#### VICTORIA UNIVERSITY OF WELLINGTON

Te Whare Wānanga o te Ūpoko o te Ika a Māui



# School of Information Management

# **ELCM353 Internet Development Environments**

### Trimester 1 2006

## **COURSE OUTLINE**

#### **Contact Details**

Lecturer: Joerg Evermann Phone: 04 463 6857

Email: jevermann@mcs.vuw.ac.nz

Office: Easterfield Bldg 214

#### **Class Times and Room Numbers**

### Classes

Room: HM LT 003 (Hugh Mackenzie Building)

Time: Thu 0900 - 1050

### Computer Lab Workshops

Rooms and times to be finalized, dependent on tutor availability and class size.

### **Course Objectives**

The objective of the course is to introduce students to the development of advanced World Wide Web and Internet-based web-based application. This course examines modern and emerging technologies to develop and deploy such applications, specifically based on the extensible Markup Language (XML), the emerging standard to describe most kinds of content.

At the end of the course, students will have good knowledge of

- XML and XML based description languages
- Different ways of reading and manipulating XML content
- How to use XML in a modern, complex web-based application
- Practical skills using XML based tools

### **Course Content**

The following is a tentative list of topics to be covered in the course. This list may change, depending on skills and interest of students.

Week	Topic		<b>Assessment Items Due</b>
1	-	Course introduction	
	-	Introduction to software and computer labs	
	-	XML : What is it?	
	-	XML : Why use it?	
2	-	Cocoon configuration	
	-	Sitemap	
	-	Actions	
3	-	Transforming XML	
	-	XSLT	
	-	XSLT-FO	
	-	XPath	
4	-	Text output	XSLT exercise
	-	WML	
	-	MathML	
	-	PDF	
	-	OpenDoc	
	-	XSL FO	
5	-	Project help and discussion	
6	-	Multimedia using XML	Text output exercise
	-	SVG	
	-	SMIL	
7	-	Cocoon architecture	SMIL and SVG exercise
	-	Databases in Cocoon	
8	-	Cocoon internals	Database exercise
	-	SAX parsing	
	-	Developing generators	
	-	Developing transformers	
9	-	Project help and discussion	
10	-	eXtensible Server Pages (XSP)	
	-	Sessions and state tracking in Cocoon	
11	-	Project help and discussion	XSP exercise
12	-	TBA	

# Readings

# Required textbook

Langham, Matthew and Ziegeler, Carsten (2003) *Cocoon: Building XML Applications*. New Riders Publishing (Pearson Education), Indianapolis, IN

### Recommended reference material

www.w3.org/TR/xslt www.w3.org/TR/xpath

www.w3.org/TR/SMIL www.w3.org/TR/SVG11 www.w3.org/TR/xhtml1 www.w3.org/TR/MathML www.saxproject.org xml.apache.org cocoon.apache.org

### **Materials and Equipment**

All software will be made available in SIM computer labs. You will need a valid SCS computing account. Note: All software used is open source software and freely obtainable.

### **Assessment Requirements**

- Group project (60%)
  - Note: While you will work in a group of 4 to 5 people, you will be assessed on your own work only. Each student must clearly identify his or her responsibility within the group. **Due date: June 2nd, 2006, 3pm.**
- Exercises (5% each). See course schedule for due dates.
- Participation and instructor's discretion (5%)

#### **Penalties**

Late submission of exercises or project will lead to 10% reduction in marks for every day late (including weekends and holidays). Late submission after 7 days will result in failure of the assessment item.

### **Mandatory Course Requirements**

You must pass each assessment item with at least 50% and you must pass the overall course with at least 50%.

#### **Communication of Additional Information**

There will be a BlackBoard site for this course. You are required to check BlackBoard at least twice per week for notices and additional course materials.

You must have a valid SCS email account. Your lecturer will communicate with you only using SCS email accounts. You are required to check your SCS email account at least every other day.

### **General University Policies and Statutes**

Students should familiarise themselves with the University's policies and statutes, particularly those regarding assessment and course of study requirements, and formal academic grievance procedures.

### **Student Conduct and Staff Conduct**

The Statute on Student Conduct together with the Policy on Staff Conduct ensure that members of the University community are able to work, learn, study and participate in the academic and social aspects of the University's life in an atmosphere of safety and respect.

The Statute on Student Conduct contains information on what conduct is prohibited and what steps can be taken if there is a complaint. For queries about complaint procedures under the Statute on Student Conduct, contact the Facilitator and Disputes Advisor. This Statute is available in the Faculty Student Administration Office or on the website at: <a href="https://www.vuw.ac.nz/policy/StudentConduct">www.vuw.ac.nz/policy/StudentConduct</a>.

The policy on Staff Conduct can be found on the VUW website at: www.vuw.ac.nz/policy/StaffConduct.

#### **Academic Grievances**

If you have any academic problems with your course you should talk to the tutor or lecturer concerned or, if you are not satisfied with the result of that meeting, see the Head of School or the Associate Dean (Students) of your Faculty. Class representatives are available to assist you with this process. If, after trying the above channels, you are still unsatisfied, formal grievance procedures can be invoked. These are set out in the Academic Grievances Policy which is published on the VUW website:

www.vuw.ac.nz/policy/AcademicGrievances.

### **Plagiarism**

Victoria University defines plagiarism as the copying of ideas, organisation, wording or anything else from another source without appropriate reference or acknowledgement so that it appears to be one's own work. This includes published and unpublished work, the Internet and the work of other students and staff. Plagiarism is an example of misconduct in the Statute of Student Conduct. Students who have plagiarised are subject to a range of penalties under the Statute. See the website: <a href="https://www.vuw.ac.nz/policy/StudentConduct">www.vuw.ac.nz/policy/StudentConduct</a>.

#### Students with Disabilities

The University has a policy of reasonable accommodation of the needs of students with disabilities. The policy aims to give students with disabilities an equal opportunity with all other students to demonstrate their abilities. If you have a disability, impairment or chronic medical condition (temporary, permanent or recurring) that may impact on your ability to participate, learn and/or achieve in lectures and tutorials or in meeting the course requirements, then please contact the Course Coordinator as early in the course as possible. Alternatively you may wish to approach a Student Adviser from Disability Support Services to confidentially discuss your individual needs and the options and support that are available. Disability Support Services are located on Level 1, Robert Stout Building, or phoning 463-6070, email: <a href="mailto:disability@vuw.ac.nz">disability@vuw.ac.nz</a>. The name of your School's Disability Liaison Person can be obtained from the Administrative Assistant or the School Prospectus.

#### **Student Support**

Staff at Victoria want students' learning experiences at the University to be positive. If your academic progress is causing you concern, please contact the relevant Course Co-ordinator, or Associate Dean who will either help you directly or put you in contact with someone who can.

The Student Services Group is also available to provide a variety of support and services. Find out more at www.vuw.ac.nz/st services/ or email student-services@vuw.ac.nz.

VUWSA employs two Education Coordinators who deal with academic problems and provide support, advice and advocacy services, as well as organising class representatives and faculty delegates. The Education Office is located on the ground floor, Student Union

Building, phone 463 6983 or 463 6984, email education@vuwsa.org.nz.