FIT5192
Internet applications and web services

Unit Guide

Semester 2, 2014
# Table of Contents

FIT5192 Internet applications and web services - Semester 2, 2014

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Workload Requirements</td>
<td>1</td>
</tr>
<tr>
<td>Additional workload requirements</td>
<td>1</td>
</tr>
<tr>
<td>Unit Relationships</td>
<td>1</td>
</tr>
<tr>
<td>Prerequisites</td>
<td>1</td>
</tr>
<tr>
<td>Chief Examiner</td>
<td>1</td>
</tr>
<tr>
<td>Campus Lecturer</td>
<td>1</td>
</tr>
<tr>
<td>Suzhou</td>
<td>1</td>
</tr>
<tr>
<td>Your feedback to Us</td>
<td>2</td>
</tr>
<tr>
<td>Previous Student Evaluations of this Unit</td>
<td>2</td>
</tr>
<tr>
<td><strong>Academic Overview</strong></td>
<td>3</td>
</tr>
<tr>
<td>Learning Outcomes</td>
<td>3</td>
</tr>
<tr>
<td><strong>Unit Schedule</strong></td>
<td>4</td>
</tr>
<tr>
<td>Teaching Approach</td>
<td>4</td>
</tr>
<tr>
<td>Assessment Summary</td>
<td>4</td>
</tr>
<tr>
<td><strong>Assessment Requirements</strong></td>
<td>6</td>
</tr>
<tr>
<td>Assessment Policy</td>
<td>6</td>
</tr>
<tr>
<td>Assessment Tasks</td>
<td>6</td>
</tr>
<tr>
<td>Participation</td>
<td>6</td>
</tr>
<tr>
<td>Examinations</td>
<td>7</td>
</tr>
<tr>
<td>Examination 1</td>
<td>7</td>
</tr>
<tr>
<td>Learning resources</td>
<td>7</td>
</tr>
<tr>
<td>Reading list</td>
<td>7</td>
</tr>
<tr>
<td>Feedback to you</td>
<td>7</td>
</tr>
<tr>
<td>Extensions and penalties</td>
<td>8</td>
</tr>
<tr>
<td>Returning assignments</td>
<td>8</td>
</tr>
<tr>
<td>Assignment submission</td>
<td>8</td>
</tr>
<tr>
<td>Online submission</td>
<td>8</td>
</tr>
<tr>
<td>Required Resources</td>
<td>8</td>
</tr>
<tr>
<td><strong>Other Information</strong></td>
<td>9</td>
</tr>
<tr>
<td>Policies</td>
<td>9</td>
</tr>
<tr>
<td>Faculty resources and policies</td>
<td>9</td>
</tr>
<tr>
<td>Graduate Attributes Policy</td>
<td>9</td>
</tr>
<tr>
<td>Student Charter</td>
<td>9</td>
</tr>
<tr>
<td>Student services</td>
<td>9</td>
</tr>
<tr>
<td>Monash University Library</td>
<td>10</td>
</tr>
<tr>
<td>Disability Liaison Unit</td>
<td>10</td>
</tr>
</tbody>
</table>
FIT5192 Internet applications and web services - Semester 2, 2014

This unit focuses on the design and development of Internet applications with a focus on web services technology. The unit presents an overview of multi-tier web applications and technologies that operate in different layers of typical web architectures. In particular, the unit will introduce the emergence of web services from middleware and Enterprise Architecture Integration (EAI), the fundamental concepts of Service Oriented Architectures (SOA), web services and the key standards that underpin web services: SOAP, WSDL and UDDI. Various service discovery protocols will be evaluated and compared. This unit also teaches a range of web application development technologies focusing on state-of-the-art object oriented scripting languages for mobile and conventional web applications. The unit will provide students with skills to enable web page functionality through scripting, to program and deploy web services as well as to access and consume/use web services. It is assumed that all students have a strong knowledge of object-oriented programming.

Workload Requirements

10 hrs lectures/wk, 10 hrs laboratories/wk for 5 weeks

Additional workload requirements

Student workload commitments are:

- 10-hour lectures and
- 10-hour tutorials per week (requiring advance preparation)
- up to 30 hours per week personal study in order to satisfy the preparation, reading and assignment expectations

Unit Relationships

Prerequisites

It is assumed that all students have a strong knowledge of object-oriented programming, e.g. Java, C# or C++.

Chief Examiner

Dr Jue Xie

Campus Lecturer

Suzhou

Jue Xie
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:

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

Previous Student Evaluations of this Unit

Previous unit feedback has demonstrated that students are able to cope with the workload required by Assignment 2. In this offer, developing an alternative web site using ASP.NET MVC will continue to be a compulsory component of Assignment 2. Students will be given options to do Assignment 2 as an individual work or a group work of maximum two persons. An example application will be provided to students, which can be used as a template for their assignment work. More sample applications will also be demonstrated in tutorials to assist students in web application design and development.

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 web environments and their components;
- an understanding of the principles of object oriented scripting and the knowledge of the various uses to which scripting may be put;
- the knowledge and skills to implement web applications, in an applications development environment;
- an understanding of the principles of large scale, and small scale, web site development including an understanding of advanced design principles;
- an understanding of the uses of mark-up languages and meta-languages in structuring data, particularly in a web context;
- the knowledge and skills to implement web sites varying size and complexity, using XHTML and XML;
- a professional attitude towards the development of web based information systems.
# Unit Schedule

<table>
<thead>
<tr>
<th>Week</th>
<th>Activities</th>
<th>Assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>Introduction</td>
<td>No formal assessment or activities are undertaken in week 0</td>
</tr>
<tr>
<td>1</td>
<td>Sessions 1-5 for SOA Introduction, XML Refresher, Web Services Standards</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Sessions 6-10 for Web Services Composition, Reliable Messaging, Security, Metrics and Service Level Agreements</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Sessions 11-15 for Web Services Advanced Topics, Introduction to C# and ASP.NET</td>
<td>Assignment 1 due on Monday 11 August 2014 at 11:55PM</td>
</tr>
<tr>
<td>4</td>
<td>Sessions 16-20 for ASP.NET Server Controls and Data Source Controls</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Sessions 21-24 for Web Site Creation Using ASP.NET MVC, Revision and Discussion</td>
<td>Assignment 2 due on Wednesday 27 August 2014 at 11:55PM; Examination on Friday 29 August 2014</td>
</tr>
</tbody>
</table>

| 6    | |
| 7    | |
| 8    | |
| 9    | |
| 10   | |
| 11   | |
| 12   | |

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

<table>
<thead>
<tr>
<th>Assessment Task</th>
<th>Value</th>
<th>Due Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assignment 1 - Create and Consume Web Services Using Java</td>
<td>25%</td>
<td>Monday 11 August 2014 at 11:55PM</td>
</tr>
<tr>
<td></td>
<td>25%</td>
<td></td>
</tr>
<tr>
<td>Unit Schedule</td>
<td></td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>Assignment 2 - Web Application Development Using ASP.NET</td>
<td>Wednesday 27 August 2014 at 11:55PM</td>
<td></td>
</tr>
<tr>
<td>Examination 1</td>
<td>50%</td>
<td>To be advised</td>
</tr>
</tbody>
</table>
Assessment Requirements

Assessment Policy

Faculty Policy - Unit Assessment Hurdles

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: Assignment 1 - Create and Consume Web Services Using Java
  Description: This task will assess students' practical and programming skills in web services
development, deployment and invocation.
  Weighting: 25%
  Criteria for assessment:
   1. The level of accomplishment in each task.
   2. The degree the programs meet the specified requirements.
   3. How well the code is written and maintained.
  Due date: Monday 11 August 2014 at 11:55PM

• Assessment task 2

  Title: Assignment 2 - Web Application Development Using ASP.NET
  Description: This assignment will require students to develop and deploy a web site for a fictitious
company which allows user registration, login and searching, using both the traditional
ASP.NET event driven model and the ASP.NET MVC model.

  Students have the option to do this assignment individually or as a group with another
student (maximum of two students per group).
  Weighting: 25%
  Criteria for assessment:
   1. The level of accomplishment in each task.
   2. The degree the programs meet the specified requirements.
   3. How well the code is written and maintained.

   Each member of a group work should demonstrate 50% contribution in application design,
development and documentation construction, and will be marked accordingly.
Assessment Requirements

Due date:
Wednesday 27 August 2014 at 11:55PM

Examinations

• Examination 1

  Weighting:
  50%

  Length:
  3 hours

  Type (open/closed book):
  Closed book

  Electronic devices allowed in the exam:
  None

Learning resources

Reading list

• Hansen, MD (2007) SOA Using Java Web Services, Prentice-Hall.

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:

• Informal feedback on progress in labs/tutes
• Graded assignments with comments
• Interviews
Assessment Requirements

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-plagiarism-collusion-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). 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.

- NetBeans IDE (freeware downloadable from netbeans.org)
- Glassfish Server Open Source Edition (downloadable from glassfish.java.net)
- MySQL (freeware downloadable from www.mysql.com)
- Microsoft Visual Studio 2012
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;
- 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/dates/
- Orientation and Transition; http://intranet.monash.edu.au/infotech/resources/students/orientation/
- Academic and Administrative Complaints and Grievances Policy;
  http://www.policy.monash.edu/policy-bank/academic/education/management/complaints-grievance-policy.html

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.html

Student Charter


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.au/students. For Malaysia see 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.ac.za/.

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 Community Services at 03 55146018 at Malaysia
- Email: dlu@monash.edu
- 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