

985SE Bachelor of Engineering (Software Engineering)/Bachelor of Science

Year and Campus:	2011 - Parkville
CRICOS Code:	009725A
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 full time. This course is available as full or part time.
Coordinator:	Dr Shanika Karunasekera
Contact:	Melbourne School of Engineering courseinfo@eng.unimelb.edu.au (mailto:courseinfo@eng.unimelb.edu.au) http://www.eng.unimelb.edu.au (http://www.eng.unimelb.edu.au)
Course Overview:	Please see objectives.
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 technologyHave 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 developmentHave verbal and written communication skills that enable them to contribute substantially to society # 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 communityHave 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:	The recommended or standard course structures are listed below. When setting the timetable every effort will be made to avoid clashes between the times of classes associated with these sets of subjects. Students should be aware however, that if it proves to be impossible to achieve a timetable without clashes in these sets of subjects, the Faculty reserves the right to modify course structures in order to eliminate the conflicts. Students will be advised during the enrolment period of the semester if the recommended courses need to be varied. Where the courses include elective subjects these should be chosen so that timetable clashes are avoided. In particular, students in combined degrees should plan their courses so that the subjects chosen in the other faculty do not clash with those recommended for the engineering component.
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 available here (../view/2009/355) .</p> <p>-----</p> <p>Accelerated program for a major in mathematics in the BSc component of the Bachelor of Engineering</p> <p>THE COURSE STRUCTURE BELOW ONLY APPLIES TO RE_ENROLLING STUDENTS WHO COMMENCED THEIR STUDIES PRIOR TO 2008</p>

THERE WILL BE NO FIRST TO THIRD YEAR ENTRY INTO THIS COURSE.

Fourth year

Science subjects 100

Fifth year

Year-long

SWEN40001 Advanced Software Engineering Project 25

Semester 1

CSSE 300-level or 400-level elective 25

Elective 12.5

Semester 2

CSSE 300-level and 400-level electives 25

Elective 12.5

The 62.5 points labelled CSSE electives must be selected, subject to prerequisites being satisfied, from the 300-level, 400-level and (with the approval of the Department) masters-level subjects offered by the Department of Computer Science and Software Engineering 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. The selection of elective subjects may be restricted by timetable and prerequisite requirements.

Note that in 2005 the Department of Computer Science and Software Engineering 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 School of Engineering LMS community for current students when choosing their subjects.

Accelerated program for a major in physics in the BSc component of the Bachelor of Engineering

Fourth year

Science subjects 100

Fifth year

Year-long

SWEN40001 Advanced Software Engineering Project 25

Semester 1

CSSE 300-level or 400-level elective 25

Elective 12.5

Semester 2

CSSE 300-level and 400-level electives 25

Elective 12.5

Students wishing to take science majors other than the ones listed above should contact the Faculty of Science and the Department of Computer Science and Software Engineering for course planning advice. Students must plan their course so that the subjects chosen in the other faculty do not clash with those recommended for the engineering component. Students may choose to take the final year of Computer Engineering or Electrical Engineering before the Science year.

The 62.5 points labelled CSSE electives must be selected, subject to prerequisites being satisfied, from the 300-level, 400-level and (with the approval of the Department) masters-level subjects offered by the Department of Computer Science and Software Engineering, 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 . 433-643 IT Project Management is strongly recommended. The selection of elective subjects may be restricted by timetable and prerequisite requirements.

Students who commenced before 2004 may replace 433-342 with one of 433-332, 433-351, 433-353, 433-371 and 433-441.

Note that in 2005 the Department of Computer Science and Software Engineering 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 School of Engineering LMS community for current students when choosing their subjects.

Entry Requirements:	<p>There will be no further entry into this course.</p> <p>Students who commenced 4th year in 2010 and have not completed, or have failed the fourth year subjects required, should speak to a course advisor.</p> <p>New pathways to the study of Computer Science and Software Engineering are outlined at http://www.csse.unimelb.edu.au/future/undergrad.html (http://www.csse.unimelb.edu.au/future/undergrad.html)</p> <p>Graduate research programs are available in aspects of autonomous and intelligent systems, declarative languages, knowledge discovery, parallel and distributed computing and software engineering.</p> <p>Research areas are outlined at http://www.csse.unimelb.edu.au/research/strengths.html (http://www.csse.unimelb.edu.au/research/strengths.html)</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 the disability support scheme can be found at the Disability Liaison Unit website: http://www.services.unimelb.edu.au/disability/</p>
Further Study:	<p>-</p>
Graduate Attributes:	<p>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</p>
Generic Skills:	<p>An Engineering graduate has a unique skill set comprising a blend of technical, business and interpersonal skills. Upon completion of the Bachelor of Engineering at the University of Melbourne, students will have strong analytical skills, the ability to lead teams and projects and the creativity to look at problems in a way that provides innovative solutions. Our graduates are known for their high standards and professionalism, their understanding of global issues and their outstanding communication skills. For details, see "Objectives".</p>