



MONASH University

**FIT3043  
Web systems 3**

**Unit Guide**

**Semester 2, 2009**

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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# FIT3043 Web systems 3 - Semester 2, 2009

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## Unit synopsis

Serving static and dynamic web pages. Setting up a development environment (ASP.NET). An overview of a development environment. HTTP protocol reviewed. HTML forms reviewed. Server controls. C# and its relationship to Java. Event driven programming and postback. Namespaces and core objects. State handling. Using data sources: reading data from and writing data to data stores. Data binding.

Using data sources: manipulating XML as a data store, node navigation. Types of server controls. Page life cycles and using server controls. Control families and data templates. Components and user controls. Code behind. .NET Assemblies. Custom Server Controls. XML Web services. Building and deploying services. System Configuration and optimisation. Authentication of users. Ajax with ASP.Net

Mobile Web page development using ASP.Net. Navigating a mobile sites. List controls and data binding. Validation controls. Rich Controls. Styling page output. Writing controls. New device support. Web services. Security and state management.

## Learning outcomes

1. An understanding of web environments and their components;
2. An understanding of the principles of object oriented scripting and a knowledge of various uses to which scripting may be put;
3. The knowledge and skills to design and implement web based applications, using a server side applications development;
4. The knowledge and skills to design and implement mobile applications;
5. A professional attitude towards the development of web based information systems.

## Contact hours

Students are expected to spend an average of 12 hours per week on this unit. The breakdown of time is as follows: Two hours/week: topic material coverage from the u-learning environment. Two hours/week working on sub-tasks and quizzes. Eight hours/week: private study to review topic materials, explore supplementary unit resources and complete assigned tasks.

## Workload

This unit is taught in ONLINE DAY flexible mode using the Walkabout u-Learning environment. Students will need to spend 12 hours per week working on the unit. On-campus and on-line help sessions are provided.

## Unit relationships

### Prerequisites

FIT1002 or BUS1060 or IMS1906 or CSE1202

### Prohibitions

IMS2906, CPE3016

## **Relationships**

FIT3043 is required for the Internet Systems major of the Bachelor of Information Technology & Systems. This unit is prohibited with CSE2030, CPE3016 and IMS2906

## Teaching and learning method

This unit is offered in flexible mode. Students learn from the purpose designed website which contains learning materials including audio lectures, exercises, quizzes, personal note taking. There are also on-campus and online real time help sessions.

Task based learning is used: students have only one deadline: the end of the semester, by which time they need to have completed a series of relatively small tasks. Tasks are corrected progressively as they are submitted.

The content is not presented as weekly topics, but as a specific task, and then associated learning materials that need to be mastered in order to complete the task.

There are also learning quizzes and sub-tasks to help progress to the major task.

## Timetable information

For information on timetabling for on-campus classes please refer to MUTTS, <http://mutts.monash.edu.au/MUTTS/>

## Tutorial allocation

On-campus students should register for tutorials/laboratories using the Allocate+ system:

<http://allocate.cc.monash.edu.au/>

## Unit Schedule

Week	Topic	Key dates
1	Serving static and dynamic web pages. Setting up a development environment (ASP.NET). An overview of a development environment.	
2	HTTP protocol reviewed. HTML forms reviewed. Server controls.	
3	C# basics: data types and operators; control structures and functions. Event driven programming and postback. Objects in C#. Static class members and class relationships.	
4	Namespaces and core objects. State handling. Objects and structured data.	
5	Using data sources. Reading data with ADO.NET objects. Manipulating data.	
6	User interaction to retrieve data. Manipulating XML as a data store. Navigating the nodes	
7	Types of server controls. Page lifecycles and using server controls. Intrinsic, validation and rich controls. Data rendering controls. Calendar control example	
8	Components and user controls. Code behind. Compiled .NET Assemblies. Custom Server Controls. Configuration. Optimisation. Authentication.	
9	DataGrids advanced features: paging, sorting, customising. DataLists: customising. DataGrids: master/detail displays	
10	Sending email with ASP.Net. Accessing the web server file system. ASP.Net 2.0 master pages	
Mid semester break		
11	Introduction to Ajax. Ajax with ASP.Net. Applications using Ajax with ASP.Net	
12	Web pages for mobile devices. navigating a mobile site. List controls and data binding. Validation controls. Rich controls. Styling page output. Writing controls.	

	New device support	
13	Revision	

## Unit Resources

### Prescribed text(s) and readings

None  
Not Applicable

### Recommended text(s) and readings

Jesse Liberty, Dan Hurwitz, Programming ASP.NET O'Reilly Windows, 1st edition. February 2002.

Anderson, R. et al, Professional ASP.NET 1.0, Wrox Press, Birmingham, 2002.

### Required software and/or hardware

The following software can be downloaded from the unit web site. This software is also available in designated laboratories

Firefox. Browser

Microsoft Internet Explorer Version 6.0 or later. Browser for viewing web pages.

40tude HTML Editor

Top Style Lite Editor

Install Zip.

WS-ftp.

Openwave Phone Emulator (Version 7.0).

Microsoft Visual Studio 2008

Software may be:

- downloaded from <http://walkabout.infotech.monash.edu.au/walkabout/fit3043>
- purchased at academic price at good software retailers

### Equipment and consumables required or provided

Students 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 up to 8 hours per week for use of a computer.

### Study resources

Study resources we will provide for your study are:

- lecture materials and audio lectures,
- tutorial exercises,



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- assignment specifications,
- sample exam and supplementary materials
- a special website, <http://walkabout.infotech.monash.edu.au/walkabout/FIT3043>

Links to these resources can be found on the unit's MUSO site.

## Assessment

### Overview

Unit exercises: 10% Practical Assignments: 40%, Final Examination: 50%.  
The examination must be sat at a Monash campus.

### Faculty 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 44% then a mark of no greater than 44-N will be recorded for the unit.

### Assignment tasks

#### Assignment coversheets

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.

**Assignment submission and return procedures, and assessment criteria will be specified with each assignment.**

#### • Assignment task 1

**Title:**

Unit tasks

**Description:**

This unit uses task based learning. Students complete a series of relatively small tasks in the course of the unit. These tasks take the place of the conventional assignments.

Each task typically requires the student to design and code a web application, using ASP.Net.

**Weighting:**

41%

**Due date:**

End of semester

**Remarks:**

This unit gives students flexibility with their time. Students may submit tasks at any time throughout the semester. Tasks are corrected at a number of published task correction points. Students gain task feedback through correction sheets and at on campus or online help sessions

- **Assignment task 2**

**Title:**

Multiple choice quizzes

**Description:**

Students complete a series of timed online quizzes during the semester, each of 10 questions. Quizzes test the material learned in the tasks. Quizzes are marked as student completes the quiz, and the student is informed of the result

**Weighting:**

9%

**Due date:**

End of semester

**Remarks:**

Like the tasks themselves, the attached quizzes may be taken at any time throughout the semester.

## Examination

- **Weighting:** 50%

**Length:** 3 hours

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

**See Appendix for End of semester special consideration / deferred exams process.**

## Due dates and extensions

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 not regarded as appropriate reasons for granting extensions. Students are advised to NOT assume that granting of an extension is a matter of course.

Students requesting an extension for any assessment during semester (eg. Assignments, tests or presentations) are required to submit a Special Consideration application form (in-semester exam/assessment task), along with original copies of supporting documentation, directly to their lecturer within two working days before the assessment submission deadline. Lecturers will provide specific outcomes directly to students via email within 2 working days. The lecturer reserves the right to refuse late applications.

A copy of the email or other written communication of an extension must be attached to the assignment submission.

Refer to the Faculty Special consideration webpage or further details and to access application forms:

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

## Late assignment

Late assignments are not accepted for correction, and zero marks are awarded accordingly. The only exception to this is in the case of illness or other serious cause. In any such cases, proper third party documentation (e.g. a doctor's certificate) would have to be supplied. Where a doctor's certificate is supplied, then an extension may be allowed for time specified on the doctor's certificate.

## **Return dates**

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

## Appendix

Please visit the following URL: <http://www.infotech.monash.edu.au/units/appendix.html> for further information about:

- Continuous improvement
- Unit evaluations
- Communication, participation and feedback
- Library access
- Monash University Studies Online (MUSO)
- Plagiarism, cheating and collusion
- Register of counselling about plagiarism
- Non-discriminatory language
- Students with disability
- End of semester special consideration / deferred exams