

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

Quantum Engineering (ELECCH) / Computer Science (COMPA1)
T1 Entry 2024 Sample Plan



Year 1		Year 2		Year 3		Year 4		Year 5	
Term 1	COMP1511 Programming Fundamentals	Term 1	ELEC2134 Circuits and Signals	Term 1	ELEC3106 Electronics	Term 1	ELEC4122 Strategic Leadership and Ethics	Term 1	ELEC4951 Research Thesis A
	MATH1131 Mathematics 1A <u>OR</u> MATH1141 Higher Mathematics 1A		COMP1531 Software Engineering Fundamentals		ELEC3115 Electromagnetic Engineering		TELE9757 Quantum Communications		Computing Elective
	PHYS1121 Physics 1A <u>OR</u> PHYS1131 Higher Physics 1A		ELEC2141 Digital Circuit Design		Computing Elective		Breadth/Discipline Elective		
Term 2	MATH1231 Mathematics 1B <u>OR</u> MATH1241 Higher Mathematics 1B	Term 2	MATH2099 Mathematics 2B	Term 2	COMP2511 Object-Oriented Design and Programming	Term 2	PHYS3118 Quantum Physics of Solids and Devices	Term 2	ELEC4952 Research Thesis B
	COMP1521 Computer Systems Fundamentals		DESN2000 Engineering Design and Professional Practice		ELEC3114 Control Systems		COMP3900 Computer Science Project		Computing Elective
			ELEC2133 Analogue Electronics		ELEC3117 Electrical Engineering Design		Computing Elective		
Term 3	DESN1000 Introduction to Engineering Design and Innovation	Term 3	MATH2069 Mathematics 2A	Term 3	COMP3121 Algorithm Design and Analysis <u>OR</u> COMP3821 Extended Algorithm Design and Analysis	Term 3	COMP4920 Professional Issues and Ethics in Information Technology	Term 3	ELEC4953 Research Thesis C
	ELEC1111 Electrical Circuit Fundamentals		COMP2521 Data Structures and Algorithms		ELEC3705 Fundamentals of Quantum Engineering		ELEC4123 Electrical Design Proficiency		Computing Elective
	PHYS1231 Higher Physics 1B				ELEC3104 Digital Signal Processing		ELEC4605 Quantum Devices and Computers		Breadth/Discipline Elective

NOTES	<p>This is intended as a guide only. Courses do not need to be studied in the exact structure that they appear here.</p>
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T2 Entry 2024 Sample Plan



Year 1		Year 2		Year 3		Year 4		Year 5	
Term 2	COMP1511 Programming Fundamentals	Term 2	COMP2521 Data Structures and Algorithms	Term 2	ELEC2133 Analogue Electronics	Term 2	ELEC3117 Electrical Engineering Design	Term 2	ELEC4951 Research Thesis A
	MATH1131 ^① Mathematics 1A		DESN2000 Engineering Design and Professional Practice		ELEC3114 Control Systems		PHYS3118 Quantum Physics of Solids and Devices		Computing Elective
	PHYS1121 ^② Physics 1A		MATH2099 Mathematics 2B		MATH2069 Mathematics 2A				Breadth/Discipline Elective
Term 3	COMP1531 Software Engineering Fundamentals	Term 3	COMP2511 Object-Oriented Design and Programming	Term 3	ELEC3104 Digital Signal Processing	Term 3	ELEC4123 Electrical Design Proficiency	Term 3	ELEC4952 Research Thesis B
	DESN1000 Introduction to Engineering Design and Innovation		ELEC1111 Electrical Circuit Fundamentals		ELEC3705 Fundamentals of Quantum Engineering		ELEC4605 Quantum Devices and Computers		Computing Elective
			ELEC2141 Digital Circuit Design				COMP4920 Professional Issues and Ethics in Information Technology		Computing Elective
Term 1	MATH1231 Mathematics 1B OR MATH1241 Higher Mathematics 1B	Term 1	ELEC2134 Circuits and Signals	Term 1	COMP3121 Algorithm Design and Analysis OR COMP3821 Extended Algorithm Design and Analysis	Term 1	ELEC3115 Electromagnetic Engineering	Term 1	ELEC4953 Research Thesis C
	PHYS1231 Higher Physics 1B		Breadth/Discipline Elective		COMP3900 Computer Science Project		ELEC4122 Strategic Leadership and Ethics		Computing Elective
	COMP1521 Computer Systems Fundamentals				ELEC3106 Electronics		TELE9757 Quantum Communications		Computing Elective

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

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

Quantum Engineering (ELECCH) / Computer Science (COMPA1)
T3 Entry 2024 Sample Plan



Year 1		Year 2		Year 3		Year 4		Year 5	
Term 3	COMP1511 Programming Fundamentals	Term 3	COMP2521 Data Structures and Algorithms	Term 3	COMP3121 * Algorithm Design and Analysis	Term 3	ELEC3104 Digital Signal Processing	Term 3	ELEC4951 Research Thesis A
	MATH1131 Mathematics 1A OR MATH1141 Higher Mathematics 1A		MATH2069 Mathematics 2A		ELEC2134 Circuits and Signals		ELEC3705 Fundamentals of Quantum Engineering		Computing Elective
	PHYS1121 Physics 1A OR PHYS1131 Higher Physics 1A						ELEC4605 Quantum Devices and Computers		Breadth/Discipline Elective
Term 1	MATH1231 Mathematics 1B OR MATH1241 Higher Mathematics 1B	Term 1	ELEC1111 Electrical Circuit Fundamentals	Term 1	ELEC3106 Electronics	Term 1	ELEC4122 Strategic Leadership and Ethics	Term 1	ELEC4952 Research Thesis B
	PHYS1231 Higher Physics 1B		ELEC2141 Digital Circuit Design		COMP4920 Professional Issues and Ethics in Information Technology		ELEC4123 Electrical Design Proficiency		Computing Elective
	COMP1521 Computer Systems Fundamentals		Computing Elective		ELEC3115 Electromagnetic Engineering		TELE9757 Quantum Communications		Computing Elective
Term 2	DESN1000 Introduction to Engineering Design and Innovation	Term 2	MATH2099 Mathematics 2B	Term 2	COMP3900 Computer Science Project	Term 2	ELEC3117 Electrical Engineering Design	Term 2	ELEC4953 Research Thesis C
	COMP1531 Software Engineering Fundamentals		DESN2000 Engineering Design and Professional Practice		ELEC3114 Control Systems		PHYS3118 Quantum Physics of Solids and Devices		Computing Elective
			COMP2511 Object-Oriented Design and Programming		ELEC2133 Analogue Electronics				Breadth/Discipline Elective

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