University of
South Australia

INFS 2044

Week 1
Course Organisation

Learning Objectives

- Understand how this course is organized
- Understand the expectations
- Know the assessments

About Me

Derek Munneke

Chief Technical Officer, NextFaze

Casual Course Coordinator, UniSA

Captain of CAPTology, Life

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Teaching Team

- Mr Mateusz Kowalski
- Ms Siaw (Mei) Sim
- Mr Dhenesh Subramanian
- Ms Amali Weerasinghe

Course Aim & Objectives

- To **design** and **implement** a software solution given a set of requirements.

- Describe the process to convert a set of requirements to a high-level design
- Explain the processes of composition, decomposition and abstraction
- Discuss the need for verifiable, validatable and implementable designs
- Transform a design into a viable implementation
- Justify the implementation matches the design
- Use the appropriate tools to support the design process

Learning Arrangements

Weeks 1-5	Weeks 6-9	Weeks 10-13
1 hour lecture (online) 2x 2 hour workshops (face to face)	INFS2045 System Design Studio	2 hour lecture (online) 2 hour practical (face to face)

Arrangements for External Students

- External students will work through the workshop materials in their own time each week
- There will be two sessions for external students to discuss their work with a tutor (Mateusz)
  - Times to be arranged
- Separate discussion forum for external students

Topics

Week	Dates	Topic
1	01 - 7 March	Software Design Process
2	08 - 14 March	Architecture and Decomposition
3	15 - 21 March	Modules and Boundaries
4	22 - 28 March	Implementation Design
5	29 March - 4 April	Patterns
6 - 9	05 April - 16 May	INFS 2045 System Design Studio
10	17 - 23 May	Writing Maintainable Code 1
11	24 - 30 May	Writing Maintainable Code 2
12	31 May - 6 June	Testing
13	07 - 13 June	Refactoring

Individual Expectations

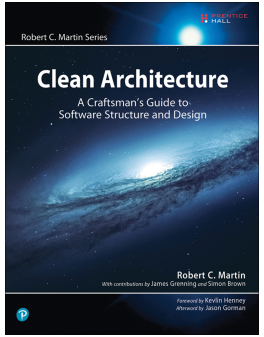
- You will manage your own time
- You will complete the learning tasks associated with each module
- You will research independently and think critically
- You will independently investigate and select suitable software tools that support your work

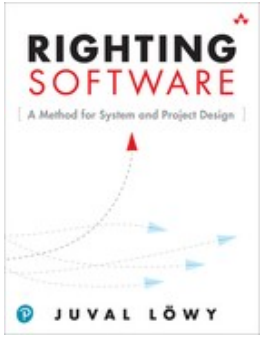
Cooperative learning

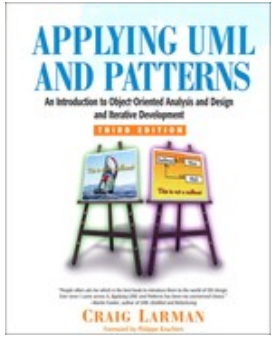
- Learn collaboratively
- Discuss the topics
- Leverage the individuals in your team for workshops

- Ask for help
- Ask early
- Ask your workshop tutor

Resources







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Assessments

- Continuous Assessment [20%]
  - 9 Quizzes
  - Test your knowledge of the concepts presented each week
- Assignment 1 [40%]
  - Group work (4 students) 30% + 10% individual contributions
  - Due Monday 12 April 2021 (first Monday of mid-break)
- Assignment 2 [40%]
  - Programming (individual assignment)
  - Due Monday 14 June 2021

Late Penalty

- **Late submissions are not accepted** in this course
- Late submissions receive **0 marks**
- Zero marks for an assignment makes it very difficult to pass this course.

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Questions?