



SWINBURNE  
UNIVERSITY OF  
TECHNOLOGY

# **SWE20001**

## **Managing Software Projects**

School of Science, Computing and  
Engineering Technologies

S1 2022



# Unit of Study – Convener

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Consultation:

- Email appointment

# Unit of Study – Q&A session

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Weeks 1 – 12

Dr Tanjila Kanij

Email: [tkanij@swin.edu.au](mailto:tkanij@swin.edu.au)



Consultation:

- Email appointment



# Unit of Study – Tutors

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1. Dr Naurin Afrin (nafrin@swin.edu.au)
2. Dr Tanjila Kanij (tkanij@swin.edu.au)
3. Ms Harsharan Kaur (harsharankaur@swin.edu.au)
4. Dr Shibli Saleheen (ssaleheen@swin.edu.au)
5. Dr Alfandi Yaha (alfandiyaha@swin.edu.au)

Consultation:

- Email appointment

# Unit of Study – Main Objective

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To develop an understanding of  
**possible approaches** to  
**planning** and **managing**  
software projects

Programming / Tooling units



# Unit of Study – Learning Activities

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## ■ Asynchronous Learning (1 hr / wk)

- ☐ Lecture slides
- ☐ Short videos on lecture topics

## ■ Synchronous Learning (1 hr / wk)

- ☐ Online **Q&A** sessions (**Tue 10:30am – 11:30am**)

## ■ Practical Experience via Tutorial class (2 hrs / wk)

- ☐ Topics in the Lecture slides are usually 1 week ahead of your actual Tutorial (your practical experience)

# Unit of Study – Expectation for Q&A session

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## ■ Before each Q&A session (asynchronous learning)

☐ **Read** the lecture material

☐ **Watch** the short videos

## ■ Attend the Q&A sessions (synchronous learning)

☐ Answer the relevant questions

☐ Ask your own questions if any

# Unit of Study – Expectation for Tutorial

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## ■ Before each tutorial

- ☐ **Attempt** the tasks
- ☐ **Submit** your work **on time** for tutor's feedback
  - ☐ If you submit it before the tutorial (e.g. one working day earlier than your tutorial day), your tutor can give you feedback in the tutorial

## ■ **During each tutorial**

- ☐ **Participate** in group discussion
- ☐ **Ask** tutor for feedback



# Assessment

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- 100% Portfolio Assessment
- Need to complete the required portfolio tasks and get feedback from tutor
- Submit the portfolio tasks to Doubtfire (<https://doubtfire.ict.swin.edu.au>)
  - These are your learning evidences
- Submit the final portfolio at the end of the semester
  - There is an optional feedback task on Learning Summary Report (LSR) on Canvas

# To Pass the Unit

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Submit and present a passable Portfolio to DoubtFire

- ☐ Learning Summary Report

- ☐ All Pass Tasks

completed to the minimum standard (get feedback from tutor)

# Late Submission

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## ■ 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 (Medical 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

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- Only for D / HD grade
- Interview will be around Week 14 (Tue to Thu)
  - more details later
- Interview booking will be available later in the semester, once you know your other exams
- Rules will be announced later in the semester

# Asynchronous Learning

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- Discuss general principles and practices on topics to prepare you to do the portfolio tasks
  - ☐ Lecture slides
  - ☐ Short videos
    - ☐ Total duration: approx. 1 hour per week
    - ☐ Availability: 1 week before the scheduled Q&A week (view at your own time)
  - ☐ Timing: 1 week ahead of your tutorial class (practical experience)

# Synchronous Learning

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- Q&A session

- ☐ Tue 10:30am – 11:30am

- ☐ Q&A discussion

- Prepare you to do the portfolio tasks

# Practical Experience (via Tutorials)

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- 12 Weeks face-to-face tutorials
- Designed to provide feedback to your portfolio tasks
- P grade tasks – individual and group
  - Three Stages – Project Proposal; Sprint 1; Sprint 2
- C / D / HD grade tasks – all individual tasks
  - C and D tasks are staged & integrated into Sprints 1 and 2
  - HD tasks are independent of any of the three stages

# Practical Experience (via Tutorials) (cont'd)

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## ■ Before (the tutorial)

- ☐ Attempt the individual tasks in the weekly task sheet

## ■ During (the tutorial)

- ☐ Form groups (of 4 - 6 students) to discuss your work;  
hope to have 4 - 5 teams per tutorial class
- ☐ Ask tutor for feedback

## ■ After (the tutorial)

- ☐ Finalize and document your work
- ☐ Submit to Doubtfire for marking within the suggested time frame



# [Portfolio] Pass Tasks – Overview

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## ■ Individual and Group Tasks

- ☐ Group: Team of 4 – 6 students within the same tutorial
- ☐ Form group in the first tutorial

## ■ Project Proposal Stage: Weeks 1 – 5

- ☐ Scope Definition, Solution Design, Quality Definition → Project Proposal

## ■ Sprint 1 Stage: Weeks 6 – 8

- ☐ Plan for Sprint 1, Setup the Project, Implement the Project, Track and Monitor the Project Progress, Quality Assurance and [Product, Process, Peer] Reviews

# [Portfolio] Pass Tasks – Overview (cont'd)

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## ■ **Sprint 2 Stage:** Weeks 9 – 11

- ☐ Plan for Sprint 2, Setup the Project, Implement the Project, Track and Monitor the Project Progress, Quality Assurance and [Product, Process, Peer] Reviews

## ■ **Portfolio Preparation:** Weeks 12 – 13

- ☐ Do the Learning Summary Report (LSR)

## ■ **Portfolio Submission:** Week 14 Monday

- ☐ Submit your Portfolio on DoubtFire via the Portfolio tag (this includes the submission of your LSR)

# [Portfolio] Credit Tasks – Overview

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## ■ All Pass Tasks

AND

## ■ Individual Credit Task Set 1 – Estimation Trial 1

- ☐ **Sprint 1** Stage: Weeks 6 – 8
- ☐ 2 separate but inter-related tasks
- ☐ Showing good understanding on **effort estimation**

## ■ Individual Credit Task Set 2 – Estimation Trial 2

- ☐ **Sprint 2** Stage: Weeks 9 – 11
- ☐ 2 separate but inter-related tasks
- ☐ Showing good understanding on **effort estimation**

# [Portfolio] Distinction Tasks – Overview

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- All Credit Tasks

AND the following

- Individual Distinction Task Set 1 – Quality Assurance

- ☐ **Sprint 2** Stage: Weeks 9 – 11
- ☐ 3 separate but inter-related tasks
- ☐ Showing good understanding on **quality assurance**

# [Portfolio] High Distinction Tasks – Overview

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- All Distinction Tasks

AND the following

- Two Individual HD Tasks [independent on previous P / C / D tasks]
  - Project Planning Task: Weeks 7 – 12 [Details later]
    - Showing good understanding on **overall project planning**
  - Research Article Task: Weeks 7 – 12 [Details later]
    - Showing good understanding on both **traditional** and **agile software development methodologies**

# Your HD Marks

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[90 – 100]

- All Distinction Tasks marked as completed
- Two HD Tasks marked as completed

OR

[80 – 90]

- All Distinction Tasks marked as completed
  - One HD Task marked as completed
- ☐ So, you only need to complete just one HD task

# Principle References

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- 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* (5<sup>th</sup> Edition), McGraw-Hill, 2009
- Roger S. Pressman, *Software Engineering – A Practitioner’s Approach* (7<sup>th</sup> Edition), McGraw-Hill, 2010
- Ken Schwaber and M. Beedle, *Agile Software Development with Scrum*, Prentice Hall, 2002
- Robert K. Wysocki, *Effective Project Management* (5<sup>th</sup> ed.), Wiley, 2009

Additional references will be given during the semester