The University of Sydney

School of
Information Technologies

Unit COMP5347

E-Commerce Technology

6 Credit Points

Unit of Study Outline & Assessment Details

Semester 1, 2008

IMPORTANT: Policy relating to Academic Dishonesty and Plagiarism.

The School of Information Technologies[1] views all forms of academic dishonesty, including plagiarism and recycling, very seriously.

Plagiarism means presenting another person's ideas, findings or work as one's own by copying or reproducing them without due acknowledgement of the source.

Recycling means the submission for assessment of one's own work, or of work which is substantially the same, which has previously been counted towards the satisfactory completion of another unit of study, and credited towards a university degree, and where the examiner has not been informed that the student has already received credit for that work.

Students who submit work containing significant portions that have been copied from other sources, including published works, the internet, existing programs, work previously submitted for other awards or assessments, or the work of other students, without proper acknowledgement will be penalised. Decisions as to the penalty may include:

(a) counselling the student;
(b) issuing a written warning;
(c) requiring the student to resubmit the work for assessment; or to undertake other remedial work;
(d) requiring the student to undertake another form of assessment in lieu of the assignment in question, such as an unseen examination;
(e) applying a fail grade to the work, or part thereof, submitted for assessment;
(f) applying a fail grade overall in the unit of study; or
(g) referring the matter to the Registrar if the head of school considers there has been a breach of the University's standards of academic honesty and the student continues in a denial, or, following the interview, the head of school considers that failing the unit of study is insufficient to deal with the matter.

Where there is doubt about which portions of work are contributed by a particular student he/she may be required to demonstrate knowledge of the relevant material by answering oral questions or by undertaking supplementary work, either written or in the laboratory, in order to arrive at the final assessment mark.

[1] Refer to Academic Board policy: http://policy.rms.usyd.edu.au/000003f.pdf

COMP5347 E-Commerce Technology

1. Introduction

E-commerce system is a special type of enterprise application running on top of web/http. E-commerce systems have their own particular challenges and solutions and they are different from desktop systems, embedded systems and other enterprise systems like accounting or payroll system. This course will focus on technologies used particularly in building Internet and web systems. It will not cover general issues related with any enterprise application such as transaction management, concurrency management, database management and so on.

This course aims at providing both conceptual understanding and hand-on experiences for the technologies covered. We will examine how data/messages are communicated between client and server; how to improve the responsiveness using rich client technology; how to build the server side system to respond to client request. We will also examine the emerging trend of web services and its role in E-commerce systems.

At the end of this course, students are expected to have a clear understanding of the structure and technologies of e-commerce systems. Students are also expected to be able to read and modify simple web application code. Internet and Web technologies are surrounded by a cloud of mysterious acronyms like RSS, SOAP, REST, XML, XHTML, CSS, ATOM, JSON, DOM, AJAX, PHP, ASP, JSP, JSF and so on. As a side effect , students are expected to be able to map those acronyms to a particular technology slot.

Most technologies covered in this course are not specific for any particular software platform except that: we will use J2EE's JSF as an example server page technology; the web services example will be given in Java.

2. Objectives

Students who successfully complete this unit are expected to:

- Understand the structures of web/http and the distinctive features and requirements of e-commerce systems.
- Understand the difference between thin client and rich client and the core technologies support rich Internet client.
- Understand XML and its important role in web technology
- Understand core features of various server side technologies.
- Obtain basic developer skills with regard to a core set of technologies including Ajax, server scripting, server page, soap and rest based web services.

3. Unit of Study Delivery

A variety of learning situations will be employed during the unit of study, including lectures, prescribed reading, directed computer laboratory exercises, on-line discussions and four quizzes via the WebCT website. To benefit fully from this unit it is necessary to participate fully in all aspects of the unit of study.

4. Expectations

1. Students are expected to attend all scheduled lectures, and laboratory classes. You should expect to spend a minimum of twelve hours per week including scheduled lectures and laboratory times.
2. Students are expected to undertake prescribed reading, to carry out exercises and laboratory tasks and to submit selected work for assessment as directed. It should be realised that laboratory exercises are expected to take longer than just the time scheduled for classes.
3. Students are expected to be able to work independently and to make effective use of a range of resources including the library, the Internet and relevant on-line help facilities.

4. Students are expected to check their progressive results regularly. Results will be published through *WebCT*. Any errors or omissions must be reported to the unit coordinator, with appropriate evidence, as soon as possible. Marks are considered to have been confirmed ten days after being published and will not subsequently be altered.

5. Assessment Package

The overall work will be assessed by means of the following components:

Component	***% of Final Grade***
Quizzes (4 in total, see detail below)	50
Written examination (two hours, open book)	50

It is a policy of the School of Information Technologies that in order to pass this unit, a student must achieve at least 40% in the written examination as well as in the other components of assessment together. A student must also achieve an overall* scaled *final mark of 50 or more. Any student not meeting these requirements can achieve a maximum mark of no more than 45.

Late work: In the interests of fairness to all students, the School of Information Technologies policy states that late work cannot be accepted. In exceptional cases late work must be submitted *directly to the unit of study coordinator* accompanied by an application for Special Consideration as outlined on page 16 of the School of Information Technologies Postgraduate Enrolment Guide.

Assessment results will be published on the course web page. Students are required to check their results.

Any errors or omissions must be reported to the unit coordinator, with appropriate evidence, within ten (10) days of being published. Ten days after being published, marks are considered to have been confirmed and will not subsequently be altered.

Deadlines for assessments are set on the assumption that students may experience minor setbacks caused by sickness, computer breakdown etc. In this context, 'minor' means 'causing a delay of up to three working days'. Extensions will not be granted for minor setbacks. It is important to work steadily on assignments as soon as they are given.

The total marks for COMP5347 are 100 with the breakdown as described above. The total will then be scaled by the School examiners' meeting, to keep final results comparable between courses, to take account of academic judgment about the appropriate Pass line, and also to adhere to Faculty of Science policy on the number of merit grades awarded. Scaling may lead to students' marks moving up or down. Scaling will not alter the relative order between two students who are enrolled in the same unit of study.

6. Details of Assessment Components

6.1 Online quizzes

There are four quizzes through out the semester. They are scheduled on week 3, week 6, week 9 and week 12 respectively. All quizzes are open book, held in WebCT, and students are expected to finish them individually at home or in the lab. Students will have one week time to finish each quiz, that is, each quiz will be available at the start of the quiz week and due at the end of that week. Students can attempt and revise any part of the quiz at any time during that week. However, once a student submits the quiz, he (she) can not revise it any more. Students will receive marks/feedbacks of the quizzes through WebCT usually after one week.

6.2 Written Examination

The written examination will cover all aspects of the unit of study, including theoretical issues and implementation issues. Duration of the examination will be two hours and students can bring any printed material with them.

7. Teaching team

	Room	*Phone*	*Email*
Dr Ying Zhou (lecturer & coordinator)	SIT437	9351 3215	y.zhou@usyd.edu.au

8. Textbook and Readings

Recommended textbook:

- Deitel, Internet & World Wide Web How to Program, 4th edition, Prentice Hall , 2008
- Website:

http://www.deitel.com/Books/InternetWebScripting/InternetWorldWideWebHowtoProgram4e/tabid/2048/Default.aspx
(You can register and download all code examples in the textbook from the book website)

Other References:

- Martin Fowler, Patterns of Enterprise Application Architecture, Addison-Wesley, 2003.
- David Johnson, Alexei White, Andre Charland, Enterprise Ajax, Prentice Hall, 2007
- James F. Kurose, Keith W. Ross, Computer Networking A Top-Down Approach Featuring the Internet, 3rd edition, Addison-Wesley

Software used:

- Apache HTTP Server 2.0
- MySQL 5
- PHP 5
- NetBeans 5.5 above bundled with Tomcat

9. Coursework and Assessment Schedule

Week	Topic	Assessment due	Laboratory
1 (04.03)	Introduction/HTTP Review		No lab
2 (11.03)	XHTML/CSS		HTTP exercise
3 (18.03)	JavaScript Introduction	**Quiz 1 (10%)**	XHTML/CSS
Easter Break			
4 (01.04)	JavaScript Object		JavaScript
5 (08.04)	DOM/Event		JavaScript Object
6 (15.04)	XML/RSS	**Quiz 2 (15%)**	DOM/Event
7 (22.04)	XMLHttpRequest		XML/RSS
8 (29.04)	Server Scripting		AJAX
9 (06.05)	JSF	**Quiz 3 (10%)**	Server Scripting
10 (13.05)	JSF with AJAX		JSF
11 (20.05)	Web Services		JSF II
12 (27.05)	Web Service Security	**Quiz 4 (15%)**	Web Services
13 (03.06)	Course Revision		No lab