FIT1039 Web systems - Semester 1, 2012

This unit is the first core unit in the BITS Applications development major, which aims to teach students the technical and development process skills required for the development of IT-based application systems. The unit aims to provide a broad introduction to the process and tasks of applications development by giving students practical experience in the development of a small application system. The unit uses the world-wide web as a development platform for this application.

The unit will introduce students to the key web technologies, and examine the way in which their features and characteristics affect the development processes required to build application systems. It will introduce students to a number of key techniques required in systems development, and the knowledge and skills required to apply them effectively. This examination of the specific features of the web as a development environment will be used to highlight the broader needs and issues in the systems development process which will be addressed in subsequent units in the major.

The emphasis throughout the unit will be on providing a broad overview of a range of topics, rather than examining specific topics in great depth. There will be a strong emphasis on practical demonstration of the concepts being studied, and their use to highlight key aspects of development theory.

Mode of Delivery

Caulfield (Day)

Contact Hours

2 hrs lectures/wk, 2 hrs lab/tutorials/wk

Workload

Students will be expected to spend a total of 12 hours per week during semester on this unit.

This will include:
Lectures: 2 hours per week
Tutorials/Lab Sessions: 2 hours per week per tutorial

and up to an additional 8 hours in some weeks for completing lab and project work, private study and revision.

Unit Relationships

Prohibitions

FIT1011, FIT2053

Chief Examiner

Mr Peter O'Donnell
Campus Lecturer

Caulfield

Peter O'Donnell

Tutors

Caulfield

Jacob Zhivov

Siavash Alavian

Jason Lu
Academic Overview

Outcomes

On completion of this unit, students will:

• know the technological capabilities and limitations of the world-wide web and understand their impact on the development process for web-based application systems;
• know the main processes and tasks required in the development of IT-based systems;
• recognise and understand the need for formalisation of development processes and techniques to address the issues arising during the development of an IT-based application;
• be able to specify an appropriate development process to meet the needs of a given application development problem;
• understand the principles of good practice with respect to the management of information systems development projects;
• recognise the range of skills and competencies required in the development of web-based application systems;
• be able to identify the range of technical and systems expertise needed in the development of a web-based system for a given set of circumstances;
• be able to perform the basic information analysis and design tasks required during development of a web-based application system;
• be able to interact with system users and with other members of a team in the tasks involved in the development of an application system.

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): 50%; In-semester assessment: 50%

<table>
<thead>
<tr>
<th>Assessment Task</th>
<th>Value</th>
<th>Due Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Building a personal web site from a template</td>
<td>5%</td>
<td>Sunday, 18 March, 2012</td>
</tr>
<tr>
<td>Creating an on-line form to collect data.</td>
<td>5%</td>
<td>Sunday, 1 April, 2012</td>
</tr>
<tr>
<td>A complete web site in Joomla</td>
<td>30%</td>
<td>Sunday, 20 May, 2012</td>
</tr>
</tbody>
</table>
Technology evaluation. Product comparison report and recommendation. 10% Sunday, 27 May, 2012

Reflective blog posts Bonus of 3 marks added to overall assignment mark Your last blog entry can be made anytime before the exam.

Examination 1 50% To be advised

Teaching Approach

Lecture and tutorials or problem classes

This teaching and learning approach provides a strong focus on facilitated practical learning, practical exploration and peer learning.

Feedback

Our feedback to You

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

- Informal feedback on progress in labs/tutes
- Graded assignments with comments
- Solutions to tutes, labs and assignments
- Other: Comments on reflective journal entries from staff and fellow students..

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.policy.monash.edu/policy-bank/academic/education/quality/student-evaluation-policy.html

Previous Student Evaluations of this unit

The unit ran for the first time in semester 1, 2011. The unit was well received by students and the feedback was positive. No major changes to the content or structure of the unit are planned for this semester. The only major difference in the running of the unit this semester compared to last, will be the use of a new version of the content management system Joomla. In the past version 1.5 was used, this semester we will use the latest release (version 2.5).

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

Students who own a laptop computer are encouraged to bring that computer to classes. Most laboratory classes will be scheduled in a room that allows students to work using their own laptop. A standard laboratory - with University computers - is available for students who don't own their own laptop. For more details see Allocate+.

The unit will make extensive use of a variety of web-based systems and tools. Students will be provided with an account on the studentweb web server.

Recommended text(s)

## Unit Schedule

<table>
<thead>
<tr>
<th>Week</th>
<th>Activities</th>
<th>Assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>No formal assessment or activities are undertaken in week 0</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>The world of the web</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Build versus buy</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>HTML and CSS I</td>
<td>Assignment 1 due Sunday, 18 March 2012</td>
</tr>
<tr>
<td>4</td>
<td>HTML and CSS II</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>The world of CMS</td>
<td>Assignment 2 due Sunday, 1 April 2012</td>
</tr>
<tr>
<td>6</td>
<td>Introduction to the Joomla CMS</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Setting up Joomla's menus, adding content</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Using templates in Joomla</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Extending Joomla</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Advanced Joomla tricks</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>Web 2.0 and it's impact on systems</td>
<td>Assignment 3 due Sunday, 20 May 2012</td>
</tr>
<tr>
<td>12</td>
<td>Why building systems is so hard.</td>
<td>Assignment 4 due Sunday, 27 May 2012</td>
</tr>
<tr>
<td></td>
<td>SWOT VAC</td>
<td>No formal assessment is undertaken SWOT VAC</td>
</tr>
</tbody>
</table>

*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

Assessment Tasks

Participation

• Assessment task 1
  
  Title: Building a personal web site from a template
  
  Description: A client - who is an IT consultant - has asked you to create a personal web site to advertise their services. The site will need to explain who they are, what skills they have, their work history and how they can be contacted - a bit like an on-line CV.

  To create the site, you will use a (free) template-based web site generator. Your submission will include a link to the site and a brief report about the strengths and weaknesses of the web site generator you used.

  Further details are available on the unit web site.
  
  Weighting: 5%
  
  Criteria for assessment:
  The report will be assessed for the quality of the evaluation (especially looking at the criteria that are used and the method used to assess and rank the alternatives against those criteria), and also the presentation of the report (Is the report well presented, structured and written?).

  Further details are available on the unit web site.
  
  Due date: Sunday, 18 March, 2012

• Assessment task 2
  
  Title: Creating an on-line form to collect data.
  
  Description: You will create a set of forms for a client - using a 3rd party tool - to allow customers to add and remove their names to a mailing list for an electronic newsletter. These forms will use the client's custom CSS.

  Further details are available on the unit web site.
  
  Weighting: 5%
  
  Criteria for assessment:
  The submission will be assessed by examining if the required functionality has been implemented.
Assessment Requirements

**Due date:**
Sunday, 1 April, 2012

• **Assessment task 3**

  **Title:**
  A complete web site in Joomla

  **Description:**
  You will create a fully functioning Joomla web site for an on-line business. Further
details, including a detailed case study describing the client, are available on the unit web
site.

  **Weighting:**
  30%

  **Criteria for assessment:**
  The submission will be assessed by examining the completeness of the functionality, the
design of the template and the overall ease of use of the site created. Further details are
available on the unit web site.

  **Due date:**
  Sunday, 20 May, 2012

• **Assessment task 4**

  **Title:**
  Technology evaluation. Product comparison report and recommendation.

  **Description:**
  You will submit a short report comparing a handful of technology options that a client
might need to choose from for a web project. You will be able to choose one of the
following to evaluate:

  ♦ different ISPs
  ♦ the use of Shopify versus Joomla for an e-Commerce site
  ♦ different Payment gateways
  ♦ the use of Flash versus HTML5 for a web site
  ♦ different Email providers

  Further details are available on the unit web site.

  **Weighting:**
  10%

  **Criteria for assessment:**
  The submission will be assessed by examining the quality of the assessment (this will
involve looking at the criteria used, and the methods used to rate each alternative against
those criteria), and the overall presentation of the report (Is the report well presented,
structured and written).

  **Due date:**
  Sunday, 27 May, 2012

• **Assessment task 5**

  **Title:**
  Reflective blog posts

  **Description:**
  Each FIT1039 student is invited to keep a reflective journal on the blog site
blog.infotech.monash.edu.au (a blog can also be maintained on the Moodle-based unit
web site or using a commercial blogging system like www.blogger.com). This will be set
up - with the help of teaching staff if required - during the week 1 tutorial. This blog will provide the opportunity to reflect on the learning that takes place throughout the unit. Each week you will be able to make a new posting to your blog. The blog entries should include a reflection on what has happened in terms of your progress on assignment and tutorial work, your management of the assignment project and its tasks, what lessons have been learned to date and what you (and the staff) could do differently.

A page listing all the reflective journals of FIT1039 students will be maintained on the Moodle-based unit web site.

Weighting:
Bonus of 3 marks added to overall assignment mark

Criteria for assessment:
To obtain the 3% bonus mark for this task students must complete a minimum of 10 weekly blog entries during the semester. Each blog post will be read and assessed by the chief examiner. To get the 3% bonus 6 of these posts should be assessed as "satisfactory".

Students can gauge what is required from some example blogs - from students in previous years - and from staff feedback. The task is not difficult. It is fun to do and does help your learning. The 3% bonus will be added to the assignment component of the mark available for the unit. Note that that component cannot exceed 50%. So, for example, a student who obtained 46/50 for their assignment work who earns the bonus will get 49%. While a student who got 49/50 would get 50/50 - the maximum available - if they earned the bonus. For more details, please refer to the Moodle-based unit web site.

Due date:
Your last blog entry can be made anytime before the exam.

Examinations

• Examination 1

Weighting:
50%

Length:
3 hours

Type (open/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).
Assessment Requirements

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.


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)
- Special Consideration (http://www.policy.monash.edu/policy-bank/academic/education/assessment/special-consideration-policy.html)
- 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/)
- Codes of Practice for Teaching and Learning (http://www.policy.monash.edu/policy-bank/academic/education/conduct/suppdocs/code-of-practice-teaching-and-learning.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 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 Community Services at 03 55146018 at Sunway
Other Information

**Reading list**

The unit content has been drawn in part from:


Each week, on the unit web site, students will be provided with relevant readings and other resources.