



**MONASH** University  
Information Technology

**FIT3044**  
**Advanced website authoring**

**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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# **FIT3044 Advanced website authoring - Semester 1, 2011**

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**

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**

Lindsay Smith

### **Campus Lecturer**

### **Berwick**

Lindsay Smith

## Learning Objectives

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	20%	Thursday 14 April 2011
Assignment 2 Database-linked website using Adobe FLEX	20%	Thursday 26 May 2011
Examination 1	20%	To be advised
Examination 2	40%	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

If you wish to view how previous students rated this unit, please go to

<https://emuapps.monash.edu.au/unitevaluations/index.jsp>

## Required Resources

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 Flex 4:

- <http://www.adobe.com/products/flex/>

## Examination material or equipment

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

## Unit Schedule

Week	Date*	Activities	Assessment
0	21/02/11	Check the Moodle site for activity details	No formal assessment or activities are undertaken in week 0
1	28/02/11	Fundamentals of XML	
2	07/03/11	XML Namespaces	
3	14/03/11	Document Type Definitions (DTDs)	
4	21/03/11	XML Schemas	
5	28/03/11	Formatting XML for the web with CSS	
6	04/04/11	Transforming XML via eXtensible Stylesheet Language (XSL)	
7	11/04/11	XML applications: SMIL, SVG, DocBook, XHTML, WAP and SOAP	Assignment 1 due Thursday 14 April 2011
8	18/04/11	Rich Internet Applications (RIAs) - Flex and MXML introduction	
Mid semester break			
9	02/05/11	Flex UI, Events and Intro to Data Retrieval	
10	09/05/11	Flex and PHP	
11	16/05/11	Flex States	
12	23/05/11	Revision and completion of Ass2	Assignment 2 due Thursday 26 May 2011
	30/05/11	SWOT VAC	No formal assessment is undertaken SWOT VAC

\*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:**

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 number of tasks:

- ◆ Create a set of XML documents (a minimum of 4 documents representing 'real' data will be required). The documents must contain a range of content/structures so as to test the students DTD/schema fully.
- ◆ Create a tree structure diagram to show the standard structure of the XML documents.
- ◆ Create a DTD for the XML documents - validate each document against this DTD.
- ◆ Create an XML Schema for the XML documents - validate each document against this schema.
- ◆ Create a compound document containing the full set of the separate XML documents and a modified schema that can be used to validate this compound document. Cut and paste MUST not be used to create the compound document (it should be created dynamically so that changes to the underlying XML documents will be reflected in the compound document).
- ◆ Create a Cascading Style Sheet which can be applied to the compound XML document to represent its contents (the layout is entirely up to the student).
- ◆ Create an XSLT Style Sheet which can transform the compound XML document above into a HTML web page (the layout of the HTML is entirely up to the student).

**Weighting:**

20%

**Criteria for assessment:**

These will be supplied as part of the assignment task.

**Due date:**

Thursday 14 April 2011

- **Assessment task 2**

**Title:**

Assignment 2 Database-linked website using Adobe FLEX

**Description:**

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

**Weighting:**

20%

**Criteria for assessment:**

These will be supplied as part of the assignment task.

**Due date:**

Thursday 26 May 2011

## Examinations

- **Examination 1**

**Weighting:**

20%

**Length:**

1 hour

**Type (open/closed book):**

Closed book

**Electronic devices allowed in the exam:**

None

**Remarks:**

Theory examination.

- **Examination 2**

**Weighting:**

40%

**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

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

## Resubmission of assignments

Resubmission of assignments after the due date will not be permitted.

## Referencing requirements

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

## 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>)

## 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](http://www.monash.edu.au/students) 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. 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: <http://adm.monash.edu/sss/equity-diversity/disability-liaison/index.html>;
- Telephone: 03 9905 5704 to book an appointment with a DLO;
- Email: [dlu@monash.edu](mailto:dlu@monash.edu)
- Drop In: Equity and Diversity Centre, Level 1 Gallery Building (Building 55), Monash University, Clayton Campus.

## Other Information

Details available from the Unit website.