Description: e-Commerce Technology and Web-Database Integration

<table>
<thead>
<tr>
<th>Subject</th>
<th>Cat-nbr</th>
<th>Class</th>
<th>Term</th>
<th>Mode</th>
<th>Units</th>
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<td>CSC</td>
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<td>66862</td>
<td>2, 2007</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: 020199

STAFFING
Examiner: Zhongwei Zhang
Moderator: Ron Addie

REQUISITES
Pre-requisite: CSC3407 and Students must be enrolled in one of the following Programs: BINH or GCAC or GCPC or GDAC or GDPC or MCOP or MPIT or MPCP

RATIONALE
Underlying the growing field of e-commerce, there are a number of technicalities, protocols, and languages required to make it all work. For example: encryption, authentication, key-exchange protocols, certificates and protocols for their distribution. This course will address these issues. Underlying many web-sites, small and large, is the necessary technology of providing a web interface to databases. There are many systems available for developing web-sites which take the approach that a database is the kernel around which a collection of scripts, views and forms make things happen. In this course, the architecture of such systems is explored and students are provided with the opportunity to undertake database-oriented web development.

SYNOPSIS
Students will study the techniques for constructing and maintaining an e-commerce site, including the construction of a secure web-server, security management, electronic transaction processing, and web-display of and access to information in a database.

OBJECTIVES
On successful completion of this course students should:

1. understand what is involved in starting up and operating an internet business/e-commerce (Assignment 1 Proposal);
2. have basic knowledge of what is involved in designing, maintaining and administrating a web-based e-commerce site (Assignment 1 Proposal, Assignment 2 Implementation);
3. understand the issues surrounding privacy and security (Assignment 3, Project/Research Final Report);
4. know how to use elementary cryptographic techniques, and understand their strengths and weaknesses for data authentication and integrity and digital signatures (Assignment 3, Project/Research Final Report);
5. be able to construct an e-commerce server, including a secure web-site, with funds transfer capabilities, and a database of products and transactions (Assignment 2 Implementation);
6. be able to demonstrate a good understanding of the protocols and techniques in the e-commerce system development (Assignment 2 Implementation, Assignment 3, Project/Research Final Report).

**TOPICS**

<table>
<thead>
<tr>
<th>Description</th>
<th>Weighting (%)</th>
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<tbody>
<tr>
<td>1. E-commerce Infrastructures, tools, software</td>
<td>20.00</td>
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<tr>
<td>2. E-commerce Security and authentication service</td>
<td>20.00</td>
</tr>
<tr>
<td>3. Electronic Payment Methods and protocols</td>
<td>20.00</td>
</tr>
<tr>
<td>4. Access to database information via web interfaces</td>
<td>20.00</td>
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<td>5. E-Commerce Web Server developments</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).

Online papers/study materials to be linked from the course home page.


**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.

Schneider, Gary P & Perry, James T 2003, *Course Technology*, 4th edn, United Kingdom.
(Electronic Commerce)
STUDENT WORKLOAD REQUIREMENTS

<table>
<thead>
<tr>
<th>ACTIVITY</th>
<th>HOURS</th>
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<td>Laboratory or Practical</td>
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<td>Classes</td>
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<tr>
<td>Lectures</td>
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<tr>
<td>Private Study</td>
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<td>Tutorials</td>
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ASSESSMENT DETAILS

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<tr>
<th>Description</th>
<th>Marks out of</th>
<th>Wtg(%)</th>
<th>Due date</th>
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<tr>
<td>ASSIGNMENT 1 PROPOSAL</td>
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<tr>
<td>ASSIGNMENT 2 IMPLEMENTATION</td>
<td>100.00</td>
<td>50.00</td>
<td>01 Oct 2007</td>
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<td>ASSIGNMENT 3</td>
<td>100.00</td>
<td>40.00</td>
<td>05 Nov 2007</td>
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</table>

(see note 1)

NOTES

1. PROJECT/RESEARCH FINAL REPORT

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 assignments satisfactorily, students must obtain at least 50% of
   the marks available for each assignment.

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 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 weighted aggregate of
   the 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:
   There will be no Deferred or Supplementary examinations in 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 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.

10 Students must retain a copy of each item submitted for assessment. This must be produced within five days if required 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 Students who have undertaken all of the required assessments but who have failed to meet some of the specified objectives within the normally prescribed time may be awarded the temporary grade: IM (Incomplete - Make up). An IM grade will only be awarded when, in the opinion of the examiner, a student will be able to achieve the remaining objectives of the course after a period of non directed personal study.

13 Students who, for medical, family/personal, or employment-related reasons, are unable to complete an assignment, may apply to defer an assessment in a course. Such a request must be accompanied by appropriate supporting documentation. One of the following temporary grades may be awarded IDS (Incomplete - Deferred Examination: IDM (Incomplete Deferred Make-up); IDB (Incomplete - Both Deferred Examination and Deferred Make-up).

OTHER REQUIREMENTS

1 Students will require access to email and internet access to USQConnect and the course web site, and are expected to check these resources frequently.