MONASH University

FIT3084
Multimedia programming and the world wide web

Unit Guide

Semester 2, 2009

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FIT3084 Multimedia programming and the world wide web - Semester 2, 2009

Chief Examiner:

Dr Alan Dorin
Senior Lecturer
Phone: +61 3 990 53576
Fax: +61 3 990 55159

Lecturer(s) / Leader(s):

Clayton

Dr Alan Dorin
Senior Lecturer
Phone: +61 3 990 53576
Fax: +61 3 990 55159

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 an understanding of:

1. appropriate tools for modern web page design: Dynamic HTML, Javascript, Style Sheets;
2. understanding of how to program dynamic web pages via CGI scripts;
3. how to represent virtual spaces over the Internet using VRML/QuicktimeVR;
4. how to create appropriate media for visual, aural and text-based communication: animation, sound, typography, layout, colour;
5. cognitive models for human-computer interaction and how they may be applied to interface design;
6. user-centred design of electronic and physical artefacts;
7. user-interface design for maximising productivity;
8. information architecture appropriate for web site development.

At the completion of this unit, students will have attitudes that will allow them to:

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

At the completion of this unit, students will be able to:

1. design and implement an interactive website of modest complexity;
2. create and combine elements in a variety of media - sound, image, animation and motion graphics and interactive 3D.
3. effectively work in a small group to design and build a interactive media website;
4. apply critical analysis and judgement to the design and usability of interactive media works created by their peers.

Contact hours

3 x contact hrs/week

Workload

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

- 2 hours of lectures
- 2 hours of (optional) tutorial and consultation
- a minium 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, SFT2200

Relationships

FIT3084/3325 is a core unit in the Bachelor of Software Engineering Degree.

FIT3084/3325 is an elective unit in the Bachelor of Computer Science Degree.

Before attempting this unit you must have satisfactorily completed fit1001 and fit1002 or equivalent.

You may not study this unit and cse3325, sft2200 in your degree.

Teaching and learning method

- 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.cc.monash.edu.au/

Unit Schedule

Week	Topic	Key dates
1	Introduction, Behind the WWW	
2	Basic XHTML, Intro. to HCI	
3	Intro. to Interactivity, Info. Design	
4	Info. Architecture, Organisation and Navigation	
5	Labelling, Writing Style	
6	Site and Page Design	Assignment 1 - Design Document
7	Javascript	Review task 1
8	Forms, CGI Programming and Perl	
9	Perl, Digital Audio	
10	DHTML, Cascading Style Sheets, Document Object Model, Typography	
Mid semester break		
11	Colour and Imagery	
12	Animation and Interactive Virtual Worlds	Assignment 2 - Implementation
13	Revision	Review task 2

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, 2006. ISBN: 0-321-30332-6

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 **n*** hours per week for use of a computer, including time for newsgroups/discussion groups.

*n=10

Study resources

Study resources we will provide for your study are:

The FIT3084/3325 web site, where lecture slides, weekly tutorial requirements, assignment specifications, sample solutions and supplementary material will be posted.

Assessment

Overview

Examination 70%, Assignments 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 44% then a mark of no greater than 44-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 **JavaScript**, and **CGI** scripts (in any appropriate language) **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, 28 August 2009

- **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:
14 April - 12 midnight, 4 September 2009

- **Assignment task 3**

Title:
Assignment 2

Description:
Using **JavaScript**, and **CGI** scripts (in any appropriate language) **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, 16 October 2009

- **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:
26 May - 12 midnight, 23 October 2009

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