

355-EE Bachelor of Engineering (Electrical Engineering)

Year and Campus:	2009																					
Fees Information:	Subject EFTSL, Level, Discipline & Census Date, http://enrolment.unimelb.edu.au/fees																					
Level:	Undergraduate																					
Duration & Credit Points:																						
Contact:	<p>Engineering Student Centre Ground Floor, Old Engineering Building The University of Melbourne Victoria 3010 AUSTRALIA</p> <p>Tel: +61 3 8344 6703 Fax: +61 3 9349 2182 Email http://eng-unimelb.custhelp.com (http://eng-unimelb.custhelp.com/)</p>																					
Course Overview:	<p>THE COURSE STRUCTURE BELOW ONLY APPLIES TO RE-ENROLLING STUDENTS WHO COMMENCED THEIR STUDIES PRIOR TO 2008</p> <p>The BE and BE(IT) courses in the School of Electrical Engineering and Computer Science offer three distinct streams of the BE degree: electrical engineering, computer engineering and software engineering. The three streams have most first-year subjects in common, and with the appropriate selection of subjects it is possible to defer the choice of stream until the commencement of second year, and in some cases, until the middle of second year.</p> <p>For students who commenced prior to 2008, each of the three streams may be taken in the combined degrees: BE/BA, BE(IT)/BA (with an arts major in any department in the Faculty of Arts); BE/BCom, BE(IT)/BCom (with a commerce major in any department in the Faculty of Economics and Commerce); BE/LLB, BE(IT)/LLB; and BE/BSc, BE(IT)/BSc (with a major in any department in the Faculty of Science, with the majority of students undertaking a major in computer science, physics or mathematics, however students in the software engineering stream of the BE or BE(IT) are not permitted to take a computer science major in the BSc). Computer science as a Science Faculty major may be combined with a BE in chemical, civil, environmental and mechanical engineering through the BE/BSc degree program.</p> <p>The single degree, Bachelor of Engineering (Electrical), requires the completion of 400 points usually over four years.</p>																					
Objectives:	-																					
Course Structure & Available Subjects:	The recommended or standard course structures are listed below.																					
Subject Options:	<p>Note: Students who commenced 2nd year in 2008 who have not completed, (or who have failed), the second year subjects required in the Bachelor of Engineering degree please see a course adviser.</p> <p>Third year</p> <table border="1"> <thead> <tr> <th>Subject</th> <th>Study Period Commencement:</th> <th>Credit Points:</th> </tr> </thead> <tbody> <tr> <td>431-325 Stochastic Signals and Systems</td> <td>Semester 1</td> <td>12.500</td> </tr> <tr> <td>431-327 Communication Systems</td> <td>Semester 2</td> <td>12.500</td> </tr> <tr> <td>431-330 Design Laboratory</td> <td>Semester 1, Semester 2</td> <td>12.500</td> </tr> </tbody> </table> <p>At least three subjects chosen from:</p> <table border="1"> <thead> <tr> <th>Subject</th> <th>Study Period Commencement:</th> <th>Credit Points:</th> </tr> </thead> <tbody> <tr> <td>431-324 Control 1 (Classical Control)</td> <td>Semester 1</td> <td>12.500</td> </tr> <tr> <td>431-331 Electronic Circuit Design 2</td> <td>Semester 1</td> <td>12.500</td> </tr> </tbody> </table>	Subject	Study Period Commencement:	Credit Points:	431-325 Stochastic Signals and Systems	Semester 1	12.500	431-327 Communication Systems	Semester 2	12.500	431-330 Design Laboratory	Semester 1, Semester 2	12.500	Subject	Study Period Commencement:	Credit Points:	431-324 Control 1 (Classical Control)	Semester 1	12.500	431-331 Electronic Circuit Design 2	Semester 1	12.500
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431-328 Digital Systems 3: Circuits and Systems	Semester 2	12.500
431-329 Fields and Transmission Lines	Semester 2	12.500
640-381 Principles and Applications of Sensors	Semester 2	12.500
431-335 Signal Processing 1 (Fundamentals)	Semester 2	12.500
431-336 Neurons: From Action Potential to Learning	Semester 2	12.500

Elective(s) (25 points in total) - *Elective subjects may be used for additional Electrical Engineering or Computer Science subjects. However, at least 25 points of non-technical subjects must be completed during the degree.*

Fourth year

Subject	Study Period Commencement:	Credit Points:
431-400 Project Work	Year Long	25.000

At least four units from fourth year Electrical Engineering electives (50 points in total)

Elective subject(s) (25 points in total) - Elective subjects may be taken from fourth-year Electrical Engineering electives, 300-level and 400-level Computer Science subjects offered from other departments.

Electrical Engineering students choosing elective subjects are reminded that they must include 25 points from management or non-technical subjects. The selection of elective subjects may be restricted by timetable and pre-requisite requirements.

Electrical Engineering Electives

Subject	Study Period Commencement:	Credit Points:
431-460 Digital Communications	Semester 1	12.500
431-461 Signal Processing 2	Semester 1	12.500
431-462 Communication Networks	Semester 1	12.500
431-463 Directed Study 4.1	Semester 1	12.500
431-464 Control 2 (Advanced Control)	Semester 2	12.500
431-465 Wireless Communication	Semester 2	12.500
431-466 RF, Microwave and Optoelectronic Systems	Semester 2	12.500
431-467 Digital Systems 4: High Speed Systems	Semester 2	12.500
431-470 Directed Study 4.2	Semester 2	12.500
431-481 Electronic Circuit Design 3	Semester 1	12.500

Computer Science Electives

300-level Electives

Note: These subjects may not be offered every year

Subject	Study Period Commencement:	Credit Points:
433-303 Artificial Intelligence	Semester 2	12.500
433-313 Computer Design	Semester 2	12.500
433-330 Theory of Computation	Semester 1	12.500

433-332 Operating Systems	Semester 1	12.500
433-341 Software Engineering Process & Practice	Semester 1	12.500
433-342 Software Engineering Methods	Semester 2	12.500
433-351 Database Systems	Semester 1	12.500
433-352 Data on the Web	Semester 2	12.500
433-353 Networks and Communications	Semester 2	12.500
433-361 Programming Language Implementation	Not offered 2009	12.500
433-371 Interactive System Design	Semester 2	12.500
433-380 Graphics and Computation	Semester 1	12.500
433-393 Directed Study 3A	Summer, Semester 1, Semester 2	12.500
433-394 Directed Study 3B	Summer, Semester 1, Semester 2	12.500

400-level Electives

Subject	Study Period Commencement:	Credit Points:
433-421 Web Technologies and Applications	Semester 1	12.500
433-430 Principles of Programming Languages	Semester 1	12.500
433-431 Functional Programming	Not offered 2009	12.500
433-432 Logic Programming	Semester 2	12.500
433-433 Constraint Programming	Not offered 2009	12.500
433-441 System Modelling and Analysis	Semester 1	12.500
433-446 System Requirements Engineering	Not offered 2009	12.500
433-448 Applied Cryptography and Coding	Not offered 2009	12.500
433-460 Human Language Technology	Not offered 2009	12.500
433-461 High Performance Database Systems	Semester 2	12.500
433-482 Software Agents	Semester 1	12.500
433-483 Computer Vision and Image Processing	Not offered 2009	12.500
433-484 Machine Learning	Not offered 2009	12.500
433-493 Directed Study 4A	Summer, Semester 1, Semester 2	12.500
433-494 Directed Study 4B	Summer, Semester 1, Semester 2	12.500
433-643 IT Project Management	Semester 1	12.500

Entry Requirements:

There will be no further entry into this course.

Core Participation Requirements:

<p>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,

	<p>Assessment and Generic Skills sections of this entry.</p> <p>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</p>
Notes:	<p>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.</p>