SWE30010

Development Project 2: Design, Planning and Management

School of Software and Electrical Engineering

S1 2017

Unit of Study Convener

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Consultation:

- Thu 10:30 – 12:30

- Other time, by email appointment

Unit of Study – Main Objective

To expose you to the range of ***project management practices*** that are used in ***contemporary*** *software development projects*, so that you learn and understand the major issues that project managers have to handle

Unit of Study – Contact hours

- Lecture (Thu 12:30 – 14:30, AGSE207)

    □ 2-hour per week, weeks 1 – 12

- Tutorial (**Class starts from Week 2**)

    □ 2-hour per week, weeks 2 – 12

Unit of Study – Expectation

- **read** lecture material **before** each lecture, (occasional extra recommended reading)

- **consolidate** material **after** each lecture

- **attempt** the tasks **before** each tutorial!

- **ask** tutor's feedback **in** each tutorial!

- **submit** your work **on time** for tutor's feedback (Week+1 Mon 9:00am)

Assessment

- 100% Portfolio Assessment

- Need to complete the required weekly tasks and get feedback from tutor

- Submit it to Doubtfire (https://doubtfire.ict.swin.edu.au)

  ☐ These are your learning evidences

- Submit Learning Summary Report at the end of the semester

  ☐ [Pass Task 10.99] Feedback only, no grading

  ☐ [Portfolio] **Actual Grading**

To Pass the Unit

- Submit and present a passable Portfolio

  ☐ Learning Summary Report

  ☐ All Pass Tasks

  completed to the minimum standard (get feedback from tutor)

Late Submission

- **Weekly Portfolio Tasks**: Subject to tutor's discretion

  - In case, you submit it very late, you may not get proper feedback from tutor

  - You risk submitting sub-standard work

- **Portfolio**: Extensions are available for medical reasons (Doctors certificate must be provided)

  ☐ Students must apply for an extension by emailing the Unit of Study convenor *at least 48 hours prior to the due date* and also must supply any supporting documentation if requested

Portfolio Interview

- Only for D / HD

- Interview will be around June 7 – 9

- Booking will be available later in the semester, once you know your other exams

- Rules will be announced later in the semester

Lectures [Weeks 1 – 12]

- Prepare you to do the weekly tasks

- Discuss general principles and practices

Tutorials [Weeks 1 – 12]

- Designed to provide feedback to your weekly tasks

- **YOU WON'T BE ABLE TO FINISH ALL TASKS** in the tutorial

- **Before** (the tutorial): Attempt the individual tasks in the weekly task sheet

- **During**: Form groups to discuss your work **AND** ask tutor for feedback

- **After**: Finalize and document your work, Submit to Doubtfire for marking within the suggested time frame

[Portfolio] Pass Tasks – Overview

- Individual and Group Tasks

  ☐ Group: Team of 3 – 4 students within the same tutorial [Doubtfire]

- Weeks 2 – 4: Prepare you to do a "Project Proposal"

  ☐ Scope Definition, Solution Design, Quality Definition

- Weeks 5 – 7: Sprint #1 [Scrum]

  ☐ Sprint Planning, Setup the Project, Tracking and Monitoring, Review [Product, Process, Peer]

- Weeks 8 – 10: Sprint #2 [Scrum]

- Weeks 10 – 12: Learning Summary Report

- Week 13: Portfolio Submission

[Portfolio] Credit Tasks – Overview

- All Pass Tasks PLUS the following

- Individual Tasks

- Weeks 5 – 7: Sprint #1 [Scrum]

  - ☐ Showing significant contribution to the team in an area of your choice (details later)

- Weeks 8 – 10: Sprint #2 [Scrum]

  - ☐ Same as Sprint #1

- Week 13 Portfolio Submission

[Portfolio] Distinction Tasks – Overview

- All Credit Tasks PLUS the following

- Individual Tasks

- Weeks 8 – 10: Sprint #2 [Scrum]

  ☐ Showing good understanding on **effort estimation** (details later)

  ☐ Showing good understanding on **quality management** (details later)

- Week 14 Portfolio Submission and Interview

[Portfolio] High Distinction Tasks – Overview

■ All Distinction Tasks PLUS the following

■ Individual Tasks

■ Weeks 8 – 13: [Details later]

☐ Showing good understanding on **overall project planning**

☐ Showing good understanding on **both traditional and agile software methodologies**

■ Week 14 Portfolio Submission and Interview

Lecture Recordings

- "Lecture recordings is considered harmful (when used inappropriately): Recordings is not a replacement for attending lectures!"

- In general, Lecture recordings will not be available, and may not be made available (through <u>Blackboard</u>) for end of semester revision or on special requests.

- ☞ *No guarantee is given on the quality and completeness of the recordings etc.*

Object-Oriented Technology

■ Students enrolled in this Unit of Study are expected to know the basic concepts and principles of object-oriented programming.

☞ Such knowledge will be required for the Quality Review assignment!

Note…

- This unit follows on from
  - □ SWE20001 Software Development Practices (S2 2014 or earlier)
  - □ SWE20001 Development Project 1: Tools and Practices (S1 2015)
    - □ Content is the same as SDP
  - □ SWE20001 Development Project 1: Tools and Practices (S2 2015 onwards)

- SDP → SPPM = DP2 ← DP1

- The emphasis here is on *planning and managing* software projects not development

Note…

- SDP → SPPM = DP2 ← DP1

- We will "re-"cover some of the ground from **SDP** and **DP1**, but with a different perspective, and in the early lectures you may get a sense of **"déjà vu"** – and that is ok, as it is important to recollect the context in which we are operating

- The emphasis here is on *planning and managing* software projects not development

- However, we use the "development opportunities" to learn and practice about *planning and management* software development

SDP   →→→   SPPM = DP2

Development

- What **developers** do

- How to **develop** a software product

  ☐ What are the best practices in **developing** software projects

Design, Planning and Management

- What **developers / project managers** do

- How to **plan** a software project

  ☐ What are the best practices in **planning** software projects

- How to **manage** a software project

  ☐ What are the best practices in **managing** software projects

DP1 →→→ DP2

Tools and Practices

- What **developers** do

- What **tools** are available
    - ☐ GitHub, Slack, Burn-down chart, IDE (e.g. Visual Studio)

- What are the common **practices** performed by developers
    - ☐ Scrum

Design, Planning and Management

- What **developers / project managers** do

- How to **plan** a software project
    - ☐ What are the best practices in **planning** software project

- How to **manage** a software project
    - ☐ What are the best practices in **managing** software projects

Principle References

- Kent Beck and Martin Fowler, *Planning Extreme Programming*, Addison-Wesley, 2001

- Scott Berkun, *Making Things Happen – Mastering Project Management*, O'Reilly, 2008

- Bob Hughes and Mike Cotterell, *Software Project Management* (5th Edition), McGraw-Hill, 2009

- Roger S. Pressman, *Software Engineering – A Practitioner's Approach* (7th Edition), McGraw-Hill, 2010

- Ken Schwaber and M. Beedle, *Agile Software Development with Scrum*, Prentice Hall, 2002

- Robert K. Wysocki, *Effective Project Management* (5th ed.), Wiley, 2009

Additional references will be given during the semester