Description: Advanced Information Systems

<table>
<thead>
<tr>
<th>Subject</th>
<th>Cat-nbr</th>
<th>Class</th>
<th>Term</th>
<th>Mode</th>
<th>Units</th>
<th>Campus</th>
</tr>
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<tr>
<td>CSC</td>
<td>3401</td>
<td>40348</td>
<td>1, 2005</td>
<td>ONC</td>
<td>1.00</td>
<td>Toowoomba</td>
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Academic group: FOSCI
Academic org: FOS003
Student contribution band: 2
ASCED code: 020399

STAFFING
Examiner: David Mason
Moderator: Mike McFarlane

REQUISITES
Pre-requisite: CSC3400 or USQIT16

OTHER-REQUISITES
Recommended Pre-requisite: CSC3402 and MAT1200

RATIONALE
There are increasing demands to effectively harness the potential of information systems and their associated information technologies, to support and refine the complex demands of decision-making across organisations. Such co-ordination involves the application of analytical strategies to enterprise-wide data, as well as reporting mechanisms and strategies which empower people at all levels of decision-making. To support these functions, the course builds on the knowledge and skills gained in other courses and gives the students training in advanced systems development.

SYNOPSIS
This course relates the decision-making needs of people within organisations to the requirements of enterprise-wide information systems intended to support them. Students will learn both theoretical and practical techniques for designing, developing, and maintaining flexible centralised and decentralised information systems capable of supporting both well defined needs and perhaps more importantly, needs which defy precise definition.

OBJECTIVES
On successful completion of this course students will be able to:

1. explain the interaction of information and decision processes of an organisation;
2. apply structured techniques to the systematic analysis of the information needs of an organisation;
3. specify and utilise appropriate analytical strategies for converting data into information;
4. evaluate the various phases and components of information systems development;
5. design advanced information systems;
6. apply structured techniques to designing user interfaces.

**TOPICS**

<table>
<thead>
<tr>
<th>Description</th>
<th>Weighting (%)</th>
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<tbody>
<tr>
<td>Decision processes: descriptive, normative, and prescriptive</td>
<td>10.00</td>
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<tr>
<td>Adaptive models for decision support</td>
<td>5.00</td>
</tr>
<tr>
<td>Systems implications of centralised and decentralised decision making</td>
<td>10.00</td>
</tr>
<tr>
<td>Relating information systems to corporate goals using enterprise modelling concepts (e.g. Information Systems Architecture)</td>
<td>20.00</td>
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<tr>
<td>Participative analysis and design methodologies</td>
<td>10.00</td>
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<tr>
<td>Implications of developments in information technology</td>
<td>15.00</td>
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<tr>
<td>Justification of practical information system designs against theoretical frameworks</td>
<td>25.00</td>
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<tr>
<td>Structured techniques for designing interfaces</td>
<td>5.00</td>
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</table>

**TEXT and MATERIALS required to be PURCHASED or ACCESSED**

ALL textbooks and materials are available for purchase from USQ BOOKSHOP (unless otherwise stated). Orders may be placed via secure internet, free fax 1800642453, phone 07 46312742 (within Australia), or mail. Overseas students should fax +61 7 46311743, or phone +61 7 46312742. For costs, further details, and internet ordering, use the 'Textbook Search' facility at http://bookshop.usq.edu.au click 'Semester', then enter your 'Course Code' (no spaces).


**REFERENCE MATERIALS**

Reference materials are materials that, if accessed by students, may improve their knowledge and understanding of the material in the course and enrich their learning experience.

STUDENT WORKLOAD REQUIREMENTS

<table>
<thead>
<tr>
<th>ACTIVITY</th>
<th>HOURS</th>
</tr>
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<tbody>
<tr>
<td>Examinations</td>
<td>2.00</td>
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<tr>
<td>Lectures</td>
<td>26.00</td>
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<tr>
<td>Private Study</td>
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<td>Tutorials</td>
<td>26.00</td>
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ASSESSMENT DETAILS

<table>
<thead>
<tr>
<th>Description</th>
<th>Marks out of</th>
<th>Wtg(%)</th>
<th>Due date</th>
</tr>
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<tbody>
<tr>
<td>ASSIGNMENT 1</td>
<td>10.00</td>
<td>10.00</td>
<td>24 Mar 2005</td>
</tr>
<tr>
<td>ASSIGNMENT 2</td>
<td>15.00</td>
<td>15.00</td>
<td>26 Apr 2005</td>
</tr>
<tr>
<td>PROJECT/CASE STUDY</td>
<td>35.00</td>
<td>35.00</td>
<td>10 Jun 2005</td>
</tr>
<tr>
<td>2 HR CLOSED EXAMINATION</td>
<td>40.00</td>
<td>40.00</td>
<td>END S1 (see note 1)</td>
</tr>
</tbody>
</table>

NOTES
1. Examination dates will be available during the semester. Please refer to the examination timetable when published.

IMPORTANT ASSESSMENT INFORMATION

1. Attendance requirements:
   It is the students' responsibility to attend and participate appropriately in all activities (such as lectures, tutorials, laboratories and practical work) scheduled for them, and to study all material provided to them or required to be accessed by them to maximise their chance of meeting the objectives of the course and to be informed of course-related activities and administration.

2. Requirements for students to complete each assessment item satisfactorily:
   To complete each of the assessment items satisfactorily, students must obtain at least 50% of the marks available for each assessment item.

3. Penalties for late submission of required work:
   If students submit assignments after the due date without prior approval then a penalty of 10% of the total marks gained by the student for the assignment will apply for each working day late.

4. Requirements for student to be awarded a passing grade in the course:
   To be assured of a passing grade, students must demonstrate, via the summative assessment items, that they have achieved the required minimum standards in relation to the objectives of the course by satisfactorily completing all summative assessment items.

5. Method used to combine assessment results to attain final grade:
The final grades for students will be assigned on the basis of the weighted aggregate of the marks obtained for each of the summative assessment items in the course.

6 Examination information:
In a Closed Examination, candidates are allowed to bring only writing and drawing instruments into the examination.

7 Examination period when Deferred/Supplementary examinations will be held:
Any Deferred or Supplementary examinations for this course will be held during the examination period at the end of the semester of the next offering of this course.

8 University Regulations:
Students should read USQ Regulations 5.1 Definitions, 5.6. Assessment, and 5.10 Academic Misconduct for further information and to avoid actions which might contravene University Regulations. These regulations can be found at the URL http://www.usq.edu.au/corporateservices/calendar/part5.htm or in the current USQ Handbook.

ASSESSMENT NOTES

9 Students may be required to provide a copy of assignments submitted for assessment purposes. Such copies should be despatched to the USQ within 24 hours of receipt of a request to do so.

OTHER REQUIREMENTS

1 Students who obtain an overall passing mark, but who do not perform satisfactorily in the examination, may, at the discretion of the examiner, be granted a supplementary examination. Students will be granted a deferred examination only if they perform satisfactorily in all other assessment items.