

Agile Methods - Course Outline

SWEN 302: 2013 Trimester 2

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. Students who successfully complete this paper should be able to:

- Work with a client to understand their domain and apply technology to solve a problem in that domain
- Communicate that problem and their solution clearly, to both a technical and a non-technical audience
- Use a systematic and disciplined process to analyse, design, build and test their software solution
- Understand how to work in a software development team
- Understand the importance of regular reflection to improve their work practices and processes

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

For the first week of lectures, students should attend all of the following lectures:

Day	Time	Location
Mon	16:10 - 18:00	Hugh Mackenzie LT001
Tue	16:10 - 18:00	Hugh Mackenzie LT104
Wed	16:10 - 18:00	Hugh Mackenzie LT104
Thu	16:10 - 18:00	Hugh Mackenzie LT001

As the class is quite large in 2013, the remaining lectures will be streamed. At the end of the first week you will be in a team, and your team will be assigned into one of the following streams:

Stream	Day	Time	Location
Amazon	Mon	16:10 - 18:00	Hugh Mackenzie LT001
Nile	Tue	16:10 - 18:00	Hugh Mackenzie LT104
Yangtze	Wed	16:10 - 18:00	Hugh Mackenzie LT104
Danube	Thu	16:10 - 18:00	Hugh Mackenzie LT001

The good news is that you will only be expected to attend your stream's lectures in weeks 04, 07 and 10. These lectures, however, are compulsory and attendance will be monitored. For the rest of the weeks (02-03, 05-06, 08-09 and 11-12) your team will meet once a week with the lecturer for targeted guidance and support. Finally, you must attend the compulsory class showcase, which will be the evening of Tuesday 22 October 2013. The showcase will be a 3-hour public event with pizza provided. A panel of industry and software start-up specialists will be providing feedback on your projects. This is a great event to invite your friends and family to.

Here is a summary of the lectures / coaching sessions with Angela / presentation times and Assignment deadlines:

SWEN302 Schedule

Wk	Mon	Tue	Thu	When are Individual Assignments Due?
01	Lectures			
02	Team meetings with Angela			
03	Team meetings with Angela			
04	Deliverable 1: Presentations			Indiv. Reflection Report
05	Team meetings with Angela			Technical Blog
06	Team meetings with Angela			Technical Blog
Mid Semester Break				
07	Deliverable 2: Presentations			Indiv. Reflection Report Technical Blog
08	Guest lectures			Technical Blog
09	Guest lectures			Technical Blog
10	Deliverable 3: Presentations			Indiv. Reflection Report Technical Blog
11	Team meetings with Angela			Technical Blog
12	Team meetings with Angela			Technical Blog
13	Deliverable 4: Final Showcase			Indiv. Reflection Report Technical Blog

Team Meetings with Angela in CO242B:

Time	Mon	Tue	Thu
16:10	GameChanger	-	ThreeZeroZero
16:35	TheMagic8Ball	S-Ware	GreenPrime
17:00	CaveatEmptor	DCSS	TGCPProject
17:25	-	SteelAmbition	EccentricMafia

Team Presentations:

Time	Mon HMLT001	Tue HMLT104	Thu HMLT001
16:10	GameChanger	-	ThreeZeroZero
16:25	TheMagic8Ball	S-Ware	GreenPrime
16:40	CaveatEmptor	DCSS	TGCPProject
16:55	-	SteelAmbition	EccentricMafia

Coaching Times in CO255:

Time	Mon	Tue	Wed	Thu
10.20 (Tentative)	GameChange (Siva)	TGCPProject (Siva)	-	-
16:35	GreenPrime (Kevin)	-	-	-
17:00	DCSS (Kevin)	ThreeZeroZero (Adrian)	SteelAmbition (Jess)	TheMagic8Ball (Michael)
17:25	-	EccentricMafia (Adrian)	S-Ware (Jess)	CaveatEmptor (Michael)

Each team will also meet with an assigned industry coach and mentor once a week for 30 minutes.

Your team will be assigned 3 x 2-hour compulsory labs per week. The SWEN302 lab is CO236.

SWEN302 Lab TimeTable

	Mon	Tue	Wed	Thu	Fri
9:00	GameChanger	ThreeZeroZero	DCSS	TGCPProject	
10:00			DCSS	ThreeZeroZero	
11:00				GameChanger	GreenPrime
12:00				DCSS	ThreeZeroZero
13:00	SteelAmbition				
14:00					
15:00					
16:00	S-Ware				
17:00					
18:00					
19:00					
20:00					

Previous classes have emphasized how beneficial they found the labs for the project, so much so, that they recommended that the 2013 teams should sign-up for an 1 additional 2-hour lab. We will provide a sign-up sheet on the lab door for that purpose.

This course is taught in the second trimester 2013, from 15 July 2013 to 15 November 2013.

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 coaching sessions: 1 hour
- Project work: 9 hours

School of Engineering and Computer Science

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

Staff

The course coordinator and lecturer for SWEN 302 is Dr Angela Martin. Angela's contact details are:

- +64 21 855 888
- angela@ecs.vuw.ac.nz or angela.m.martin@gmail.com
- Preference: send emails or text me

Your team will also be working with an industry-based coach and mentor each week. The coaches are: Kevin Heath, Jess Champion, Adrian Jarvis Michael Baumberger and Siva Dorairaj.

Assessment

100% internal assessment: 60% will be based on the team software project and 40% will be based on (related but) individual assignments:

Type	Description	Worth	Due Date
Team	3 x Interim Deliverables/Presentations	15%	Team's Presentation Slot in Week 04, 07 & 10
	1 x Final Deliverable (code + tests)	25%	Tuesday 22-Oct 8:00am
	1 x Final Presentation	20%	Tuesday 22-Oct
Individual	4 x Individual Reflection Reports	20%	Friday 09-Aug noon, Friday 13-Sept noon, Friday 04-Oct noon & Friday 25-Oct noon
	Technical Blog	20%	Blog entries are due each Friday at noon for weeks 4-13 Constructive comment(s) on your classmate's blog posts are due by the following Monday at 5pm

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 4 x three-week iterations of an Agile process, from weeks 2 to week 13.

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.

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 assessment items.

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 Friday 26 July 2013. The last date for withdrawal without being regarded as having failed the course is Friday 27 September 2013 -- 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.

- The lectures and coaching times for each team:

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17:25	-	EccentricMafia (Adrian)	S-Ware (Jess)	CaveatEmptor (Michael)

- The lab bookings:

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11:00															
12:00	SteelAmbition				CaveatEmptor	GreenPrime					CaveatEmptor			TGCPProject	
13:00				TheMagic8Ball											
14:00		GreenPrime													
15:00	S-Ware						SteelAmbition								
16:00				S-Ware						TheMagic8Ball					
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18:00															
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20:00															

