

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

Year and Campus:	2008
Fees Information:	Subject EFTSL, Level, Discipline & Census Date, http://enrolment.unimelb.edu.au/fees
Level:	Undergraduate
Duration & Credit Points:	
Contact:	-
Course Overview:	Students enrolled in the BE/BSc and the BE(IT)/BSc, planning to undertake a science major in computer science, may take this accelerated sequence of subjects in order to maximise their choice of computer or electrical engineering electives in their final two years of study.
Objectives:	-
Subject Options:	<p>THERE WILL BE NO FIRST YEAR ENTRY INTO THIS DEGREE IN 2008</p> <p>-----</p> <p>Accelerated program for a major in computer science in the BSc component of the Bachelor of Engineering</p> <p>Second year</p> <p>Semester 1 431-204 Digital Systems 2: System Design 12.5 433-252 Software Engineering Principles & Tools 12.5 431-210 Electrical Circuits 2 12.5 620-122 Mathematics B (Advanced) 12.5 or 620-142 Mathematics B 12.5</p> <p>Semester 2 431-221 Fundamentals of Signals and Systems 12.5 431-222 Electronic Circuit Design 1 12.5 433-254 Software Design 12.5 620-232 Mathematical Methods 12.5</p> <p>Third year</p> <p>Semester 1 431-325 Stochastic Signals and Systems 12.5 or 620-201 Probability 12.5 433-253 Algorithms and Data Structures 12.5 431-331 Electronic Circuit Design 2 12.5 620-231 Vector Analysis 12.5</p> <p>Semester 2 431-327 Communication Systems 12.5 431-328 Digital Systems 3: Circuits and Systems 12.5 431-330 Design Laboratory 12.5 433-255 Logic and Computation 12.5</p> <p>Fourth year CSSE 300-level subjects, including 433-313, 433-332 and 433-353. 100 points Note: To ensure breadth, students in the computer engineering stream taking a computer science major for the BSc are required to complete 431-331 Electronic Circuit Design 2 and 431-327 Communication Systems. Students are also expected to complete 25 points of non-technical electives as part of their final year.</p> <p>Fifth year Subjects as for the final year of the single computer or electrical BE or BE (IT) program, including 25 points of non-technical electives. 100 points Students taking the combined course in computer science with computer engineering should note that they are required to enrol in 431-400 Project Work, to ensure breadth in the combined degree.</p> <p>-----</p>

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

Second year

Semester 1

620-122 Mathematics B (Advanced) 12.5

or

620-142 Mathematics B 12.5

431-204 Digital Systems 2: System Design 12.5

433-252 Software Engineering Principles & Tools 12.5

433-253 Algorithms and Data Structures 12.5

Semester 2

620-231 Vector Analysis 12.5

620-232 Mathematical Methods 12.5

433-254 Software Design 12.5

433-255 Logic and Computation 12.5

Third year

Year-long

433-340 Software Engineering Project 25

Semester 1

433-341 Software Engineering Process & Practice 12.5

CSSE 300-level elective 12.5

620-2xx Mathematics subject 12.5

Semester 2

433-342 Software Engineering Methods 12.5

433-343 Professional Issues in Computing 12.5

620-2xx Mathematics subject 12.5

Fourth year

Science subjects 100

Fifth year

Year-long

433-440 Advanced Software Engineering Project 25

Semester 1

433-443 Software Project Management 12.5

CSSE 300-level or 400-level elective 12.5

Elective 12.5

Semester 2

CSSE 300-level and 400-level electives 25

Elective 12.5

The 50 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, 433-351 Database Systems, 433-353 Networks and Communications, 433-371 Interactive System Design, 433-441 System Modelling and Analysis. Subject 615-335 Distributed Systems may also be taken as a CSSE option. 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, 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 www.csse.unimelb.edu.au when choosing their subjects.

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

Second year

Semester 1

620-122 Mathematics B (Advanced) 12.5

or

620-142 Mathematics B 12.5

431-204 Digital Systems 2: System Design 12.5

433-252 Software Engineering Principles & Tools 12.5

433-253 Algorithms and Data Structures 12.5**Semester 2**

620-231 Vector Analysis 12.5
 620-232 Mathematical Methods 12.5
 433-254 Software Design 12.5
 433-255 Logic and Computation 12.5

Third year**Year-long**

433-340 Software Engineering Project 25

Semester 1

433-341 Software Engineering Process & Practice 12.5
 CSSE 300-level elective 12.5
 640-223 Quantum Mechanics & Thermal Physics(Adv) 12.5
 or
 640-243 Quantum Mechanics & Thermal Physics 12.5

Semester 2

433-342 Software Engineering Methods 12.5
 640-225 Electromagnetism & Relativity (Adv) 12.5
 or
 640-245 Electromagnetism & Relativity 12.5
 640-299 Laboratory Work 12.5

Fourth year**Semester 1**

640-321 Quantum Mechanics (Adv) 12.5
 or
 640-341 Quantum Mechanics 12.5
 640-322 Statistical Physics (Advanced) 12.5
 or
 640-342 Statistical Physics 12.5
 640-393 Laboratory Work A 12.5
 Science elective 12.5

Semester 2

433-343 Professional Issues in Computing 12.5
 640-323 Electrodynamics (Adv) 12.5
 or
 640-343 Electrodynamics 12.5
 640-353 Atomic, Molecular & Solid State Physics 12.5
 640-394 Laboratory Work B 12.5

Fifth year**Year-long**

433-440 Advanced Software Engineering Project 25

Semester 1

433-443 Software Project Management 12.5
 CSSE 300-level or 400-level elective 12.5
 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, Department of Computer Science and Software Engineering and the Department of Electrical and Electronic 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 50 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, 433-351 Database Systems, 433-353 Networks and Communications, 433-371 Interactive System Design, 433-441 System Modelling and Analysis. 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, 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 www.csse.unimelb.edu.au when choosing their subjects.
Entry Requirements:	-
Core Participation Requirements:	-
Further Study:	-