

BACHELOR OF ENGINEERING (BENG/114191)
Recommended Study Plan
Students Commencing in Semester 1

Study Plan 1

The Recommended Study Plans provided below are suitable for students commencing in Semester 1 and enrolling in a standard full time load. Students enrolling in a reduced or part time load should use the table as a guide to plan an individual program of study.

Legend:	CU = Common Unit	CO = Core Unit	SE = Specialist Elective	E = Elective
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COMMON FIRST YEAR for all engineering streams - CASUARINA CAMPUS

Semester 1		Semester 2	
Year 1			
CUC106 Design and Innovation: Communicating Technology	CU	CUC107 Northern Perspective	CU
ENG151 Statics	CO	ENG152 Dynamics <i>(external students must attend on-campus residentials during the mid semester break)</i>	CO
ENG154 Engineering Foundations <i>(external students must attend on-campus residentials during the mid semester break)</i>	CO	ENG174 Electrical Engineering	CO
SMA101 Mathematics 1A	CO	SMA102 Mathematics 1B	CO

CIVIL ENGINEERING specialist stream - CASUARINA CAMPUS

Semester 1		Semester 2	
Year 2			
ENG215 Surveying and Construction <i>(external students must attend on-campus residentials during the mid semester break)</i>	SE	ENG212 Mechanics of Solids <i>(external students must attend on-campus residentials during the mid semester break)</i>	SE
ENG243 Fluid Mechanics <i>(external students must attend on-campus residentials during the mid semester break)</i>	SE	ENG267 Hydraulics and Soil Mechanics <i>(external students must attend on-campus residentials during the mid semester break)</i>	SE
ENG264 Materials Engineering <i>(external students must attend on-campus residentials during the mid semester break)</i>	SE	PMO201 Project Management	CO
SMA209 Mathematics 2A	CO	SMA211 Mathematics 2B	CO
Year 3			
ENG300 Industrial Experience Part A (0 cp)	CO	ENG304 Engineering Design Project	CO
ENG311 Geomechanics <i>(external students must attend on-campus residentials during the mid semester break)</i>	SE	ENG462 Water Resources Engineering	SE
ENG315 Engineering Computing	SE	ENG467 Concrete Design <i>(external students must attend on-campus residentials during the mid semester break)</i>	SE
ENG468 Steel Design	SE	Elective 1	E
ENG469 Structural Analysis <i>(external students must attend on-campus residentials during the mid semester break)</i>	SE		

Year 4			
ENG400 Industrial Experience Part B (0 cp)	CO	ENG403 Thesis Part B (external students must attend on-campus residential during the mid semester break)	CO
ENG402 Thesis Part A (external students must attend on-campus residential during the mid semester break)	CO	ENG417 Environmental Awareness and Sustainability	CO
ENG413 Integrated Civil Engineering Design	CO	Elective 3	E
ENG412 Road and Traffic Engineering	SE	Elective 4	E
Elective 2	E		

ELECTRICAL AND ELECTRONICS ENGINEERING specialist stream - CASUARINA CAMPUS

Semester 1		Semester 2	
Year 2			
ENG221 Analogue Electronics (external students must attend on-campus residential during the mid semester break)	SE	ENG223 Electrical Circuit Analysis (external students must attend on-campus residential during the mid semester break)	SE
ENG222 Digital Electronics and Computer Architecture	SE	ENG224 Electrical Machines and Power Systems (external students must attend on-campus residential during the mid semester break)	SE
ENG225 C Programming	SE	PMO201 Project Management	CO
SMA209 Mathematics 2A	CO	SMA211 Mathematics 2B	CO
Year 3			
ENG300 Industrial Experience Part A (0 cp)	CO	ENG304 Engineering Design	CO
ENG471 Analogue Devices	SE	ENG473 Wireless Communication Systems	SE
ENG322 Embedded and Mobile Systems (external students must attend on-campus residential during the mid semester break)	SE	ENG476 Control Systems (external students must attend on-campus residential during the mid semester break)	SE
ENG474 Power Systems Analysis (external students must attend on-campus residential during the mid semester break)	SE	Elective 1	E
ENG325 Systems Modelling	SE		
Year 4			
ENG400 Industrial Experience Part B (0 cp)	CO	ENG403 Thesis Part B (external students must attend on-campus residential during the mid semester break)	CO
ENG402 Thesis Part A (external students must attend on-campus residential during the mid semester break)	CO	ENG417 Environmental Awareness and Sustainability	CO
ENG426 Renewable Energy	SE	Elective 3	E
ENG421 Digital Signal Processing	SE	Elective 4	E
Elective 2	E		

MECHANICAL ENGINEERING specialist stream - CASUARINA CAMPUS

Semester 1		Semester 2	
Year 2			
ENG235 Manufacturing <i>(external students must attend on-campus residential during the mid semester break)</i>	SE	ENG212 Mechanics of Solids <i>(external students must attend on-campus residential during the mid semester break)</i>	SE
ENG243 Fluid Mechanics <i>(external students must attend on-campus residential during the mid semester break)</i>	SE	ENG234 Thermodynamics <i>(external students must attend on-campus residential during the mid semester break)</i>	SE
ENG264 Materials Engineering <i>(external students must attend on-campus residential during the mid semester break)</i>	SE	PMO201 Project Management	CO
SMA209 Mathematics 2A	CO	SMA211 Mathematics 2B	CO
Year 3			
ENG300 Industrial Experience Part A (0 cp)	CO	ENG304 Engineering Design Project	CO
ENG315 Engineering Computing	SE	ENG476 Control Systems <i>(external students must attend on-campus residential during the mid semester break)</i>	SE
ENG325 Systems Modelling	SE	ENG482 Engines and Turbomachinery <i>(external students must attend on-campus residential during the mid semester break)</i>	SE
ENG480 Applied Fluid Mechanics <i>(external students must attend on-campus residential during the mid semester break)</i>	SE	ENG481 Applied Heat and Mass Transfer	SE
ENG486 Machine Design	SE		
Year 4			
ENG400 Industrial Experience Part B (0 cp)	CO	ENG403 Thesis Part B <i>(external students must attend on-campus residential during the mid semester break)</i>	CO
ENG402 Thesis Part A <i>(external students must attend on-campus residential during the mid semester break)</i>	CO	ENG417 Environmental Awareness and Sustainability	SE
ENG432 Dynamics of Engineering Systems <i>(external students must attend on-campus residential during the mid semester break)</i>	SE	Elective 3	E
Elective 1	E	Elective 4	E
Elective 2	E		

ELECTIVE UNIT SELECTION

It is recommended students select elective units from the following list of Specialist and Elective Engineering units offered by CDU not already completed as part of your specialist stream. Alternatively, students may select engineering electives offered externally by the University of Southern Queensland, Deakin University or the University of Wollongong.

Note: SPH141 Concepts of Physics and SMA100 Introduction to Mathematics should only be taken as electives on advice of the course coordinator.

RECOMMENDED ENGINEERING ELECTIVES offered by CDU in 2010 - please edit tables below in red font

Semester 1		Semester 2	
ENG412 Roads and Traffic Engineering	SE	ENG417 Environmental Awareness and Sustainability	SE
ENG421 Digital Signal Processing	SE	ENG429 Biomedical Engineering	E
ENG426 Renewable Energy	SE		

RECOMMENDED ENGINEERING ELECTIVES available via CROSS INSTITUTIONAL ENROLMENT

External units offered by other Australian Universities are available to CDU students in external form. Students will need a Cross Institutional Enrolment to undertake these units, for which application should be made directly to the University offering these units.

Note that these units are not offered by CDU and therefore CDU staff may be unable to provide any assistance with these units.

University of Southern Queensland

Cross Institutional engineering electives may be selected from the following units offered by the University of Southern Queensland (2009 program):

USQ Semester 1		USQ Semester 2	
SVY4203 Urban and Regional Planning	E	ENG4406 Robotics and Machine Vision	E
		ENV4203 Public Health Engineering	E

For further information about these units (courses/subjects), please see <http://www.usq.edu.au/course/specification/2009/>.

Students must apply directly to USQ for admission using USQ's cross institutional application form, see: <http://www.usq.edu.au/futurestudents/apply/applying/crossinst/default.htm>.

Deakin University

Cross Institutional engineering electives may be selected from the following units offered by Deakin University (2009 program):

Deakin University Semester 1		Deakin University Semester 2	
SET401 Advanced Topics in Engineering 1 <i>(required pre-requisite dependent on topic on offer)</i>	E	SEB421 Financial and Strategic Issues in Engineering	E
		SEE412 Industrial Data Communication and Design	E
		SET402 Advanced Topics in Engineering 2 <i>(required pre-requisite dependent on topic on offer)</i>	E

Students must apply directly to Deakin University for admission using Deakin's cross institutional application form, see: <http://www.deakin.edu.au/future-students/applications-enrolments/applications/cross-institutional-study.php>.

University of Wollongong

Cross Institutional engineering electives may be selected from the following units offered by the University of Wollongong (2009 program):

University of Wollongong Semester 1		University of Wollongong Semester 2	

		ENGG434: Introduction to Materials Welding and Joining	E
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Students must apply directly to the University of Wollongong for admission using the University of Wollongong's cross institutional application form, see: <http://www.uow.edu.au/student/forms/UOW008135.html#NonUOW>.