

# FIT3021 Infrastructure for e-commerce

**Unit guide** 

**Semester 1, 2009** 

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# FIT3021 Infrastructure for e-commerce - Semester 1, 2009

### **Unit leader:**

Joarder Kamruzzaman

# Lecturer(s):

### **Gippsland**

• Joarder Kamruzzaman

#### **South Africa**

• Jan Meyer

### Introduction

Welcome to FIT3021 Infrastructure for Electronic Commerce for Semester 1, 2009.

# **Unit synopsis**

This unit aims to develop and extend students' understanding and knowledge about the information technology infrastructure that supports and enables modern electronic commerce systems. This infrastructure includes communication networks (wireline and wireless), the Internet, payment mechanisms, and a range of enabling technologies, such as XML, server technologies, software agents, various emerging protocols and standards. Applications and recent developments in such enabling technologies including mobile commerce are explored. The unit approaches some infrastructure issues from the perspective of security in electronic commerce, focussing on real and potential security problems and the techniques for addressing them. Privacy and legal issues concerning electronic commerce are discussed.

# Learning outcomes

On completion of this unit students will be able to:

Knowledge and Understanding

- develop a comprehensive knowledge about global information infrastructure;
- understand the threats to electronic commerce on the Internet and potential security problems;
- understand the process for the design of secure systems;
- demonstrate the understanding and need for security protocols and procedures;
- understand the security issues and vulnerabilities of eCommerce servers and know the defensive strategies;
- be aware of the problems arising from active content technologies;
- be familiar with the XML standard and examine how it can be applied to develop ecommerce applications;
- be familiar with the mobile commerce technology and the services it offers.
- understand and evaluate electronic payment mechanisms;
- appreciate the privacy and legal issues and be familiar with anonymity technologies;
- understand the applicability of intelligent software agents in electronic commerce.

Attitudes, Values and Beliefs

- appreciate the importance of a secure information infrastructure in conducting electronic commerce;
- appreciate the privacy and legal issues;
- grasp the ongoing development in emerging electronic commerce technologies including mobile commerce.

**Practical Skills** 

• develop skills in XML to produce small applications.

### Workload

For on campus students, workload commitments are:

- two-hour lecture and
- two-hour tutorial
- You will need to allocate up to 8 hours per week on average for personal study (study guide, textbook, lecture notes and tutorial), attending newsgroup discussion and working on assignments.

# Unit relationships

# **Prerequisites**

Before attempting this unit you must have satisfactorily completed FIT 2005 or GCO2852 or GCO9806 or BEG1601 or equivalent units.

# Relationships

FIT3021 is an elective unit in the Bachelor of Information Technology and Systems degree at Gippsland Campus. You may not study this unit and GCO3601 in your degree.

# **Continuous improvement**

Monash is committed to 'Excellence in education' (Monash Directions 2025 -

http://www.monash.edu.au/about/monash-directions/directions.html) and strives for the highest possible quality in teaching and learning.

To monitor how successful we are in providing quality teaching and learning Monash regularly seeks feedback from students, employers and staff. One of the key formal ways students have to provide feedback is through Unit Evaluation Surveys. The University's Unit Evaluation policy

(<a href="http://www.policy.monash.edu/policy-bank/academic/education/quality/unit-evaluation-policy.html">http://www.policy.monash.edu/policy-bank/academic/education/quality/unit-evaluation-policy.html</a>) requires that every unit offered is evaluated each year. Students are strongly encouraged to complete the surveys as they are an important avenue for students to "have their say". The feedback is anonymous and provides the Faculty with evidence of aspects that students are satisfied and areas for improvement.

Faculties have the option of administering the Unit Evaluation survey online through the my.monash portal or in class. Lecturers will inform students of the method being used for this unit towards the end of the semester.

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### **Student Evaluations**

If you wish to view how previous students rated this unit, please go to <a href="http://www.adm.monash.edu.au/cheq/evaluations/unit-evaluations/">http://www.adm.monash.edu.au/cheq/evaluations/unit-evaluations/</a>

### Unit staff - contact details

#### **Unit leader**

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# Lecturer(s):

#### Dr Joarder Kamruzzaman

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## Teaching and learning method

This unit will be delivered via 2-hour lecture and 2-hour tutorial. Lecturer will present theoretical concepts backed by specific examples through slides. The tutorials are designed for the students to clarify those concepts and understand industry practices and standards on security related issues.

#### **Tutorial allocation**

On-campus students should register for tutorials/laboratories using Allocate+.

# Communication, participation and feedback

Monash aims to provide a learning environment in which students receive a range of ongoing feedback throughout their studies. You will receive feedback on your work and progress in this unit. This may take the form of group feedback, individual feedback, peer feedback, self-comparison, verbal and written feedback, discussions (on line and in class) as well as more formal feedback related to assignment marks and grades. You are encouraged to draw on a variety of feedback to enhance your learning.

It is essential that you take action immediately if you realise that you have a problem that is affecting your study. Semesters are short, so we can help you best if you let us know as soon as problems arise. Regardless of whether the problem is related directly to your progress in the unit, if it is likely to interfere with your progress you should discuss it with your lecturer or a Community Service counsellor as soon as possible.

#### **Unit Schedule**

Week	Торіс	Study guide	Key dates
1	Internet history and standards	SG 1	
2	Web Client / Server Infrastructure	SG 2	
3	Securing the Enterprise Infrastructure	SG 3	

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4	Security Mechanisms: Authentication & Encryption	SG 4					
5	Security Policies and Protocols: Four Case Studies	SG 5					
6	Mobile Commerce	SG 6	April 10, 2009 (Assignment 1 due)				
	Mid semester break						
7	Enterprise Messaging and XML	SG 7					
8	XML: Developing E-Commerce Applications	SG 8					
9	Intelligent Agents	SG 9					
10	Web Services and the Semantic Web	SG 10	May 15, 2009 (Assignment 2 due)				
11	Enterprise Networks: Acceptable Use	SG 11					
12	Intellectual property	SG 12					
13	Review						

### **Unit Resources**

### Prescribed text(s) and readings

#### **Prescribed Text**

Simson Garfinkel, Gene Spafford, and Debby Russell, "Web Security, Privacy and Commerce", O'Reilly & Associates, 2002.

## Recommended text(s) and readings

#### **Reference Texts**

Michael P. Papazoglou and Pieter Ribbers, e-Business, 1st edition, John Wiley & Sons Ltd; 2006.

Michael J. Young, "XML step by step", 2nd edition, Microsoft Press, 2002.

Ford W. and Baum M., "Secure Electronic Commerce", Prentice-Hall, 2001.

Ghosh, Anup K., "Electronic Commerce Security:- Weak Links, Best Defenses", John Wiley & Sons., 1998.

Carey K. and Blatnik S., "XML: Content and Data", 1st edition, Prentice Hall, 2002.

# Required software and/or hardware

Public Domain software available to used in this unit. Software may be downloaded from http://www.xmlspy.com/download.html. Check unit website for update on this.

# Equipment and consumables required or provided

Students studying off-campus are required to have the minimum system configuration specified by the faculty as a condition of accepting admission, and regular Internet access. On-campus students, and those studying at supported study locations may use the facilities available in the computing labs. Information about computer use for students is available from the ITS Student Resource Guide in the Monash University Handbook. You will need to allocate hours per week for use of a computer, including time for newsgroups/discussion groups.

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### Study resources

Study resources we will provide for your study are:

The following material will be available in **printed format** 

- Unit Information guide
- Specifications for assignment 1
- Reader containing selected articles and extracts

The following course materials that will be provided in **on-line format** only in MUSO:

- A Unit Book divided into twelve study guides
- Lecture notes and tutorial materials on weekly basis
- The specification for the second assignment
- A sample examination paper with sample solution
- A range of references material on the World Wide Web

### Library access

The Monash University Library site contains details about borrowing rights and catalogue searching. To learn more about the library and the various resources available, please go to <a href="http://www.lib.monash.edu.au">http://www.lib.monash.edu.au</a>.

The Educational Library and Media Resources (LMR) is also a very resourceful place to visit at <a href="http://www.education.monash.edu.au/library/">http://www.education.monash.edu.au/library/</a>

### Monash University Studies Online (MUSO)

All unit and lecture materials are available through MUSO (Monash University Studies Online). Blackboard is the primary application used to deliver your unit resources. Some units will be piloted in Moodle. If your unit is piloted in Moodle, you will see a link from your Blackboard unit to Moodle (<a href="http://moodle.monash.edu.au">http://moodle.monash.edu.au</a>) and can bookmark this link to access directly. In Moodle, from the Faculty of Information Technology category, click on the link for your unit.

You can access MUSO and Blackboard via the portal: http://my.monash.edu.au

Click on the Study and enrolment tab, then Blackboard under the MUSO learning systems.

In order for your Blackboard unit(s) to function correctly, your computer needs to be correctly configured.

For example:

- Blackboard supported browser
- Supported Java runtime environment

For more information, please visit: <a href="http://www.monash.edu.au/muso/support/students/downloadables-student.html">http://www.monash.edu.au/muso/support/students/downloadables-student.html</a>

You can contact the MUSO Support by phone: (+61 3) 9903 1268

For further contact information including operational hours, please visit: <a href="http://www.monash.edu.au/muso/support/students/contact.html">http://www.monash.edu.au/muso/support/students/contact.html</a>

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Further information can be obtained from the MUSO support site: <a href="http://www.monash.edu.au/muso/support/index.html">http://www.monash.edu.au/muso/support/index.html</a>

### **Assessment**

### Unit assessment policy

To pass a unit which includes an examination as part of the assessment a student must obtain:

- 40% or more in the unit's examination
- 40% or more in the unit's total non-examination assessment and
- an overall unit mark of 50% or more

If a student does not achieve 40% or more in the unit examination or the unit non-examination total assessment, and the total mark for the unit is greater than 44% then a mark of 44-N will be recorded for the unit.

## **Assignment tasks**

### Assignment Task

**Title:** A report on a selected infrastructure topic

#### **Description:**

Students will require to submit a research report of 2500-words long on a topic related to electronic commerce. Students can choose a topic out of the list given in assignment specification or propose a new topic. This assignment will test students' understanding of infrastructure need for electronic commerce.

Weighting: 30%

#### **Criteria for assessment:**

Details given in assignment specification.

**Due date:** Week 6 • **Assignment Task** 

Title: An XML based application or design

#### **Description:**

Students will design an XML based application for electronic commerce.

Weighting: 20%

#### **Criteria for assessment:**

Will be detailed in assignment specification.

Due date: Week 10

#### **Examinations**

#### Examination 1

Weighting: 50%

**Length:** 3 hours

Type ( open/closed book ): Closed book

### **Assignment submission**

The topic selection for Assignment 1 will be notified in Week 2, and the assignment may be submitted on paper with a proper assignment cover page or electronically.

The second assignment has to be submitted electronically, and details will be provided on the assignment specification.

### **Assignment coversheets**

Assignment coversheets can be found via the "Student assignment coversheets" ( http://infotech.monash.edu.au/resources/student/assignments/) page on the faculty website

# University and Faculty policy on assessment

#### Due dates and extensions

The due dates for the submission of assignments are given in the previous section. Please make every effort to submit work by the due dates. It is your responsibility to structure your study program around assignment deadlines, family, work and other commitments. Factors such as normal work pressures, vacations, etc. are seldom regarded as appropriate reasons for granting extensions. Students are advised to NOT assume that granting of an extension is a matter of course.

Requests for extensions must be made to the unit lecturer at your campus at least two days before the due date. You will be asked to forward original medical certificates in cases of illness, and may be asked to provide other forms of documentation where necessary. A copy of the email or other written communication of an extension must be attached to the assignment submission.

# Late assignment

It is your responsibility to structure your study program around assignment deadlines, family, work and other commitments. Factors such as normal work pressures, vacations, etc. are seldom regarded as appropriate reasons for granting extensions.

Assignments submitted after the due date will be accepted only in exceptional circumstances. If an assignment will be late, it is necessary to contact the unit adviser of your campus at least 2 days before the due date. You may be required to provide documentation to support a request for late submission. There may be a penalty of 3% for each day of late submission if not approvaed before due date.

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#### **Return dates**

Students can expect assignments to be returned within two weeks of the submission date or after receipt, whichever is later.

Assessment for the unit as a whole is in accordance with the provisions of the Monash University Education Policy at <a href="http://www.policy.monash.edu/policy-bank/academic/education/assessment/">http://www.policy.monash.edu/policy-bank/academic/education/assessment/</a>

We will aim to have assignment results made available to you within two weeks after assignment receipt.

### Plagiarism, cheating and collusion

Plagiarism and cheating are regarded as very serious offences. In cases where cheating has been confirmed, students have been severely penalised, from losing all marks for an assignment, to facing disciplinary action at the Faculty level. While we would wish that all our students adhere to sound ethical conduct and honesty, I will ask you to acquaint yourself with the University Plagiarism policy and procedure (<a href="http://www.policy.monash.edu/policy-bank/academic/education/conduct/plagiarism-procedures.html">http://www.policy.monash.edu/policy-bank/academic/education/conduct/plagiarism-procedures.html</a>) which applies to students detected plagiarising.

In this University, cheating means seeking to obtain an unfair advantage in any examination or any other written or practical work to be submitted or completed by a student for assessment. It includes the use, or attempted use, of any means to gain an unfair advantage for any assessable work in the unit, where the means is contrary to the instructions for such work.

When you submit an individual assessment item, such as a program, a report, an essay, assignment or other piece of work, under your name you are understood to be stating that this is your own work. If a submission is identical with, or similar to, someone else's work, an assumption of cheating may arise. If you are planning on working with another student, it is acceptable to undertake research together, and discuss problems, but it is not acceptable to jointly develop or share solutions unless this is specified by your lecturer.

Intentionally providing students with your solutions to assignments is classified as "assisting to cheat" and students who do this may be subject to disciplinary action. You should take reasonable care that your solution is not accidentally or deliberately obtained by other students. For example, do not leave copies of your work in progress on the hard drives of shared computers, and do not show your work to other students. If you believe this may have happened, please be sure to contact your lecturer as soon as possible.

Cheating also includes taking into an examination any material contrary to the regulations, including any bilingual dictionary, whether or not with the intention of using it to obtain an advantage.

Plagiarism involves the false representation of another person's ideas, or findings, as your own by either copying material or paraphrasing without citing sources. It is both professional and ethical to reference clearly the ideas and information that you have used from another writer. If the source is not identified, then you have plagiarised work of the other author. Plagiarism is a form of dishonesty that is insulting to the reader and grossly unfair to your student colleagues.

# Register of counselling about plagiarism

The university requires faculties to keep a simple and confidential register to record counselling to students about plagiarism (e.g. warnings). The register is accessible to Associate Deans Teaching (or nominees) and, where requested, students concerned have access to their own details in the register. The register is to serve as a record of counselling about the nature of plagiarism, not as a record of allegations; and no provision of appeals in relation to the register is necessary or applicable.

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### Non-discriminatory language

The Faculty of Information Technology is committed to the use of non-discriminatory language in all forms of communication. Discriminatory language is that which refers in abusive terms to gender, race, age, sexual orientation, citizenship or nationality, ethnic or language background, physical or mental ability, or political or religious views, or which stereotypes groups in an adverse manner. This is not meant to preclude or inhibit legitimate academic debate on any issue; however, the language used in such debate should be non-discriminatory and sensitive to these matters. It is important to avoid the use of discriminatory language in your communications and written work. The most common form of discriminatory language in academic work tends to be in the area of gender inclusiveness. You are, therefore, requested to check for this and to ensure your work and communications are non-discriminatory in all respects.

### Students with disabilities

Students with disabilities that may disadvantage them in assessment should seek advice from one of the following before completing assessment tasks and examinations:

- Faculty of Information Technology Student Service staff, and / or
- your Unit Coordinator, or
- Disabilities Liaison Unit

# Deferred assessment and special consideration

Deferred assessment (not to be confused with an extension for submission of an assignment) may be granted in cases of extenuating personal circumstances such as serious personal illness or bereavement. Information and forms for Special Consideration and deferred assessment applications are available at <a href="http://www.monash.edu.au/exams/special-consideration.html">http://www.monash.edu.au/exams/special-consideration.html</a>. Contact the Faculty's Student Services staff at your campus for further information and advice.