

# FIT3021 Infrastructure for e-commerce

**Unit Guide** 

Semester 1, 2011

The information contained in this unit guide is correct at time of publication. The University has the right to change any of the elements contained in this document at any time.

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# FIT3021 Infrastructure for e-commerce - Semester 1, 2011

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.

# **Mode of Delivery**

- Gippsland (Day)
- Gippsland (Off-campus)
- South Africa (Day)

## **Contact Hours**

2 hrs lectures/wk, 2 hrs tutorials/wk

#### Workload

Students will be expected to spend a total of 12 hours per week during semester on this unit.

For on campus students, workload commitments each week are:

- 2 hour lecture
- 2 hour tutorial

You will need to allocate at least an extra 8 hours per week on average for personal study (reviewing the study guide, textbook, lecture notes and tutorials), attending newsgroup discussions and working on assignments.

Distance education students will have online access to all teaching materials from the unit website, and the same hourly commitments.

# **Unit Relationships**

#### **Prohibitions**

GCO3601

# **Prerequisites**

FIT2005 or GCO2852 or GCO9806 or BEG1601 or equivalent

#### **Chief Examiner**

Joarder Kamruzzaman

## **Campus Lecturer**

## **Gippsland**

Joarder Kamruzzaman

## **South Africa**

Tarirai Chani

# **Learning Objectives**

At the completion of this unit students will be able to:

- 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. Students will:
- 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. Students will:
- develop skills in XML to produce small applications.

## **Graduate Attributes**

Monash prepares its graduates to be:

- 1. responsible and effective global citizens who:
- a. engage in an internationalised world
- b. exhibit cross-cultural competence
- c. demonstrate ethical values

critical and creative scholars who:

- a. produce innovative solutions to problems
- b. apply research skills to a range of challenges
- c. communicate perceptively and effectively

## **Assessment Summary**

Examination (3 hours): 50%; In-semester assessment: 50%

Assessment Task	Value	<b>Due Date</b>
Report on a selected infrastructure topic	30%	11 April 2011
XML based application or design	20%	13 May 2011
Examination 1	50%	To be advised

# **Teaching Approach**

#### Lecture and tutorials or problem classes

This teaching and learning approach provides facilitated learning, practical exploration and peer learning.

## **Feedback**

## Our feedback to You

Types of feedback you can expect to receive in this unit are:

- Informal feedback on progress in labs/tutes
- Graded assignments with comments
- Solutions to tutes, labs and assignments

#### Your feedback to Us

Monash is committed to excellence in education and regularly seeks feedback from students, employers and staff. One of the key formal ways students have to provide feedback is through SETU, Student Evaluation of Teacher and Unit. The University's student evaluation policy requires that every unit is evaluated each year. Students are strongly encouraged to complete the surveys. The feedback is anonymous and provides the Faculty with evidence of aspects that students are satisfied and areas for improvement.

For more information on Monash's educational strategy, and on student evaluations, see: <a href="http://www.monash.edu.au/about/monash-directions/directions.html">http://www.monash.edu/about/monash-directions/directions.html</a>
<a href="http://www.policy.monash.edu/policy-bank/academic/education/quality/student-evaluation-policy.html">http://www.policy.monash.edu/policy-bank/academic/education/quality/student-evaluation-policy.html</a>

## **Previous Student Evaluations of this unit**

If you wish to view how previous students rated this unit, please go to <a href="https://emuapps.monash.edu.au/unitevaluations/index.jsp">https://emuapps.monash.edu.au/unitevaluations/index.jsp</a>

## **Required Resources**

Public domain software is available for use in this unit. Software may be downloaded from http://www.xmlspy.com/download.html. Similar software is also available from other sources, please check the unit website for updates.

## **Unit Schedule**

Week	Date*	Activities	Assessment	
0	21/02/11		No formal assessment or activities are undertaken in week 0	
1	28/02/11	Internet history and standards		
2	07/03/11	Web Client / Server Infrastructure		
3	14/03/11	Securing the Enterprise Infrastructure		
4	21/03/11	Security Mechanisms: Authentication & Encryption		
5	28/03/11	Security Policies and Protocols: Four Case Studies		
6	04/04/11	Mobile Commerce		
7	11/04/11	Enterprise Messaging and XML	Assignment 1 due 11 April 2011	
8	18/04/11	XML: Developing E-Commerce Applications		
Mid semester break				
9	02/05/11	Intelligent Agents		
10	09/05/11	Web Services and the Semantic Web	Assignment 2 due 13 May 2011	
11	16/05/11	Enterprise Networks: Acceptable Use		
12	23/05/11	Intellectual property		
	30/05/11	SWOT VAC	No formal assessment is undertaken SWOT VAC	

<sup>\*</sup>Please note that these dates may only apply to Australian campuses of Monash University. Off-shore students need to check the dates with their unit leader.

# **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, and
- 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 50% then a mark of no greater than 49-N will be recorded for the unit

#### **Assessment Tasks**

## **Participation**

#### Assessment task 1

Title:

Report on a selected infrastructure topic

#### **Description:**

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

#### Weighting:

30%

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

Will be detailed in assignment specification.

Due date:

11 April 2011

#### Assessment task 2

Title:

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:

13 May 2011

#### **Examinations**

#### Examination 1

Weighting:

50%

Length:

3 hours

Type (open/closed book):

Closed book

Electronic devices allowed in the exam:

None

# **Assignment submission**

Assignment coversheets are available via "Student Forms" on the Faculty website:

http://www.infotech.monash.edu.au/resources/student/forms/

You MUST submit a completed coversheet with all assignments, ensuring that the plagiarism declaration section is signed.

## **Extensions and penalties**

Submission must be made by the due date otherwise penalties will be enforced.

You must negotiate any extensions formally with your campus unit leader via the in-semester special consideration process:

http://www.infotech.monash.edu.au/resources/student/equity/special-consideration.html.

# **Returning assignments**

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

## **Policies**

Monash has educational policies, procedures and guidelines, which are designed to ensure that staff and students are aware of the University's academic standards, and to provide advice on how they might uphold them. You can find Monash's Education Policies at: <a href="http://policy.monash.edu.au/policy-bank/academic/education/index.html">http://policy.monash.edu.au/policy-bank/academic/education/index.html</a>

Key educational policies include:

- Plagiarism (http://www.policy.monash.edu/policy-bank/academic/education/conduct/plagiarism-policy.html)
- (http://www.policy.monash.edu/policy-bank/academic/education/conduct/plagiarism-policy.html)
   Assessment
- Special Consideration
   (http://www.policy.monash.edu/policy-bank/academic/education/assessment/special-consideration-policy.h

   Grading Scale

(http://www.policy.monash.edu/policy-bank/academic/education/assessment/assessment-in-coursework-policy-bank/academic/education/assessment/assessment-in-coursework-policy-bank/academic/education/ass

- (http://www.policy.monash.edu/policy-bank/academic/education/assessment/grading-scale-policy.html)

   Discipline: Student Policy
- (<a href="http://www.policy.monash.edu/policy-bank/academic/education/conduct/student-discipline-policy.html">http://www.policy.monash.edu/policy-bank/academic/education/conduct/student-discipline-policy.html</a>)
   Academic Calendar and Semesters (<a href="http://www.monash.edu.au/students/key-dates/">http://www.monash.edu.au/students/key-dates/</a>);
- Orientation and Transition (<a href="http://www.infotech.monash.edu.au/resources/student/orientation/">http://www.infotech.monash.edu.au/resources/student/orientation/</a>); and
- Academic and Administrative Complaints and Grievances Policy (<a href="http://www.policy.monash.edu/policy-bank/academic/education/management/complaints-grievance-policy">http://www.policy.monash.edu/policy-bank/academic/education/management/complaints-grievance-policy</a>

## Student services

The University provides many different kinds of support services for you. Contact your tutor if you need advice and see the range of services available at <a href="https://www.monash.edu.au/students">www.monash.edu.au/students</a>. The Monash University Library provides a range of services and resources that enable you to save time and be more effective in your learning and research. Go to <a href="https://www.lib.monash.edu.au">https://www.lib.monash.edu.au</a> or the library tab in my.monash portal for more information. Students who have a disability or medical condition are welcome to contact the Disability Liaison Unit to discuss academic support services. Disability Liaison Officers (DLOs) visit all Victorian campuses on a regular basis

- Website: <a href="http://adm.monash.edu/sss/equity-diversity/disability-liaison/index.html">http://adm.monash.edu/sss/equity-diversity/disability-liaison/index.html</a>;
- Telephone: 03 9905 5704 to book an appointment with a DLO;
- Email: dlu@monash.edu

• Drop In: Equity and Diversity Centre, Level 1 Gallery Building (Building 55), Monash University, Clayton Campus.

#### **Prescribed Texts**

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

#### **Reference Texts**

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