SWEN90016

Software Processes & Project Management

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2023 – Semester 2
Lecture 1

Welcome to SWEN90016

Your Subject Support Staff

Lecturers: Christoph Treude

Andrew Valentine

Teaching Team

Rajesh Chittor Sundaram
Esther Rotimi
Khang Vo
Subramaniam Ramasubramanian
Ian (Doc) Wallace
Risa Pais

Andrew and Christoph started teaching this specific course in semester 1 2022.
Most of the tutors have been tutoring this course for several semesters.

Who Am I?

Andrew Valentine – Subject Coordinator

Teaching Fellow (Lecturer) in Software Engineering

I have specific interest in researching and evaluating effective ways for teaching and learning in software engineering.

- PhD (RMIT University, just down the road!)

Also currently teaches SWEN20003.

Who Am I?

Christoph Treude

Senior Lecturer in Software Engineering

Professional Experience

- IBM
- Collaboration with Google, Facebook, DST
- Taught courses on software processes on 5 continents

- PhD (University of Victoria, Canada)

Learning Outcomes and Skills

AIM

The aim of this subject is to introduce students to the software engineering principles, processes, tools and techniques for analysing and managing complex software projects.

INTENDED LEARNING OUTCOMES

- Select appropriate software engineering processes and practices projects
- Manage team dynamics and professional communication
- Plan and manage projects
- Identify risks and modify project activities to mitigate these risks
- Manage software project activities to ensure a quality product
- Describe human and organisational implications of change and explain the organisational change process.

GENERIC SKILS

- In-depth knowledge project management areas of knowledge
- Reach a high level of achievement in writing, research or project activities problem-solving and communication through the writing of project analyses
- Ability to function effectively as an individual and in a multidisciplinary and multi-cultural team as a leader, manager or effective team-member
- Understand and respect ethics and intellectual integrity
- Writing and communication skills.

Lecture Topics

- **This is not final. This is subject to change**. We expect several industry guest lecturers during semester. Some lectures may be moved to accommodate these.

- Subject Introduction
- Projects
- Process
- Formal Software Development Life Cycle
- Agile
- Risk Management
- Project Management Plan
- Stakeholder Management
- Communication Management
- Project Planning and Scheduling
- Cost Estimation
- Individuals, Motivation, and Teams
- Quality Management
- Outsourcing, Contracts, and Procurements
- Ethics
- Configuration Management
- Revision and Exam Preparation

General Expectations

Tutorials Start Monday Week 2

TUTORIALS / WORKSHOPS

- Student are expected to attend one one-hour workshop/tutorial each week.
- **Workshops are intended to take concepts and principles discussed in lectures and to apply them to realistic examples.**
- Students are expected to *actively* engage in workshops and show initiative, ask questions, conduct workshop exercises and in engage in the discussions

PLAGERISM AND COLLU.SION

- Submissions must be own independent work or group project work.
- Faculty policy: mechanisms for establishing contributions of individuals to group work
- University policy: see http://academichonesty.unimelb.edu.au/policy.html
- If plagiarism or collusion is detected, harsh penalties must and will be applied
- Module on LMS to complete

Communication

How do you get help?

General inquiries: Ed Discussion

- We encourage all students to join in discussions – answering other students' questions is one of the best ways to improve your own understanding and is part of the learning process
- Discussion board- do not post sections of your assignments/solutions- if you must include these, private-message the instructors
- If you email us about a general inquiry, we may ask you to re-post your question in the forum

Personal/private concerns: Email the course coordinator

Please include SWEN90016 in email subject

Email: andrew.valentine@unimelb.edu.au

Assessments

Description	Timing	Percentage
One individual assignment due in week 5. Addressing ILO's 1 to 5. • 15-20 hours (of work required)	Week 5	20%
A group assignment, due week 7, week 11 and a group presentation in week 12. The group assignment addresses ILO's 1 to 5. • 20-30 hours (of work required) **Hurdle requirement:** To pass the subject, students must obtain at least 50% overall, and at least 50% (25/50) in the assignment 1 and assignment 2.	From Week 7 to Week 12	30%
Three quizzes in week 5, 9 and 11. Addressing Intended Learning Outcomes (ILO's) 1 to 6. • 15 minutes (each)	From Week 5 to Week 11	9%
One written examination. Addressing ILO's 1 to 6. • 2 hours **Hurdle requirement:** To pass the subject, students must obtain at least 50% overall, and at least 50% (25/50) in the written examination and quizzes.	End of semester	41%

General Info

English

- Exam settings
- Documents and screenshots for assignments
- Please ask if we use an unfamiliar term

Australia

- Working week is 5 days
- No work on weekends

All questions assume working in Australia and would fit this context

Assignment One - Individual

Assignment 1 - Learning Outcomes:

Analysis of an IT project case study that will demonstrate the ability to:

- identify the goals of the project;
- identify the key characteristics for the project;
- identify the risks in the project as identified at the start of the project; and
- justify the choice of a suitable software development lifecycle (SDLC) model to manage the project.

Assignment One - Individual

Assignment 1:

- Assignment specification will be given out by the end of week 2 – due week 5
- You are expected to spend ~30 hours
- You will answer a set of questions related to a given case study
- Will be based on the material covered in weeks 1-4

Assignment Two – Group

Assignment 2 - Learning Outcomes:

An IT system development project that will demonstrate the ability to:

- develop a Project Management Plan (PMP) for a given project brief;
- plan the activities involved in the chosen process using an SDLC of your choice;
- execute, monitor and control processes to achieve an outcome; and
- work effectively in a team.

Assignment Two – Group

Assignment 2

Teams:

- We will organise teams of 4-5 members during week 3
- Week 3 workshop attendance is mandatory as we will be selecting teams
- Each student is expected to spend 30-40 hours on the project
- If you have not done the foundation subjects in your degree (or have received credit for them) please consider doing this subject next semester, after you complete the foundation subjects

Assignment 2:

- Assignment specification will be given out by the end of week 5 – due week 7, 11 and a presentation in week 12
- You are expected to spend ~30 hours
- Will be based on all the material

Class rep

If you are interested in becoming class representative

Please email me

andrew.valentine@unimelb.edu.au