

# SWEN20003 Object Oriented Software Development

Credit Points:	12.50														
Level:	2 (Undergraduate)														
Dates & Locations:	2012, Parkville This subject commences in the following study period/s: Semester 2, Parkville - Taught on campus.														
Time Commitment:	Contact Hours: 2 one-hour lectures; 1 two-hour workshop (per week). Total Time Commitment: 120 hours														
Prerequisites:	<table><tr><th>Subject</th><th>Study Period Commencement:</th><th>Credit Points:</th></tr><tr><td>COMP20006 Programming the Machine</td><td>Semester 1, Semester 2</td><td>12.50</td></tr></table> OR a mark of 80 or more in <table><tr><th>Subject</th><th>Study Period Commencement:</th><th>Credit Points:</th></tr><tr><td>COMP20005 Engineering Computation</td><td>Semester 1, Semester 2</td><td>12.50</td></tr></table>			Subject	Study Period Commencement:	Credit Points:	COMP20006 Programming the Machine	Semester 1, Semester 2	12.50	Subject	Study Period Commencement:	Credit Points:	COMP20005 Engineering Computation	Semester 1, Semester 2	12.50
Subject	Study Period Commencement:	Credit Points:													
COMP20006 Programming the Machine	Semester 1, Semester 2	12.50													
Subject	Study Period Commencement:	Credit Points:													
COMP20005 Engineering Computation	Semester 1, Semester 2	12.50													
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 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 the Disability support scheme can be found at the Disability Liaison Unit Website: <a href="http://www.services.unimelb.edu.au/disability/">http://www.services.unimelb.edu.au/disability/</a>														
Coordinator:	Assoc Prof Shanika Karunasekera														
Contact:	Dr Shanika Karunasekera email: <a href="mailto:karus@unimelb.edu.au">karus@unimelb.edu.au</a> ( <a href="mailto:karus@unimelb.edu.au">mailto:karus@unimelb.edu.au</a> )														
Subject Overview:	Developing medium an dlarge scale software sstems requires analysis and design prior to implementation. This subject introduces students to software design, with specific focus on object-oriented design, and the implementaiton of designs using an object-oriented programming language. Topics include: software design priciples; object-oriented desing concepts and modelling; design patterns and their applications; object-oriented programming and frameworks.														
Objectives:	On completion of this 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 designsImplement 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
<b>Assessment:</b>	Project work during semester, expected to take about 36 hours (30%) A mid-semester test (10%) 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.
<b>Prescribed Texts:</b>	None
<b>Breadth Options:</b>	<p>This subject potentially can be taken as a breadth subject component for the following courses:</p> <ul style="list-style-type: none"> <li># <b>Bachelor of Arts</b> (<a href="https://handbook.unimelb.edu.au/view/2012/B-ARTS">https://handbook.unimelb.edu.au/view/2012/B-ARTS</a>)</li> <li># <b>Bachelor of Commerce</b> (<a href="https://handbook.unimelb.edu.au/view/2012/B-COM">https://handbook.unimelb.edu.au/view/2012/B-COM</a>)</li> <li># <b>Bachelor of Environments</b> (<a href="https://handbook.unimelb.edu.au/view/2012/B-ENVS">https://handbook.unimelb.edu.au/view/2012/B-ENVS</a>)</li> <li># <b>Bachelor of Music</b> (<a href="https://handbook.unimelb.edu.au/view/2012/B-MUS">https://handbook.unimelb.edu.au/view/2012/B-MUS</a>)</li> </ul> <p>You should visit <b>learn more about breadth subjects</b> (<a href="http://breadth.unimelb.edu.au/breadth/info/index.html">http://breadth.unimelb.edu.au/breadth/info/index.html</a>) and read the breadth requirements for your degree, and should discuss your choice with your student adviser, before deciding on your subjects.</p>
<b>Fees Information:</b>	Subject EFTSL, Level, Discipline & Census Date, <a href="http://enrolment.unimelb.edu.au/fees">http://enrolment.unimelb.edu.au/fees</a>
<b>Generic Skills:</b>	<p>On completion of this subject, students should have:</p> <ul style="list-style-type: none"> <li># An ability to apply knowledge of basic science and engineering fundamentals</li> <li># In-depth technical competence in at least one engineering discipline</li> <li># An ability to undertake problem identification, formulation and solution</li> <li># An expectation of the need to undertake lifelong learning, and the capacity to do so</li> </ul>
<b>Notes:</b>	<p>This subject is available as breadth in the following Bachelors courses: Arts, Commerce, Environments and Music.</p> <p>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.</p>
<b>Related Course(s):</b>	Bachelor of Engineering
<b>Related Majors/Minors/Specialisations:</b>	<p>B-ENG Software Engineering stream</p> <p>Science credit subjects* for pre-2008 BSc, BASc and combined degree science courses</p> <p>Science-credited subjects - new generation B-SCI and B-ENG. Core selective subjects for B-BMED.</p>
<b>Related Breadth Track(s):</b>	Computing