FIT2028
Web systems 2

Unit Guide

Semester 2, 2009

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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Chief Examiner:

Ms Janet Fraser
Lecturer
Phone: +61 3 990 34307
Fax: +61 3 990 44124

Lecturer(s) / Leader(s):

Caulfield

Ms Janet Fraser
Lecturer
Phone: +61 3 990 34307
Fax: +61 3 990 44124

Contact hours: Tuesday: 09:00 - 12:00 H7.77

South Africa

Gregory Gregoriou

Contact hours: Wednesday: 13H30 - 15H30 Building D, Room: D.04

Malaysia

Dr. Saadat M. Alhashmi
Introduction

Welcome to FIT2028 for Semester 2, 2009. This 6 point unit has been designed to provide you with an introduction to PHP and JavaScript. The unit explores the concepts and uses of client-side and server side scripting in developing dynamic web site.

Unit synopsis

Server-side scripting: PHP structure, syntax and implementation. PHP scripting techniques for building dynamic web page interfaces for accessing server-side data stores. Implementing state-handling in a stateless environment. Strategies for enforcing data integrity, data security principles and techniques. Database and web page design concepts and their importance in commercial applications. Asynchronous Javascript and XML (Ajax)

Client-side scripting: scripting language structure and syntax, scripting events and event handlers, creating objects and using built-in objects, objects and navigation, browser objects.

Server-side scripting: PHP structure, syntax and implementation. PHP scripting techniques for building dynamic web page interfaces for accessing server-side data stores. Implementing state-handling in a stateless environment. Strategies for enforcing data integrity, data security principles and techniques. Database and web page design concepts and their importance in commercial applications.

Client-side scripting: scripting language structure and syntax, scripting events and event handlers, creating objects and using built-in objects, objects and navigation, browser objects.

Learning outcomes

On successful completion of this unit, students should have a knowledge of:

1. two current scripting technologies, (one server-side, one client-side) performing a variety of Internet based functions, including access to data stores;
2. an approach to web based security using these technologies;
3. utilisation of asynchronous technologies in Internet applications.

On successful completion of this unit, students should have developed skills in:

1. developing server side applications to perform a variety of Internet based tasks, including access to data stores, security methods, and asynchronous technologies.

On successful completion of this unit, students should have attitudes of:

1. professionalism towards respecting copyright;
2. requiring professional standards in designing and implementing web applications.

Contact hours

This unit is conducted through the Walkabout u-Learning Environment. Students self manage their learning with the help of the Walkabout environment. On campus drop in help sessions, and evening on line help sessions using the Marratech system are available for students to obtain timely assistance. A combination of pre-recorded lectures and face to face lectures are provided as required to supplement the online learning materials.
Further unit information

Students enrolled at Caulfield will be able to attend a 2 hour lecture and 2 hour tutorial each week.

Students enrolled in Malaysia will be able to attend lectures and help sessions.

Students enrolled in South Africa will be able to attend help sessions.

Workload

For on campus students, workload commitment are:

- two hour lecture
- two hour tutorial
- 2 hours of personal study per one hour of contact time in order to satisfy the assignment expectations

Unit relationships

Prerequisites

FIT1002 or CSE1202
Basic HTML, basic XML, some programming in Java, C, C# or C++

Prohibitions

CPE3003, CSE2030, CPE201, FIT2029

Relationships

FIT2028 is an elective unit in the Net-centric major of the Bachelor of Information Technology and Systems. This unit is prohibited with CSE2030, CPE2010, FIT2029 and CPE3003
Teaching and learning method

This unit will be delivered via one 2 hour lectures and one 2 hour tutorial per week.

Lectures will introduce theoretical concepts and demonstrate and explain specific examples.

Tutorials will be devoted to giving students hands on experience in implementing a programming solution to a practical problem.

Of campus students will use the Walkabout Learning Environment for access to content, assignment specifications, exercises and quizzes. Off campus students will also have access to 2 online help sessions per week through the use of Marratech.

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/

Off-Campus Learning or flexible delivery

http://walkabout.infotech.monash.edu.au/walkabout/FIT2028

Unit Schedule

<table>
<thead>
<tr>
<th>Week</th>
<th>Topic</th>
<th>Key dates</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>History of PHP, software installation, PHP syntax, IIS Virtual Directories</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Installation of Oracle and SQL Developer software. Using datastores with PHP - accessing Oracle, ODBC, MySQL</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Use of HTML forms. Executing SQL inserts, updates and deletes with PHP. Cleaning SQL statements</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Drop-down lists, multiple check boxes, client side integrity using JavaScript.</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Cookies, Sessions, LDAP</td>
<td>Assignment 1 Due Friday @ 2pm</td>
</tr>
<tr>
<td>6</td>
<td>Creating XML and PDF documents using PHP.</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>File uploads, accessing web server file system. Sending email via PHP</td>
<td></td>
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<tr>
<td>8</td>
<td>PHP: Consuming, building and deploying Web Services</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>AJAX defined. Using AJAX with PHP. Using AJAX with PHP and datastores</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Understanding JavaScript, creating a simple script, how JavaScript programs work. Using and storing values, using strings and arrays, testing and comparing values, using loops.</td>
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<tr>
<td></td>
<td>Mid semester break</td>
<td></td>
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<tr>
<td>11</td>
<td>Using built in objects, browser objects, creating custom objects, responding to events. Using windows and frames, getting data with forms, using graphics and</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>12</td>
<td>Scripting layers. Using cookies. Programming practices.</td>
<td>Assignment 2 Due Friday at 2pm</td>
</tr>
<tr>
<td>13</td>
<td>Revision</td>
<td></td>
</tr>
</tbody>
</table>
Unit Resources

Prescribed text(s) and readings

No texts are required

Recommended text(s) and readings

Required software and/or hardware

Internet Explorer,
Mozilla Firefox,
WS-FTP
PHP V5.3
Oracle Client or Oracle 10g Express Edition
Oracle SQL Developer
Web Server Software

All required software is installed in the Caulfield computing labs. Additionally software may be:

- downloaded from web sites as detailed in lecture material
- purchased at academic price at good software retailers

Equipment and consumables required or provided

Students 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.

Study resources

Study resources we will provide for your study are:

Assessment

Overview

Practical Assignments: 40%; Final Examination: 60%. Students must gain a satisfactory result in both the practical and exercises work and the exam to gain a pass in the unit. The examination must be sat at a Monash campus.

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.

To pass this unit, a student must obtain:

- 40% or more in the unit's examination and
- 40% or more in the unit's 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 assessment then a mark of no greater than 44-N will be recorded for the 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: PHP Assignment
  Description: Web site must provide PHP documents which fulfil the requirements specified in the provided Excel file, which can be downloaded from the assignment specification page
  Weighting: 15%
  Due date: 21/8/2009
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• Assignment task 2

Title: PHP Assignment
Description:

♦ Web site must provide login via Monash University Directory Services
♦ Web site must provide PHP documents which fulfil the requirements specified in the provided Excel file, which can be downloaded from the assignment specification page

Weighting: 25%
Due date: 16/10/2009

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

Late assignments are not accepted for correction, and zero marks are awarded accordingly. The only exception to this is in the case of illness or other serious cause. In any such cases, proper third party documentation (e.g. a doctor's certificate) would have to be supplied. Where a doctor's certificate is supplied, then an extension may be allowed for time specified on the doctor's certificate.
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