FIT2029
Web programming

Unit Guide

Semester 1, 2012

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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.

Mode of Delivery

- Gippsland (Day)
- Gippsland (Off-campus)
- Sunway (Day)
- South Africa (Day)

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

Prohibitions

BUS1042, CPE3002, CSE2030, FIT2028, FIT2076, GCO2811, MMS2802

Prerequisites

FIT1002 and FIT1004

Chief Examiner

Dr Gour Karmakar

Campus Lecturer

Gippsland

Gour Karmakar

South Africa

Gregory Gregoriou

Sunway

Eugene Siew

Tutors

Gippsland

Gour Karmakar

Academic Overview

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.

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

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

Assessment Task	Value	Due Date
AA1 Putting it online	15%	4 April 2012
AA2 Advanced programming	25%	17 May 2012
Examination 1	60%	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:

- Graded assignments with comments
- Graded assignments without comments

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

Please check with your lecturer before purchasing any Required Resources. Prescribed texts are available for you to borrow in the library, and prescribed software is available in student labs.

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.

Required software and/or hardware

PHP 5.3 or later
MySQL 5.5 or later

xampp 1.7.7 win 32 Personal Webserver 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

Prescribed text(s)

Prescribed texts are available for you to borrow in the library.

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

Recommended text(s)

David Lash. (2003). *Web Wizard's Guide to PHP*. (1st Edition) Addison Wesley (ISBN: 0321121740).

Unit Schedule

Week	Activities	Assessment
0		No formal assessment or activities are undertaken in week 0
1	Introduction	
2	HTML, CSS and Browser Compatibility	
3	Client Side Programming	
4	Further JavaScript and Events	
5	Good Design	
6	Server Side Scripting	Assignment 1 due 4 April 2012
7	Server Side Scripting using PHP	
8	Session Tracking	
9	Database Access	
10	Security	
11	Introduction to Ajax and XML	Assignment 2 due 17 May 2012
12	Database access using ODBC	
	SWOT VAC	No formal assessment is undertaken SWOT VAC
	Examination period	LINK to Assessment Policy: http://policy.monash.edu.au/policy-bank/academic/education/assessment/assessment-in-coursework-policy.html

*Unit Schedule details will be maintained and communicated to you via your MUSO (Blackboard or Moodle) learning system.

Assessment Requirements

Assessment Policy

Faculty Policy - Unit Assessment Hurdles
(http://www.infotech.monash.edu.au/resources/staff/edgov/policies/assessment-examinations/unit-assessment-hu

Assessment Tasks

Participation

- **Assessment 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%
  Criteria for assessment:
  Your website will be marked on features such as accessibility, useability and compatibility. Markers will also reward website designs that are simple to use and present the information clearly.

  More detail of tasks and marking criteria will be in the full assignment specification available from the units MUSO website.
  Due date:
  4 April 2012

- **Assessment 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%
  Criteria for assessment:
  The assignment will be assessed with regard to the following criteria:

- ♦ Your scripts MUST be compatible with the system specified by your local Unit Advisor
- ♦ Validation of all input
- ♦ Simple and easy to use interface
- ♦ Consistency, easy navigation and good accessibility
- ♦ Good programming principles
- ♦ Successful completion of all tasks specified

More detail of tasks and marking criteria will be in the full specification available from the units MUSO website

Due date:
17 May 2012

Examinations

- **Examination 1**

Weighting:
60%
Length:
3 hours
Type (open/closed book):
Closed book
Electronic devices allowed in the exam:
None

Assignment submission

It is a University requirement (http://www.policy.monash.edu/policy-bank/academic/education/conduct/plagiarism-procedures.html) for students to submit an assignment coversheet for each assessment item. Faculty Assignment coversheets can be found at http://www.infotech.monash.edu.au/resources/student/forms/. Please check with your Lecturer on the submission method for your assignment coversheet (e.g. attach a file to the online assignment submission, hand-in a hard copy, or use an online quiz).

Online submission

If Electronic Submission has been approved for your unit, please submit your work via the VLE site for this unit, which you can access via links in the my.monash portal.

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.

Other Information

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-po
- 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.
- Codes of Practice for Teaching and Learning
  (http://www.policy.monash.edu.au/policy-bank/academic/education/conduct/suppdocs/code-of-practice-tea

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. For Sunway see http://www.monash.edu.my/Student-services, and for South Africa see http://www.monash.ac.za/current/

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. At Sunway, visit the Library and Learning Commons at http://www.lib.monash.edu.my/. At South Africa visit http://www.lib.monash.ac.za/.

Academic support services may be available for students who have a disability or medical condition. Registration with the Disability Liaison Unit is required. Further information is available as follows:

- Website: http://monash.edu/equity-diversity/disability/index.html;
- Email: dlu@monash.edu
- Drop In: Equity and Diversity Centre, Level 1 Gallery Building (Building 55), Monash University, Clayton Campus, or Student Community Services Department, Level 2, Building 2, Monash University, Sunway Campus
- Telephone: 03 9905 5704, or contact the Student Advisor, Student Commuity Services at 03 55146018 at Sunway