

955SE Bachelor of Engineering (Software) and Bachelor of Commerce

Year and Campus:	2012
CRICOS Code:	009724B
Fees Information:	Subject EFTSL, Level, Discipline & Census Date, http://enrolment.unimelb.edu.au/fees
Level:	Undergraduate
Duration & Credit Points:	500 credit points taken over 60 months
Coordinator:	Dr Shanika Karunasekera
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Course Overview:	<p>The combined BE(IT)/BCom and BE/BCom course in Engineering (Software Engineering) and Commerce, must satisfy the following requirements:</p> <ul style="list-style-type: none"> # All requirements of the chosen stream of the BE(IT) or BE course must be satisfied, except that the requirement for physics is waived. For the software engineering stream the requirement for 431-202 Engineering Analysis B is also waived. However, students in the computer and electrical streams are strongly encouraged to complete 640-142 Physics B as an additional elective, as a number of the level-3 and level-4 elective subjects in electrical engineering require physics as a prerequisite. Students must complete a total of 300 engineering points. # The remaining elective subjects to make up 400 points for the award of the engineering degree, including the non-technical requirements of the computer and electrical engineering streams, are credited from the commerce subjects undertaken. # A total of 200 commerce points must be completed. These include the five compulsory subjects ECON10003 Introductory Macroeconomics, ECON10004 Introductory Microeconomics, ECON10005 Quantitative Methods 1, MGMT20001 Organisational Behaviour (students who commenced Bachelor of Commerce double degree in 2005 are not required to complete this subject) and at least one of ECON20003 Quantitative Methods 2 or ECOM20001 Introductory Econometrics or MGMT20005 Managerial Decision Analysis or MKTG20004 Market Research; at least 50 points at level-1; and at least 50 points at level-3 (these must be completed at The University of Melbourne). <p>Typical course plans for the three engineering streams of this combined degree appear below.</p>
Objectives:	<p>On completion of this course graduates should:</p> <ul style="list-style-type: none"> # Have a sound fundamental understanding of the scientific principles underlying technology; # Have acquired the educational and professional standards of the professional institutions with which the School's courses are accredited # Possess a broad knowledge base of their chosen discipline and of other disciplines to facilitate effective communication with those other professionals with whom engineers routinely communicate; # Be able to apply the basic principles underlying the management of physical, human and financial resources; # Have acquired the mathematical and computational skills necessary for the solution of theoretical and practical problems; # Possess analytical, problem-solving and design skills, including those appropriate for sustainable development; # Have verbal and written communication skills that enable them to contribute substantially to society;

	<ul style="list-style-type: none"> # Have acquired lifelong learning skills for further development professionally and for meeting future changes in technology; # Have acquired a sense of professional ethics and responsibility towards the profession and the community; # Have developed the interpersonal and management skills required by engineers in undertaking professional activities; and # Be able to enact the social, cultural, global and environmental responsibilities of the professional engineer, and the need for sustainable development.
Course Structure & Available Subjects:	<p>Students who enrolled prior to 2008 should refer to https://handbook.unimelb.edu.au/view/2008/955-SE (../view/2008/955-SE)</p>
Subject Options:	<p>Note: The course structure outlined below is provided for students who commenced the Bachelor of Engineering prior to 2008. Students who commenced the program in 2008 or 2009 should refer to the revised Bachelor of Engineering (355-AA) course description.</p> <p>Note: Students who commenced 3rd year in 2009 and have not completed or who have failed the third year subjects required in the Bachelor of Engineering degree please see a course adviser.</p> <p>Fourth year Semester 1</p> <p>SWEN90008 Software Processes and Management 12.5</p> <p>SWEN30006 Software Modelling and Design 12.5</p> <p>CIS level-3 elective 12.5</p> <p>Subject from other degree as required 12.5</p> <p>Semester 2</p> <p>SWEN30004 Software Engineering Project 12.5</p> <p>SWEN90006 Software Engineering Methods 12.5</p> <p>COMP30005 Professional Issues in Computing 12.5</p> <p>Subject from other degree as required 12.5</p> <p>Fifth year Year-long</p> <p>SWEN40001 Advanced Software Engineering Project 25</p> <p>Semester 1</p> <p>CIS LEVEL-3 or level-4 elective 25</p> <p>Subject from other degree as required 12.5</p> <p>Semester 2</p> <p>CIS level-3 and level-4 electives 25</p> <p>Subject from other degree as required 12.5</p> <p>The 62.5 points labelled CIS electives must be selected, subject to prerequisites being satisfied, from the level-3, level-4 and (with the approval of the Department) masters-level subjects offered by the Department and must include at least 37.5 points selected from: 433-332 Operating Systems or equivalent , 433-351 Database Systems or equivalent , 433-353 Networks and Communications or equivalent , 433-371 Interactive System Design or equivalent and 433-441 System Modelling and Analysis or equivalent. SWEN90003 IT Project Management is strongly recommended. 12.5 points of other elective subjects may be used for additional computer science or electrical engineering subjects. The selection of elective subjects may be restricted by timetable and prerequisite requirements.</p> <p>Note that in 2005 the Department of Computing and Information Systems introduced restrictions to the computing subjects offered by other departments which can be taken as electives in the BCS, BE (Software), BE (Eng Mgt) Software and BE (Biomedical) Bioinformatics programs. Students are advised to visit the Engineering Student Centre Community in LMS for details when choosing their subjects.</p>
Entry Requirements:	<p>There will be no further entry into this course.</p>
Core Participation Requirements:	<p>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</p>

	the disability support scheme can be found at the Disability Liaison Unit website: http://www.services.unimelb.edu.au/disability/
Further Study:	-
Graduate Attributes:	Graduate Attributes: Ability to undertake problem identification, formulation, and solution Ability to utilise a systems approach to complex problems and to design and operational performance Capacity for creativity and innovation Ability to manage information and documentation