

CSE4402 Software engineering honours project

Unit guide

Semester 2, 2008

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Unit leader :

Jon McCormack

Lecturer(s) :

Clayton

• Jon McCormack

Introduction

Welcome to CSE4402 Software Engineering Honours Project. This is a 12 point unit that spans 2 semesters. The honours project is a substantial research project which provides an opportunity for students to apply the knowledge and skills gained in other units as they synthesize a solution to a significant, realistic and practical problem.

Unit synopsis

The Software Engineering Honours Project represents approximately 25% of the total time spent in the Honours year and extends over both semesters.

This substantial Honours project is arranged as a single CSE4402 unit worth 12 points. The Honours project provides an opportunity for students to apply the knowledge and skills gained in other units as they synthesize a solution to a significant, realistic and practical problem.

The presentations are public forums for gaining reactions from other academics, student peers, industry representatives of the course, clients and other interested parties.

Students are encouraged to gain knowledge about how they solve software problems by reflecting on the work they did and analysing how they did the work.

Although this is a 12 point unit, the result counts for double (i.e. a 24 credit point weighting) in determining the final honours grade.

Learning outcomes

At the completion of this unit, students will have:

Experience of:

- all stages in the development of a SE project
- the role and responsibilities of clients and developers in a SE project

Understanding of:

- the way in which computer systems are designed, developed and implemented
- the role of methodologies, tools and techniques
- the processes and components of a quality system

Skills in:

- planning and managing the full range of activities in an SE project
- working productively individually
- communicating effectively with clients and users
- developing and delivering on time a computer system that meets the specified requirements

Attitudes:

- adopt a systematic and professional approach to the production of quality computer systems
- enquiring mind
- ethical behaviour

Workload

The honours project accounts for 25% of the total time spent in the Honours year and extends over both semesters.

There are no formal lectures. Students meet with their supervisor on a weekly basis, normally for at least 1 hour/week.

The remainder of the time (approximately 23 hours per week) should be spend on activities related to the project, for example: background reading; locating and analyzing research material; software design, development and testing; performing experiments; analysis of results; documentation and thesis writing; consultation with industry experts or other academics; presentation of results.

A number of workshops are provied to assist students in successfully completing the assessment tasks for this unit.

Unit relationships

Prerequisites

Entry to Honours by invitation only based on weighted average of completed core material. Completion of CSE3302 and BUS2176, or equivalent. You should have knowledge of Requirement engineering, data modelling, object-oriented system analysis and design, software engineering principles and practice, SE tools, project management, software construction, testing, systems documentation. Requirement engineering, data modelling, object-oriented system analysis and design, software engineering principles and practice, SE tools, project management, software construction, testing, systems documentation. Requirement engineering, data modelling, object-oriented system analysis and design, software engineering principles and practice, SE tools, project management, software construction, testing, systems documentation.

Relationships

CSE4402 is a core unit of BSE with Honours.

It is a prerequisite/corequisite for Before attempting this unit you must have satisfactorily completed Entry to Hons by invitation only based on weighted average of completed core material. Completion of CSE3302 and BUS2176, or equivalent. You should have knowledge of Requirement engineering, data modelling, object-oriented system analysis and design, software engineering principles and practice, SE tools, project management, software construction, testing, systems documentation. Requirement engineering, data modelling, object-oriented system analysis and design, software engineering principles and practice, SE tools, project management, software construction, testing, systems documentation.

You may not study this unit and BCS Honours Project or BBIS Honours Project or other Honours Project from the faculty of IT in your degree.

Continuous improvement

Monash is committed to 'Excellence in education' and strives for the highest possible quality in teaching and learning. To monitor how successful we are in providing quality teaching and learning Monash regularly seeks feedback from students, employers and staff. Two of the formal ways that you are invited to provide feedback are through Unit Evaluations and through Monquest Teaching Evaluations.

One of the key formal ways students have to provide feedback is through Unit Evaluation Surveys. It is Monash policy for every unit offered to be evaluated each year. Students are strongly encouraged to complete the surveys as they are an important avenue for students to "have their say". The feedback is anonymous and provides the Faculty with evidence of aspects that students are satisfied and areas for improvement.

Student Evaluations

The Faculty of IT administers the Unit Evaluation surveys online through the my.monash portal, although for some smaller classes there may be alternative evaluations conducted in class.

If you wish to view how previous students rated this unit, please go to <u>http://www.monash.edu.au/unit-evaluation-reports/</u>

Over the past few years the Faculty of Information Technology has made a number of improvements to its courses as a result of unit evaluation feedback. Some of these include systematic analysis and planning of unit improvements, and consistent assignment return guidelines.

Monquest Teaching Evaluation surveys may be used by some of your academic staff this semester. They are administered by the Centre for Higher Education Quality (CHEQ) and may be completed in class with a facilitator or on-line through the my.monash portal. The data provided to lecturers is completely anonymous. Monquest surveys provide academic staff with evidence of the effectiveness of their teaching and identify areas for improvement. Individual Monquest reports are confidential, however, you can see the summary results of Monquest evaluations for 2006 at http://www.adm.monash.edu.au/cheq/evaluations/monquest/profiles/index.html

Unit staff - contact details

Unit leader

Dr Jon McCormack

Senior Lecturer Phone +61 3 990 59298 Fax +61 3 990 55157

Lecturer(s) :

Dr Jon McCormack

Senior Lecturer Phone +61 3 990 59298 Fax +61 3 990 55157

Teaching and learning method

Weekly meetings with assigned supervisor.

Workshops to assist with successful completion of the assessment tasks for this unit.

Communication, participation and feedback

Monash aims to provide a learning environment in which students receive a range of ongoing feedback throughout their studies. You will receive feedback on your work and progress in this unit. This may take the form of group feedback, individual feedback, peer feedback, self-comparison, verbal and written feedback, discussions (on line and in class) as well as more formal feedback related to assignment marks and grades. You are encouraged to draw on a variety of feedback to enhance your learning.

It is essential that you take action immediately if you realise that you have a problem that is affecting your study. Semesters are short, so we can help you best if you let us know as soon as problems arise. Regardless of whether the problem is related directly to your progress in the unit, if it is likely to interfere with your progress you should discuss it with your lecturer or a Community Service counsellor as soon as possible.

Unit Schedule

Week	Торіс	Key dates	
Mid semester break			

Unit Resources

Prescribed text(s) and readings

As specific to the project.

Recommended text(s) and readings

As specific to the project.

Required software and/or hardware

As specific to the project.

Equipment and consumables required or provided

On-campus students 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.

Study resources

Study resources we will provide for your study are:

Assessment specifications

Workshops on research proposal, literature review, thesis writing and oral presentation

This Unit Guide outlining the administrative information for the unit

The unit web site on MUSO, where resources outlined above will be made available

Library access

The Monash University Library site contains details about borrowing rights and catalogue searching. To learn more about the library and the various resources available, please go to <u>http://www.lib.monash.edu.au</u>. Be sure to obtain a copy of the Library Guide, and if necessary, the instructions for remote access from the library website.

Monash University Studies Online (MUSO)

All unit and lecture materials are available through MUSO (Monash University Studies Online). Blackboard is the primary application used to deliver your unit resources. Some units will be piloted in Moodle. If your unit is piloted in Moodle, you will see a link from your Blackboard unit to Moodle (<u>http://moodle.monash.edu.au</u>) and can bookmark this link to access directly. In Moodle, from the Faculty of Information Technology category, click on the link for your unit.

You can access MUSO and Blackboard via the portal: http://my.monash.edu.au

Click on the Study and enrolment tab, then Blackboard under the MUSO learning systems.

In order for your Blackboard unit(s) to function correctly, your computer needs to be correctly configured.

For example:

- Blackboard supported browser
- Supported Java runtime environment

For more information, please visit: http://www.monash.edu.au/muso/support/students/downloadables-student.html

You can contact the MUSO Support by: Phone: (+61 3) 9903 1268

For further contact information including operational hours, please visit: <u>http://www.monash.edu.au/muso/support/students/contact.html</u>

Further information can be obtained from the MUSO support site: <u>http://www.monash.edu.au/muso/support/index.html</u>

Assessment

Unit assessment policy

An overall mark of 50% or above.

Assignment tasks

Assignment Task

Title : Research Proposal

Description :

A written research proposal outlining the nature of the proposed research and the anticipated strategies for successfully completing the research.

Weighting: 5%

Criteria for assessment :

Due date : Week 10

Assignment Task

Title : Literature Review

Description :

A written review of the research literature associated with the honours project

Weighting: 10%

Criteria for assessment :

Due date : Week 14 (First Semester) • Assignment Task

Title : Seminar attendance

Description :

You must attend at least 6 Faculty research seminars (or other research seminars with approval) over the year.

Weighting : hurdle

Criteria for assessment :

Due date :

Assignment Task

Title : Written thesis

Description :

A written report describing the research undertaken and results acheived.

Weighting: 80%

Criteria for assessment :

Due date : Week 15 (Second Semester) • Assignment Task

Title : Oral Presentation

Description :

An oral presentation summerizing the project and reporting results to peers.

Weighting: 5%

Criteria for assessment :

Due date : Week 13 (Second Semester)

Assignment submission

Assignments (2 copies) will be submitted by **paper** submission as detailed in the calendar for the current year, with the appropriate cover sheet correctly filled out and attached. The final thesis (pdf) and any software and data etc. must also be placed in the 'honours gallery' web-site as a hurdle requirement.

Assignment coversheets

Students should include an assignment coversheet. Assignment coversheets can be found via the "Student assignment coversheets" (http://infotech.monash.edu.au/resources/student/assignments/) page on the faculty website

University and Faculty policy on assessment

Due dates and extensions

The due dates for the submission of assignments are given in the previous section. 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 seldom regarded as appropriate reasons for granting extensions. Students are advised to NOT assume that granting of an extension is a matter of course.

Requests for extensions must be made to the unit lecturer at your campus at least two days before the due date. You will be asked to forward original medical certificates in cases of illness, and may be asked to provide other forms of documentation where necessary. A copy of the email or other written communication of an extension must be attached to the assignment submission.

Late assignment

Assignments received after the due date will not be accepted except in case of serious illness or other serious event outside your control.

Return dates

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

Assessment for the unit as a whole is in accordance with the provisions of the Monash University Education Policy at http://www.policy.monash.edu/policy-bank/academic/education/assessment/

We will aim to have assignment results made available to you within two weeks after assignment receipt.

Plagiarism, cheating and collusion

Plagiarism and cheating are regarded as very serious offences. In cases where cheating has been confirmed, students have been severely penalised, from losing all marks for an assignment, to facing disciplinary action at the Faculty level. While we would wish that all our students adhere to sound ethical conduct and honesty, I will ask you to acquaint yourself with Student Rights and Responsibilities

(http://www.infotech.monash.edu.au/about/committees-groups/facboard/policies/studrights.html) and the Faculty regulations that apply to students detected cheating as these will be applied in all detected cases.

In this University, cheating means seeking to obtain an unfair advantage in any examination or any other written or practical work to be submitted or completed by a student for assessment. It includes the use, or attempted use, of any means to gain an unfair advantage for any assessable work in the unit, where the means is contrary to the instructions for such work.

When you submit an individual assessment item, such as a program, a report, an essay, assignment or other piece of work, under your name you are understood to be stating that this is your own work. If a submission is identical with, or similar to, someone else's work, an assumption of cheating may arise. If you are planning on working with another student, it is acceptable to undertake research together, and discuss problems, but it is not acceptable to jointly develop or share solutions unless this is specified by your lecturer.

Intentionally providing students with your solutions to assignments is classified as "assisting to cheat" and students who do this may be subject to disciplinary action. You should take reasonable care that your solution is not

accidentally or deliberately obtained by other students. For example, do not leave copies of your work in progress on the hard drives of shared computers, and do not show your work to other students. If you believe this may have happened, please be sure to contact your lecturer as soon as possible.

Cheating also includes taking into an examination any material contrary to the regulations, including any bilingual dictionary, whether or not with the intention of using it to obtain an advantage.

Plagiarism involves the false representation of another person's ideas, or findings, as your own by either copying material or paraphrasing without citing sources. It is both professional and ethical to reference clearly the ideas and information that you have used from another writer. If the source is not identified, then you have plagiarised work of the other author. Plagiarism is a form of dishonesty that is insulting to the reader and grossly unfair to your student colleagues.

Register of counselling about plagiarism

The university requires faculties to keep a simple and confidential register to record counselling to students about plagiarism (e.g. warnings). The register is accessible to Associate Deans Teaching (or nominees) and, where requested, students concerned have access to their own details in the register. The register is to serve as a record of counselling about the nature of plagiarism, not as a record of allegations; and no provision of appeals in relation to the register is necessary or applicable.

Non-discriminatory language

The Faculty of Information Technology is committed to the use of non-discriminatory language in all forms of communication. Discriminatory language is that which refers in abusive terms to gender, race, age, sexual orientation, citizenship or nationality, ethnic or language background, physical or mental ability, or political or religious views, or which stereotypes groups in an adverse manner. This is not meant to preclude or inhibit legitimate academic debate on any issue; however, the language used in such debate should be non-discriminatory and sensitive to these matters. It is important to avoid the use of discriminatory language in your communications and written work. The most common form of discriminatory language in academic work tends to be in the area of gender inclusiveness. You are, therefore, requested to check for this and to ensure your work and communications are non-discriminatory in all respects.

Students with disabilities

Students with disabilities that may disadvantage them in assessment should seek advice from one of the following before completing assessment tasks and examinations:

- Faculty of Information Technology Student Service staff, and / or
- your Unit Coordinator, or
- <u>Disabilities Liaison Unit</u>

Deferred assessment and special consideration

Deferred assessment (not to be confused with an extension for submission of an assignment) may be granted in cases of extenuating personal circumstances such as serious personal illness or bereavement. Information and forms for Special Consideration and deferred assessment applications are available at

http://www.monash.edu.au/exams/special-consideration.html. Contact the Faculty's Student Services staff at your campus for further information and advice.