SWEN90007 Software Design and Architecture

Credit Points:	12.50
Level:	9 (Graduate/Postgraduate)
Dates & Locations:	2012, Parkville This subject commences in the following study period/s: Semester 2, Parkville - Taught on campus.
Time Commitment:	Contact Hours: 36 hours consisting of 24 one-hour lectures (two per week) and 12 one-hour workshops (one per week) Total Time Commitment: 120 hours

Prerequisites:			
	Subject	**Study Period Commencement:**	**Credit Points**
	SWEN90006 Software Engineering Methods	Semester 2	12.50
	SWEN90008 Software Processes and Management	Semester 1	12.50

OR

433-429 Software Engineering Methods

433-428 Software Processes and Management

Corequisites:	None
Recommended Background Knowledge:	433-606 Modelling Complex Software Systems
Non Allowed Subjects:	None
Core Participation Requirements:	For the purposes of considering request for Reasonable Adjustments under the Disability Standards for Education (Cwth 2005), and Students Experiencing Academic Disadvantage Policy, academic requirements for this subject are articulated in the Subject Description, Subject Objectives, Generic Skills and Assessment Requirements of this entry. The University is dedicated to provide support to those with special requirements. Further details on thedisability support scheme can be found at the Disability Liaison Unit website: http://www.services.unimelb.edu.au/disability/
Coordinator:	Dr Timothy Miller
Contact:	Dr Ed Kazmierczak email: **edmundak@unimelb.edu.au (mailto:edmundak@unimelb.edu.au)**
Subject Overview:	One of the main challenges in developing enterprise wide distributed systems is in choosing the right software architectures. In this subject students will study software architectures in depth and the principles, techniques and tools for creating, developing and evaluating software architectures. Topics covered in this subject will be drawn from; design styles and architectural patterns, design strategies, domain specific architectures, evaluation of designs, designs for non-functional requirements and modeling architectures.
Objectives:	On completion of this subject, students should be able to: ＃ Analyse large scale and distributed systesm to an dselect appropriate architectures fro them ＃ Evaluate architectures both qualitatively and quantitatively ＃ Make suitable trade-offs between different architectures

Assessment:	Project work during semester, expected to take about 36 hours (30%) And a 3-hour end -of-semester written examination (70%). To pass the subject, students must obtain at least 50% overall 15/30 in project work 35/70 in the written examination.
Prescribed Texts:	None
Breadth Options:	This subject is not available as a breadth subject.
Fees Information:	Subject EFTSL, Level, Discipline & Census Date, http://enrolment.unimelb.edu.au/fees
Generic Skills:	On completion of this subject students should have the: # Ability to apply knowledge of science and engineering fundamentals # Ability to undertake problem identification, formulation, and solution # Ability to utilise a systems approach to complex problems and to design and operational performance # Proficiency in engineering design # Ability to manage information and documentation # Capacity for creativity and innovation # Ability to function effectively as an individual and in multidisciplinary and multicultural teams, as a team leader or manager as well as an effective team member # Capacity for lifelong learning and professional development.
Related Majors/Minors/ Specialisations:	B-ENG Software Engineering stream Master of Engineering (Software)