

FIT2029 Web programming

Unit Guide

Semester 1, 2014

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FIT2029 Web programming - Semester 1, 2014

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 (Off-campus)

Workload Requirements

Minimum total expected workload equals 12 hours per week comprising:

- (a.) Contact hours for on-campus students:
 - Two hours of lectures
 - One 2-hour laboratory
- (b.) Study schedule for off-campus students:
 - Off-campus students generally do not attend lecture and tutorial sessions, however should plan
 to spend equivalent time working through the relevant resources and participating in discussion
 groups each week.
- (c.) Additional requirements (all students):
 - A minimum of 2-3 hours of personal study per one hour of contact time in order to satisfy the reading and assignment expectations.

Unit Relationships

Prohibitions

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

Prerequisites

(FIT1040 or FIT1002) and FIT1004

Chief Examiner

Mr Stephen Huxford

Campus Lecturer

Gippsland

Gour Karmakar

Tutors

Gippsland

Gour Karmakar

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 the Student Evaluation of Teaching and Units (SETU) survey. 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, see:

<u>www.monash.edu.au/about/monash-directions/</u> and on student evaluations, see: <u>www.policy.monash.edu/policy-bank/academic/education/quality/student-evaluation-policy.html</u>

Previous Student Evaluations of this Unit

Based on previous student feedback this unit is well structured and no changes have been made for this semester.

If you wish to view how previous students rated this unit, please go to https://emuapps.monash.edu.au/unitevaluations/index.jsp

Academic Overview

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.

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 10 April 2014
7	Server Side Scripting using PHP	
8	Session Tracking	
9	Database Access	
10	Security	
11	Introduction to Ajax and XML	Assignment 2 due 22 May 2014
12	Database access using ODBC	
	SWOT VAC	No formal assessment is undertaken in 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 learning system.

Teaching Approach

Lecture and tutorials or problem classes

This teaching and learning approach provides facilitated learning, practical exploration and peer learning.

Assessment Summary

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

Assessment Task	Value	Due Date
AA1 Putting it online	15%	10 April 2014
AA2 Advanced programming	25%	22 May 2014
Examination 1	60%	To be advised

Assessment Requirements

Assessment Policy

Faculty Policy - Unit Assessment Hurdles

(http://intranet.monash.edu.au/infotech/resources/staff/edgov/policies/assessment-examinations/assessment-huro

Academic Integrity - Please see resources and tutorials at http://www.monash.edu/library/skills/resources/tutorials/academic-integrity/

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 unit Moodle website.

Due date:

10 April 2014

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 unit Moodle website.

Due date:

22 May 2014

Examinations

Examination 1

Weighting:

60%

Length:

3 hours

Type (open/closed book):

Closed book

Electronic devices allowed in the exam:

None

Learning resources

Monash Library Unit Reading List (if applicable to the unit) http://readinglists.lib.monash.edu/index.html

Faculty of Information Technology Style Guide

Feedback to you

Examination/other end-of-semester assessment feedback may take the form of feedback classes, provision of sample answers or other group feedback after official results have been published. Please check with your lecturer on the feedback provided and take advantage of this prior to requesting individual consultations with staff. If your unit has an examination, you may request to view your examination script booklet, see

http://intranet.monash.edu.au/infotech/resources/students/procedures/request-to-view-exam-scripts.html

Types of feedback you can expect to receive in this unit are:

- Graded assignments with comments
- Graded assignments without comments

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.monash.edu.au/exams/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.

Assignment submission

It is a University requirement

(http://www.policy.monash.edu/policy-bank/academic/education/conduct/student-academic-integrity-managing-platfor 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). Please note that it is your responsibility to retain copies of your assessments.

Online submission

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

Required Resources

Please check with your lecturer before purchasing any Required Resources. Limited copies of 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 later

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

Mozilla Firefox Netscape Navigator Microsoft IE

All software is free and may be:

Assessment Requirements

- downloaded from the FIT2029 unit Moodle website
- or latest versions directly from web sources

Prescribed text(s)

Limited copies of 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).

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: www.policy.monash.edu.au/policy-bank/academic/education/index.html

Key educational policies include:

- Student Academic Integrity Policy and Student Academic Integrity: Managing Plagiarism and Collusion Procedures;
 - http://www.policy.monash.edu/policy-bank/academic/education/conduct/student-academic-integrity-policy.html
- Assessment in Coursework Programs; <a href="http://www.policy.monash.edu/policy-bank/academic/education/assessment/assessment-in-coursework-policy-bank/academic/education/assessment/assessment-in-coursework-policy-bank/academic/education/assessment/assessment-in-coursework-policy-bank/academic/education/assessment/assessment-in-coursework-policy-bank/academic/education/assessment-in-coursework-policy-
- Special Consideration;
 - http://www.policy.monash.edu/policy-bank/academic/education/assessment/special-consideration-policy.ht
- Grading Scale;
 - $\underline{http://www.policy.monash.edu/policy-bank/academic/education/assessment/grading-scale-policy.html}$
- 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/dates/
- Orientation and Transition; http://intranet.monash.edu.au/infotech/resources/students/orientation/
- Academic and Administrative Complaints and Grievances Policy;
 <a href="http://www.policy.monash.edu/policy-bank/academic/education/management/complaints-grievance-policy.leav

Faculty resources and policies

Important student resources including Faculty policies are located at http://intranet.monash.edu.au/infotech/resources/students/

Graduate Attributes Policy

http://www.policy.monash.edu/policy-bank/academic/education/management/monash-graduate-attributes-policy.h

Student Charter

www.opg.monash.edu.au/ep/student-charter/monash-university-student-charter.html

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

Monash University Library

The Monash University Library provides a range of services, resources and programs that enable you to save time and be more effective in your learning and research. Go to www.lib.monash.edu.au or the library tab in my.monash portal for more information. At Malaysia, visit the Library and Learning Commons at http://www.lib.monash.edu.my/. At South Africa visit http://www.lib.monash.edu.my/.

Disability Liaison Unit

Students who have a disability or medical condition are welcome to contact the Disability Liaison Unit to discuss academic support services. Disability Liaison Officers (DLOs) visit all Victorian campuses on a regular basis.

- Website: http://www.monash.edu/equity-diversity/disability/index.html
- Telephone: 03 9905 5704 to book an appointment with a DLO; or contact the Student Advisor, Student Commuity Services at 03 55146018 at Malaysia
- Email: <u>dlu@monash.edu</u>
- Drop In: Equity and Diversity Centre, Level 1, Building 55, Clayton Campus, or Student Community Services Department, Level 2, Building 2, Monash University, Malaysia Campus