

# FIT3036 Computer science project

# **Unit Guide**

Semester 2, 2012

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.

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# FIT3036 Computer science project - Semester 2, 2012

This unit is intended to provide practical experience in designing, developing and testing a non-trivial computer science project. Projects are generally software-based, although sometimes they may involve hardware development or investigation of theory. Projects cover the whole process of software (or hardware) development, from analysis through design to implementation and testing. Comprehensive written documentation on the project is required. Students are assigned in groups to a project supervisor. There are no lectures in this unit, although students will be expected to attend regular meetings with their project supervisor.

## **Mode of Delivery**

- Clayton (Day)
- Sunway (Day)

## **Contact Hours**

1 hr project meeting/week

## Workload

This unit requires 12 hours of work per week over a semester. Students must be prepared to commit extra hours of private study to meet this requirement, in addition to the 1 contact hour per week.

## **Unit Relationships**

## **Prohibitions**

CSE3301, FIT3144

## Prerequisites

FIT2004 or FIT3140

## **Chief Examiner**

Dr Sid Ray

## **Campus Lecturer**

Clayton

Marc Cheong

Consultation hours: One hour meeting per week

### **David Dowe**

FIT3036 Computer science project - Semester 2, 2012

Consultation hours: One hour meeting per week

## **Gopal Gupta**

Consultation hours: One hour meeting per week

# Sunway

## Loke Kar Seng

Consultation hours: One hour meeting per week

# Academic Overview

## Outcomes

At the completion of this unit students will have - A knowledge and understanding of:

- strategies for developing a non-trivial programming, hardware, or theory-based project.
- how to locate and utilise prior research and methods on a particular topic;
- how to cite bibliographic references the student has used to understand various components of the project, support claims on knowledge, events, hypotheses and theories;
- how to document software development from a user and application programming perspective;
- software development methods: analysis, design, implementation and testing applied to the design and development of a non-trivial project.

Developed attitudes that enable them to:

- acknowledge the importance of attending and contributing to meetings as a method of gaining important information and ideas about the project;
- understand the basic requirements of software development from both user and developer perspectives;
- appreciate the importance of correctly acknowledging the work of others in researching solutions to problems;
- value the role of work books in documenting a projects progress and keeping track of its development.

Developed the skills to:

- search, access, and analyse research literature as part of the process of developing solutions to problems;
- understand the importance of analysis, design, documentation, and testing in developing a non-trivial software project;
- write a moderately detailed report explaining methodology, outlining their contributions and the contributions of others, documenting the developed project from developer and user perspectives.

Demonstrated the communication skills necessary to:

- understand the role of the client (or user) in the software development process;
- appreciate the importance of written communication in documenting project development;
- understand the importance of assessing time and resource requirements in the successful completion of non-trivial projects;
- appreciate the importance of time and resource management in order to deliver non-trivial projects to deadlines.

# **Graduate Attributes**

Monash prepares its graduates to be:

- 1. responsible and effective global citizens who:
- a. engage in an internationalised world

### Academic Overview

- 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**

Projects are assessed by individual project supervisors.

Assessment Task	Value	Due Date
Project Specification	20 marks	Friday 31 August 2012
Final Demonstration / Presentation	10 marks	Week 11 or Week 12 (to be allocated)
Test Report	10 marks	Friday 19 October 2012
Workbook	10 marks	Friday 19 October 2012
Final Report	50 marks	Friday 19 October 2012

# **Teaching Approach**

### **Problem-based learning**

Students are encouraged to take responsibility for organising and directing their learning with support from their supervisors.

## Feedback

## Our feedback to You

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

- Informal feedback on progress in labs/tutes
- Other: Informal feedback on progress in project meetings, and marked project reports

## 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: <a href="http://www.monash.edu.au/about/monash-directions/directions.html">http://www.monash.edu.au/about/monash-directions/directions.html</a> <a href="http://www.policy.monash.edu/policy-bank/academic/education/quality/student-evaluation-policy.html">http://www.monash.edu/about/monash-directions/directions.html</a>

# **Previous Student Evaluations of this unit**

Student responses to FIT3036 have been positive and no changes are currently planned.

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

# **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.

For projects students will normally need access to a computer and programming environment.

Individual requirements will be identified by project supervisors.

# **Unit Schedule**

Week	Activities	Assessment
0		No formal assessment or activities are undertaken in week 0
1	Preliminary Reading	
2	Preliminary Reading	
3	Project Plan	
4	Project Plan	
5	Project Design	
6	Project Design	Project Specification due Friday 31 August 2012
7	Test Plan	
8	Implementation & Testing	
9	Implementation & Testing	
10	Implementation & Testing	
11	Presentations	Final Presentation / Demonstration due Week 11 (to be allocated)
12	Presentations	Final Presentation / Demonstration due Week 12 (to be allocated); Test Report due 19 October 2012; Workbook due 19 October 2012; Final Report due 19 October 2012
	SWOT VAC	No formal assessment is undertaken in SWOT VAC
	Examination period	LINK to Assessment Policy: http://policy.monash.edu.au/policy-bank/ academic/education/assessment/ assessment-in-coursework-policy.html

\*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 (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 <a href="http://lib.monash.edu/tutorials/citing/">http://lib.monash.edu/tutorials/citing/</a>

## **Assessment Tasks**

## **Participation**

#### Assessment task 1

Title:

Project Specification

**Description:** 

Includes a project plan, external and internal specifications, and a test plan.

Weighting:

20 marks

### Criteria for assessment:

Correctness and completeness of the project plan, external and internal specifications and test plan.

Due date:

Friday 31 August 2012

#### Assessment task 2

Title:

Final Demonstration / Presentation

**Description:** 

A demonstration of the software in a working environment.

Weighting:

10 marks

Criteria for assessment:

Quality of working demonstration being presented.

Due date:

Week 11 or Week 12 (to be allocated)

#### Assessment task 3

Title: Test Report Description: Report detailing the outcomes of testing. Weighting: 10 marks Criteria for assessment: Completeness of report. Assessment Requirements

### Due date:

Friday 19 October 2012

### Assessment task 4

#### Title:

Workbook

### **Description:**

A notebook (or computer file) containing weekly entries describing what has been accomplished through the week. Details on how the workbook should be organised are supplied with the project details.

### Weighting:

## 10 marks

### Criteria for assessment:

Completeness of workbook, including at least 10 weekly entries.

### Due date:

Friday 19 October 2012

### Assessment task 5

### Title:

Final Report

### **Description:**

This provides a complete description of the project, the code, its results and interpretation of the results.

### Weighting:

50 marks

### Criteria for assessment:

Clarity, organisation and completeness of both the report and the code. The quality of the interpretation and analysis of the results will be a significant factor.

### Due date:

Friday 19 October 2012

## 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 <a href="http://www.infotech.monash.edu.au/resources/student/forms/">http://www.infotech.monash.edu.au/resources/student/forms/</a>. 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).

## **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.

You must negotiate any extensions formally with your campus unit leader via the in-semester special consideration process: <a href="http://www.infotech.monash.edu.au/resources/student/equity/special-consideration.html">http://www.infotech.monash.edu.au/resources/student/equity/special-consideration.html</a>.

# **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 (<u>http://www.policy.monash.edu/policy-bank/academic/education/conduct/plagiarism-policy.html</u>)
- Assessment (<u>http://www.policy.monash.edu/policy-bank/academic/education/assessment/assessment-in-coursework-policy-bank/academic/education/assessment/assessment-in-coursework-policy-bank/academic/education/assessment/assessment-in-coursework-policy-bank/academic/education/assessment/assessment-in-coursework-policy-bank/academic/education/assessment/assessment-in-coursework-policy-bank/academic/education/assessment/assessment-in-coursework-policy-bank/academic/education/assessment-in-coursework-policy-bank/academic/education/assessment/assessment-in-coursework-policy-bank/academic/education/assessment/assessment-in-coursework-policy-bank/academic/education/assessment-in-coursework</u>
- Special Consideration
  (<u>http://www.policy.monash.edu/policy-bank/academic/education/assessment/special-consideration-policy.h</u>
  Grading Scale
- (<u>http://www.policy.monash.edu/policy-bank/academic/education/assessment/grading-scale-policy.html</u>) • Discipline: Student Policy
- (http://www.policy.monash.edu/policy-bank/academic/education/conduct/student-discipline-policy.html)
- Academic Calendar and Semesters (<u>http://www.monash.edu.au/students/key-dates/</u>);
- Orientation and Transition (<u>http://www.infotech.monash.edu.au/resources/student/orientation/</u>); and
- Academic and Administrative Complaints and Grievances Policy
  (<u>http://www.policy.monash.edu/policy-bank/academic/education/management/complaints-grievance-policy</u>
- Codes of Practice for Teaching and Learning (http://www.policy.monash.edu.au/policy-bank/academic/education/conduct/suppdocs/code-of-practice-tea

# **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 <u>www.monash.edu.au/students</u>. For Sunway see <u>http://www.monash.edu.my/Student-services</u>, and for South Africa see <u>http://www.monash.ac.za/current/</u>

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 <u>http://www.lib.monash.edu.au</u> or the library tab in my.monash portal for more information. At Sunway, visit the Library and Learning Commons at <u>http://www.lib.monash.edu.my/</u>. At South Africa visit <u>http://www.lib.monash.ac.za/</u>.

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: <a href="http://monash.edu/equity-diversity/disability/index.html">http://monash.edu/equity-diversity/disability/index.html</a>;
- 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 Commuity Services at 03 55146018 at Sunway

Other Information

# **Reading list**

Any required or recommended textbooks will be determined by individual project supervisors on a case-by-case basis.