Individual reviews and commentaries on journal papers relevant to the lecture material, presented in tutorials. Assessment will be based on both tutor observations and peer assessment. This assignment will encourage you to demonstrate your understanding and knowledge of ISD practice by engaging with and reflecting on the relevant ISD literature and drawing meaningful conclusions from your reflections.

Weighting:

15%

Criteria for assessment:

You are expected to have read the paper specified for that tutorial and prepare some notes that summarise your understanding of the given paper and identify questions and issues that, in your opinion, the paper raises related to ISD methodologies and/or practice and be prepared to discuss this in a review group.

The assessment for this item is based on the peer evaluation and tutor observation of your performance in the review tutorials, including preparation, participation and contribution, the ability to allow and encourage others to contribute, the ability to share your understanding of ISD with other students and the ability to use the university library resources

Due date:

Review tutorials will be in weeks 3,4,7,8,9 and 10.

Remarks:

The assessment will be made from the top 4 marks, out of the possible 6 review assessments, during the semester. Hence you must attend at least 4 of these 6 review tutorials. However, attending all presentations will assist in raising your assessment grade. Tutors may moderate this assessment after observing the groups in action.

Examinations

Assessment Requirements

• Examination 1

Weighting:

40%

Length:

2 hours

Type (open/closed book):

Closed book

Electronic devices allowed in the exam:

None

Assignment submission

It is a University requirement

(<http://www.policy.monash.edu/policy-bank/academic/education/conduct/plagiarism-procedures.html>) for students to submit an assignment coversheet for each assessment item. Faculty Assignment coversheets can be found at <http://www.infotech.monash.edu.au/resources/student/forms/>. Please check with your Lecturer on the submission method for your assignment coversheet (e.g. attach a file to the online assignment submission, hand-in a hard copy, or use an online quiz).

Online submission

If Electronic Submission has been approved for your unit, please submit your work via the VLE site for this unit, which you can access via links in the my.monash portal.

Extensions and penalties

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>.

Returning assignments

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

Other Information

Policies

Monash has educational policies, procedures and guidelines, which are designed to ensure that staff and students are aware of the University's academic standards, and to provide advice on how they might uphold them. You can find Monash's Education Policies at:

<http://policy.monash.edu.au/policy-bank/academic/education/index.html>

Key educational policies include:

- Plagiarism
(<http://www.policy.monash.edu/policy-bank/academic/education/conduct/plagiarism-policy.html>)
- Assessment
(<http://www.policy.monash.edu/policy-bank/academic/education/assessment/assessment-in-coursework-p>)
- Special Consideration
(<http://www.policy.monash.edu/policy-bank/academic/education/assessment/special-consideration-policy.h>)
- Grading Scale
(<http://www.policy.monash.edu/policy-bank/academic/education/assessment/grading-scale-policy.html>)
- Discipline: Student Policy
(<http://www.policy.monash.edu/policy-bank/academic/education/conduct/student-discipline-policy.html>)
- Academic Calendar and Semesters (<http://www.monash.edu.au/students/key-dates/>);
- Orientation and Transition (<http://www.infotech.monash.edu.au/resources/student/orientation/>);
and
- Academic and Administrative Complaints and Grievances Policy
(<http://www.policy.monash.edu/policy-bank/academic/education/management/complaints-grievance-policy>)
- Codes of Practice for Teaching and Learning
(<http://www.policy.monash.edu.au/policy-bank/academic/education/conduct/suppdocs/code-of-practice-tea>)

Student services

The University provides many different kinds of support services for you. Contact your tutor if you need advice and see the range of services available at www.monash.edu.au/students. For Sunway see <http://www.monash.edu.my/Student-services>, and for South Africa see <http://www.monash.ac.za/current/>

The Monash University Library provides a range of services and resources that enable you to save time and be more effective in your learning and research. Go to <http://www.lib.monash.edu.au> or the library tab in my.monash portal for more information. At Sunway, visit the Library and Learning Commons at <http://www.lib.monash.edu.my/>. At South Africa visit <http://www.lib.monash.ac.za/>.

Academic support services may be available for students who have a disability or medical condition. Registration with the Disability Liaison Unit is required. Further information is available as follows:

- Website: <http://monash.edu/equity-diversity/disability/index.html>;
- Email: dlu@monash.edu
- Drop In: Equity and Diversity Centre, Level 1 Gallery Building (Building 55), Monash University, Clayton Campus, or Student Community Services Department, Level 2, Building 2, Monash University, Sunway Campus
- Telephone: 03 9905 5704, or contact the Student Advisor, Student Community Services at 03 55146018 at Sunway

Other Information

Reading list

Additional relevant readings and references will be provided on the unit MUSO website during the semester.