COMP344

E-Commerce Technology

S2 Day 2015

Dept of Computing

Contents

General Information

Unit convenor and teaching staff
unit convener, lecturer
Yan Wang
yan.wang@mq.edu.au
Contact via email
E6A 339
Thursday 2pm-4pm during teaching weeks, or by appointment

lecturer
Leslie Bell
les.bell@mq.edu.au
Contact via email
Thursday 2pm-3pm during teaching weeks, or by appointment

practical tutor
Lie Qu
lie.qu@mq.edu.au
Contact via email
E6A 341
Wednesday 11am-12pm

practical tutor
Arun Neelakandan
arun.neelakandan@mq.edu.au
Contact via email
E6A 355
Wednesday 12-1pm

Credit points
3

Prerequisites
39cp and (COMP224(P) or ISYS224(P)) and COMP249(P)

Corequisites

Co-badged status

Unit description
This unit focuses on the underlying technologies of electronic commerce via the internet, and their application in a commercial environment. The emphasis is on understanding the technologies in order to develop, use and integrate them in industrial e-commerce solutions. The unit draws on a number of areas of computing such as networks, web servers, security, databases, and interactive program design.

Important Academic Dates

Information about important academic dates including deadlines for withdrawing from units are available at https://www.mq.edu.au/study/calendar-of-dates

Learning Outcomes

On successful completion of this unit, you will be able to:

understand basic concepts, techniques, protocols and infrastructures in e-commerce systems

have advanced knowledge and ability of programming, system design and development and security mechanisms for e-commerce

communicate clearly and effectively

Assessment Tasks

Name	Weighting	Due
Tutorial Exercises	10%	Weekly
Assignment 1	15%	Weeks 4 to 7
Assignment 2	25%	Weeks 8 to 12
Final Examination	50%	TBA

Tutorial Exercises

Due: **Weekly**
Weighting: **10%**

Each week after lectures, there will be several questions left to students. The answers should be submitted to iLearn by 9am in the coming Monday morning. Each week is for 1%. There will be 12 weeks in total for weekly exercises. The best 10 submissions will be counted for 10% totally in the final assessment.

On successful completion you will be able to:

- understand basic concepts, techniques, protocols and infrastructures in e-commerce systems
- communicate clearly and effectively

Assignment 1

Due: **Weeks 4 to 7**
Weighting: **15%**

This assignment is planned for the design of a simple online shopping system, and the implementation some initial functionality. There would be more than one stage of submissions so that students could have better planning with different focuses in different stages.

On successful completion you will be able to:

- understand basic concepts, techniques, protocols and infrastructures in e-commerce systems
- have advanced knowledge and ability of programming, system design and development and security mechanisms for e-commerce
- communicate clearly and effectively

Assignment 2

Due: **Weeks 8 to 12**
Weighting: **25%**

This assignment is planned to be an extension of the first assignment, with some advanced features added in both design and implementation.

On successful completion you will be able to:

- understand basic concepts, techniques, protocols and infrastructures in e-commerce systems
- have advanced knowledge and ability of programming, system design and development and security mechanisms for e-commerce
- communicate clearly and effectively

Final Examination

Due: **TBA**
Weighting: **50%**

For this unit, a final examination is fully appropriate to test learning outcomes #1 to #3. Indeed, it allows to accurately assess the degree of understanding of concepts, theoretical topics, the capability of system design and analysis as well as the written communication skills of students.

The final examination accounts for 50% of the final assessment and consists of three sections.

The first section includes multi-choice questions. The second section assesses your knowledge and comprehension of the topics to be introduced by Yan Wang, covering basic concepts, system design and problem solving. The remaining section focuses on the m-commerce, e-commerce supply chain and security topics to be introduced by Les Bell.

On successful completion you will be able to:

- understand basic concepts, techniques, protocols and infrastructures in e-commerce systems
- have advanced knowledge and ability of programming, system design and development and security mechanisms for e-commerce
- communicate clearly and effectively

Delivery and Resources

CLASSES

Each week you should attend three-hour lectures (including a one-hour tutorial) and a one-hour practical. For details of days, times and rooms consult the timetables webpage.

Note that **both tutorials and practicals commence in week 2**.

Please note that you are required to attend most of the tutorials and submit your solutions each week. Failure to do so may result in you failing the unit.

REQUIRED AND RECOMMENDED TEXTS AND/OR MATERIALS

Recommended Reading

Students may find the following reference books helpful:

1. Elias M. Awad, E-Commerce: From Vision to Fulfilment, 3rd edition, Prentice Hall, 2007, ISBN-10: 0131735217 ISBN-13: 9780131735217
2. Michael Wooldridge, An Introduction to MultiAgent Systems, John Wiley and Sons Ltd, 2009, ISBN 978-0-470-51946-2
3. Efraim Turban, Davis King, Judy McKay, Peter Marshell, Jae Lee and Dennis Viehland, Electronic Commerce, A Managerial Perspective 2010, Prentice Hall, ISBN-10: 0136100368 • ISBN-13: 9780136100362

Note:

All books will be available in the Reserve Section of Macquarie library since week 1. They are available to COMP344 students only. When borrowing book, you need to present your student card to a staff there and tell them you are a COMP344 student.

UNIT WEBPAGE AND TECHNOLOGY USED AND REQUIRED

Lecture Recordings

Digital recordings of lectures are available at iLearn.

Websites

The majority of the unit materials are available only at iLearn website that require you to log in to access them.

Discussion Boards

The unit makes use of discussion boards hosted within iLearn. Please post questions relevant to this unit there. They are monitored by the staff on the unit.

Unit Schedule

Week	Lecturer	Topics
1	Yan Wang	Fundamentals of E-Commerce
2	Yan Wang	Web Technologies for E-Commerce 1
3	Yan Wang	Web Technologies for E-Commerce 2
4	Yan Wang	Reputation and Trust Evaluation in E-Commerce
5	Yan Wang	Software Agent and E-Commerce 1
6	Yan Wang	Software Agent and E-Commerce 2
7	Les Bell	E-Commerce Architectures & Database Schemas; Project Management
8	Les Bell	Introduction to Security
9	Les Bell	E-commerce Security Mechanisms and Security Attacks
10	Les Bell	Payment Processing and Protocols
11	Les Bell	M-Commerce, E-Commerce Supply Chain Management
12	Les Bell	Advanced E-Commerce Processes, Personalization and Metrics
13	Yan Wang and Les Bell	Review

Policies and Procedures

Macquarie University policies and procedures are accessible from Policy Central. Students should be aware of the following policies in particular with regard to Learning and Teaching:

Academic Honesty Policy http://mq.edu.au/policy/docs/academic_honesty/policy.html

Assessment Policy http://mq.edu.au/policy/docs/assessment/policy.html

Grading Policy http://mq.edu.au/policy/docs/grading/policy.html

Grade Appeal Policy http://mq.edu.au/policy/docs/gradeappeal/policy.html

Grievance Management Policy http://mq.edu.au/policy/docs/grievance_management/policy.html

Disruption to Studies Policy http://www.mq.edu.au/policy/docs/disruption_studies/policy.html *The Disruption to Studies Policy is effective from March 3 2014 and replaces the Special Consideration Policy.*

In addition, a number of other policies can be found in the Learning and Teaching Category of Policy Central.

Student Code of Conduct

Macquarie University students have a responsibility to be familiar with the Student Code of Conduct: https://students.mq.edu.au/support/student_conduct/

Results

Results shown in *iLearn*, or released directly by your Unit Convenor, are not confirmed as they are subject to final approval by the University. Once approved, final results will be sent to your student email address and will be made available in eStudent. For more information visit ask.mq.edu.au.

Student Support

Macquarie University provides a range of support services for students. For details, visit http://students.mq.edu.au/support/

Learning Skills

Learning Skills (mq.edu.au/learningskills) provides academic writing resources and study strategies to improve your marks and take control of your study.

- Workshops
- StudyWise
- Academic Integrity Module for Students
- Ask a Learning Adviser

Student Services and Support

Students with a disability are encouraged to contact the Disability Service who can provide appropriate help with any issues that arise during their studies.

Student Enquiries

For all student enquiries, visit Student Connect at ask.mq.edu.au

IT Help

For help with University computer systems and technology, visit http://informatics.mq.edu.au/help/.

When using the University's IT, you must adhere to the Acceptable Use Policy. The policy applies to all who connect to the MQ network including students.

Graduate Capabilities

Discipline Specific Knowledge and Skills

Our graduates will take with them the intellectual development, depth and breadth of knowledge, scholarly understanding, and specific subject content in their chosen fields to make them competent and confident in their subject or profession. They will be able to demonstrate, where relevant, professional technical competence and meet professional standards. They will be able to articulate the structure of knowledge of their discipline, be able to adapt discipline-specific knowledge to novel situations, and be able to contribute from their discipline to inter-disciplinary solutions to problems.

This graduate capability is supported by:

Learning outcomes

- understand basic concepts, techniques, protocols and infrastructures in e-commerce systems
- have advanced knowledge and ability of programming, system design and development and security mechanisms for e-commerce

Assessment tasks

- Tutorial Exercises
- Assignment 1
- Assignment 2
- Final Examination

Critical, Analytical and Integrative Thinking

We want our graduates to be capable of reasoning, questioning and analysing, and to integrate and synthesise learning and knowledge from a range of sources and environments; to be able to critique constraints, assumptions and limitations; to be able to think independently and systemically in relation to scholarly activity, in the workplace, and in the world. We want them to have a level of scientific and information technology literacy.

This graduate capability is supported by:

Learning outcomes

- understand basic concepts, techniques, protocols and infrastructures in e-commerce systems
- have advanced knowledge and ability of programming, system design and development and security mechanisms for e-commerce

Assessment tasks

- Tutorial Exercises

- Assignment 1
- Assignment 2
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Effective Communication

We want to develop in our students the ability to communicate and convey their views in forms effective with different audiences. We want our graduates to take with them the capability to read, listen, question, gather and evaluate information resources in a variety of formats, assess, write clearly, speak effectively, and to use visual communication and communication technologies as appropriate.

This graduate capability is supported by:

Learning outcomes

- understand basic concepts, techniques, protocols and infrastructures in e-commerce systems
- have advanced knowledge and ability of programming, system design and development and security mechanisms for e-commerce
- communicate clearly and effectively

Assessment tasks

- Tutorial Exercises
- Assignment 1
- Assignment 2
- Final Examination

Grading standards

At the end of the semester, you will receive a grade that reflects your achievement in the unit

- **Fail (F, 0-49)**: does not provide evidence of attainment of all learning outcomes. There is missing or partial or superficial or faulty understanding and application of the fundamental concepts in the field of study; and incomplete, confusing or lacking communication of ideas in ways that give little attention to the conventions of the discipline.
- **Pass (P, 50-64)**: provides sufficient evidence of the achievement of learning outcomes. There is demonstration of understanding and application of fundamental concepts of the field of study; and communication of information and ideas adequately in terms of the conventions of the discipline. The learning attainment is considered satisfactory or adequate or competent or capable in relation to the specified outcomes.
- **Credit (Cr, 65-74)**: provides evidence of learning that goes beyond replication of content

knowledge or skills relevant to the learning outcomes. There is demonstration of substantial understanding of fundamental concepts in the field of study and the ability to apply these concepts in a variety of contexts; plus communication of ideas fluently and clearly in terms of the conventions of the discipline.

- **Distinction (D, 75-84)**: provides evidence of integration and evaluation of critical ideas, principles and theories, distinctive insight and ability in applying relevant skills and concepts in relation to learning outcomes. There is demonstration of frequent originality in defining and analysing issues or problems and providing solutions; and the use of means of communication appropriate to the discipline and the audience.

- **High Distinction (HD, 85-100)**: provides consistent evidence of deep and critical understanding in relation to the learning outcomes. There is substantial originality and insight in identifying, generating and communicating competing arguments, perspectives or problem solving approaches; critical evaluation of problems, their solutions and their implications; creativity in application.

In this unit, your final grade depends on your performance in each part of the assessment. For each task, you receive a mark that combines your standard of performance regarding each learning outcome assessed by this task. Then the different component marks are added up to determine your total mark out of 100. Your grade then depends on this total mark and your overall standards of performance.

In particular, **in order to pass the unit, you must perform satisfactorily in assignments (i.e. obtain at least 50% marks in total taking all assignments as a whole), and obtain a total mark of 50 or higher in this unit**.