MONASH University
Information Technology

FIT2029
Web programming

Unit Guide

Semester 1, 2010

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FIT2029 Web programming - Semester 1, 2010

Chief Examiner:

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Lecturer(s) / Leader(s):

Gippsland

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South Africa

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Additional communication information:

For inquiries of a personal nature then email is the preferred contact method.

More general inquiries should be directed to the appropriate discussion forums, so the reply is available for all students.

Introduction

Welcome to FIT2029 Web Programming for semester 1, 2010. This 6 point unit is a core unit in the Bachelor of IT and Systems degree with majors in Application Development and Networks or Business Systems.

Unit synopsis

Introduction to the principles of commercial e-commerce programming tasks. The unit explores the purposes and approaches in using scripting and markup languages in relation to the client-server paradigm. The role of both server-side and client-side code are examined. The unit will also build upon students previous study of database systems. Students will study the use of markup and scripting programming languages to connect to databases via a network.

Learning outcomes

At the completion of this unit students will:

- have an understanding of the fundamental principles and breadth of commercial, e-business and e-commerce programming tasks;
- have experience in using their programming skills in a number of different environments such as Linux, Unix or Windows, while being aware that their fundamental programming approaches remain valid;
- have their understanding of and skills in top-down code development enhanced;
- have knowledge of mark-up languages and scripting languages, and skill in creating applications using these;
- understand the client-server paradigm;
- be able to develop and code solutions to typical web-based commercial programming problems using markup and scripting languages, in a client-server paradigm;
- further develop skills in creating suitable and thorough test harnesses;
- have a sound understanding of the fundamental principles of web service strategies.
- be aware of basic security issues when developing and hosting Internet-based applications.

Contact hours

2 hrs lectures/wk, 2 hrs laboratories/wk

Workload

For on campus students, workload commitments are:

* two-hour lecture and
* two-hour tutorial (or laboratory) (requiring advance preparation)
* a minimum of 2-3 hours of personal study per one hour of contact time in order to satisfy the reading and assignment expectations.
* you will need to allocate up to 5 hours per week in some weeks, for use of a computer, including time for newsgroups/discussion groups.

Off-campus students generally do not attend lecture and tutorial sessions, however, you should plan to spend equivalent time working through the relevant resources and participating in discussion groups each week.

Unit relationships

Prerequisites

FIT1002 and FIT1004

Prohibitions

BUS1042, CPE3002, CSE2030, FIT2028, GCO2811, MMS2802

Teaching and learning method

Teaching approach

All students are provided with comprehensive study guides, detailing the content of the unit topic by topic. Students studying by distributed learning work through this material, independently.

Weekly lectures and laboratories are held for on-campus students. Lecture slides will be available on-line for all students.

The study guides are accompanied by on-line web pages, that provide access to tutorial tasks and solutions, assignment specifications and other supporting resources.

All students will be supported through electronic discussion forums, e-mail and electronic assignment submission. All students must have electronic access to the University's systems.

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	Study guide	Key dates
1	01/03/10	Introduction	1	
2	08/03/10	HTML, CSS and Browser Compatibility	2	
3	15/03/10	Client Side Programming	3	
4	22/03/10	Further JavaScript and Events	4	
5	29/03/10	Good Design	5	
Mid semester break				
6	12/04/10	Server Side Scripting	6	15/04/2010 AA1
7	19/04/10	Server Side Scripting using PHP	7	
8	26/04/10	Session Tracking	8	
9	03/05/10	Database Access	9	
10	10/05/10	Security	10	
11	17/05/10	Introduction To Ajax and XML	11	20/05/2010 AA2
12	24/05/10	Database access using ODBC	12	
13	31/05/10	Revision		

*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

Chris Bates *Web Programming: Building Internet Applications*, 3rd Edition, Wiley, 2006, ISBN: 0-470-01775-9

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

David Lash *Web Wizard's Guide to PHP*, 1/e, Addison Wesley, 2003 ISBN: 0321121740

Required software and/or hardware

PHP 4.3.10 or later
MySQL 4.0.24 or later
Xitami Personal Webserver 2.4d11 or equivalent

(For Gippsland oncampus students, the above software will be available on GUS)

Mozilla Firefox
Netscape Navigator 8.0
Microsoft IE

All software is free and may be:

- downloaded from FIT2029 unit website (MUSO)
- or latest versions directly from web sources

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 **8** 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 FIT2029 web site on MUSO/Moodle, where lecture slides, weekly tutorial requirements, assignment specifications, sample solutions and supplementary material will be posted. This web site also contains:

- the Unit Book containing 12 Study Guides (in .pdf format).
- newsgroups / discussion forums
- this Unit Information outlining the administrative information for the unit

- sample examination paper with solutions

Assessment

Overview

Examination (3 hours): 60%; In-semester assessment: 40%

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.

Students must attempt all assignments and the examination

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:
  AA1 Putting it online
  Description:
  This assignment will require printed material to be put online, the material should be re-organised into a web-friendly format applying the principles of good web design. The website will include Javascript navigation menus and some dynamic behaviour. Finally the student will write a short report explaining the design philosophy used on this project. This report should give the reader insight into the design choices you have made.
  Weighting:
  15%
  Due date:
  15/04/2010 AA1

- **Assignment task 2**

  Title:
  AA2 Advanced programming
  Description:
  You are to write a web-based application using HTML and PHP code that accesses database tables using SQL commands in MySQL. The application will validate authorised users maintaining a session using cookies, unique session identification number with a defined expiry time. Unauthorised users will have limited access to the information in read-only mode.

  All user input must be validated using regular expressions and other techniques, particular attention must be given to protecting your scripts from cross-site scripting attacks.
  Weighting:
  25%
  Due date:
  20/05/2010 AA2

Examination

- **Weighting:** 60%
  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 of 5% for each day an assignment is late, up until the cutoff date. No assignment will be accepted after the cutoff date (usually 1 week after the due date).

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