



MONASH University

CPE3003
Topics in advanced web page design and development

Unit guide

Semester 2, 2008

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CPE3003 Topics in advanced web page design and development - Semester 2 , 2008

Unit leader :

Janet Fraser

Lecturer(s) :

Caulfield

- Janet Fraser

Clayton

- Janet Fraser

Introduction

Welcome to CPE3003 FIT2028 for Semester 2, 2008. This 6 point unit has been designed to provide you with an introduction to XML, PHP and JavaScript. The unit explores the concepts and uses of XML, client-side and server side scripting in developing dynamic web sites

Unit synopsis

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

XML structure and validation using XML Schema Language. Processing using XSLT. XPATH.

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.

Learning outcomes

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

- a client side scripting language and its uses in web page design
- the structure of XML and its uses, particularly in a web environment
- constructing, validating and processing XML documents
- server side scripting to access data stores

developed skills in:

- developing client side scripts to perform a variety of browser tasks
- developing, validating and processing XML documents
- developing server side scripts to access data stores

attitudes of:

- professionalism towards respecting copyright
- requiring professional standards in designing and implementing web applications.

Workload

Unit relationships

Prerequisites

Before attempting this unit you must have satisfactorily completed FIT1011 Web systems 1 (or equivalent) and FIT1002 Computer Programming (or equivalent).

You should have knowledge of Basic HTML, basic XML, some programming in Java, C, C# or C++

Relationships

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

Continuous improvement

Monash is committed to 'Excellence in education' and strives for the highest possible quality in teaching and learning. To monitor how successful we are in providing quality teaching and learning Monash regularly seeks feedback from students, employers and staff. Two of the formal ways that you are invited to provide feedback are through Unit Evaluations and through Monquest Teaching Evaluations.

One of the key formal ways students have to provide feedback is through Unit Evaluation Surveys. It is Monash policy for every unit offered to be evaluated each year. Students are strongly encouraged to complete the surveys as they are an important avenue for students to "have their say". The feedback is anonymous and provides the Faculty with evidence of aspects that students are satisfied and areas for improvement.

Student Evaluations

The Faculty of IT administers the Unit Evaluation surveys online through the my.monash portal, although for some smaller classes there may be alternative evaluations conducted in class.

If you wish to view how previous students rated this unit, please go to <http://www.monash.edu.au/unit-evaluation-reports/>

Over the past few years the Faculty of Information Technology has made a number of improvements to its courses as a result of unit evaluation feedback. Some of these include systematic analysis and planning of unit improvements, and consistent assignment return guidelines.

Monquest Teaching Evaluation surveys may be used by some of your academic staff this semester. They are administered by the Centre for Higher Education Quality (CHEQ) and may be completed in class with a facilitator or on-line through the my.monash portal. The data provided to lecturers is completely anonymous. Monquest surveys provide academic staff with evidence of the effectiveness of their teaching and identify areas for improvement. Individual Monquest reports are confidential, however, you can see the summary results of Monquest evaluations for 2006 at <http://www.adm.monash.edu.au/cheq/evaluations/monquest/profiles/index.html>

Improvements to this unit

- This unit has previously run in Flexible mode, with no on campus lectures and tutorials. In semester 2, 2008 there will be weekly 2 hour lectures and 2 hour tutorials
- In response to student requests a Discussion Forum has been formed for the unit in order to encourage the exchange of ideas amongst students and staff

Unit staff - contact details

Unit leader

Ms Janet Fraser

Lecturer

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Lecturer(s) :

Ms Janet Fraser

Lecturer

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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

Off-campus distributed learning or flexible delivery

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

Communication, participation and feedback

Monash aims to provide a learning environment in which students receive a range of ongoing feedback throughout their studies. You will receive feedback on your work and progress in this unit. This may take the form of group feedback, individual feedback, peer feedback, self-comparison, verbal and written feedback, discussions (on line and in class) as well as more formal feedback related to assignment marks and grades. You are encouraged to draw on a variety of feedback to enhance your learning.

It is essential that you take action immediately if you realise that you have a problem that is affecting your study. Semesters are short, so we can help you best if you let us know as soon as problems arise. Regardless of whether the problem is related directly to your progress in the unit, if it is likely to interfere with your progress you should discuss it with your lecturer or a Community Service counsellor as soon as possible.

Unit Schedule

Week	Topic	Key dates
1	Introduction to XML	
2	XML and XSLT	
3	Introduction to PHP	
4	Using datastores - Oracle, ODBC, MySQL.	
5	SQL Inserts/Updates/Deletes. Cleaning SQL statements	Assignment 1 Due Friday @ 2pm
6	Consuming, building and deploying Web Services	
7	PHP: PHP: Drop-down lists, Multiple check boxes, Client Side Integrity Checking, Cookies, Sessions, LDAP	
8	PHP: Uploading Files, XML and PDF Creation, Accessing File System, Sending Email	
9	Ajax defined, using Ajax. Using Ajax with PHP, using Ajax with PHP and databases	
10	Understanding JavaScript, creating a simple script, how JavaScript programs work. Using and storing values, using strings and arrays, testing and comparing values, using loops.	
11	Using built in objects, browser objects, creating custom objects, responding to events. Using windows and frames, getting data with forms, using graphics and animation, browser specific scripts.	

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Mid semester break		
12	Scripting layers. Using cookies. Programming practices. Examples: banner ads, Javascript features, a shopping cart, using search engines.	Assignment 2 Due Friday @ 2pm
13	Revision	

Unit Resources

Prescribed text(s) and readings

None/Not Applicable

Recommended text(s) and readings

Sklar, J, Principles of Web Design, Web Warrior Series, 2000

Sand, D., Designing Large-Scale Web Sites, a Visual Design Methodology, Wiley Computer Publishing, 1996

Gosselin,D., JavaScript, Web Warrior Series, Thompson Learning, 2000

Negrino, T. and Smith, D., JavaScript for the World Wide Web, Third Edition, Peachpit Press, 1999

Holzner, S, Inside XML, New Riders 2001

Holzner,S., Inside XSLT, New Riders, 2000

Wellings & Thompson, PHP and MySQL Web Development, SAMS Publishing

Converse & Park, PHP Bible, Wiley Publishing

Required software and/or hardware

Internet Explorer,

Mozilla Firefox,

WS-FTP

XMLWriter, Version 2

Microsoft XML Component, Version 4

PHP V5

Oracle Client

Software may be:

- downloaded from <http://walkabout.infotech.monash.edu.au/walkabout/fit2028/>
- 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:

The CPE3003 website, <http://walkabout.infotech.monash.edu.au/walkabout/fit2028> where lecture slides, tutorial exercises, assignment specifications, sample exam and supplementary material is posted.

Library access

The Monash University Library site contains details about borrowing rights and catalogue searching. To learn more about the library and the various resources available, please go to <http://www.lib.monash.edu.au>. Be sure to obtain a copy of the Library Guide, and if necessary, the instructions for remote access from the library website.

Monash University Studies Online (MUSO)

All unit and lecture materials are available through MUSO (Monash University Studies Online). Blackboard is the primary application used to deliver your unit resources. Some units will be piloted in Moodle. If your unit is piloted in Moodle, you will see a link from your Blackboard unit to Moodle (<http://moodle.monash.edu.au>) and can bookmark this link to access directly. In Moodle, from the Faculty of Information Technology category, click on the link for your unit.

You can access MUSO and Blackboard via the portal: <http://my.monash.edu.au>

Click on the Study and enrolment tab, then Blackboard under the MUSO learning systems.

In order for your Blackboard unit(s) to function correctly, your computer needs to be correctly configured.

For example:

- Blackboard supported browser
- Supported Java runtime environment

For more information, please visit: <http://www.monash.edu.au/muso/support/students/downloadables-student.html>

You can contact the MUSO Support by: Phone: (+61 3) 9903 1268

For further contact information including operational hours, please visit:
<http://www.monash.edu.au/muso/support/students/contact.html>

Further information can be obtained from the MUSO support site:
<http://www.monash.edu.au/muso/support/index.html>

Assessment

Unit assessment policy

earn at least 40% of the marks available for practical work AND at least 40% in the examination. In addition students must receive 50% overall to pass the unit.

Assignment tasks

- **Assignment Task**

Title : XML Assignment

Description :

Weighting : 15%

Criteria for assessment :

- ◆ XML file must validate against Schema
- ◆ Schema must demonstrate appropriate use of simple and complex types, restrictions and enumerations
- ◆ XSLT files must produce HTML documents containing the specified data when compiled with XML files
- ◆ Produced HTML documents must use a Cascading Stylesheet (CSS) in order to display data in an aesthetically pleasing form

Due date : 15/08/2008

- **Assignment Task**

Title : PHP Assignment

Description :

Weighting : 20%

Criteria for assessment :

- ◆ 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

Due date : 10/10/2008

- **Assignment Task**

Title : Quiz Question Submission

Description :

Weighting : 5%

Criteria for assessment :

- ◆ Questions must not duplicate existing questions
- ◆ Questions must be appropriate to the topic for which they are submitted
- ◆ Questions must use correct grammar and phrasing
- ◆ Questions and answers must be clearly worded

Due date : 10/10/2008

Examinations

- **Examination**

Weighting : 60%

Length : 3 hours

Type (open/closed book) : Closed book

Assignment submission

Assignments will be submitted by electronic submission to the student server. The due date is the date by which the submission must be received.

Assignment coversheets

Students must download, complete and upload the Excel file which can be downloaded from the Assignment specification page on Walkabout

University and Faculty policy on assessment

Due dates and extensions

The due dates for the submission of assignments are given in the previous section. 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 seldom regarded as appropriate reasons for granting extensions. Students are advised to NOT assume that granting of an extension is a matter of course.

Requests for extensions must be made to the unit lecturer at yourcampus at least two days before the due date. You will be asked to forward original medical certificates in cases of illness, and may be asked to provide other forms of documentation where necessary. A copy of the email or other written communication of an extension must be attached to the assignment submission.

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.

Assessment for the unit as a whole is in accordance with the provisions of the Monash University Education Policy at <http://www.policy.monash.edu/policy-bank/academic/education/assessment/>

Assignment correction sheets will be completed and placed in the student's directory on the student server.

Plagiarism, cheating and collusion

Plagiarism and cheating are regarded as very serious offences. In cases where cheating has been confirmed, students have been severely penalised, from losing all marks for an assignment, to facing disciplinary action at the Faculty level. While we would wish that all our students adhere to sound ethical conduct and honesty, I will ask you to acquaint yourself with Student Rights and Responsibilities (<http://www.infotech.monash.edu.au/about/committees-groups/facboard/policies/studrights.html>) and the Faculty regulations that apply to students detected cheating as these will be applied in all detected cases.

In this University, cheating means seeking to obtain an unfair advantage in any examination or any other written or practical work to be submitted or completed by a student for assessment. It includes the use, or attempted use, of any means to gain an unfair advantage for any assessable work in the unit, where the means is contrary to the instructions for such work.

When you submit an individual assessment item, such as a program, a report, an essay, assignment or other piece of work, under your name you are understood to be stating that this is your own work. If a submission is identical with, or similar to, someone else's work, an assumption of cheating may arise. If you are planning on working with another student, it is acceptable to undertake research together, and discuss problems, but it is not acceptable to jointly develop or share solutions unless this is specified by your lecturer.

Intentionally providing students with your solutions to assignments is classified as "assisting to cheat" and students who do this may be subject to disciplinary action. You should take reasonable care that your solution is not accidentally or deliberately obtained by other students. For example, do not leave copies of your work in progress on the hard drives of shared computers, and do not show your work to other students. If you believe this may have happened, please be sure to contact your lecturer as soon as possible.

Cheating also includes taking into an examination any material contrary to the regulations, including any bilingual dictionary, whether or not with the intention of using it to obtain an advantage.

Plagiarism involves the false representation of another person's ideas, or findings, as your own by either copying material or paraphrasing without citing sources. It is both professional and ethical to reference clearly the ideas and information that you have used from another writer. If the source is not identified, then you have plagiarised work of the other author. Plagiarism is a form of dishonesty that is insulting to the reader and grossly unfair to your student colleagues.

Register of counselling about plagiarism

The university requires faculties to keep a simple and confidential register to record counselling to students about plagiarism (e.g. warnings). The register is accessible to Associate Deans Teaching (or nominees) and, where requested, students concerned have access to their own details in the register. The register is to serve as a record of counselling about the nature of plagiarism, not as a record of allegations; and no provision of appeals in relation to the register is necessary or applicable.

Non-discriminatory language

The Faculty of Information Technology is committed to the use of non-discriminatory language in all forms of communication. Discriminatory language is that which refers in abusive terms to gender, race, age, sexual orientation, citizenship or nationality, ethnic or language background, physical or mental ability, or political or religious views, or which stereotypes groups in an adverse manner. This is not meant to preclude or inhibit legitimate academic debate on any issue; however, the language used in such debate should be non-discriminatory and sensitive to these matters. It is important to avoid the use of discriminatory language in your communications and written work. The most common form of discriminatory language in academic work tends to be in the area of gender inclusiveness. You are, therefore, requested to check for this and to ensure your work and communications are non-discriminatory in all respects.

Students with disabilities

Students with disabilities that may disadvantage them in assessment should seek advice from one of the following before completing assessment tasks and examinations:

- Faculty of Information Technology Student Service staff, and / or
- your Unit Coordinator, or
- [Disabilities Liaison Unit](#)

Deferred assessment and special consideration

Deferred assessment (not to be confused with an extension for submission of an assignment) may be granted in cases of extenuating personal circumstances such as serious personal illness or bereavement. Information and forms for Special Consideration and deferred assessment applications are available at <http://www.monash.edu.au/exams/special-consideration.html>. Contact the Faculty's Student Services staff at your campus for further information and advice.