

Course Title:	<b>Contemporary Issues in Software Engineering</b>
Course Code:	<b>ENSE701</b>
Descriptor Start Date:	<b>18/07/2022</b>
Descriptor End Date:	<b>30/01/2023</b>
POINTS:	<b>15.00</b>
LEVEL:	<b>7</b>
PREREQUISITE/S:	<b>COMP603 or COMP610 or ENSE600</b>
COREQUISITE/S:	<b>None</b>
RESTRICTION/S:	<b>None</b>

## LEARNING HOURS

Hours may include lectures, tutorials, online forums, laboratories. Refer to your timetable and course information in Canvas for detailed information.

**Total learning hours: 150**

## PRESCRIPTOR

This paper aims to further develop your understanding of the concepts and methods required for the construction of large software intensive systems. The paper develops a broader understanding of the discipline of software engineering to provide exposure to the full range of techniques and processes associated with the development of complex software intensive systems.

## LEARNING OUTCOMES

1. Describe contemporary professional and technical issues in collaborative software engineering (a,g,i,j)
2. Select and justify appropriate methods or techniques for addressing collaborative software engineering issues (a,b,e,i,j)
3. Select and evaluate a range of contemporary software development paradigms (a,b,i)
4. Evaluate the relative merits of software engineering techniques, methods and tools for a range of contemporary contexts, based on evidence and peer-reviewed research (a,b,d,l)
5. Apply a range of contemporary methods, techniques and tools across the development lifecycle (a,b,e,i,j)

**Disclaimer: Course descriptors may be amended between teaching periods/semesters**

## CONTENT

Software is abstract, invisible and intrinsically complex. Software Engineering is largely concerned with managing the relevant processes and with design activities. Most of the activities within software engineering tend to be collaborative and team-based. This paper provides an opportunity for students to understand the goals being sought and the problems being addressed so they can appropriately evaluate, choose and adapt processes and tools to support their future work as software engineering professionals. Central to this understanding is the need for students to participate in collaborative, time-limited, iterative development experiences.

Students will be exposed to a range of software engineering approaches, techniques, tools and issues. Some topics that may be included are:

- Approaches for collaborative software development.
- Contemporary software engineering tools.
- Software process improvement
- Software quality
- Software analytics
- Requirements management
- Configuration management
- Testing and inspection
- Risk management

Key to Graduate Capabilities Profile (applicable for BEHON graduate use only):

- a. Engineering knowledge
- b. Problem analysis
- c. Design/development of solutions
- d. Investigation
- e. Modern tool usage
- f. The engineer and society
- g. Environment and sustainability
- h. Ethics
- i. Individual and team work
- j. Communication
- k. Project management and finance
- l. Lifelong learning

## LEARNING & TEACHING STRATEGIES

Lectures and Tutorials – will introduce and emphasise key concepts for the topics. Participatory teaching methods will be emphasised. Many concepts will be developed through problem-based learning, discussion and analysis when appropriate.

## ASSESSMENT PLAN

Assessment Event	Weighting %	Learning Outcomes
Project 1	20.00	2-5
Project 2	50.00	2-5
Individual Learning Assessment	30.00	1-4

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**Grade Map****MAP1**

A+ A A- Pass with Distinction

B+ B B- Pass with Merit

C+ C C- Pass

D Fail

**Overall requirement/s to pass the course:**

To pass the course, the student needs at least a minimum 40% pass in each assessment item and to obtain at least 50% overall.

**LEARNING RESOURCES**

Recommended texts will vary semester on semester depending on the topics selected. Selected texts or research papers will reflect the contemporary nature of the topics.

**For further information, contact:** Te Ara Auaha - Faculty of Design & Creative Technologies

**Principal Programme:** AK3751, Bachelor of Engineering (Honours)

**Related Programme/s:** AK1041  
AK3698  
AK3756  
AK3697  
AK3003  
AK1042  
AK1043  
AK3001  
AK3706

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