

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

[Electrical Engineering \(ELECAH\)](#) / [Computer Science \(COMPA1\)](#)

T1 Entry 2025 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 | COMP3121 Algorithm Design and Analysis OR COMP3821 Extended Algorithm Design and Analysis | Term 1 | TELE3113 Analogue and Digital Communications | Term 1 | ELEC4951 Research Thesis A |
| | MATH1131 Mathematics 1A OR MATH1141 Higher Mathematics 1A | | COMP1531 Software Engineering Fundamentals | | ELEC3106 Electronics | | ELEC4122 Strategic Leadership and Ethics | | Computing Elective |
| | PHYS1121 Physics 1A OR PHYS1131 Higher Physics 1A | | ELEC2141 Digital Circuit Design | | ELEC3115 Electromagnetic Engineering | | COMP4920 Professional Issues and Ethics in Information Technology | | Computing Elective |
| Term 2 | MATH1231 Mathematics 1B OR MATH1241 Higher Mathematics 1B | Term 2 | DESN2000 Engineering Design and Professional Practice | Term 2 | MATH2099 Mathematics 2B | Term 2 | ELEC3114 Control Systems | Term 2 | ELEC4952 Research Thesis B |
| | PHYS1231 Higher Physics 1B | | COMP2521 Data Structures and Algorithms | | ELEC3105 Electrical Energy | | Discipline Elective | | Computing Elective |
| | COMP1521 Computer Systems Fundamentals | | ELEC2133 Analogue Electronics | | ELEC3117 Electrical Engineering Design | | | | Computing Elective |
| Term 3 | DESN1000 Introduction to Engineering Design and Innovation | Term 3 | COMP2511 Object-Oriented Design and Programming | Term 3 | COMP3900 Computer Science Project | Term 3 | ELEC4123 Electrical Design Proficiency | Term 3 | ELEC4953 Research Thesis C |
| | ELEC1111 Electrical Circuit Fundamentals | | MATH2069 Mathematics 2A | | ELEC3104 Digital Signal Processing | | Discipline Elective | | Computing Elective |
| | | | | | | | Disciplinary / Breadth Elective | | Discipline Elective |

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| 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> <p>Compulsory Training Component: There is a program requirement of 60 days approved Industrial Training ENGG4999</p> |
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T2 Entry 2025 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 | MATH2099 Mathematics 2B | Term 2 | ELEC3105 Electrical Energy | Term 2 | ELEC4951 Research Thesis A |
| | MATH1131 ^① Mathematics 1A | | DESN2000 Engineering Design and Professional Practice | | Discipline Elective | | ELEC3114 Control Systems | | Discipline Elective |
| | PHYS1121 Physics 1A OR PHYS1131 Higher Physics 1A | | | | | | ELEC3117 Electrical Engineering Design | | Computing Elective |
| Term 3 | MATH1231 Mathematics 1B OR MATH1241 Higher Mathematics 1B | Term 3 | MATH2069 Mathematics 2A | Term 3 | COMP4920 Professional Issues and Ethics in Information Technology | Term 3 | ELEC3104 Digital Signal Processing | Term 3 | ELEC4952 Research Thesis B |
| | COMP1531 Software Engineering Fundamentals | | COMP2511 Object-Oriented Design and Programming | | ELEC2134 Circuits and Signals | | ELEC4123 Electrical Design Proficiency | | Computing Elective |
| | PHYS1231 Higher Physics 1B | | Disciplinary / Breadth Elective | | Computing Elective | | | | Computing Elective |
| Term 1 | COMP1521 Computer Systems Fundamentals | Term 1 | ELEC3115 Electromagnetic Engineering | Term 1 | COMP3121 Algorithm Design and Analysis OR COMP3821 Extended Algorithm Design and Analysis | Term 1 | ELEC3106 Electronics | Term 1 | ELEC4953 Research Thesis C |
| | DESN1000 Introduction to Engineering Design and Innovation | | ELEC1111 Electrical Circuit Fundamentals | | COMP3900 Computer Science Project | | TELE3113 Analogue and Digital Communications | | Computing Elective |
| | | | ELEC2141 Digital Circuit Design | | ELEC3115 Electromagnetic Engineering | | ELEC4122 Strategic Leadership and Ethics | | Discipline 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

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T3 Entry 2025 Sample Plan



| Year 1 | | Year 2 | | Year 3 | | Year 4 | | Year 5 | |
|--------|---|--------|---|--------|---|--------|---|--------|--------------------------------------|
| Term 3 | COMP1511 Programming Fundamentals | Term 3 | MATH2069 Mathematics 2A | Term 3 | COMP2521 Data Structures and Algorithms | Term 3 | ELEC4123 Electrical Design Proficiency | Term 3 | ELEC4951 Research Thesis A |
| | MATH1131 Mathematics 1A OR MATH1141 Higher Mathematics 1A | | COMP1521 Computer Systems Fundamentals | | ELEC3104 Digital Signal Processing | | COMP4920 Professional Issues and Ethics in Information Technology | | Discipline Elective |
| | PHYS1121 Physics 1A OR PHYS1131 Higher Physics 1A | | COMP1531 Software Engineering Fundamentals | | | | | | Discipline Elective |
| Term 1 | DESN1000 Introduction to Engineering Design and Innovation | Term 1 | ELEC2134 Circuits and Signals | Term 1 | ELEC3106 Electronics | Term 1 | COMP3900 Computer Science Project | Term 1 | ELEC4952 Research Thesis B |
| | ELEC1111 Electrical Circuit Fundamentals | | ELEC3115 Electromagnetic Engineering | | TELE3113 Analogue and Digital Communications | | ELEC4122 Strategic Leadership and Ethics | | Computing Elective |
| | ELEC2141 Digital Circuit Design | | | | COMP2511 Object-Oriented Design and Programming | | Discipline Elective | | Computing Elective |
| Term 2 | MATH1231 Mathematics 1B OR MATH1241 Higher Mathematics 1B | Term 2 | DESN2000 Engineering Design and Professional Practice | Term 2 | COMP3121 Algorithm Design and Analysis OR COMP3821 Extended Algorithm Design and Analysis | Term 2 | ELEC3117 Electrical Engineering Design | Term 2 | ELEC4953 Research Thesis C |
| | PHYS1231 Higher Physics 1B | | ELEC2133 Analogue Electronics | | ELEC3105 Electrical Energy | | Disciplinary / Breadth Elective | | Computing Elective |
| | | | MATH2099 Mathematics 2B | | ELEC3114 Control Systems | | Computing Elective | | Computing Elective |

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