Engineering

Bachelor of Engineering (Honours) / Computer Science (3785)

Environmental Engineering (CVENBH) / Computer Science (COMPA1)

T1 Entry 2025 Sample Plan



	Year 1
	BIOS1301 Ecology, Sustainability and Environmental Science
Term 1	MATH1131 Mathematics 1A <u>OR</u> MATH1141 Higher Mathematics 1A
	PHYS1121 Physics 1A <u>OR</u> PHYS1131 Higher Physics 1A
	MATH1231 Mathematics 1B <u>OR</u> MATH1241 Higher Mathematics 1B
Term 2	COMP1511 Programming Fundamentals
	COMP1521 Computer Systems Fundamentals
Term 3	CHEM1011 ① Chemistry 1A: Atoms, Molecules and Energy
	DESN1000 Introduction to Engineering Design and Innovation

	Year 2
	COMP1531 Software Engineering Fundamentals
Term 1	MATH2018 Engineering Mathematics 2D <u>OR</u> MATH2019 Engineering Mathematics 2E
	COMP2521 Data Structures and Algorithms
Term 2	DESN2000 Engineering Design and Professional Practice
	CVEN2701 Water and Atmospheric Chemistry
Term 3	COMP2511 Object-Oriented Design and Programming
	CEIC2009 Material and Energy Balances in the Chemical Process Industry
	CVEN1701 Climate Change and Environmental Sustainability

	Year 3
Term 1	COMP3121 Algorithm Design and Analysis <u>OR</u> COMP3821 Extended Algorithm Design and Analysis
	COMP4920 Professional Issues and Ethics in Information Technology
	ENGG2500 Fluid Mechanics for Engineers
Term 2	CVEN2002 Civil and Environmental Engineering Computations
	CVEN3402 Transport Engineering and Environmental Sustainability
	COMP3900 Computer Science Project
Term 3	CVEN3101 Engineering Operations and Control
	CVEN3202 Soil Mechanics

	Year 4	
	CVEN3203 Applied Geotechnics and Engineering Geology	
Term 1	CVEN3701 Environmental Frameworks, Law and Economics	٦
	CVEN3501 Water Resources Engineering	
	CVEN3502 Water and Wastewater Engineering	
Term 2	Discipline Elective	٦
	Discipline Elective	
	CVEN3702 Solid Wastes and Contaminant Transport	
Term 3	Computing Elective	٦

	Year 5
	CVEN4050 ② Thesis A
Term 1	Computing Elective
	Computing Elective
	CVEN4051 Thesis B
Term 2	CVEN4701 Planning Sustainable Infrastructure
Term 3	Discipline Elective
	Computing Elective
	Computing Elective

NOTES

This is intended as a guide only. Courses do not need to be studied in the exact structure that they appear here.

Compulsory Training Component: There is a program requirement of 60 days approved <u>Industrial Training</u> ENGG4999

①Students can take CHEM1011 or CHEM1811 depending on term offerings. ②Students can take alternative thesis options with school approval. Please see the Handbook for available options and adjust study plan accordingly.

Engineering

Bachelor of Engineering (Honours) / Computer Science (3785)

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T2 Entry 2025 Sample Plan



Year 1	
	COMP1511 Programming Fundamentals
Term 2	PHYS1121 Physics 1A <u>OR</u> PHYS1131 Higher Physics 1A
	MATH1131 ① Mathematics 1A
	CVEN1701 Climate Change and Environmental Sustainability
Term 3	COMP1531 Software Engineering Fundamentals
	DESN1000 Introduction to Engineering Design and Innovation
	CHEM1011 Chemistry 1A: Atoms, Molecules and Energy <u>OR</u> CHEM1811 Engineering Chemistry 1A
Term 1	MATH1231 Mathematics 1B <u>OR</u> MATH1241 Higher Mathematics 1B

	Year 2
	DESN2000 Engineering Design and Professional Practice
Term 2	COMP2521 Data Structures and Algorithms
	COMP1521 Computer Systems Fundamentals
Term 3	CEIC2009 Material and Energy Balances in the Chemical Process Industry
	ENGG2500 Fluid Mechanics for Engineers
Term 1	MATH2018 Engineering Mathematics 2D <u>OR</u> MATH2019 Engineering Mathematics 2E
	BIOS1301 Ecology, Sustainability and Environmental Science
	Discipline Elective

	Year 3
	CVEN2002 Civil and Environmental Engineering Computations
Term 2	CVEN2701 Water and Atmospheric Chemistry
	COMP2511 Object-Oriented Design and Programming
	CVEN3101 Engineering Operations and Control
Term 3	CVEN3202 Soil Mechanics
Term 1	COMP3121 Algorithm Design and Analysis <u>OR</u> COMP3821 Extended Algorithm Design and Analysis
	COMP3900 Computer Science Project
	CVEN3203 Applied Geotechnics and Engineering Geology

	Year 4
Term 2	CVEN3402 Transport Engineering and Environmental Sustainability
	CVEN3502 Water and Wastewater Engineering
Term 3	CVEN3702 Solid Wastes and Contaminant Transport
	COMP4920 Professional Issues and Ethics in Information Technology
	Computing Elective
	CVEN4050@ Thesis A
Term 1	CVEN3501 Water Resources Engineering
	CVEN3701 Environmental Frameworks, Law and Economics

	Year 5
	CVEN4051 Thesis B
Term 2	CVEN4701 Planning Sustainable Infrastructure
	Computing Elective
	Computing Elective
Term 3	Computing Elective
	Discipline Elective
	Discipline Elective
Term 1	Discipline Elective

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Compulsory Training Component: There is a program requirement of 60 days approved Industrial Training ENGG4999

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Engineering

Bachelor of Engineering (Honours) / Computer Science (3785)

Environmental Engineering (CVENBH) / Computer Science (COMPA1)

T3 Entry 2025 Sample Plan



Year 1	
Term 3	COMP1511 Programming Fundamentals
	MATH1131 Mathematics 1A <u>OR</u> MATH1141 Higher Mathematics 1A
	PHYS1121 Physics 1A <u>OR</u> PHYS1131 Higher Physics 1A
	MATH1231 Mathematics 1B <u>OR</u> MATH1241 Higher Mathematics 1B
Term 1	COMP1531 Software Engineering Fundamentals
	DESN1000 Introduction to Engineering Design and Innovation
Term 2	COMP1521 Computer Systems Fundamentals
	CVEN2002 Civil and Environmental Engineering Computations

	Year 2
	CVEN1701 Climate Change and Environmental Sustainability
Term 3	COMP2521 Data Structures and Algorithms
Term 1	MATH2018 Engineering Mathematics 2D <u>OR</u> MATH2019 Engineering Mathematics 2E
	BIOS1301 Ecology, Sustainability and Environmental Science
	CHEM1011 Chemistry 1A: Atoms, Molecules and Energy <u>OR</u> CHEM1811 Engineering Chemistry 1A
Term 2	COMP2511 Object-Oriented Design and Programming
	CVEN2701 Water and Atmospheric Chemistry
	DESN2000 Engineering Design and Professional Practice

Year 3		
Term 3	CVEN3101 Engineering Operations and Control	
	CEIC2009 Material and Energy Balances in the Chemical Process Industry	
	ENGG2500 Fluid Mechanics for Engineers	
Term 1	COMP3121 Algorithm Design and Analysis <u>OR</u> COMP3821 Extended Algorithm Design and Analysis	
	CVEN3501 Water Resources Engineering	
Term 2	COMP3900 Computer Science Project	
	CVEN3402 Transport Engineering and Environmental Sustainability	
	CVEN3502 Water and Wastewater Engineering	

	Year 4
Term 3	COMP4920 Professional Issues and Ethics in Information Technology
	CVEN3202 Soil Mechanics
	CVEN3702 Solid Wastes and Contaminant Transport
Term 1	CVEN3203 Applied Geotechnics and Engineering Geology
	CVEN3701 Environmental Frameworks, Law and Economics
Term 2	CVEN4701 Planning Sustainable Infrastructure
	Discipline Elective
	Computing Elective

Year 5		
Term 3	Computing Elective	
	Computing Elective	
	Computing Elective	
Term 1	CVEN4050 [®] Thesis A	
	Discipline Elective	
Term 2	CVEN4051 Thesis B	
	Discipline Elective	
	Computing Elective	

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