

355-AV Bachelor of Engineering (Civil Engineering)

Year and Campus:	2008																
Fees Information:	Subject EFTSL, Level, Discipline & Census Date, http://enrolment.unimelb.edu.au/fees																
Level:	Undergraduate																
Duration & Credit Points:																	
Contact:	Nghiem Tran Course Advisor Melbourne School of Engineering T: + 61 3 8344 4628 F: + 61 3 9349 2182 E n.tran@unimelb.edu.au																
Course Overview:	<p>The course structure below represents the core content for the BE (Civil) degree. All students should check that they have taken the listed subjects, or equivalent. For further information and up-to-date course advice students should regularly check the Department of Civil and Environmental Engineering's course advice page on the web.</p> <p>The single degree, Bachelor of Engineering (Civil), requires the completion of 400 points over four years.</p> <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 departmental guidelines on electives are satisfied (see http://www.civenv.unimelb.edu.au/undergraduate). Students should also avoid timetable clashes in choosing their electives. 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>																
Objectives:	-																
Course Structure & Available Subjects:	-																
Subject Options:	<p>First Year (2008 Entry)</p> <p><i>Note: Students who have successfully completed VCE Specialist Maths should enrol into:</i></p> <p>620-155 Calculus 2 in semester 1; and</p> <p>620-156 Linear Algebra in semester 2</p> <p>Subjects listed below MUST be taken in this approved order, regardless of semester availability.</p> <p>Semester 1</p> <table border="1"> <thead> <tr> <th>Subject</th> <th>Study Period Commencement:</th> <th>Credit Points:</th> </tr> </thead> <tbody> <tr> <td>800-001 Engineering Systems Design 1</td> <td>Semester 1, Semester 2</td> <td>12.50</td> </tr> <tr> <td>620-154 Calculus 1</td> <td>Semester 1, Semester 2</td> <td>12.50</td> </tr> </tbody> </table> <p>Science elective subject as required (12.5 points)</p> <p>Breadth subject (http://handbook.unimelb.edu.au/breadth/index.html) (12.5 points)</p> <p>Semester 2</p> <table border="1"> <thead> <tr> <th>Subject</th> <th>Study Period Commencement:</th> <th>Credit Points:</th> </tr> </thead> <tbody> <tr> <td>800-002 Engineering Systems Design 2</td> <td>Semester 2, Summer</td> <td>12.50</td> </tr> </tbody> </table>		Subject	Study Period Commencement:	Credit Points:	800-001 Engineering Systems Design 1	Semester 1, Semester 2	12.50	620-154 Calculus 1	Semester 1, Semester 2	12.50	Subject	Study Period Commencement:	Credit Points:	800-002 Engineering Systems Design 2	Semester 2, Summer	12.50
Subject	Study Period Commencement:	Credit Points:															
800-001 Engineering Systems Design 1	Semester 1, Semester 2	12.50															
620-154 Calculus 1	Semester 1, Semester 2	12.50															
Subject	Study Period Commencement:	Credit Points:															
800-002 Engineering Systems Design 2	Semester 2, Summer	12.50															

620-155 Calculus 2	Semester 1, Semester 2	12.50
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Science elective subject as required (12.5 points)

PLUS Breadth subject (<http://handbook.unimelb.edu.au/breadth/index.html>) (12.5 points)

THE COURSE STRUCTURE BELOW ONLY APPLIES TO RE-ENROLLING STUDENTS WHO COMMENCED THEIR STUDIES PRIOR TO 2008

Second Year

Subjects listed below **MUST** be taken in this approved order, regardless of availability.

Semester 1

Subject	Study Period Commencement:	Credit Points:
431-201 Engineering Analysis A	Semester 1	12.50
421-208 Mechanics of Solids	Semester 1	12.50
421-255 Management for Engineers 1	Semester 1	12.50

Elective (12.5 points) - *or elective approved by the Department of Civil and Environmental Engineering.*

Semester 2

Subject	Study Period Commencement:	Credit Points:
431-202 Engineering Analysis B	Summer, 1, 2	12.500
421-207 Introduction to Design	Semester 1	12.50
421-209 Geomechanics 1	Semester 2	12.50
880-106 Mapping Environments	Semester 2	12.50

Third Year

Subjects listed below **MUST** be taken in this approved order, regardless of availability.

Semester 1

Subject	Study Period Commencement:	Credit Points:
421-305 Engineering Hydraulics 1	1	12.500
421-306 Geotechnical Engineering	Semester 1	12.50
421-307 Structural Engineering 1	Semester 1	12.50
421-355 Management for Engineers 2	Semester 1	12.50

Semester 2

Subject	Study Period Commencement:	Credit Points:
421-316 Engineering Hydraulics & Hydrology	Semester 2	12.50
421-317 Structural Engineering 2	Semester 2	12.50
421-318 Construction Engineering	Semester 2	12.50
625-023 Geology (Engineering Course)	Semester 2	12.50

625-023 Geology (Engineering Course) may be replaced by an elective approved by the Department of Civil and Environmental Engineering.

Fourth Year

Subjects listed below **MUST** be taken in this approved order, regardless of availability.

Semester 1

Subject	Study Period Commencement:	Credit Points:
421-441 Infrastructure Design	Semester 1	12.50
421-405 Management for Engineers 3	Semester 1	12.50

Elective(s) (25 points in total) - *or electives approved by the Department of Civil and Environmental Engineering.*

Semester 2

Subject	Study Period Commencement:	Credit Points:
421-442 Integrated Design	Semester 2	12.50
421-440 Steel & Concrete Design	Semester 2	12.50

Elective(s) (25 points in total) - *or electives approved by the Department of Civil and Environmental Engineering.*

Entry Requirements:

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Core Participation Requirements:

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Further Study:

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Graduate Attributes:

The undergraduate degree streams are accredited by Engineers Australia. In order to achieve this accreditation we aim to develop the following attributes in our graduates: Ability to apply knowledge of basic science and engineering fundamentals; Ability to communicate effectively, not only with engineers but also with the community at large; In-depth technical competence in at least one engineering discipline; Ability to undertake problem identification, formulation and solution; Ability to utilise a systems approach to design and operational performance; Ability to function effectively as an individual and in multi-disciplinary and multicultural teams, with the capacity to be a leader or manager as well as an effective team member; Understanding of the social, cultural, global and environmental responsibilities of the professional engineer, and the need for sustainable development; Understanding of the principles of sustainable design and development; Understanding of and commitment to professional and ethical responsibilities; and Expectation and capacity to undertake life-long learning.

Generic Skills:

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