Faculty of Information Technology
School of Information Management and Systems
Semester 2, 2005
UNIT OUTLINE

Unit: IMS5024, Information Modelling


Unit webpage: To access unit webpage, select: http://www.sims.monash.edu.au/subjects/ims5024/index.html

Staff:

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</table>

Contacting staff: Outside the scheduled class contact hours, you can contact teaching staff by email, phone, during their consultation hours (available on unit webpage or at SIMS Frontdesk) or by making an appointment.

If you need a staff member urgently and are unable to contact them, please contact: SIMS Frontdesk, Level 7 – Building S, Ph: 9903 2208
Aim: This unit is designed to provide students with an understanding of the use of information systems modelling within information systems development. Critical comparisons are made of the various approaches to information systems modelling. Topics include philosophical foundations of information systems modelling; approaches to information systems modelling - data modelling, process modelling, event driven modelling, object-oriented modelling; information systems modelling in practice - the process of information systems modelling; quality in information systems modelling;

Objectives: At the completion of this unit the students will:

have knowledge and understanding of:
- Abstraction techniques in information systems modelling
- A range of information systems modelling techniques
- The role of information systems modelling in information systems development
- The strengths and weaknesses of particular information systems modelling techniques
- Design and evaluation of alternative information systems

have the skills to:
- Identify and perform abstraction techniques in information systems modelling
- Perform a range of information systems modelling techniques
- Use a range of information systems modelling approaches

have developed attitudes which enable them to:
- Identify the strengths and weaknesses of particular information systems modelling techniques
- Critique issues relevant to the practice of information systems modelling
- recognise the applicability and limitations of using particular, information systems modelling techniques

Prerequisite knowledge:
Completion of IMS9001, IMS9003, IMS9049, or an equivalent unit.

Texts and software:

Prescribed texts:

No single text is prescribed for this unit. A list of readings will be provided for each lecture.

Recommended texts:

A list of readings will be provided for each lecture. See the web site for the list.
Other references:

A list of readings will be provided for each lecture. See the web site for the list.

Software:

You will be required to complete two assignments one using a word processing package and the other using a graphics package of your choice (for example Visio or Rational Rose).

Computing and laboratory requirements:

You will be required to complete two assignments one using a word processing package and the other using a graphics package of your choice (for example Visio or Rational Rose).

Study materials:

We provide:

- 2 assignment specifications
- Lecture slides on the web site
- Readings in PDF-format where available on the web site
# Unit structure and organisation:

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<thead>
<tr>
<th>Week</th>
<th>Topic</th>
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<tbody>
<tr>
<td>1</td>
<td>18 - 22 July 2005&lt;br&gt;Introduction&lt;br&gt;What is information modelling?</td>
</tr>
<tr>
<td>2</td>
<td>25 – 29 July 2005&lt;br&gt;Philosophical aspects of modelling information</td>
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<tr>
<td>3</td>
<td>1 – 5 August 2005&lt;br&gt;Object oriented modelling (1)&lt;br&gt;Due: Synopsis outlining the intended structure and contents of the essay assignment</td>
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<td>4</td>
<td>8 – 12 August 2005&lt;br&gt;Object oriented modelling (2)&lt;br&gt;Due: Confirmation from the tutor regarding your choice of organisation for your essay assignment</td>
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<td>5</td>
<td>15 – 19 August 2005&lt;br&gt;Object oriented modelling (3)</td>
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<tr>
<td>6</td>
<td>22 – 26 August 2005&lt;br&gt;Process modelling&lt;br&gt;Due: Essay assignment</td>
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<tr>
<td>7</td>
<td>29 August - 2 September 2005&lt;br&gt;Data modelling</td>
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<td>8</td>
<td>5 – 9 September 2005&lt;br&gt;Event driven modelling</td>
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<tr>
<td>9</td>
<td>12 – 16 September 2005&lt;br&gt;Human activity systems modelling</td>
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<tr>
<td>10</td>
<td>19 – 23 September 2005&lt;br&gt;Data warehousing</td>
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<td></td>
<td>26 - 30 September 2005&lt;br&gt;Semester break</td>
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<tr>
<td>11</td>
<td>3 – 7 October 2005&lt;br&gt;The role of modelling techniques in systems development&lt;br&gt;Due: Modelling assignment</td>
</tr>
<tr>
<td>12</td>
<td>10 – 14 October 2005&lt;br&gt;Knowledge management</td>
</tr>
<tr>
<td>13</td>
<td>17 – 21 October 2005&lt;br&gt;Conclusion</td>
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NB. This information is subject to change
Workload:

This is a six point unit which, according to University guidelines, requires you to spend 12 hours per week (a total of at least 156 hours per semester).

The anticipated workload is:

- 2 hours per week lecture
- 1 hour per week tutorial
- 6 hours per week preparation and assignment
- 3 hours per week reading

Assessment:

The assignments (50% weighting) and a three-hour examination (50% weighting) will be used to assess whether you have achieved the objectives of this subject.

Two assignments (total assessment value 50%)

Assignment 1, Value 25%, 24 August 2005, Modelling Essay
Assignment 2, Value 25%, 5 October 2005, Object oriented modelling

Assignments should be received on or before the due date. Late submissions will be penalised at the rate of 10%. If you believe that your assignment will be delayed because of circumstances beyond your control such as illness you should apply for an extension before the due date. Medical certificates or certification supporting your application is required.

A "closed book " examination of 3 hours, (assessment value 50%) based on the material covered in the lectures.

The 40% rule applies to units and determines the final result for a student where the student's performance in either the examination or assignment component of the unit is unsatisfactory.

Formal supervised assessment

The formal supervised assessment for this unit will be an exam scheduled in the formal examination period following the last week of semester. You are required to be available for the exam. Alternative times for exams will not be approved without a medical certificate for a significant illness, or equivalent evidence.

Note:

- 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 often unavoidable.)
- Backup copies are required to be made of all assignments and retained for 12 months, in case of loss.
- Hardware failures are not normally recognised as a valid reason for obtaining an extension or handing in a late assignment.
Assessment Notes

1 Acknowledgment of sources

Each time you complete any assessment, please refer to and make yourself familiar with the most current information regarding acknowledgement of sources, plagiarism and academic conduct contained in the SIMS Policy website.

http://www.sims.monash.edu.au/policies

2. Assignments

2.1 Standards for presentation

All printed assignment work must be word processed and meet the standards set out in the assignment. Refer also to the School of Information Management and Systems guidelines for writing assignments for additional information on presentation standards:


2.2 All assignments must include an appropriate signed SIMS assignment cover page. See the SIMS web site for downloadable (PDF) copies of SIMS assignment cover pages


2.3 Extensions

If you believe that your assignment will be delayed because of circumstances beyond your control such as illness, you should apply for an extension prior to the due date. All applications for extensions must be made in writing to your lecturer. Medical certificates or other supporting documentation will be required.

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 10% 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 (20% of 100) = 20 marks
Final mark received for assignment = 50 marks

2.4 Submission of assignments

Assignments should be received during the lecture on or before the due date. In the absence of other instructions, all assignments are to be submitted to your tutor during your allocated tutorial.

2.5 Return of assignments

Assignments will either be returned in specified tutorials during semester or via the SIMS Frontdesk collection system outside semester.

In general, assignments will be returned within two to three weeks of the due date.
3 Student Academic Grievance Procedure

If you have a concern or issue about aspects of your assessment or other academic matters, you are encouraged to follow the SIMS Student Academic Grievance Procedure: http://www.sims.monash.edu.au/policies

4. Pass requirements

The 40% rule applies to units and determines the final result for a student where the student’s performance in either the examination or assignment component of the unit is unsatisfactory. Students need to be aware of the 40% rule which is:

In order to pass a unit, a student must gain all of the following:

- at least 40% of the marks available for the examination component: i.e. the final examination and any tests performed under exam conditions, taken as a whole
- at least 40% of the marks available for the assignment component: i.e. the assignments and any other assessment tasks (such as presentations) taken as a whole
- at least 50% of the total marks for the unit

Where a student gains less than 40% for either the examination or assignment component, the final result for the unit will be no greater than ‘44-N’.

5. Grades

The grades awarded by the Faculty of Information Technology are:

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<thead>
<tr>
<th>Grade</th>
<th>Code</th>
<th>Marks</th>
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<tbody>
<tr>
<td>High Distinction</td>
<td>HD</td>
<td>80-100</td>
</tr>
<tr>
<td>Distinction</td>
<td>D</td>
<td>70-79</td>
</tr>
<tr>
<td>Credit</td>
<td>C</td>
<td>60-69</td>
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<tr>
<td>Pass</td>
<td>P</td>
<td>50-59</td>
</tr>
<tr>
<td>Fail</td>
<td>N</td>
<td>0-49</td>
</tr>
<tr>
<td>Near Pass</td>
<td>NP</td>
<td>45-49 (may be awarded by Board of Examiners only)</td>
</tr>
<tr>
<td>Deferred</td>
<td>DEF</td>
<td>-</td>
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<tr>
<td>Withheld</td>
<td>WH</td>
<td>-</td>
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