

Engineering

Bachelor of Engineering (Honours) (3707)

Quantum Engineering (ELECCH)

T1 Entry 2025 Sample Plan



UNSW
SYDNEY

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	ELEC4951 Research Thesis A (4 UoC)
	ELEC1111 Electrical Circuit Fundamentals		ELEC2134 Circuits and Signals		ELEC3106 Electronics		ELEC4122 Strategic Leadership & Ethics
Term 2	MATH1131 Mathematics 1A	Term 2	DESN2000 Engineering Design & Professional Practice	Term 2	ELEC3117 Electrical Engineering Design	Term 2	ELEC4952 Research Thesis B (4 UoC)
	PHYS1121 Physics 1A OR PHYS1131 Higher Physics 1A		MATH2099 Mathematics 2B		ELEC3114 Control Systems		Free Elective OR Discipline Elective
	General Education Course		ELEC2133 Analogue Electronics		PHYS3118[^] Quantum Physics of Solids and Devices		Discipline Elective
Term 3	PHYS1231 Higher Physics 1B	Term 3	ELEC3104 Digital Signal Processing	Term 3	General Education Course	Term 3	ELEC4953 Research Thesis C (4 UoC)
	COMP1511 Programming Fundamentals		ELEC3705 Fundamentals of Quantum Engineering		Breadth Elective OR Discipline Elective		ELEC4605 Quantum Devices and Computers
	MATH1231 Mathematics 1B		MATH2069 Mathematics 2A				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

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T2 Entry 2025 Sample Plan



UNSW
SYDNEY

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

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Engineering

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T3 Entry 2025 Sample Plan



UNSW
SYDNEY

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

NOTES

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

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