433-294 Object Oriented Software Development

Credit Points:	12.50
Level:	2 (Undergraduate)
Dates & Locations:	2009, This subject commences in the following study period/s: Semester 2, - Taught on campus.
Time Commitment:	Contact Hours: 2 one-hour lectures; 1 two-hour workshop (per week). Total Time Commitment: 120 hours
Prerequisites:	COMP20006 Programming the Machine.
Corequisites:	None
Recommended Background Knowledge:	None
Non Allowed Subjects:	433-254 Software Design
Core Participation Requirements:	For the purposes of considering request for Reasonable Adjustments under the Disability Standards for Education (Cwth 2005), and Student Support and Engagement Policy, academic requirements for this subject are articulated in the Subject Overview, Learning Outcomes, Assessment and Generic Skills sections of this entry. It is University policy to take all reasonable steps to minimise the impact of disability upon academic study, and reasonable adjustments will be made to enhance a student's participation in the University's programs. Students who feel their disability may impact on meeting the requirements of this subject are encouraged to discuss this matter with a Faculty Student Adviser and Student Equity and Disability Support: http://services.unimelb.edu.au/disability
Coordinator:	Dr Shanika Karunasekera
Subject Overview:	Developing medium and large scale software systems requires analysis and design prior to implementation. This subject introduces students to software design, with specific focus on object-oriented design, and the implementation of designs using an object-oriented programming language. Topics include: software design principles; object-oriented design concepts and modelling; design patterns and their applications; object-oriented programming and frameworks.
Objectives:	On successful completion of the subject, students should be able to: # apply software design principles to object-oriented design; # develop object-oriented models for a medium-sized software system; # evaluate design trade-off of different designs; # implement an object-oriented design in a suitable language; # use commonly available object-oriented design frameworks for application development; # apply knowledge of basic science and engineering fundamentals; and # develop simple programs that require concurrent execution.
Assessment:	Project work during semester, expected to take about 36 hours (30%); a mid-semester test (10%); and a 2-hour end-of-semester written examination (60%). To pass the subject, students must obtain at least 50% overall, 15/30 in project work, and 35/70 in the mid-semester test and end-of-semester written examination combined.
Prescribed Texts:	None
Breadth Options:	This subject potentially can be taken as a breadth subject component for the following courses: # **Bachelor of Arts (https://handbook.unimelb.edu.au/view/2009/D09)** # **Bachelor of Commerce (https://handbook.unimelb.edu.au/view/2009/F04)**

	# **Bachelor of Environments (https://handbook.unimelb.edu.au/view/2009/A04)** # **Bachelor of Music (https://handbook.unimelb.edu.au/view/2009/M05)** You should visit **learn more about breadth subjects (http://breadth.unimelb.edu.au/breadth/info/index.html)** and read the breadth requirements for your degree, and should discuss your choice with your student adviser, before deciding on your subjects.
Fees Information:	Subject EFTSL, Level, Discipline & Census Date, http://enrolment.unimelb.edu.au/fees
Generic Skills:	On completion of this subject students should have: # an ability to apply knowledge of basic science and engineering fundamentals; # in-depth technical competence in at least one engineering discipline; # an ability to undertake problem identification, formulation and solution; # an expectation of the need to undertake lifelong learning, and the capacity to do so.
Notes:	This subject is available as breadth in the following Bachelors courses: Arts, Commerce, Environments and Music. This subject is available for science credit to students enrolled in the BSc (both pre-2008 and new degrees), BASc or a combined BSc course.
Related Course(s):	Bachelor of Computer Science Bachelor of Engineering Bachelor of Engineering (Biomedical)Bioinformatics Bachelor of Engineering (Computer Engineering) Bachelor of Engineering (Computer Engineering)/Bachelor of Science Bachelor of Engineering (Computer) and Bachelor of Arts Bachelor of Engineering (Computer) and Bachelor of Commerce Bachelor of Engineering (Computer) and Bachelor of Laws Bachelor of Engineering (EngineeringManagement) Computer