Engineering

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

Telecommunications (TELEAH) / Computer Science (COMPA1)

T1 Entry 2025 Sample Plan

	Year 1	Year 2	Year 3	Year 4	Year 5
Term 1	**COMP1511** Programming Fundamentals	**ELEC2134** Circuits and Signals	**ELEC3115** Electromagnetic Engineering	**COMP3121** Algorithm Design and Analysis OR **COMP3821** Extended Algorithm Design and Analysis	**ELEC4951** Research Thesis A
	MATH1131 Mathematics 1A OR **MATH1141** Higher Mathematics 1A	**ELEC2141** Digital Circuit Design	**ELEC3106** Electronics	**TELE3113** Analogue and Digital Communications	**Computing Elective**
	PHYS1121 Physics 1A OR **PHYS1131** Higher Physics 1A	**ELEC1111** Electrical Circuit Fundamentals	**COMP2521** Data Structures and Algorithms	**ELEC4122** Strategic Leadership and Ethics	**Computing Elective**
Term 2	**COMP1531** Software Engineering Fundamentals	**DESN2000** Engineering Design and Professional Practice	**ELEC3117** Electrical Engineering Design	**Discipline Elective**	**ELEC4952** Research Thesis B
	COMP1521 Computer Systems Fundamentals	**ELEC2133** Analogue Electronics	**ELEC3114** Control Systems	**Breadth Elective**	**Discipline Elective**
		MATH2099 Mathematics 2B			**Discipline Elective**
Term 3	**PHYS1231** Higher Physics 1B	**MATH2069** Mathematics 2A	**TELE3118** Network Technologies	**COMP3900** Computer Science Project	**ELEC4953** Research Thesis C
	MATH1231 Mathematics 1B OR **MATH1241** Higher Mathematics 1B	**COMP2511** Object-Oriented Design and Programming	**ELEC4123** Electrical Design Proficiency	**COMP4920** Professional Issues and Ethics in Information Technology	**Computing Elective**
	DESN1000 Introduction to Engineering Design and Innovation		**ELEC3104** Digital Signal Processing	**TELE3119** Trusted Networks	**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 Industrial Training ENGG4999

Engineering

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T2 Entry 2025 Sample Plan

Year 1	
Term 2	**COMP1511** Programming Fundamentals
	MATH1131① Mathematics 1A
	PHYS1121② Physics 1A
Term 3	**COMP1531** Software Engineering Fundamentals
	COMP1521 Computer Systems Fundamentals
Term 1	**PHYS1231** Higher Physics 1B
	MATH1231 Mathematics 1B OR **MATH1241** Higher Mathematics 1B
	DESN1000 Introduction to Engineering Design and Innovation

Year 2	
Term 2	**COMP2521** Data Structures and Algorithms
	DESN2000 Engineering Design and Professional Practice
Term 3	**MATH2069** Mathematics 2A
	ELEC2141 Digital Circuit Design
	ELEC1111 Electrical Circuit Fundamentals
Term 1	**COMP2511** Object-Oriented Design and Programming
	ELEC2134 Circuits and Signals
	Breadth Elective

Year 3	
Term 2	**ELEC2133** Analogue Electronics
	MATH2099 Mathematics 2B
Term 3	**COMP4920** Professional Issues and Ethics in Information Technology
	ELEC3104 Digital Signal Processing
	Computing Elective
Term 1	**ELEC3115** Electromagnetic Engineering
	ELEC4122 Strategic Leadership and Ethics
	ELEC3106 Electronics

Year 4	
Term 2	**ELEC3117** Electrical Engineering Design
	ELEC3114 Control Systems
Term 3	**TELE3118** Network Technologies
	TELE3119 Trusted Networks
	ELEC4123 Electrical Design Proficiency
Term 1	**TELE3113** Analogue and Digital Communications
	COMP3900 Computer Science Project
	COMP3121 Algorithm Design and Analysis OR **COMP3821** Extended Algorithm Design and Analysis

Year 5	
Term 2	**ELEC4951** Research Thesis A
	Computing Elective
	Computing Elective
Term 3	**ELEC4952** Research Thesis B
	Discipline Elective
	Discipline Elective
Term 1	**ELEC4953** Research Thesis C
	Computing Elective
	Computing Elective

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

①Students can take MATH1131 or MATH1141 depending on term offerings ②Students can take PHYS1121 or PHYS1131 depending on term offerings

Engineering

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

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T3 Entry 2025 Sample Plan

Year 1	
Term 3	**COMP1511** Programming Fundamentals
	MATH1131 Mathematics 1A OR **MATH1141** Higher Mathematics 1A
	PHYS1121 Physics 1A OR **PHYS1131** Higher Physics 1A
Term 1	**PHYS1231** Higher Physics 1B
	MATH1231 Mathematics 1B OR **MATH1241** Higher Mathematics 1B
	DESN1000 Introduction to Engineering Design and Innovation
Term 2	**COMP1521** Computer Systems Fundamentals
	COMP1531 Software Engineering Fundamentals

Year 2	
Term 3	**COMP2521** Data Structures and Algorithms
	MATH2069 Mathematics 2A
	ELEC2133 Analogue Electronics
Term 1	**ELEC1111** Electrical Circuit Fundamentals
	ELEC2134 Circuits and Signals
	ELEC2141 Digital Circuit Design
Term 2	**DESN2000** Engineering Design and Professional Practice
	MATH2099 Mathematics 2B

Year 3	
Term 3	**COMP2511** Object-Oriented Design and Programming
	ELEC3104 Digital Signal Processing
Term 1	**COMP3121** Algorithm Design and Analysis OR **COMP3821** Extended Algorithm Design and Analysis
	ELEC3115 Electromagnetic Engineering
	ELEC3106 Electronics
Term 2	**ELEC3117** Electrical Engineering Design
	ELEC3114 Control Systems
	Breadth Elective

Year 4	
Term 3	**TELE3118** Network Technologies
	TELE3119 Trusted Networks
	ELEC4123 Electrical Design Proficiency
Term 1	**COMP4920** Professional Issues and Ethics in Information Technology
	TELE3113 Analogue and Digital Communications
	ELEC4122 Strategic Leadership and Ethics
Term 2	**COMP3900** Computer Science Project
	Discipline Elective

Year 5	
Term 3	**ELEC4951** Research Thesis A
	Computing Elective
	Computing Elective
Term 1	**ELEC4952** Research Thesis B
	Discipline Elective
	Computing Elective
Term 2	**ELEC4953** Research Thesis C
	Computing Elective
	Computing Elective

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