



MONASH University
Information Technology

FIT3044
Advanced website authoring

Unit Guide

Semester 1, 2012

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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FIT3044 Advanced website authoring - Semester 1, 2012

This unit extends the website authoring concepts taught in FIT1012 by looking at more advanced techniques which are available to web site developers in publishing rich media/multimedia content. The structure of an XML document is investigated and the manner in which such a document can be converted to HTML or other formats. Synchronized Multimedia Integration Language (SMIL), a form of XML, will be investigated as a technique for authoring interactive audiovisual presentations. In addition the unit introduces Macromedia Flash remoting as a client for web services, phps multimedia capabilities and the requirements/standards for web audio/video streaming.

Mode of Delivery

Berwick (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 as follows:

For on campus students, the **weekly** workload commitments are:

- two hours of lectures,
- two hours of laboratory (requiring advance preparation), and
- eight hours of self directed study - this will include reading and computer based activities.

Unit Relationships

Prohibitions

CPE3002, CSE2030, GCO2811, GCO3823, MMS2802

Prerequisites

FIT1012

Chief Examiner

Mr Lindsay Smith

Campus Lecturer

Berwick

Lindsay Smith

Academic Overview

Outcomes

At the completion of this unit students will have -
A theoretical and conceptual understanding of:

- the fundamental elements of an XML documents structure and the processes involved in reading and handling such a document;
- the advantages and limitations of XML in comparison to other formats such as HTML, EDI, Flat files etc;
- the role of the XML Schema Definition Language and its relationship to Document Type Definitions (DTDs);
- the role of XML Stylesheet Language (XSL) in document publishing;
- the role of XML in rich media/multimedia presentations through the use of Synchronised Multimedia Integration Language (SMIL);
- the issues involved with audio/video streaming on the web.

Developed attitudes that enable them to:

- adopt a flexible approach towards application development by consideration of the wide range of XML approaches available;
- appreciate the importance of systematic and structured approaches to program development.

Developed the skills to:

- create an XML document and its associated Document Type Definition (DTD);
- create an XSL style sheet and use it to convert XML into HTML or other XML formats;
- use Synchronised Multimedia Integration Language (SMIL) to author interactive audiovisual presentations;
- write Macromedia Flash applications which access web services via Flash remoting;
- use a scripting (php) approach for manipulating images, creating PDFs, and creating Flash content;
- setup and configure a basic web streaming server.

Demonstrated the teamwork skills necessary to:

- work as a member of a project team.

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

Practical and theory Examinations (3 and 1 hours) : 60%; In-semester assessment: 40%

Assessment Task	Value	Due Date
Assignment 1 Creation and Manipulation of Static XML documents	12%	Thursday 19 April 2012
Assignment 2 Database-linked website using Adobe Flash Builder	16%	Thursday 24 May 2012
Lab Exercises	12%	One week after the lab in which the exercise content is covered.
Examination 1	15%	To be advised
Examination 2	45%	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
- Quiz results
- 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:

<http://www.monash.edu.au/about/monash-directions/directions.html>

<http://www.policy.monash.edu/policy-bank/academic/education/quality/student-evaluation-policy.html>

Previous Student Evaluations of this unit

This unit has consistently ranked in the top 10% of units in the faculty (see <http://infotech.monash.edu.au/units/archive/top-units.html>). Previous feedback has highlighted the following strengths of the unit:

- the unit is stimulating and provides an excellent basis for knowledge in XML
- the unit allows students to appreciate how powerful XML is, and it's role in the IT industry
- the weekly exercises relate closely to the assignment tasks and provide an excellent stepping stone to the actual tasks...
- the unit is "fun and interesting"

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

Required Resources

Please check with your lecturer before purchasing any Required Resources. Prescribed texts are available for you to borrow in the library, and prescribed software is available in student labs.

The software required will be available in the university on-campus labs. Some items of software will be available from Moodle for student download.

The unit will make extensive use of the oXygen XML Editor:

- <http://www.oxygenxml.com/>

and Adobe Flash Builder:

- <http://www.adobe.com/products/flash-builder.html>

Prescribed text(s)

Prescribed texts are available for you to borrow in the library.

Carey, P. (2006). *New Perspectives on XML, Second Edition - Comprehensive*. (Second Edition) Thomson - Course Technology (ISBN: 1-4188-6064-6).

Examination material or equipment

The practical examination is open book, students are permitted to make use of any resources they wish (including the internet). The theory exam is closed book, no material may be taken into this exam.

Unit Schedule

Week	Activities	Assessment
0	Check the Moodle site for activity details	No formal assessment or activities are undertaken in week 0
1	Fundamentals of XML	
2	XML Namespaces	
3	Document Type Definitions (DTDs)	
4	XML Schemas	
5	Formatting XML for the web with CSS	
6	Transforming XML via eXtensible Stylesheet Language (XSL)	
7	XML applications: SMIL, SVG, DocBook, XHTML, WAP and SOAP	Assignment 1 due Thursday 19 April 2012
8	Rich Internet Applications (RIAs) - Flex and MXML introduction	
9	Flex UI, Events and Intro to Data Retrieval	
10	Flex and PHP	
11	Flex States	
12	Revision and completion of Ass2	Assignment 2 due Thursday 24 May 2012
	SWOT VAC	No formal assessment is undertaken SWOT VAC
	Examination period	LINK to Assessment Policy: http://policy.monash.edu.au/policy-bank/academic/education/assessment/assessment-in-coursework-policy.html

*Unit Schedule details will be maintained and communicated to you via your MUSO (Blackboard or Moodle) learning system.

Assessment Requirements

Assessment Policy

Faculty Policy - Unit Assessment Hurdles

(<http://www.infotech.monash.edu.au/resources/staff/edgov/policies/assessment-examinations/unit-assessment-hu>)

Assessment Tasks

Participation

• Assessment task 1

Title:

Assignment 1 Creation and Manipulation of Static XML documents

Description:

A case study will be supplied from which students will be required to complete a series of tasks related to creating appropriate XML documents and schema/DTD's. Students will also create CSS and XSLT stylesheets to allow their XML documents to be displayed in a web browser.

Weighting:

12%

Criteria for assessment:

Task Criteria

- ◆ the XML documents created must include all relevant data from the case study in an optimal structure and be well formed
- ◆ Schema's and DTD's must manage all components of the XML document and successfully validate the XML documents
- ◆ Stylesheets must be valid and must display all required data correctly in a web browser.

Due date:

Thursday 19 April 2012

• Assessment task 2

Title:

Assignment 2 Database-linked website using Adobe Flash Builder

Description:

Students will be supplied with a case study which requires them to create a Flash Builder application. The application will consist of a Flex front end which reads and writes data to an Oracle or MySQL database.

Weighting:

16%

Criteria for assessment:

Task Criteria

- ◆ The Flash Builder application must meet the specified brief and must compile without any errors or warnings
- ◆ The Flash Builder application must successfully connect to a user selected backend database, using user supplied login credentials

Due date:

Thursday 24 May 2012

• **Assessment task 3**

Title:

Lab Exercises

Description:

A series of lab exercises will be set based on the weekly lab activities:

- ◆ one exercise per week for weeks 1 to 6 covering the application of XML (total of 8 mks), and
- ◆ three exercises during week 7 to 11 covering DocBook and FlashBuilder (total of 4 mks).

Weighting:

12%

Criteria for assessment:

Completed exercise must provide the output specified in the exercise brief and make optimal use of coding.

Due date:

One week after the lab in which the exercise content is covered.

Examinations

• **Examination 1**

Weighting:

15%

Length:

1 hour

Type (open/closed book):

Closed book

Electronic devices allowed in the exam:

None

Remarks:

Theory examination.

• **Examination 2**

Weighting:

45%

Length:

3 hours

Type (open/closed book):

Open book

Electronic devices allowed in the exam:

University computers will be supplied (the exam is run in a Berwick lab). Students may choose to use their own laptop computer.

Remarks:

Practical examination.

Assignment submission

It is a University requirement

(<http://www.policy.monash.edu/policy-bank/academic/education/conduct/plagiarism-procedures.html>) for students to submit an assignment coversheet for each assessment item. Faculty Assignment coversheets can be found at <http://www.infotech.monash.edu.au/resources/student/forms/>. Please check with your Lecturer on the submission method for your assignment coversheet (e.g. attach a file to the online assignment submission, hand-in a hard copy, or use an online quiz).

Online submission

If Electronic Submission has been approved for your unit, please submit your work via the VLE site for this unit, which you can access via links in the my.monash portal.

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.

Resubmission of assignments

At the Chief Examiners discretion, students may be permitted to resubmit assignments where serious medical issues or problems have impacted a students work.

Referencing requirements

For referencing requirements please see: <http://www.lib.monash.edu.au/tutorials/citing/apa.html>

Other Information

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:

<http://policy.monash.edu.au/policy-bank/academic/education/index.html>

Key educational policies include:

- Plagiarism
(<http://www.policy.monash.edu/policy-bank/academic/education/conduct/plagiarism-policy.html>)
- Assessment
(<http://www.policy.monash.edu/policy-bank/academic/education/assessment/assessment-in-coursework-p>)
- 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/grading-scale-policy.html>)
- Discipline: Student Policy
(<http://www.policy.monash.edu/policy-bank/academic/education/conduct/student-discipline-policy.html>)
- Academic Calendar and Semesters (<http://www.monash.edu.au/students/key-dates/>);
- Orientation and Transition (<http://www.infotech.monash.edu.au/resources/student/orientation/>);
and
- Academic and Administrative Complaints and Grievances Policy
(<http://www.policy.monash.edu/policy-bank/academic/education/management/complaints-grievance-policy>)
- Codes of Practice for Teaching and Learning
(<http://www.policy.monash.edu.au/policy-bank/academic/education/conduct/suppdocs/code-of-practice-tea>)

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 www.monash.edu.au/students. For Sunway see <http://www.monash.edu.my/Student-services>, and for South Africa see <http://www.monash.ac.za/current/>

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 <http://www.lib.monash.edu.au> or the library tab in my.monash portal for more information. At Sunway, visit the Library and Learning Commons at <http://www.lib.monash.edu.my/>. At South Africa visit <http://www.lib.monash.ac.za/>.

Academic support services may be available for students who have a disability or medical condition. Registration with the Disability Liaison Unit is required. Further information is available as follows:

- Website: <http://monash.edu/equity-diversity/disability/index.html>;
- Email: dlu@monash.edu
- Drop In: Equity and Diversity Centre, Level 1 Gallery Building (Building 55), Monash University, Clayton Campus, or Student Community Services Department, Level 2, Building 2, Monash University, Sunway Campus
- Telephone: 03 9905 5704, or contact the Student Advisor, Student Community Services at 03 55146018 at Sunway

Other Information

Other

Other Information

Details available from the Unit website.