# Table of Contents

**FIT5192 Internet applications and web services - Term 3, 2015**

- Mode of Delivery .................................................................................................................. 1
- Workload Requirements ........................................................................................................ 1
  - Additional workload requirements ..................................................................................... 1
- Unit Relationships .................................................................................................................. 1
- Prerequisites ............................................................................................................................ 1
- Chief Examiner ....................................................................................................................... 1
- Campus Lecturer ..................................................................................................................... 1
  - Suzhou .................................................................................................................................. 2
- Tutors ......................................................................................................................................... 2
  - Suzhou .................................................................................................................................. 2
- Your feedback to Us .................................................................................................................. 2
- Previous Student Evaluations of this Unit ................................................................................ 2

**Academic Overview** .............................................................................................................. 3
  - Learning Outcomes ............................................................................................................... 3

**Unit Schedule** ........................................................................................................................ 4
  - Teaching Approach ................................................................................................................ 4
  - Assessment Summary ............................................................................................................ 4

**Assessment Requirements** ................................................................................................... 6
  - Assessment Policy .................................................................................................................. 6
  - Assessment Tasks ................................................................................................................... 6
  - Participation ............................................................................................................................. 6
- Examinations ............................................................................................................................ 7
  - Examination 1 ....................................................................................................................... 7
- Learning resources ................................................................................................................... 7
- Reading list ............................................................................................................................... 7
- Feedback to you ....................................................................................................................... 7
- Extensions and penalties .......................................................................................................... 7
- Returning assignments ............................................................................................................ 8
- Assignment submission .......................................................................................................... 8
- Online submission ................................................................................................................... 8
- Required Resources ............................................................................................................... 8
- Recommended Resources ....................................................................................................... 8
- Examination material or equipment ....................................................................................... 8

**Other Information** ............................................................................................................... 9
  - Policies ................................................................................................................................. 9
  - Faculty resources and policies ............................................................................................. 9
    - Graduate Attributes Policy ................................................................................................ 9
- Student Charter ....................................................................................................................... 9
- Student services ...................................................................................................................... 9
- Monash University Library .................................................................................................... 9
- Disability Liaison Unit .......................................................................................................... 9
FIT5192 Internet applications and web services - Term 3, 2015

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.

Mode of Delivery

Suzhou (Day)

Workload Requirements

10 hrs lectures/wk, 10 hrs laboratories/wk for 5 weeks
See also Unit timetable information

Additional workload requirements

Lectures: 2 hours per day
Tutorials/Lab Sessions: 2 hours per day per tutorial
and up to an additional 30 hours in some weeks for completing lab and assignment work, private study and revision.

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
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

The median of the overall student satisfaction for the unit was 4.80 out of 5 from the previous offering, which indicates students satisfaction on unit structure and content. However, in order to reflect the new trend in Internet application development, RESTful style web services will be promoted with introcution of new concepts on Backend as a service (Baas), API servers, and asynchronous programming for web application development. Introduction to SOAP style web service standards, WSDL and UDDI in particular, will be reduced accordingly to allow this change.

If you wish to view how previous students rated this unit, please go to
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>Pre-reading provided background topics on web application design and development</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, Refresher on HTML, CSS and JavaScript, Web Service Standards, Backend as a service, API Servers, and Asynchronous Programming</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Sessions 6-10 for Web Services Composition, Reliable Messaging, Security, Quality of Service, and Service Level Agreements</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Sessions 11-15 for Web Services Advanced Topics, Introduction to Single-page Application, Introduction to C# and ASP.NET</td>
<td>Assignment 1 due on Monday 10 August 2015 at 11:55PM</td>
</tr>
<tr>
<td>4</td>
<td>Sessions 16-20 for ASP.NET Web Form, 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 26 August 2015 at 11:55PM; Examination on Friday 28 August 2015</td>
</tr>
<tr>
<td>6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*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-semestere assessment: 50%

<table>
<thead>
<tr>
<th>Assessment Task</th>
<th>Value</th>
<th>Due Date</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## Unit Schedule

| Assignment 1 - Create and Consume Web Services Using Java Technologies | 25% | Monday 10 August 2015 at 11:55PM |
| Assignment 2 - Web Site Development Using ASP.NET | 25% | Wednesday 26 August 2015 at 11:55PM |
| Examination 1 | 50% | 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-hurdles.html)

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 Technologies
  Description: This task will assess students' knowledge and practical skills in both developing new SOAP or RESTful web services, and consuming existing web services provided by leading IT vendors in a web application.
  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.
  4. Performance in post-submission interview.
  5. Every line submitted for assessment must be able to be fully explained during individual assignment interview.

  Due date: Monday 10 August 2015 at 11:55PM

• Assessment task 2

  Title: Assignment 2 - Web Site 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 in a group with one other 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.
4. Each member of a group work should demonstrate 50% contribution in application design, development and documentation construction, and will be marked accordingly.

**Due date:**
Wednesday 26 August 2015 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**


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

**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

**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 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 electronic submission). 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.

Software:

- 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 2013

Recommended Resources

Online resources: Tutorials provided via the site www.w3schools.com

Examination material or equipment

Exam will be closed book.
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

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