FIT3036
Computer science project

Unit Guide

Semester 2, 2009

Last updated : 20 Jul 2009

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FIT3036 Computer science project - Semester 2, 2009

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Introduction

Welcome to FIT3036 Third Year Project (previously offered as CSE3301). It is a 6 credit point unit, offered in first and second semester during 2009. The unit gives you an opportunity to tackle a significantly larger software design and implementation than you have been able to do previously in your course. You will work on a project allocated to you (please remember to identify your preferences) under the supervisor of an academic member of staff. The nature of the project is largely unconstrained, and will be determined in consultation with your project supervisor.

Unit synopsis

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.

Learning outcomes

At the completion of this unit students will have an understanding of:

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

At the completion of this unit students will have attitudes that will allow them to:

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

At the completion of this unit students will be able to:

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

At the completion of this unit students will be able to:

1. understand the role of the client (or user) in the software development process;

2. appreciate the importance of written communication in documenting project development;
3. understand the importance of assessing time and resource requirements in the successful completion of non-trivial projects;
4. appreciate the importance of time and resource management in order to deliver non-trivial projects to deadlines.

Contact hours

1 meeting/week with supervisor.

Workload

The university standard for a 6-credit point unit is 12 hours of work per week over a semester. Students must be prepared to commit to at least 8 hours of private study per week on this unit, in addition to the contact hours (1 hour per week)

Unit relationships

Prerequisites

CSE2304 or CSE2040 or FIT2004 and CSE2305 or CSE2050 or FIT2001 or FIT2024

Prohibitions

CSE3301

Relationships

FIT3036 is a core unit in the Bachelor of Computer Science degree. There are no units for which this is a prerequisite.

You may not study this unit and CSE3301 in your degree.

Teaching and learning method

Weekly project group meetings: 1 hour per week

Individual design, coding, testing: 9 hours per week

Timetable information

For information on timetabling for on-campus classes please refer to MUTTS, http://mutts.monash.edu.au/MUTTS/

Tutorial allocation

On-campus students should register for tutorials/laboratories using the Allocate+ system:
http://allocate.cc.monash.edu.au/

Unit Schedule

Week	Topic	Key dates
1	Preliminary reading & Project selection	22 & 23 July
2	Preliminary reading	31 July
3	Plan of Attack	
4	Milestone 1	14 August
8	Milestone 2	11 September
10	Milestone 3	25 September
Mid semester break		
12	Milestone 4	16 October
13	Completion and Submission of report, and final demonstration	23 October

Unit Resources

Prescribed text(s) and readings

There are no prescribed text books for this unit. Individual project supervisors may recommend additional reading.

Recommended text(s) and readings

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

Required software and/or hardware

Projects will normally need access to a computer and programming environment. Individual requirements will be identified by project supervisors

Equipment and consumables required or provided

Students studying off-campus are required to have the minimum system configuration specified by the Faculty as a condition of accepting admission, and regular Internet access.On-campus students, and those studying at supported study locations may use the facilities available in the computing labs.Information about computer use for students is available from the ITS Student Resource Guide in the Monash University Handbook.You will need to allocate time each week for use of a computer, including time for newsgroups/discussion groups.

You need to be aware that the computing resources that may be supplied to you in order to undertake this unit cost real money, and the university has had to impose limits on the use of the internet for all staff and students. A quota system is to be introduced this year, but in the meantime you must make yourself aware of the "Acceptable Use" policies of both the faculty and the university.

These can be accessed on the web at:

- http://www.infotech.monash.edu.au/myfit/students/student_labinfo_rules_netusage.cfm
- http://www.adm.monash.edu.au/unisec/pol/itec12.html

Note that accessing these and other course-related URLs from within Monash is free from within the Monash network, and is not regarded as part of quota.

Study resources

Study resources we will provide for your study are:

During semester 2, 2009, the unit will be supported by Moodle

Assessment

Overview

Projects are assessed by individual project supervisors.

Faculty assessment policy

To pass a unit which includes an examination as part of the assessment a student must obtain:

- 40% or more in the unit's examination, and
- 40% or more in the unit's total non-examination assessment, and
- an overall unit mark of 50% or more.

If a student does not achieve 40% or more in the unit examination or the unit non-examination total assessment, and the total mark for the unit is greater than 44% then a mark of no greater than 44-N will be recorded for the unit.

The unit is assessed on the basis of a completed project report, and work done during the semester (see below). There is no examination in this unit.

Assignment tasks

Assignment coversheets

Assignment coversheets are available via "Student Forms" on the Faculty website:
http://www.infotech.monash.edu.au/resources/student/forms/
You MUST submit a completed coversheet with all assignments, ensuring that the plagiarism declaration section is signed.

Assignment submission and return procedures, and assessment criteria will be specified with each assignment.

- **Assignment task 1**

  Title:
  Attendance
  Description:
  Meetings are usually held weekly at a time and place convenient to the individual supervisors and each project group. Times & locations will be listed on the third-year notice-board and the online project list (see link above) as soon as they are announced. The first meeting for each group will usually occur in the first week of semester so please check these lists until you have found the time for your first meeting.
  Weighting:
  10 = min(12x1, 10) marks
  Due date:
  Weekly, as arranged with supervisor

- **Assignment task 2**

  Title:
  Achievement
  Description:
  This mark will be allocated by the project supervisor, and reflects the outcomes of the project as realised by the student
  Weighting:
  50 marks
  Due date:
  Friday 23rd October, 2009
  Remarks:
  Although the due date is near the end of semester, students must make progress during the semester, as determined by their supervisors, and in accordance with the weekly schedule (see below)

- **Assignment task 3**

  Title:
  Report
  Description:
  See the weekly schedule
  Weighting:
  20 marks
  Due date:
  Friday 23rd October, 2009

- **Assignment task 4**

  Title:
  Testing
  Description:
  Evidence that the software has been adequately tested
  Weighting:
  10 marks
  Due date:
  Friday 23rd October, 2009

- **Assignment task 5**

  Title:
  Workbook
  Description:
  A notebook (or computer file) containing weekly entries describing what has been accomplished through the week
  Weighting:
  5 marks
  Due date:
  Friday 23rd October, 2009

- **Assignment task 6**

  Title:
  Demonstration
  Description:
  A demonstration of the software in a working environment
  Weighting:
  5 marks
  Due date:
  23, 26-28 October, 2009

Due dates and extensions

Please make every effort to submit work by the due dates. It is your responsibility to structure your study program around assignment deadlines, family, work and other commitments. Factors such as normal work pressures, vacations, etc. are not regarded as appropriate reasons for granting extensions. Students are advised to NOT assume that granting of an extension is a matter of course.

Students requesting an extension for any assessment during semester (eg. Assignments, tests or presentations) are required to submit a Special Consideration application form (in-semester exam/assessment task), along with original copies of supporting documentation, directly to their lecturer within two working days before the assessment submission deadline. Lecturers will provide specific outcomes directly to students via email within 2 working days. The lecturer reserves the right to refuse late applications.

A copy of the email or other written communication of an extension must be attached to the assignment submission.

Refer to the Faculty Special consideration webpage or further details and to access application forms:
http://www.infotech.monash.edu.au/resources/student/equity/special-consideration.html

Late assignment

Assignments received after the due date will be subject to a penalty of 10% per day per assignment (including weekends).

Return dates

Students can expect assignments to be returned within two weeks of the submission date or after receipt, whichever is later.

Appendix

Please visit the following URL: http://www.infotech.monash.edu.au/units/appendix.html for further information about:

- Continuous improvement
- Unit evaluations
- Communication, participation and feedback
- Library access
- Monash University Studies Online (MUSO)
- Plagiarism, cheating and collusion
- Register of counselling about plagiarism
- Non-discriminatory language
- Students with disability
- End of semester special consideration / deferred exams