

Bachelor of Engineering (Honours) (3707)

Quantum Engineering (ELECCH)

T1 Entry 2023 Sample Plan



Year 1		Year 2		Year 3		Year 4	
Term 1	DESN1000 Intro. to Eng. Design and Innovation	Term 1	ELEC2141 Digital Circuit Design	Term 1	ELEC3115 Electromagnetic Engineering	Term 1	ELEC4122 Strategic Leadership & Ethics
	ELEC1111 Electrical Circuit Fundamentals		ELEC2134 Circuits and Signals		ELEC3106 Electronics		Free Elective OR Discipline Elective
	MATH1131 OR MATH1141 (Higher) Mathematics 1A		General Education Course		TELE9757 Quantum Communications		ELEC4951 Research Thesis A (4 UoC)
Term 2	PHYS1131 Higher Physics 1A	Term 2	DESN2000 Engineering Design & Professional Practice	Term 2	ELEC3117 Electrical Engineering Design	Term 2	Discipline Elective
	MATH1231 OR MATH1241 (Higher) Mathematics 1B		MATH2099 Mathematics 2B		ELEC3114 Control Systems		ELEC4605 Quantum Devices and Computers
	COMP1511 Programming Fundamentals		ELEC2133 Analogue Electronics		PHYS3118[^] Quantum Physics of Solids and Devices		ELEC4952 Research Thesis B (4 UoC)
Term 3	PHYS1231 Higher Physics 1B	Term 3	ELEC3104 Digital Signal Processing	Term 3	General Education Course	Term 3	ELEC4123 Electrical Design Proficiency
	MATH2069 Mathematics 2A		ELEC3705 Fundamentals of Quantum Engineering		Breadth/Discipline Elective		ELEC4953 Research Thesis C (4 UoC)
					Free Elective OR Discipline Elective		

NOTES

Compulsory Training Component: There is a program requirement of 60 days approved [Industrial Training](#) ENGG4999

[^]Students in quantum engineering do not need to meet the handbook pre-requisites, ELECCH stream must be declared

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

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T2 Entry 2023 Sample Plan



Year 1		Year 2		Year 3		Year 4	
Term 2	COMP1511 Programming Fundamentals	Term 2	DESN2000 Engineering Design & Professional Practice	Term 2	ELEC3117 Electrical Engineering Design	Term 2	Discipline Elective
	MATH1131 Mathematics 1A		MATH2099 Mathematics 2B		ELEC3114 Control Systems		Free Elective OR Discipline Elective
	PHYS1131 Higher Physics 1A		ELEC2133 Analogue Electronics		PHYS3118^ Quantum Physics of Solids and Devices		ELEC4951 Research Thesis A (4 UoC)
Term 3	DESN1000 Intro. to Eng. Design and Innovation	Term 3	ELEC3104 Digital Signal Processing	Term 3	General Education Course	Term 3	ELEC4123 Electrical Design Proficiency
	ELEC1111 Electrical Circuit Fundamentals		MATH2069 Mathematics 2A		ELEC4605 Quantum Devices and Computers		ELEC4952 Research Thesis B (4 UoC)
	MATH1231 Mathematics 1B		ELEC3705 Fundamentals of Quantum Engineering				
Term 1	ELEC2134 Circuits and Signals	Term 1	ELEC3115 Electromagnetic Engineering	Term 1	TELE9757 Quantum Communications	Term 1	ELEC4122 Strategic Leadership & Ethics
	ELEC2141 Digital Circuit Design		ELEC3106 Electronics		Breadth/Discipline Elective		Free Elective OR Discipline Elective
	PHYS1231 Higher Physics 1B				General Education Course		ELEC4953 Research Thesis C (4 UoC)

NOTES

Compulsory Training Component: There is a program requirement of 60 days approved [Industrial Training](#) ENGG4999

^Students in quantum engineering need to have ELEC3705 completed as a pre-req, instead of listed pre-requisites on the handbook, ELECCH stream must be declared.

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T3 Entry 2023 Sample Plan



Year 1		Year 2		Year 3		Year 4	
Term 3	DESN1000 Intro. to Eng. Design and Innovation	Term 3	MATH2069 Mathematics 2A	Term 3	ELEC3104 Digital Signal Processing	Term 3	Free Elective OR Discipline Elective
	PHYS1131 Higher Physics 1A		ELEC3705 Fundamentals of Quantum Engineering		General Education Course		ELEC4605 Quantum Devices and Computers
	MATH1131 OR MATH1141 (Higher) Mathematics 1A		General Education Course				ELEC4951 Research Thesis A (4 UoC)
Term 1	ELEC1111 Electrical Circuit Fundamentals	Term 1	ELEC2134 Circuits and Signals	Term 1	Breadth/Discipline Elective	Term 1	ELEC4122 Strategic Leadership & Ethics
	PHYS1231 Higher Physics 1B		ELEC2141 Digital Circuit Design		ELEC3106 Electronics		ELEC4123 Electrical Design Proficiency
	MATH1231 OR MATH1241 (Higher) Mathematics 1B		ELEC3115 Electromagnetic Engineering		TELE9757 Quantum Communications		ELEC4952 Research Thesis B (4 UoC)
Term 2	COMP1511 Programming Fundamentals	Term 2	DESN2000 Engineering Design & Professional Practice	Term 2	ELEC3114 Control Systems	Term 2	Free Elective OR Discipline Elective
	MATH2099 Mathematics 2B		PHYS3118^ Quantum Physics of Solids and Devices		ELEC3117 Electrical Engineering Design		ELEC4953 Research Thesis C (4 UoC)
			ELEC2133 Analogue Electronics		Discipline Elective		

NOTES

Compulsory Training Component: There is a program requirement of 60 days approved [Industrial Training](#) ENGG4999

^Students in quantum engineering do not need to meet the handbook pre-requisites, ELECCH stream must be declared

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