FIT9030
Systems analysis and design

Unit Guide

Semester 1, 2013

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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FIT9030 Systems analysis and design - Semester 1, 2013

The unit introduces students to the key principles which underlie the analysis and design of computer-based information systems to support business and other organisational undertakings. It describes the development life cycle of an information system and provides students with an introductory knowledge of the process of information systems development and the techniques used.

Mode of Delivery

Caulfield (Day)

Contact Hours

2 hrs lectures/wk, 2 hrs laboratories/wk

Workload requirements

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

*For on-campus students:*
Lectures: 2 hours per week
Tutorials/Lab Sessions: 2 hours per week per tutorial (requiring advanced preparation).
and up to an additional 8 hours in some weeks for completing lab and project work, private study and revision.

*Off-campus students* generally do not attend lecture and tutorial sessions, however, you should plan to spend equivalent time working through the relevant resources and participating in discussion groups each week.

Unit Relationships

Prohibitions

IMS9001, FIT2001

Chief Examiner

Mr Peter O'Donnell

Campus Lecturer

Caulfield

David Grant
Tutors

Caulfield

David Grant
Academic Overview

Learning Outcomes

At the completion of this unit students will:

• an understanding of the role of information systems in organisations;
• an understanding of some of the techniques used to analyse and design information systems;
• an understanding of the framework used to structure information systems development projects;
• an understanding of when the use of a particular technique is appropriate;
• the attitudes to appreciate the capabilities and limitations of an information system;
• the practical skills to apply some of the analysis and design techniques in a systems development situation;
• have the practical skills to communicate requirements for business functionality of an information system in terms of data required, data storage and processing.
**Unit Schedule**

<table>
<thead>
<tr>
<th>Week</th>
<th>Activities</th>
<th>Assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>No formal assessment or activities are undertaken in week 0</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Introduction to systems analysis and design</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>The context of systems analysis and design</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Requirements gathering</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Beginning analysis</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>The traditional or structured approach to analysis</td>
<td>Assignment 1a due: Draft requirements specification with event table - end of week 5 - Friday 12th April 2013</td>
</tr>
<tr>
<td>6</td>
<td>Use case modelling</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Finishing analysis</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>The nature of good design</td>
<td>Assignment 1b due: Requirements specification - end of week 8 - Sunday 5th May 2013</td>
</tr>
<tr>
<td>9</td>
<td>Structured design</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Design - use case realisation</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>The user interface</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>System interfaces</td>
<td>Assignment 2 due: Design specification - end of week 12 - Sunday 2nd June 2013</td>
</tr>
<tr>
<td>SWOT VAC</td>
<td>No formal assessment is undertaken in SWOT VAC</td>
<td></td>
</tr>
</tbody>
</table>

*Unit Schedule details will be maintained and communicated to you via your learning system.

**Assessment Summary**

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

<table>
<thead>
<tr>
<th>Assessment Task</th>
<th>Value</th>
<th>Due Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assignment 1a: Draft requirements specification with event table</td>
<td>5%</td>
<td>End of week 5 - Friday 12th April 2013</td>
</tr>
<tr>
<td>Assignment 1b: Requirements specification</td>
<td>20%</td>
<td>End of week 8 - Sunday 5th May 2013</td>
</tr>
<tr>
<td>Assignment 2: Design specification</td>
<td>25%</td>
<td>End of week 12 - Sunday 2nd June 2013</td>
</tr>
<tr>
<td>Reflective blog posts</td>
<td>Bonus of 3% added to overall assignment mark</td>
<td>Your last blog entry can be made any time before the exam.</td>
</tr>
</tbody>
</table>
Teaching Approach

Lecture and tutorials or problem classes

This teaching and learning approach provides facilitated learning, practical exploration and peer learning.
Assessment Requirements

Assessment Policy

Faculty Policy - Unit Assessment Hurdles

Academic Integrity - Please see the Demystifying Citing and Referencing tutorial at
http://lib.monash.edu/tutorials/citing/

Assessment Tasks

Participation

• Assessment task 1

  Title: Assignment 1a: Draft requirements specification with event table

  Description: Assignment work in the unit is fully described, along with the assessment criteria, on the
               assignment page of the Moodle-based unit web site. In this first assignment task you will
               create a draft of your requirements specification that will include a fully developed event
               table.

  Weighting: 5%

  Criteria for assessment: The criteria used to assess submissions are:

  1. Correctness and understanding - there may be more than one "valid" answer in many cases. We will look for answers that reflect understanding of the nature of the system being described.
  2. Completeness - that you have addressed all required parts of each assignment.
  3. Presentation - that you have presented your answers in a suitably formatted report style.

  Due date: End of week 5 - Friday 12th April 2013

• Assessment task 2

  Title: Assignment 1b: Requirements specification

  Description: Assignment work in the unit is fully described, along with the assessment criteria, on the
               assignment page of the Moodle-based unit web site. In this second assignment task you will
               create a finalise of your requirements specification, this will include a context diagram, an
               event table, a use case diagram and associated use case narratives and domain class
               model.

  Weighting: 20%

  Criteria for assessment: The criteria used to assess submissions are:
Assessment Requirements

1. Correctness and understanding - there may be more than one "valid" answer in many cases. We will look for answers that reflect understanding of the nature of the system being described.
2. Completeness - that you have addressed all required parts of each assignment.
3. Presentation - that you have presented your answers in a suitably formatted report style.

Due date:
End of week 8 - Sunday 5th May 2013

• Assessment task 3

Title: Assignment 2: Design specification

Description: Assignment work in the unit is fully described, along with the assessment criteria, on the assignment page of the Moodle-based unit webpage. In this final assignment task you will create a design specification that will include a partial design class model, a sequence diagram, a partial interface design and a database design model.

Weighting: 25%

Criteria for assessment:
The criteria used to assess submissions are:

1. Correctness and understanding - there may be more than one "valid" answer in many cases. We will look for answers that reflect understanding of the nature of the system being described.
2. Completeness - that you have addressed all required parts of each assignment.
3. Presentation - that you have presented your answers in a suitably formatted report style.

Due date:
End of week 12 - Sunday 2nd June 2013

• Assessment task 4

Title: Reflective blog posts

Description: Reflective blog posts give students the means to reflect their viewpoints about the work they are undertaking and the outcomes they are achieving. They provide students with an opportunity to critically assess themselves and the unit.

Weighting: Bonus of 3% added to overall assignment mark

Criteria for assessment: Blog postings will be assessed based on the number of posts during the semester, and on the extent to which students reflect on their unit-based activities.

Due date: Your last blog entry can be made any time before the exam.

Remarks: Each student is invited to keep a reflective journal on the Moodle-based unit website. This blog will provide the opportunity to reflect on the learning that takes place throughout the unit. Each week you will be able to make a new posting to your blog. The blog entries should include a reflection on what has happened in terms of your progress on assignment and tutorial work, your management of the assignment project and its tasks, what lessons have been learned to date and what you (and the staff) could do differently.
A page listing all the reflective journals of FIT9030 students will be maintained on the Moodle-based unit web site. To obtain the 3% bonus mark for this task students must complete a minimum of 10 weekly blog entries during the semester. Each blog post will be read and assessed by the chief examiner. To get the 3% bonus 6 of these posts should be assessed as “satisfactory”.

The 3% bonus will be added to the assignment component of the mark available for the unit. Note that that component cannot exceed 50%. So, for example, a student who obtains 46/50 for their assignment work and who earns the bonus will get 49%. A student who obtains 49/50 would get 50/50 - the maximum available - if they earned the bonus.

For more details, please refer to the Moodle-based unit web site.

Examinations

• Examination 1

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

Learning resources

Reading list

Recommended Reading


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
- Quiz results
- Solutions to tutes, labs and assignments

Extensions and penalties

Submission must be made by the due date otherwise penalties will be enforced.


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/plagiarism-procedures.html](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/](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 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 will require access to an "industrial strength" CASE (computer aided software engineering) tool. In 2012, the tool chosen is Visual Paradigm for UML. This product can be downloaded from the Visual Paradigm web site but to run requires a license key. This is available for download from the FIT9030 Moodle-based unit web site or from your tutor.
Assessment Requirements

Students will also require access to traditional personal productivity tools (word processing, graphics and presentation).

Prescribed text(s)

Limited copies of prescribed texts are available for you to borrow in the library.

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

Key educational policies include:

- Plagiarism; http://www.policy.monash.edu/policy-bank/academic/education/conduct/plagiarism-policy.html
- Special Consideration; http://www.policy.monash.edu/policy-bank/academic/education/assessment/special-consideration-policy.html
- 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/dates/
- Orientation and Transition; http://intranet.monash.edu.au/infotech/resources/students/orientation/
- Graduate Attributes Policy http://www.policy.monash.edu/policy-bank/academic/education/management/monash-graduate-attributes-policy.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 Sunway 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 Sunway, 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 Sunway
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, Sunway Campus

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

Feedback from students for this unit has always been positive in the extreme. The unit regularly features in the Faculty of IT’s list of the top 10% of units. No major changes are required as a result of student feedback from previous offerings.

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