



**MONASH** University  
Information Technology

**FIT5042**  
**Enterprise application development for the web**

**Unit Guide**

**Semester 2, 2013**

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.

*Last updated: 25 Jul 2013*

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# **FIT5042 Enterprise application development for the web - Semester 2, 2013**

This unit provides students with an understanding of the design and development of systems that support the large enterprise in a web-based environment. Students will learn of the theoretical issues that need to be considered by the enterprise and how they can affect the development of the enterprise application. A number of techniques will be introduced as the technological means to build such an application with specific emphasis on the Java EE technology.

## **Mode of Delivery**

- Caulfield (Day)
- Gippsland (Off-campus)

## **Contact Hours**

2 hrs lectures/wk, 2 hrs laboratories/wk

## **Workload requirements**

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

- 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**

CSE5060

### **Prerequisites**

Recommended knowledge: Students undertaking this subject are expected to have a sound understanding of the concepts of the object oriented programming language, Java.

### **Chief Examiner**

Mr Matthew Kairys

### **Campus Lecturer**

## **Caulfield**

**Matthew Kairys**

Consultation hours: By appointment.

## **Gippsland**

**Matthew Kairys**

# Academic Overview

## Learning Outcomes

At the completion of this unit students will:

- understand various issues pertaining to enterprise software architecture on the web;
- acquire techniques to develop enterprise applications using the Java programming language;
- discover various advanced Java technologies used to build web applications for the enterprise;
- learn to competently use the advanced Java libraries to build a medium-size web application for the enterprise.

## Unit Schedule

Week	Activities	Assessment
0		No formal assessment or activities are undertaken in week 0
1	Unit Overview and Enterprise Architecture Concepts	Note: Tutorial classes commence in Week 1
2	Java EE Application Architecture	
3	HTML5 Web Application Architecture	
4	Introduction to JavaServer Faces	
5	Developing Web Interfaces with JavaServer Faces	
6	Working with Web Services	
7	Introduction to Enterprise JavaBeans	Assignment 1 due Friday 13 September 2013
8	Advanced Applications of Enterprise JavaBeans	
9	Introduction to Java Persistence	
10	Advanced Applications of Java Persistence	
11	Securing Enterprise Web Applications	
12	Unit Revision	Assignment 2 due Friday 25 October 2013
	SWOT VAC	No formal assessment is undertaken in SWOT VAC
	Examination period	LINK to Assessment Policy: <a href="http://policy.monash.edu.au/policy-bank/academic/education/assessment/assessment-in-coursework-policy.html">http://policy.monash.edu.au/policy-bank/academic/education/assessment/assessment-in-coursework-policy.html</a>

\*Unit Schedule details will be maintained and communicated to you via your learning system.

## Assessment Summary

Examination (3 hours): 50%, In-semester assessment: 50%

Assessment Task	Value	Due Date
Assignment 1 - HTML5 Web Application	20%	Week 7, Friday 13 September 2013
Assignment 2 - Enterprise Web Application	30%	Week 12, Friday 25 October 2013
Examination 1	50%	To be advised

## **Teaching Approach**

### **Lecture and tutorials or problem classes**

This teaching and learning approach helps students to initially encounter information at lectures, discuss and explore the information during tutorials, and practice in a hands-on lab environment.

# Assessment Requirements

## Assessment Policy

Faculty Policy - Unit Assessment Hurdles

(<http://www.infotech.monash.edu.au/resources/staff/edgov/policies/assessment-examinations/unit-assessment-hu>)

Academic Integrity - Please see the Demystifying Citing and Referencing tutorial at

<http://lib.monash.edu/tutorials/citing/>

## Assessment Tasks

### Participation

#### • Assessment task 1

**Title:**

Assignment 1 - HTML5 Web Application

**Description:**

Students will create a basic web application using the Java EE 7 platform to demonstrate core concepts in enterprise web application development. The application should demonstrate an understanding of using JavaServer Faces technology to develop an HTML5 interface and the integration of web services.

**Weighting:**

20%

**Criteria for assessment:**

- ◆ This is an individual assignment and is to be entirely your own work.
- ◆ The assignment will be marked against criteria of correctness and clarity.
- ◆ Further detailed assessment criteria will be available with the assignment specification.

**Due date:**

Week 7, Friday 13 September 2013

#### • Assessment task 2

**Title:**

Assignment 2 - Enterprise Web Application

**Description:**

Students will develop an eBusiness enterprise web application to demonstrate advanced Java EE 7 concepts. The application should demonstrate an understanding of using Enterprise JavaBeans and Java Persistence to enable user registration and search capabilities.

**Weighting:**

30%

**Criteria for assessment:**

- ◆ This is an individual assignment and is to be entirely your own work.
- ◆ The assignment will be marked against criteria of correctness and clarity.
- ◆ Further detailed assessment criteria will be available with the assignment specification.

**Due date:**



## Examinations

### • Examination 1

**Weighting:**

50%

**Length:**

3 hours

**Type (open/closed book):**

Closed book

**Electronic devices allowed in the exam:**

None

## Learning resources

Monash Library Unit Reading List

<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
- Interviews
- Solutions to tutes, labs and assignments

## 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/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). 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.

You will need access to:

- Java SE 7
- NetBeans IDE with Java EE 7 support and Glassfish application server

This software is freely available online to download and also be available in University computer labs. Appropriate download resources will be made accessible via Moodle.

## Recommended Resources

The Java EE 7 Tutorial:

This is the official Java EE 7 Tutorial from Oracle. We will use a number of chapters and an example code from the tutorial to demonstrate core concepts in the Java EE platform.

The tutorial is accessible at <http://docs.oracle.com/javaee/7/tutorial/doc/home.htm>

## 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](http://www.policy.monash.edu.au/policy-bank/academic/education/index.html)

Key educational policies include:

- Academic integrity;  
<http://www.policy.monash.edu/policy-bank/academic/education/conduct/student-academic-integrity-policy.html>
- Assessment in Coursework Programs;  
<http://www.policy.monash.edu/policy-bank/academic/education/assessment/assessment-in-coursework-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/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>
- Code of Practice for Teaching and Learning;  
<http://www.policy.monash.edu.au/policy-bank/academic/education/conduct/suppdocs/code-of-practice-teaching-and-learning.html>

### Graduate Attributes Policy

<http://www.policy.monash.edu/policy-bank/academic/education/management/monash-graduate-attributes-policy.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 <http://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/>.

### 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](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/>.

## 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 Sunway Email: [dlu@monash.edu](mailto: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, Sunway Campus

## 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](http://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](http://www.policy.monash.edu/policy-bank/academic/education/quality/student-evaluation-policy.html)

## Previous Student Evaluations of this Unit

Over the years in which the unit has been running, students have reported an overall satisfaction with the content and presentation of the unit's material.

The unit's content this semester has been updated in keeping with the evolving web technologies. In particular, the materials have been extended to cover the Java EE 7 platform and HTML5 technologies.

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

## Other

Various web resources will be made available on Moodle.