



MONASH University
Information Technology

FIT5111
Information systems development practices

Unit Guide

Semester 1, 2015

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FIT5111 Information systems development practices - Semester 1, 2015

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)

Workload Requirements

Minimum total expected workload equals 12 hours per week comprising:

(a.) Contact hours for on-campus students:

- Two hours of lectures
- One 2-hour tutorial

(b.) Additional requirements (all students):

- A minimum of 8 hours independent study per week in order to satisfy the reading and assignment expectations.

See also Unit timetable information

Unit Relationships

Prerequisites

FIT9130 or FIT5130 or FIT9003 or equivalent

Chief Examiner

Dr Henry Linger

Campus Lecturer

Caulfield

Henry Linger

Consultation hours: By appointment

Tutors

Caulfield

To be announced

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 the Student Evaluation of Teaching and Units (SETU) survey. 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, see:

www.monash.edu.au/about/monash-directions/ and on student evaluations, see:
www.policy.monash.edu/policy-bank/academic/education/quality/student-evaluation-policy.html

Previous Student Evaluations of this Unit

Based on student feedback:

- Learning Skills Unit from Monash Library will provide additional support for critical academic writing, critical evaluation and delivering presentations.
- More visiting experts (from industry) will be invited to speak.
- Readings for the unit have been revised to emphasise current practices.

If you wish to view how previous students rated this unit, please go to
<https://emuapps.monash.edu.au/unitevaluations/index.jsp>

Academic Overview

Learning Outcomes

On successful completion of this unit, students should be able to:

- describe the evolution of systems development methodologies;
- analyse the organisational context within which systems development takes place;
- assess the tools and techniques that are used in the development of information systems;
- select appropriate tools and/or techniques for the development of information systems;
- evaluate a real world project using systems development methodologies;
- critique and evaluate different system development methodologies.

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 1-3 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	Review of third paper in tutorial
6	Soft approaches/practices - ISD methodologies - SSM	Assignment 1: Critical Review due. Presentation of Assignment 1 findings. References for papers 4-6 for review available
7	Soft approaches/practices - ISD methodologies - SSM review; Effective Technical Human Implementation of Computer Systems (ETHICS)	Presentation of Assignment 1 findings. References for papers 4-6 for review available. Assignment 2: Case Study available.
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, outsourcing, offshoring	Review of sixth paper in tutorial
11	Other delivery methods and issues	Assignment 2: Case Study report due. Presentation of Case Study
12	Summary and Review	Presentation of Case Study
	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 learning system.

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.

Assessment Summary

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

Assessment Task	Value	Due Date
Assignment 1: Critical Review and presentation of findings	20%	Assignment due Week 6. Presentation in Week 6 and 7 tutorials
Assignment 2: Participation Assessment - Tutorials discussion of journal articles	15%	Review tutorials will be in Weeks 3, 4, 5, 8, 9 and 10
Assignment 3: Case Study report and presentation	25%	Assignment due Week 11. Presentation in Week 11 and 12 tutorials
Examination 1	40%	To be advised

Assessment Requirements

Assessment Policy

Faculty Policy - Unit Assessment Hurdles

(<http://intranet.monash.edu.au/infotech/resources/staff/edgov/policies/assessment-examinations/assessment-hurdles>)

Academic Integrity - Please see resources and tutorials at

<http://www.monash.edu/library/skills/resources/tutorials/academic-integrity/>

Assessment Tasks

Participation

It is expected that you will attend at least 80% of the lectures, particularly 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:

Assignment 1: Critical Review and presentation of findings

Description:

This is an individual assignment.

The assignment is a critical review of a published journal article that explores aspects of Information Systems Development (ISD) methodologies or approaches. Detailed specifications will be provided on the Assignment sheet. You will present your review in tutorials in Week 6 and 7 tutorials. The lecture by the Language Skills unit from the library will assist with skills needed to write and present a critical review.

Weighting:

20%

Criteria for assessment:

This assignment will be assessed on:

- ◆ Originality and clarity of the argument and the development argument
- ◆ Ability to synthesise and reflect on relevant issues in ISD and the depth and breadth of those reflections
- ◆ Understanding of ISD theory, concepts and methodologies
- ◆ Use of current and relevant literature
- ◆ Layout, structure, spelling, etc. and adherence to style guides including citation and reference standards
- ◆ Presentation of finding

Detailed specifications will be provided on the Assignment sheet.

A Marking Guide for this assignment will be made available on the unit Moodle website.

Due date:

Assignment due Week 6. Presentation in Week 6 and 7 tutorials

• **Assessment task 2**

Title:

Assignment 2: Participation Assessment - Tutorials discussion of journal articles

Description:

Students will individually review and comment on set journal papers. In the tutorials, students will discuss the paper in small groups and present the group's review to the tutorial class. 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 reflecting on the relevant ISD literature and engaging with other students to draw meaningful conclusions from your individual and collective reflections.

Weighting:

15%

Criteria for assessment:

You are expected to have read the paper specified for that tutorial, 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 tutorial, 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, 5, 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 you in your other assessment tasks. Tutors may moderate this assessment after observing the groups in action.

• **Assessment task 3**

Title:

Assignment 3: 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 a report and presentation. Specific tasks and marking criteria will be distributed at the appropriate time during the semester. Presentations will be held in Week 11 and 12 tutorials.

Weighting:

25%

Criteria for assessment:

The submission and presentation will be assessed on completeness of the assessment task and the quality of both the written and oral presentations 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 groups' 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 lecture by the Language Skills unit from the library will assist with skills needed for the formal presentation part of this assignment.

Due date:

Assignment due Week 11. Presentation in Week 11 and 12 tutorials

Examinations

• Examination 1

Weighting:

40%

Length:

2 hours

Type (open/closed book):

Closed book

Electronic devices allowed in the exam:

None

Learning resources

Reading list

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

Monash Library Unit Reading List (if applicable to the unit)

<http://readinglists.lib.monash.edu/index.html>

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

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.monash.edu.au/exams/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.

Assignment submission

It is a University requirement

<http://www.policy.monash.edu/policy-bank/academic/education/conduct/student-academic-integrity-managing-pla>
for students to submit an assignment coversheet for each assessment item. Faculty Assignment

Assessment Requirements

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 electronic submission). Please note that it is your responsibility to retain copies of your assessments.

Online submission

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

Required Resources

Please check with your lecturer before purchasing any Required Resources. Limited copies of 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 Moodle website. 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.

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:

Recommended text(s)

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

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:

www.policy.monash.edu.au/policy-bank/academic/education/index.html

Faculty resources and policies

Important student resources including Faculty policies are located at

<http://intranet.monash.edu.au/infotech/resources/students/>

Graduate Attributes Policy

<http://www.policy.monash.edu/policy-bank/academic/education/management/monash-graduate-attributes-policy.h>

Student Charter

www.opq.monash.edu.au/ep/student-charter/monash-university-student-charter.html

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 <http://www.monash.edu.au/students>. For Malaysia see <http://www.monash.edu.my/Student-services>, and for South Africa see <http://www.monash.ac.za/current/>.

Monash University Library

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

Disability Liaison Unit

Students who have a disability or medical condition are welcome to contact the Disability Liaison Unit to discuss academic support services. Disability Liaison Officers (DLOs) visit all Victorian campuses on a regular basis.

- Website: <http://www.monash.edu/equity-diversity/disability/index.html>
- Telephone: 03 9905 5704 to book an appointment with a DLO; or contact the Student Advisor, Student Community Services at 03 55146018 at Malaysia
- Email: dlu@monash.edu
- Drop In: Equity and Diversity Centre, Level 1, Building 55, Clayton Campus, or Student Community Services Department, Level 2, Building 2, Monash University, Malaysia Campus