

Bachelor Engineering (Honours) /Computer Science 3785 - Quantum Engineering - ELECCH - T2 2026 Start

Program: Engineering (Hons) / Comp Sci [3785]

Year 1 Term 2

Course or Activity	Prerequisites	Credits
COMP1511 Programming Fundamentals		6
<i>MATH1131 or MATH1141</i>		6
<i>PHYS1121 or PHYS1131</i>		6

Year 1 Term 3

Course or Activity	Prerequisites	Credits
COMP1531 Software Engineering Fundamentals	COMP1511	6
PHYS1231 Higher Physics 1B		6
<i>MATH1231 or MATH1241</i>		6

Year 2 Term 1

Course or Activity	Prerequisites	Credits
DESN1000 Introduction to Engineering Design and Innovation		6
<i>COMP1521</i>		6

Year 2 Term 2

Course or Activity	Prerequisites	Credits
COMP2521 Data Structures and Algorithms	COMP1511	6
DESN2000 Engineering Design and Professional Practice	COMP2521, ELEC2141, DESN1000, COMP1511	6
MATH2099 Mathematics 2B		6

Year 2 Term 3

Course or Activity	Prerequisites	Credits
COMP2511 Object-Oriented Design and Programming	COMP2521, COMP1531	6
MATH2069 Mathematics 2A		6

Year 3 Term 1

Course or Activity	Prerequisites	Credits
ELEC1111 Electrical Circuit Fundamentals		6
ELEC2134 Circuits and Signals	ELEC1111	6

ELEC2141 Digital Circuit Design		6
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Year 3 Term 2

Course or Activity	Prerequisites	Credits
ELEC2133 Analogue Electronics	ELEC2134	6
<i>Computing Electives</i>		6
<i>Quantum Engineering</i>		6

Year 3 Term 3

Course or Activity	Prerequisites	Credits
ELEC3705 Fundamentals of Quantum Engineering	PHYS1231, MATH2099	6
<i>COMP3121 or COMP3821</i>		6

Year 4 Term 1

Course or Activity	Prerequisites	Credits
ELEC3106 Electronics	ELEC2141, ELEC2133	6
ELEC3115 Electromagnetic Engineering	PHYS1231, MATH2069	6
<i>Computing Electives</i>		6

Year 4 Term 2

Course or Activity	Prerequisites	Credits
ELEC3114 Control Systems	ELEC2134, MATH2099	6
ELEC3117 Electrical Engineering Design	ELEC2133	6
PHYS3118 Quantum Physics of Solids and Devices	ELEC3705	6

Year 4 Term 3

Course or Activity	Prerequisites	Credits
COMP3900 Computer Science Project	COMP2521, COMP1531	6
ELEC3104 Digital Signal Processing	ELEC2134	6
<i>Quantum Engineering</i>		6

Year 5 Term 1

Course or Activity	Prerequisites	Credits
COMP4920 Professional Issues and Ethics in Information Technology		6
TELE9757 Quantum Communications		6

Year 5 Term 2

Course or Activity	Prerequisites	Credits
ELEC4951 Research Thesis A		4
<i>Computing Electives</i>		6
<i>Computing Electives</i>		6

Year 5 Term 3

Course or Activity	Prerequisites	Credits
ELEC4123 Electrical Design Proficiency		6
ELEC4605 Quantum Devices and Computers	ELEC3705	6
ELEC4952 Research Thesis B	ELEC4951	4

Year 6 Term 1

Course or Activity	Prerequisites	Credits
ELEC4122 Strategic Leadership and Ethics		6
ELEC4953 Research Thesis C	ELEC4952	4
ENGG4999 Industrial Training		0
<i>Computing Electives</i>		6