



MONASH University
Information Technology

FIT3084
Multimedia programming and the world wide web

Unit Guide

Semester 1, 2010

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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FIT3084 Multimedia programming and the world wide web - Semester 1, 2010

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Introduction

FIT3084 is one of the most exciting units you can study at university. It covers a wide range of material on information presentation using digital media that will be applicable in many different fields. The more work you put into this unit, the more rewarding it will be. Be prepared to work hard if you wish to gain the maximum benefit from your studies.

Unit synopsis

This unit introduces on-line systems and the Internet as a specific example of an on-line system. Students are exposed to the various multimedia services which are possible in this client/server paradigm. They get first-hand experience with the creation of WWW content, and the tools which are available to help in this endeavour. The unit covers graphical user interface concepts, Hypertext Markup Language (HTML), principles of good design, usability testing, Web programming in a language such as Javascript, Perl, and the future outlook for on-line services. They are also exposed to the interaction of HTML and on-line databases, and other forms of interactive multimedia interfaces.

Learning outcomes

At the completion of this unit students will have -

A knowledge and understanding of:

- appropriate tools for modern web page design: Dynamic HTML, Javascript, Style Sheets;
- how to program dynamic web pages via CGI scripts;
- how to represent virtual spaces over the Internet using VRML/QuicktimeVR;
- how to create appropriate media for visual, aural and text-based communication: animation, sound, typography, layout, colour;
- cognitive models for human-computer interaction and how they may be applied to interface design;
- user-centred design of electronic and physical artefacts;
- user-interface design for maximising productivity and generally serving what Bernard Waites refers to as the American Ideology: the legitimisation of technology as an ideology that ultimately is tied to the maximisation of society's productivity and the most economic use of its resources;
- information architecture appropriate for web site development.

Developed attitudes that enable them to:

- appreciate the role of the user or consumer in the design of interactive electronic systems and devices;
- understand the value of developing cognitive models from a human-centred perspective in the design and evaluation of interactive devices and systems.

Developed the skills to:

- design and implement an interactive website of modest complexity;
- create and combine elements in a variety of media: sound, image, animation and motion graphics and interactive 3D.

Demonstrated the communication and teamwork skills necessary to:

- effectively work in a small group to design and build a interactive media website;
- apply critical analysis and judgement to the design and usability of interactive media works

created by their peers.

Contact hours

2 hrs lectures/wk, 1 hr tutorial/wk

Workload

This is a standard 6 point unit. Every week includes:

- 2 hours of lectures
- 2 hours of (optional) tutorial and consultation
- a minimum of 2-3 hours of personal study, time spent working on exercises and the two components of the unit group assignment

Unit relationships

Prerequisites

FIT1008 or CSE1303

Prohibitions

CSE2325, CSE3325

Teaching and learning method

Teaching approach

- Lectures
- Discussions / Tutorial classes
- Group assignment work
- Online peer-assessment and critiquing of classmates' work
- Exercises and research to be completed in the student's own time
- Extra readings on the material covered in lectures

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.its.monash.edu.au/>

Unit Schedule

Week	Date*	Topic	Key dates
1	01/03/10	Introduction to Multimedia, Behind the WWW	
2	08/03/10	Basic XHTML, Intro. to HCI	
3	15/03/10	Intro. to Interactivity, Info. Design	
4	22/03/10	JavaScript	
5	29/03/10	Dynamic XHTML, Site Design	
Mid semester break			
6	12/04/10	Navigation Systems, Textual and Iconic Labelling	Assignment 1 - Design Document
7	19/04/10	Page Design, Typography	Review task 1
8	26/04/10	Forms, CGI Programming and Perl	
9	03/05/10	Colour, Imagery	
10	10/05/10	PHP, Cookies	
11	17/05/10	Ajax, mySQL	
12	24/05/10	Sound, Animation	Assignment 2 - Implementation
13	31/05/10	Revision	Review task 2

*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.

Unit Resources

Prescribed text(s) and readings

N/A

Text books are available from the [Monash University Book Shops](#). Availability from other suppliers cannot be assured. The Bookshop orders texts in specifically for this unit. You are advised to purchase your text book early.

Recommended text(s) and readings

Lynch, P.J. Horton, S., "Web Style Guide: Basic Design Principles for Creating Web Sites", Yale University Press, 1999 (now available in 2nd edition)

Sebasta, Robert W., Programming the World Wide Web, 5th edition, Addison Wesley, 2008.

Required software and/or hardware

Please consult the course outline and lecture notes for software requirements. There are different requirements for different elements of multimedia design and WWW programming including: text editing, image editing, image-map editing, typography, code compilation etc.

Equipment and consumables required or provided

Students studying off-campus are required to have the minimum system configuration specified by the Faculty as a condition of accepting admission, and regular Internet access. On-campus students, and those studying at supported study locations 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 **10** hours per week for use of a computer, including time for newsgroups/discussion groups.

Study resources

Study resources we will provide for your study are:

The FIT3084 web site, where lecture slides, weekly tutorial requirements, assignment specifications, sample solutions and supplementary material will be posted. (We use the WWW so that this unit's examples --- which, being a unit about the WWW are all web-based --- can be seamlessly integrated with the notes.)

Assessment

Overview

Examination (3 hours): 70%; In-semester assessment: 30%

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 50% then a mark of no greater than 49-N will be recorded for the unit.

A pass grade in each of: the examination and assignment exercises and peer-assessment task is a hurdle requirement for successful completion of this 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:

Assignment 1

Description:

Using the technologies discussed in class, **design** an *interactive* online map that runs in the **Firefox** Internet web browser.

Please consult the unit notes for a detailed description of this exercise.

Weighting:

15%

Due date:

5pm, 16 April 2010

- **Assignment task 2**

Title:

Peer assessment 1 (hurdle requirement)

Description:

Students must login to the online peer-assessment software and critique the work of their peers, ranking assignments against one another using a number of specified criteria.

Please consult the unit notes for a detailed description of this exercise.

Weighting:

hurdle requirement

Due date:

19 April - 12 midnight, 23 April 2010

- **Assignment task 3**

Title:

Assignment 2

Description:

Using the technologies discussed in class, **implement** the *interactive* online map that runs in the **Firefox** Internet web browser that you designed for Assignment 1

Please consult the unit notes for a detailed description of this exercise.

Weighting:

15%

Due date:

5pm, 28 May 2010

- **Assignment task 4**

Title:

Peer assessment 2 (hurdle requirement)

Description:

Students must login to the online peer-assessment software and critique the work of their peers, ranking assignments against one another using a number of specified criteria.

Please consult the unit notes for a detailed description of this exercise.

Weighting:

hurdle requirement

Due date:

31 May - 12 midnight, 4 June 2010

Examination

- **Weighting:** 70%

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

Assignments received after the due date will be subject to a penalty: late assignments will not be assessed by your peers and risk receiving a result of zero. Due to the "peer-assessment" system, there can be little flexibility in this regard.

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