

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

## [Mechanical and Manufacturing Engineering \(MANFBH\)](#) / [Computer Science \(COMPA1\)](#)

### T1 Entry 2025 Sample Plan



Year 1		Year 2		Year 3		Year 4		Year 5	
Term 1	<b>COMP1511</b> Programming Fundamentals	Term 1	<b>COMP1521</b> Computer Systems Fundamentals	Term 1	<b>MMAN3200</b> Linear Systems and Control	Term 1	<b>COMP3121</b> Algorithm Design and Analysis <u>OR</u> <b>COMP3821</b> Extended Algorithm Design and Analysis	Term 1	<b>MMAN4951</b> Research Thesis A
	<b>MATH1131</b> Mathematics 1A <u>OR</u> <b>MATH1141</b> Higher Mathematics 1A		<b>MATH2018</b> Engineering Mathematics 2D <u>OR</u> <b>MATH2019</b> Engineering Mathematics 2E		<b>MECH3110</b> Mechanical Design 1		<b>MANF4430</b> Reliability and Maintenance Engineering		<b>MANF4150</b> Design of Intelligent Manufacturing Systems
	<b>PHYS1121</b> Physics 1A <u>OR</u> <b>PHYS1131</b> Higher Physics 1A		<b>ENGG2500</b> Fluid Mechanics for Engineers		<b>COMP2521</b> Data Structures and Algorithms		<b>MANF4100</b> Design and Analysis of Product-Process Systems		<b>Computing Elective</b>
Term 2	<b>MATH1231</b> Mathematics 1B <u>OR</u> <b>MATH1241</b> Higher Mathematics 1B	Term 2	<b>ENGG2400</b> Mechanics of Solids 1	Term 2	<b>DESN3000</b> Strategic Design Innovation	Term 2	<b>MANF4611</b> Process Modelling and Simulation	Term 2	<b>MMAN4952</b> Research Thesis B
	<b>COMP1531</b> Software Engineering Fundamentals		<b>MMAN1130</b> Design and Manufacturing		<b>MANF3510</b> Process Technology and Automation		<b>COMP3900</b> Computer Science Project		<b>Computing Elective</b>
Term 3	<b>DESN1000</b> Introduction to Engineering Design and Innovation	Term 3	<b>DESN2000</b> Engineering Design and Professional Practice	Term 3	<b>COMP2511</b> Object-Oriented Design and Programming	Term 3	<b>MMAN4400</b> Engineering Management	Term 3	<b>MMAN4953</b> Research Thesis C
	<b>ELEC1111</b> Electrical Circuit Fundamentals		<b>MATH2089</b> Numerical Methods and Statistics		<b>MMAN2700</b> Thermodynamics		<b>COMP4920</b> Professional Issues and Ethics in Information Technology		<b>Computing Elective</b>
	<b>ENGG1300</b> Engineering Mechanics		<b>MMAN2300</b> Engineering Mechanics 2		<b>Discipline Elective</b>		<b>Computing Elective</b>		<b>Computing Elective</b>

**NOTES**

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

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## T2 Entry 2025 Sample Plan



Year 1		Year 2		Year 3		Year 4		Year 5	
Term 2	<b>COMP1511</b> Programming Fundamentals	Term 2	<b>COMP2521</b> Data Structures and Algorithms	Term 2	<b>ENGG2400</b> Mechanics of Solids 1	Term 2	<b>MMAN3200</b> Linear Systems and Control	Term 2	<b>MMAN4951</b> Research Thesis A
	<b>MMAN1130</b> Design and Manufacturing		<b>ENGG1300</b> Engineering Mechanics		<b>DESN3000</b> Strategic Design Innovation		<b>MANF4611</b> Process Modelling and Simulation		<b>Computing Elective</b>
	<b>COMP1521</b> Computer Systems Fundamentals		<b>MANF3510</b> Process Technology and Automation		<b>COMP3900</b> Computer Science Project		<b>Discipline Elective</b>		
Term 3	<b>MATH1131</b> Mathematics 1A <u>OR</u> <b>MATH1141</b> Higher Mathematics 1A	Term 3	<b>COMP2511</b> Object-Oriented Design and Programming	Term 3	<b>MMAN2700</b> Thermodynamics	Term 3	<b>MMAN4400</b> Engineering Management	Term 3	<b>MMAN4952</b> Research Thesis B
	<b>PHYS1121</b> Physics 1A <u>OR</u> <b>PHYS1131</b> Higher Physics 1A		<b>DESN2000</b> Engineering Design and Professional Practice		<b>MMAN2300</b> Engineering Mechanics 2		<b>COMP4920</b> Professional Issues and Ethics in Information Technology		<b>Computing Elective</b>
	<b>COMP1531</b> Software Engineering Fundamentals		<b>MATH2089</b> Numerical Methods and Statistics		<b>Computing Elective</b>				<b>Computing Elective</b>
Term 1	<b>ELEC1111</b> Electrical Circuit Fundamentals	Term 1	<b>MATH2018</b> Engineering Mathematics 2D <u>OR</u> <b>MATH2019</b> Engineering Mathematics 2E	Term 1	<b>MECH3110</b> Mechanical Design 1	Term 1	<b>COMP3121</b> Algorithm Design and Analysis <u>OR</u> <b>COMP3821</b> Extended Algorithm Design and Analysis	Term 1	<b>MMAN4953</b> Research Thesis C
	<b>DESN1000</b> Introduction to Engineering Design and Innovation		<b>ENGG2500</b> Fluid Mechanics for Engineers		<b>MANF4100</b> Design and Analysis of Product-Process Systems		<b>MANF4150</b> Design of Intelligent Manufacturing Systems		<b>Computing Elective</b>
	<b>MATH1231</b> Mathematics 1B <u>OR</u> <b>MATH1241</b> Higher Mathematics 1B						<b>MANF4430</b> Reliability and Maintenance Engineering		<b>Discipline Elective</b>

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## T3 Entry 2025 Sample Plan



Year 1		Year 2		Year 3		Year 4		Year 5	
Term 3	<b>COMP1511</b> Programming Fundamentals	Term 3	<b>DESN2000</b> Engineering Design and Professional Practice	Term 3	<b>COMP3121</b> Algorithm Design and Analysis	Term 3	<b>COMP3900</b> Computer Science Project	Term 3	<b>MMAN4951</b> Research Thesis A
	<b>MATH1131</b> Mathematics 1A <u>OR</u> <b>MATH1141</b> Higher Mathematics 1A		<b>ELEC1111</b> Electrical Circuit Fundamentals		<b>MATH2089</b> Numerical Methods and Statistics		<b>MMAN4400</b> Engineering Management		<b>COMP4920</b> Professional Issues and Ethics in Information Technology
	<b>PHYS1121</b> Physics 1A <u>OR</u> <b>PHYS1131</b> Higher Physics 1A				<b>ENGG2500</b> Fluid Mechanics for Engineers		<b>Computing Elective</b>		<b>Discipline Elective</b>
Term 1	<b>DESN1000</b> Introduction to Engineering Design and Innovation	Term 1	<b>COMP1531</b> Software Engineering Fundamentals	Term 1	<b>MMAN2700</b> Thermodynamics	Term 1	<b>MANF4430</b> Reliability and Maintenance Engineering	Term 1	<b>MMAN4952</b> Research Thesis B
	<b>COMP1521</b> Computer Systems Fundamentals		<b>COMP2521</b> Data Structures and Algorithms		<b>MECH3110</b> Mechanical Design 1		<b>MANF4100</b> Design and Analysis of Product-Process Systems		<b>Computing Elective</b>
			<b>MATH2018</b> Engineering Mathematics 2D <u>OR</u> <b>MATH2019</b> Engineering Mathematics 2E		<b>MMAN3200</b> Linear Systems and Control		<b>MANF4150</b> Design of Intelligent Manufacturing Systems		<b>Computing Elective</b>
Term 2	<b>ENGG1300</b> Engineering Mechanics	Term 2	<b>COMP2511</b> Object-Oriented Design and Programming	Term 2	<b>DESN3000</b> Strategic Design Innovation	Term 2	<b>MANF4611</b> Process Modelling and Simulation	Term 2	<b>MMAN4953</b> Research Thesis C
	<b>MATH1231</b> Mathematics 1B <u>OR</u> <b>MATH1241</b> Higher Mathematics 1B		<b>ENGG2400</b> Mechanics of Solids 1		<b>MANF3510</b> Process Technology and Automation		<b>Computing Elective</b>		<b>Computing Elective</b>
	<b>MMAN1130</b> Design and Manufacturing		<b>MMAN2300</b> Engineering Mechanics 2						<b>Discipline Elective</b>

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