433-252 Software Engineering Principles & Tools

Credit Points:	12.50
Level:	2 (Undergraduate)
Time Commitment:	Contact Hours: Twenty-four hours of lectures, 24 hours of laboratory classes Total Time Commitment: Not available
Prerequisites:	433-171 Introduction to Programming or 433-151 Introduction to Programming (Advanced)
Corequisites:	None
Recommended Background Knowledge:	None
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 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
Subject Overview:	Topics covered include overview of the software development life cycle; command languages; modularity, compilation environments, code libraries; version control and configuration management; programming for reliability; standard testing and debugging techniques; assembly language; and profiling and simple code improvement techniques.
Objectives:	On completion of this subject students should be able to participate in teams creating medium-sized programs; be familiar with the principles applying to team programming and programming-in-the-large; be able to use some of the tools that support implementation of these principles; and be familiar with the concept of assembly language.
Assessment:	A 3-hour end-of-semester practical examination (50%); and a 2-hour end-of-semester written examination (50%). To pass the subject, students must obtain at least 50% overall, 25/50 in the practical examination, and 25/50 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, students should have: # an ability to apply knowledge of basic science and engineering fundamental # in-depth technical competence in at least one engineering discipline # an ability to undertake problem identification, formulation and solution # an understanding of the social, cultural, global and environmental responsibilities of the professional engineer, and the need for sustainable development # a capacity for independent critical thought, rational inquiry and self-directed learning.
Notes:	Students enrolled in the BSc (pre-2008 BSc), BASc or a combined BSc course will receive science credit for the completion of this subject. Students who have completed 433-171 Introduction to Programming prior to 2003 should contact the department to find out about additional assessment required for a prerequisite waiver.

Related Course(s):	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 Bachelor of Engineering (Mechatronics) and Bachelor of Computer Science
Related Majors/Minors/ Specialisations:	Computer Science Major