

Agile Methods - Course Outline

SWEN 302: 2010 Trimester 2

(Yet to be approved by the course auditor)

This document sets out the workload and assessment requirements for SWEN 302. It also provides contact information for staff involved in the course. If the contents of this document are altered during the course, you will be advised of the change by an announcement in lectures and/or on the course web site. A printed copy of this document is held in the School Office.

Overview

This course introduces agile methods for software engineering, including continuous deployment, in-use acceptance testing, refactoring, unit testing, hacking, incremental design, retrospective analysis, iterative planning and lean engineering management.

Objectives

By the end of the course, students should be able to:

1. Demonstrate an understanding of the main issues involved in the software architecture, engineering design, and development of medium to large software systems, particularly in dynamic business environments. (BE graduate attributes [3\(b\)](#), [3\(d\)](#), [3\(e\)](#))
2. Understand and compare various agile development practices suitable for different types of software engineering projects. (BE graduate attributes [1\(b\)](#), [3\(e\)](#), [3\(f\)](#))
3. Design agile processes suitable for different types of project, and assess a software process to evaluate how effective it is at promoting quality, cost effectiveness, and sustainability. (BE graduate attributes [1\(b\)](#), [3\(e\)](#))
4. Continually negotiate project requirements during an ongoing agile software project, and perform risk management, dynamically adjusting project plans. (BE graduate attributes [1\(b\)](#), [3\(d\)](#), [3\(f\)](#))
5. Use test driven development to ensure software quality. (BE graduate attribute [3\(b\)](#))
6. Carry out all stages of an agile software process in a team, to produce working software. (BE graduate attributes [2\(a\)](#)) In addition, students will gain experience in giving oral presentations during the course, and in providing written critiques. (BE graduate attributes [2\(b\)](#))

Textbook

There is no required textbook for SWEN 302. Students in the course may however find it useful to purchase (or borrow from the library) a range of books on Extreme Programming, Scrum, and Agile Development.

Lectures, Tutorials, Laboratories, and Practical work

Lectures for SWEN 302 are: *Thursday 1500-1700 [Alan McDiarmid LT 105](#)*

This course is taught in the second trimester 2010, from 12 July 2010 to 15 October 2010.

Assignments and Projects

Unlike many other courses, there is very little time spent in lectures in SWEN 302, and all of the coursework is based around a single project. Most of the assessment is based on the deliverables you produce and the processes you follow within the project. While assessment involves group work, the course coordinator and lecturer will ensure the marks you receive will reflect an holistic assessment of your overall demonstrated contribution to each assessment item.

All objectives are tested in the project and other assigned work.

In this course we will expect you to use your initiative and resources as a group (such as material from past courses and industry experience) to gather information and to ask questions of relevant staff and members from around the University.

Workload

In order to maintain satisfactory progress in SWEN 302, you should plan to spend an average of at least 10 hours per week on this paper. A plausible and approximate average breakdown for these hours would be:

- Lectures and tutorials: 1 hour
- Readings: 1 hour
- Project work: 8 hours

School of Engineering and Computer Science

The School office is located on level three of the Cotton Building ([Cotton 358](#)).

Staff

The course organiser for SWEN 302 is [Stuart Marshall](#). The lecturer for the course is [Hui Ma](#). Their contact details are:

- *Dr. Stuart Marshall*
- [Cotton 261](#)
- +64 4 463 6730
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- *Dr. Hui Ma*
- [Cotton 259](#)
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- hma@ecs.vuw.ac.nz

Announcements and Communication

The main means of communication outside of lecture will be the SWEN 302 web area at http://ecs.victoria.ac.nz/Courses/SWEN302_2010T2/. There you will find, among other things, this document, the [lecture schedule](#) and [assignment handouts](#), and the [SWEN 302 Forum](#). The forum is a web-based bulletin board system. Questions and comments can be posted to the forum, and *occasionally* staff will read these posts and might even respond to them.

Assessment

Your grade for SWEN 302 will be determined based on the following assessment weightings:

Item	Weight	Due Date
Project Plan	5%	midnight on July 20th
Code Quality	25%	midnight at the end of each iteration
Test Cases	25%	midnight at the end of each iteration
Process Quality	25%	midnight at the end of each iteration
Presentations	5%	15 minute group presentation to be scheduled in study week
Individual Essay	15%	midnight on October 29th

Iterations end on Friday of weeks 4, 6, 8, 10, and 12.

Tests and Exams

There are no tests (other than unit tests and acceptance tests) in SWEN 302. There is no final exam for SWEN 302.

Practical Work

The main content of SWEN 302 will be a substantial group project. This will be conducted in 5 two-week iterations of an Agile process, from weeks 3 to week 12. Each team will be required to work on their project *only during scheduled lab hours*. Ideally teams should plan for at least two three-hour blocks per week; every team member must be able to attend one three-hour block. Teams must schedule at least six hours total per week, and may not schedule more than eight hours total per week.

Individual work items should be handed in via the online submission system (found on the course homepage). All individual and group work components must be handed in on time - and may be marked "as it is" at the deadline. Approval for late submission will only be given in exceptional circumstances.

Assessment for the group project will include individual and group components. The Group Project will be conducted under the [group work policy](#).

Plagiarism

Working Together and Plagiarism

We encourage you to discuss the principles of the course and assignments with other students, to help and seek help with programming details, problems involving the lab machines. However, any work you hand in must be your own work.

The [School policy on Plagiarism](#) (claiming other people's work as your own) is available from the course home page. Please read it. We will penalise anyone we find plagiarising, whether from students currently doing the course, or from other sources. Students who knowingly allow other students to copy their work may also be penalised. If you have had help from someone else (other than a tutor), it is always safe to state the help that you got. For example, if you had help from someone else in writing a component of your code, it is not plagiarism as long as you state (eg, as a comment in the code) who helped you in writing the method.

Mandatory Requirements

To satisfy mandatory requirements, a student must gain at least a **D** grade in the individual essay.

Passing SWEN 302

To pass SWEN 302, a student must satisfy mandatory requirements and gain at least a **C** grade overall.

Withdrawal

The last date for withdrawal from SWEN 302 with entitlement to a refund of tuition fees is Fri 23 July 2010. The last date for withdrawal without being regarded as having failed the course is Fri 24 Sept 2010 -- though later withdrawals may be approved by the Dean in special circumstances.

Rules & Policies

Find key dates, explanations of grades and other useful information at <http://www.victoria.ac.nz/home/study>.

Find out about academic progress and restricted enrolment at <http://www.victoria.ac.nz/home/study/academic-progress>.

The University's statutes and policies are available at <http://www.victoria.ac.nz/home/about/policy>, except qualification statutes, which are available via the Calendar webpage at <http://www.victoria.ac.nz/home/study/calendar> (See Section C).

Further information about the University's academic processes can be found on the website of the Assistant Vice-Chancellor (Academic) at <http://www.victoria.ac.nz/home/about/avcacademic>

All students are expected to be familiar with the following regulations and policies, which are available from the school web site:

[Grievances](#)

[Student and Staff Conduct](#)

[Meeting the Needs of Students with Disabilities](#)

[Student Support](#)

[Academic Integrity and Plagiarism](#)

[Dates and Deadlines including Withdrawal dates](#)

[School Laboratory Hours and Rules](#)

[Printing Allocations](#)

[Expectations of Students in ECS courses](#)

The School of Engineering and Computer Science strives to anticipate all problems associated with its courses, laboratories and equipment. We hope you will find that your courses meet your expectations of a quality learning experience.

If you think we have overlooked something or would like to make a suggestion feel free to talk to your course organiser or lecturer.
