Unit Outline 2011
Faculty of Information Sciences and Engineering

Systems Analysis and Modelling

6677 G
a) **UC Student Guide to Policies**, which sets out University-wide policies and procedures, including information on matters such as plagiarism, grade descriptors, moderation, feedback and deferred exams, and is available at *(scroll to bottom of page)*
http://www.canberra.edu.au/student-services

b) **UC Guide to Student Services**, and is available at *(scroll to bottom of page)*
http://www.canberra.edu.au/student-services

c) Any additional information specified in section 6h.

---

**1: General Information**

1a Unit title Systems Analysis and Modelling

1b Unit number 6677 G

1c Teaching period and year offered Semester 2 2011

1d Credit point value 3

1e Unit level 3

1f Unit Convenor Charles Palmer, Room 11C19
Phone: 6201 2432
Email: charles.palmer@canberra.edu.au

Unit Moderator Richard Lucas, Room 11C23
Phone (02) 6201-5341
Email: s621410@ucmail.canberra.edu.au

1g Administrative Contact School of Information Sciences and Engineering
Room 11B14,
Phone: (02) 6201-2417/2153
Fax: (02) 6201-5231,
Email: ise@canberra.edu.au
2. Academic Content

2a Syllabus
This unit applies the theory of information systems analysis and modelling to the specification of IT-supported business processes. It describes and demonstrates the tools and techniques used to formally describe what an information system is to do, and the methods used by information systems analysis to construct these descriptions. The process of domain modelling is considered from vague systems conceptualisation using soft systems techniques through a process of refinement and verification to a 'Unified Modelling Language' - based specification. It examines the role of analysis and modelling in various systems development life cycles.

Learning Outcomes
On successful completion of this unit students should be able to:
1. Analyse IT-supported business processes and hence derive appropriate system models;
2. Use abstraction as a modelling device;
3. Use international standard systems description paradigms and languages;
4. Explain the role of analysis within various systems development life cycles;
5. Describe and discuss the role of systems models in the synthesis of systems; and
6. Apply tools for managing analysis processes.

2b Generic Skills
The generic skills developed in your course and in this unit are described at https://guard.canberra.edu.au/policy/policy.php?pol_id=3030 and referenced in the assessment items using the UC website heading numbers.

2c Prerequisites and/or co-requisites
None

3. Delivery of Unit and Timetable

3a Delivery mode
This unit will be delivered on campus as a 1 hour lecture each week and a workshop/tutorial session of 2 hours each week. Lecture and tutorial rooms and times are advertised on the website.

3b Schedule of lectures and tutorials
The weekly contact sessions comprise lectures, tutorial/workshops and discussions with visiting professionals (as available).

Broadly, the lecture sequence is planned to address the following topics:

<table>
<thead>
<tr>
<th>Weeks 1 to 3</th>
<th>Systems Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weeks 4 to 7</td>
<td>Structured Modelling</td>
</tr>
<tr>
<td>Weeks 9 to 13</td>
<td>Object Oriented Modelling</td>
</tr>
</tbody>
</table>
Each lecture is followed by a tutorial where students have the opportunity to demonstrate their research and to discuss their work as well as to ask their tutors specific questions.

Students should consult the website regularly for a schedule of detailed activities. The order and emphasis of some activities may change. Assignments for graduates are labelled and are expected to reflect a level of research and evaluation. Assignments are advertised on the website together with due dates and times.

### 4: Unit Resources

#### 4a Lists of required texts/ readings

The recommended text is:  

*Text (hard copy or soft copy) available from the Cengage website:*  
[www.cengagebrain.com](http://www.cengagebrain.com) and search for ISBN 9780538481618. If selecting soft copy, select the relevant e-chapters (3,4,5).

Various papers and relevant articles will also be made available through the unit website as appropriate.

#### 4b Materials and equipment

Students are required to use computers to access resources in this unit as well as performing assessable work.

#### 4c Unit website (Moodle)


The lecturer and unit convener will use this website to provide up-to-date information. Specific information can be sent to students or groups of students using the website email facilities. This facility can be used to forward emails to each student’s designated email address. Other communications are via lecture and tutorial sessions.

Students should check the Moodle unit website, their student email account and attend all lectures and tutorials regularly.

Information sent using these facilities is considered received by students.

### 5: Assessment

#### 5a Assessment overview

<table>
<thead>
<tr>
<th>Assessment item (including exams held in the exam period)</th>
<th>Due date</th>
<th>Weighting</th>
<th>Addresses Learning outcomes</th>
<th>Addresses Generic Skills</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 On-line quizzes</td>
<td>As published</td>
<td>5%,5%,5%</td>
<td>1,2,3</td>
<td>1,2,3,4</td>
</tr>
<tr>
<td>Presentations that reflect the reports.</td>
<td>on the website (Moodle)</td>
<td>15%,15%,15%</td>
<td>2,3,4,6</td>
<td>1,3,4,5</td>
</tr>
<tr>
<td>----------------------------------------</td>
<td>-------------------------</td>
<td>--------------</td>
<td>---------</td>
<td>---------</td>
</tr>
<tr>
<td>Assignment (three sections)</td>
<td>Advertised on the website (Moodle)</td>
<td>15%,15%,15%</td>
<td>2,3,4,6</td>
<td>1,3,4,5</td>
</tr>
<tr>
<td>Examination</td>
<td>Examination Period</td>
<td>40%</td>
<td>1,2,3,4,5,6</td>
<td>2,3,5</td>
</tr>
</tbody>
</table>

All assignments are marked out of 100 and then scaled to reflect the actual grade marks for the unit.

5b Details of each assessment item

Grading:
You must gain a passing grade as an aggregation of all weighted marks for the semester.

The grades awarded are based on the UC standard grades described in https://guard.canberra.edu.au/policy/policy.php?pol_id=2900

Standard minimum grades are defined as:

- Fail (NX) = < 50%
- Pass (P) = 50% ~ 64%
- Credit (CR) = 65% ~ 74%
- Distinction (DI) = 75% ~ 84%
- High
- Distinction (HD) = 85%

Marking guides are published on the Moodle web site against each assignment and reflect research led learning assessment.

1. 3 x Moodle-based quizzes
   These quizzes comprise 10 questions with 1, then 2 and finally 3 research and analysis questions respectively for each quiz.

2. Case Study Assignment
   This assignment reflects your case study analysis, structured modelling and object oriented modelling respectively throughout the semester. Details of each of the 3 assignment components will be published on the Moodle web site.

3. Examination
   The examination will be held in the exam period at the end of the semester. The examination is presented as a case study explores your understanding and analysis of the concepts covered throughout the semester. The examination is closed book.

5c No special assignment conditions

Section 9 of the UC Assessment Policy describes grades and their numerical equivalents. Some scaling of marks and academic judgement may be applied to
determine students' final grades - in this process no student will be disadvantaged. See https://guard.canberra.edu.au/policy/policy.php?pol_id=2900 for details.

All assignments should be submitted by the due time and date. If for any reason you are unable to submit an assignment by the due date you must request an extension in writing before the due date (unless impossible). If there is a medical or counselling reason for the extension request it must be accompanied by a medical or counselling certificate which clearly states:

- that you were unfit to complete the assignment;
- the date of the medical or counselling consultation; and
- the period for which you were / are / will be unfit to complete the assignment.

If there is any doubt with regard to the requirements of any assignment or assessment procedure, the onus for clarifying the issue rests with the student who should contact the lecturer about the matter.

All assignments are to be submitted via the Moodle website by the due date and time. The standard time is 5pm on the day of submission. Moodle has been configured to refuse late assignments. Students are advised to submit their assignments well before the deadline time as the system can become slow if many students are attempting to submit at the last moment.

Referencing requirements:
In all submitted written work, the referencing must comply with the author-date or 'Harvard' system, as outlined in the University Library Citation Guide available at: http://www.canberra.edu.au/library/research-gateway/research_help/referencing-guides

5d Supplementary assessment
Please see UC policy for supplementary assessment at:

5e Academic Integrity
Students have a responsibility to uphold University standards on ethical scholarship. Good scholarship involves building on the work of others and use of other’s work must be acknowledged with proper attribution made. Cheating, plagiarism, and falsification of data are dishonest practices which contravene academic values. Refer to the policy at https://guard.canberra.edu.au/policy/policy.php?pol_id=3175
5f   **Text Matching Software**
Text-matching software may be used to check for plagiarism against previous and current student assignments as well as attempts to match text from the internet. The lecturer has the right to conduct verbal examination where work is considered by the unit convener or moderator to be at risk of plagiarism.

6:   **Student Responsibility**

6a   **Workload**
The amount of time you will need to spend on study in this unit will depend on a number of factors including your prior knowledge, learning skill level and learning style. Nevertheless, in planning your time commitments you should note that for a 3cp unit the total notional workload over the semester or term is assumed to be 150 hours. These hours include time spent in classes.

The following table is a guide that may help you plan your semester’s effort levels:

<table>
<thead>
<tr>
<th>Activity</th>
<th>Hours per week</th>
<th>Semester Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lectures</td>
<td>1</td>
<td>14</td>
</tr>
<tr>
<td>Tutorials/Workshops</td>
<td>2</td>
<td>28</td>
</tr>
<tr>
<td>Tutorial Presentation Preparation</td>
<td>1</td>
<td>30</td>
</tr>
<tr>
<td>Assignment Preparation</td>
<td>~3</td>
<td>45</td>
</tr>
<tr>
<td>On-Line quizzes</td>
<td>1</td>
<td>12</td>
</tr>
<tr>
<td>Exam Preparation</td>
<td>2</td>
<td>18</td>
</tr>
<tr>
<td>Exam</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td><strong>150</strong></td>
</tr>
</tbody>
</table>

6b   **Special needs**
Students who need assistance in undertaking the unit because of disability or other circumstances should inform their Unit Convener or the UC AccessAbility (formerly the Disabilities Office) as soon as possible so the necessary arrangements can be made.

6c   **Attendance requirements**
You are strongly advised to attend all lectures and to fully participate in all tutorials. There is recurring and ongoing group and individual work throughout the unit. The lecture slides and other material are published on the website. Lecture slides should not be considered a substitute for attending the lectures.

Announcements made in lectures or published using the website is deemed to have been heard or read by all students in the unit.

6d   **Withdrawal**
If you are planning to withdraw from this unit, please discuss this with your unit convener. Please see [this link](#) for further information on withdrawal deadlines.

6e   **Required IT skills**
You are expected to be a competent computer user and familiar with word processing, presentation software and workflow and document management software (on line instructions are supplied) in this unit. It is expected that you will teach yourself how to use the packages by working through the exercises in the software's tutorials and/or studying examples supplied with the software. All assignments are expected to be submitted electronically using the Moodle website and in Microsoft Office compliant format or PDF; unless specifically stated otherwise.

6f Costs
There are no unusual costs.

6g Work Integrated Learning
This unit uses commercially available software and practices and as assignment components. In addition, when available, industry representatives are invited to present guest lectures. Where relevant and practical, management practices in this unit are related to Australian legislation and standards.

6h Additional Information
Sources of other information will be announced in lectures and the website

7: Student Feedback

All students enrolled in this unit will have an opportunity to provide anonymous feedback at the end of the Semester via the Unit Satisfaction Survey (USS) which will be presented to you on OSIS. Your lecturer or tutor may also invite you to provide more detailed feedback on their teaching through an anonymous in-class questionnaire administered through the University’s Teaching and Learning Centre (TLC).

This unit outline has been modified to better reflect student feedback survey results for this unit.

Changes include re-weighting of some of the graded assignments.

8: Authority of this Unit Outline

Any change to the information contained in Section 2 (Academic content), and Section 5 (Assessment) of this document, will only be made by the Unit Convener if the written agreement of Head of Discipline and a majority of students has been obtained; and if written advice of the change is then provided on the unit site in the learning management system. If this is not possible, written advice of the change must be forwarded to each student enrolled in the unit at their registered term address. Any individual student who believes him/herself to be disadvantaged by a change is encouraged to discuss the matter with the Unit Convener.