Description: Data Management

Subject | Cat-nbr | Class | Term | Mode | Units | Campus
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CSC | 3404 | 54311 | 2, 2006 | ONC | 1.00 | Toowoomba

Academic group: FOSCI
Academic org: FOS003
Student contribution band: 2
ASCED code: 020399

STAFFING
Examiner: Jesus Lopez
Moderator: Khaleel Petrus

REQUISITES
Pre-requisite: STA2300

RATIONALE
Businesses and scientists are collecting more data than ever before. This course is designed to equip the students with computers skills and concepts required to ensure that the data collected is secure, stored efficiently, and presented in a useful form. It is also designed to ensure that graduates have the qualitative and information technology skills needed to deliver a workable data management system.

SYNOPSIS
This course is intended for students experienced in statistical analysis, experimental design, and basic systems design, and focuses on the coordination, management and utilisation of data using modern computer data base management systems. This course, in emphasising the efficient analysis and utilisation of data, develops the pragmatics of managing data, and presenting information.

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

1. develop detailed specifications for a data management system using structured techniques;
2. construct simple data bases for the efficient storage and retrieval of data;
3. design forms for data entry;
4. incorporate data validation and cleaning strategies into the data entry process;
5. secure data using the appropriate methods;
6. develop appropriate backup strategies based on the data requirements;
7. present the information contained in a data management system in a meaningful way;
8. export data to external users in an appropriate format;
9. develop and maintain documentation on a data management system.

TOPICS

<table>
<thead>
<tr>
<th>Description</th>
<th>Weighting (%)</th>
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</thead>
<tbody>
<tr>
<td>1. Introduce to Data Management: what is data, what makes it useful, goals of data management, nature of decisions and where does the data come from.</td>
<td>10.00</td>
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<tr>
<td>2. Defining data requirements: outlining the requirements of the system, collecting data to meet these requirements, Data Flow Diagrams, and data base table design.</td>
<td>10.00</td>
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<td>3. Gathering data: form design and data validation methods.</td>
<td>20.00</td>
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<td>4. Turning data into information: making data useful and ways of presenting data.</td>
<td>20.00</td>
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<tr>
<td>5. Securing data: security issues, methods of securing data, and role of backups.</td>
<td>20.00</td>
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<tr>
<td>6. Implementing: testing, changing over systems, maintaining systems.</td>
<td>10.00</td>
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<tr>
<td>7. Introduction to advanced information systems: data warehousing and distributed information systems.</td>
<td>10.00</td>
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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).

You will need appropriate database and statistical software to demonstrate your information system. This software must be available to the examiner. Hence you may choose from the latest version of Microsoft Access or other appropriate database software, providing you can demonstrate your running application to the Examiner. If you have any doubts about your software requirements, please contact the Examiner.


Statistical Software *Excel or SPSS*,

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.

Electronic materials for this course will be available via its home page:
http://www.sci.usq.edu.au/courses/csc3404


STUDENT WORKLOAD REQUIREMENTS

<table>
<thead>
<tr>
<th>ACTIVITY</th>
<th>HOURS</th>
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<tbody>
<tr>
<td>Assignments</td>
<td>60.00</td>
</tr>
<tr>
<td>Laboratory or Practical Classes</td>
<td>26.00</td>
</tr>
<tr>
<td>Lectures</td>
<td>13.00</td>
</tr>
<tr>
<td>Private Study</td>
<td>50.00</td>
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<tr>
<td>Tutorials</td>
<td>13.00</td>
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</tbody>
</table>

ASSESSMENT DETAILS

<table>
<thead>
<tr>
<th>Description</th>
<th>Marks out of</th>
<th>Wtg(%)</th>
<th>Due date</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASSIGNMENT 1</td>
<td>100.00</td>
<td>30.00</td>
<td>25 Jul 2006</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(see note 1)</td>
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<tr>
<td>ASSIGNMENT 2</td>
<td>100.00</td>
<td>70.00</td>
<td>25 Jul 2006</td>
</tr>
<tr>
<td></td>
<td></td>
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<td>(see note 2)</td>
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</tbody>
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NOTES

1. Examiner to advise due date for Assignment 1.
2. Examiner to advise due date for Assignment 2.

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 available 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 receiving a passing grade a student must achieve at least 50% of the total weighted marks available for the course.

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

6 Examination information:
There is no examination in this course.

7 Examination period when Deferred/Supplementary examinations will be held:
As there are no examinations in this course, there will be no deferred or supplementary examinations.

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 must retain a copy of each item submitted for assessment. If requested, students will be required to provide a copy of assignments submitted for assessment purposes. Such copies should be despatched to USQ within 24 hours of receipt of a request being made.

10 The due date for an assignment is the date by which a student must despatch the assignment to the USQ. The onus is on the student to provide proof of the despatch date, if requested by the Examiner.

11 In accordance with University policy, the Examiner may grant an extension of the due date of an assignment in extenuating circumstances.

12 Only electronic copies of assignments must be submitted (via e-mail) directly to the Examiner.

13 In the event that a due date for an assignment falls on a local public holiday in their areas, such as a Show holiday, the due date for the assignment will be the next day. Students are to note on the assignment cover the date of the public holiday for the Examiner’s convenience.

OTHER REQUIREMENTS

1 Students will require access to an appropriate computer either via the student’s own arrangements or a USQ centre.

2 Students will require access to e-mail and internet access to USQConnect for this course.