Faculty of Information Technology
School of Information Management and Systems
Semester 1, 2004
UNIT OUTLINE

Unit: IMS3001, Business Intelligence Systems


Unit webpage: To access unit webpage, select:

Staff:

<table>
<thead>
<tr>
<th>Role</th>
<th>Name</th>
<th>Room</th>
<th>Phone</th>
<th>Email</th>
</tr>
</thead>
<tbody>
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</tbody>
</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. All email correspondence needs to use IMS3001 as subject in the subject line to avoid being deleted as spam.

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 subject is intended to provide students with introductory knowledge of concepts, development and use of business intelligence systems.

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

*have knowledge of:*

- the scope and application of business intelligence systems
- the role of business intelligence systems in supporting business decision making
- the major approaches to the development of business intelligent systems
- evolution of business intelligence systems

*have an understanding of:*

- the process of business intelligence systems development
- current state of the art of the theory and practice of business intelligence systems

*have the skills to:*

- organise, analyse and interpret data for the purpose of supporting business decision making
- understand managerial problem solving activity as well as problem finding activity for supporting business decision making

*have developed attitudes which enable them to:*

- identify and evaluate business intelligence opportunities
- plan for business intelligence solution and implementation
- work closely with business intelligence team

Prerequisite knowledge: Completion of CSE1205, IMS1002, SYS1002, IMS2168 or equivalent

Texts and software:
Prescribed texts:

Because of the breadth off the subject, there is no single textbook that adequately covers all topic areas. Because the books are so expensive, we have decided not to make them compulsory.

Recommended texts:


Marakas, G.M. (2002). Decision support systems in the 21st Century. 2nd Ed, Prentice Hall (or previous editions)


Other references:


Software:

MS Excel, MS Access

Other software may be used for demonstration purposes. This will be made available to you either via website or distributed on CD.

Computing and laboratory requirements:

Internet Explorer or Netscape

MS Office

Study materials:

We provide:

- All assignment specifications
- Lecture Notes (Power Point presentations) available via subject home page
- Electronic copies of tutorial materials available via subject home page
- Sample examination papers and discussion time in class of Week 13 to develop sample answers.

Check the subject home page regularly for assignment specifications, lecture notes, tutorial materials, reading materials and updates.

**Unit structure and organisation:**

<table>
<thead>
<tr>
<th>Week</th>
<th>Lecture</th>
<th>Tutorial</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>Introduction to Business Intelligence Systems</td>
<td>No tutorials in the first week</td>
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<tr>
<td>2</td>
<td>Supporting business decision making</td>
<td>Topic for Discussion: Ask the Expert: Business Intelligence for the enterprise Exercise 1: Business Intelligence resources on the Web</td>
</tr>
<tr>
<td>3</td>
<td>Decision Support Framework for BIS</td>
<td>Topic for Discussion: AAA Carolinas completely functional with Brio in one week Exercise 2: Business Intelligence Software on the Web</td>
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<tr>
<td>4</td>
<td>Data-Driven Business Intelligence Systems, Part I</td>
<td>Topic for Discussion: The Mystery of Lovesick Lake Exercise 3: Query Building and Reporting with Excel</td>
</tr>
<tr>
<td>5</td>
<td>Data-Driven Business Intelligence Systems, Part II</td>
<td>Topic for Discussion: Mervyn’s Department Stores Exercise 4: Multidimensional Analysis and OLAP</td>
</tr>
<tr>
<td>6</td>
<td>Model-Driven Business Intelligence Systems, Part I</td>
<td>Topic for Discussion: Managing Seasonal Variability – Cascade Designs Exercise 5: Modelling with Spreadsheets</td>
</tr>
<tr>
<td>7</td>
<td>Model-Driven Business Intelligence Systems, Part II</td>
<td>Topic for Discussion: HydroBasin: Relicensing Planning for Hydroelectric Watersheds Exercise 6: Decision Trees and Influence Diagrams</td>
</tr>
<tr>
<td>8</td>
<td>Knowledge-Driven Business Intelligence Systems, Part I</td>
<td>Topic for Discussion: The National Basketball Association gets a “jump” on data mining Exercise 7: Data Mining</td>
</tr>
<tr>
<td>9</td>
<td>Knowledge-Driven Business Intelligence Systems, Part II</td>
<td>Topic for Discussion: Expert systems assist in fraud detection Exercise 8: Soft computing</td>
</tr>
<tr>
<td>10</td>
<td>Document-Driven; Communications-Driven and Group Business Intelligence Systems</td>
<td>Topic for Discussion: Plano Police Department Exercise 9: Brainstorming and Group Decision Making</td>
</tr>
<tr>
<td>11</td>
<td>BIS Development, Implementation and Evaluation</td>
<td>Topic for Discussion: Improving operational efficiency – Audi AG Exercise 10: Business Intelligence solution using MS</td>
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**ASSIGNMENT DUE**
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
- 2 hours per week tutorials
- 6 hours per week preparation and assignment
- 2 hours per week reading

Assessment:

The assessment for the subject has three components:

- Assignment, Value 30%, Due Week 9, during tutorial
- Class participation, Value 10%
- 3 hour exam, Value 60%

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.
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 by your tutor on or before the due date (Week 9). 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:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Code</th>
<th>Marks</th>
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</thead>
<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>
</tr>
<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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