AUT UNIVERSITY TE WĀNANGA ARONUI O TAMAKI MAKAU RAU	**SCHOOL OF COMPUTER AND MATHEMATICAL SCIENCES**
	Paper Title: Software Architecture
	Paper Code: COMP806

POINTS: 15

LEVEL: 8

PREREQUISITE/S: None

COREQUISITE/S None

STUDENT LEARNING HOURS:
The learning hours are a guide to the total time needed for a student to complete the paper:
12x 2 hour lectures   24
Student directed learning   126
Total learning hours   150

PRESCRIPTOR:
Investigates the issues associated with large-scale software architectures, frameworks, design patterns as well as the development and construction of component-based systems.

LEARNING OUTCOMES:
On successful completion of this paper students will be able to:
1. Investigate and contribute to the research body of knowledge in Software Architecture.
2. Understand the key factors and critically assess the issues that come into play in the development of large-scale software systems.
3. Independently select or design architectures for complex software systems and clearly document non-trivial software architectures.
4. Critically evaluate different software architectures and analyse their advantages and disadvantages.

CONTENT
- Concepts and methodologies for the systematic analysis, development, evolution, and reuse of software, architectural design.
- Common software architectural styles and elements,
- Decomposition and composition of software functionality,
- Non-functional requirements as criteria for analysing trade-offs and selecting among architectural design alternatives,
- State of the practice and art.

LEARNING & TEACHING STRATEGIES
- Lectures,
- Independent research,
- Assignments,
- Case studies

ASSESSMENT PLAN

Assessment Event	Weighting %	Learning Outcomes
Individual or group projects	60%	1, 2,3, 4
Written final examination	40%	1,2,3,4

Grade Map	Grade Map 1:
	A+ A A- Pass with Distinction B+ B B- Pass with Merit C+ C C- Pass D Fail

Overall requirement/s to pass the paper:
To pass the paper, the student needs to submit all assessments and obtain a minimum of a C-grade overall.

READINGS

Prescribed Text

Bass L, Clements P, Kazman R, Software Architecture in Practice, second edition, Addison Wesley, 2003