

# Engineering Bachelor of Engineering (Honours) (3707)

## Robotics and Mechatronics Engineering (MTRNBH)

### T1 Entry 2025 Sample Plan



**UNSW**  
SYDNEY

Year 1		Year 2		Year 3		Year 4	
Term 1	<b>DESN1000</b> Engineering Design and Innovation	Term 1	<b>MATH2019</b> Engineering Mathematics 2E <u>OR</u> <b>MATH2018</b> Engineering Mathematics 2D	Term 1	<b>MTRN3210</b> Feedback Control Systems	Term 1	<b>MMAN4951</b> (4 UoC) Research Thesis A
	<b>PHYS1121</b> Physics 1A <u>OR</u> <b>PHYS1131</b> Higher Physics 1A		<b>MATH2089</b> Numerical Methods and Statistics		<b>Free Elective Course</b>		<b>MTRN4010</b> Advanced Autonomous Systems
	<b>MATH1131</b> Mathematics 1A <u>OR</u> <b>MATH1141</b> Higher Mathematics 1A		<b>ELEC2141</b> Digital Circuit Design		<b>Free Elective Course</b>		<b>MTRN3020</b> Modelling and Control of Mechatronic Systems
Term 2	<b>MATH1231</b> Mathematics 1B <u>OR</u> <b>MATH1241</b> Higher Mathematics 1B	Term 2	<b>COMP2521</b> Data Structures and Algorithms	Term 2	<b>MTRN3100</b> Robot Design	Term 2	<b>MMAN4952</b> (4 UoC) Research Thesis B
	<b>COMP1511</b> Programming Fundamentals		<b>MMAN2300</b> Engineering Mechanics 2		<b>DESN3000</b> Strategic Design Innovation		<b>MTRN4230</b> Robotics
			<b>MMAN2700*</b> Thermodynamics		<b>General Education Course</b>		<b>Recommended Discipline Elective</b>
Term 3	<b>MMAN1130</b> Design and Manufacturing	Term 3	<b>DESN2000</b> Engineering Design and Professional Practice	Term 3	<b>MTRN3500</b> Computing Applications in Mechatronics Systems	Term 3	<b>MMAN4953</b> (4 UoC) Research Thesis C
	<b>ENGG1300</b> Engineering Mechanics		<b>MTRN2500</b> Computing for Mechatronic Engineers		<b>General Education Course</b>		<b>Discipline Elective Course</b>
	<b>ELEC1111</b> Electrical Circuit Fundamentals						<b>Discipline Elective Course</b>

#### NOTES

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

At least 6 UOC of discipline electives must be chosen from the "recommended elective list" in the handbook. \*Students can take MMAN2700/ENGG2400 or ENGG2500 but MMAN2700 is recommended for this stream.

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# Engineering Bachelor of Engineering (Honours) (3707)

## Robotics and Mechatronics Engineering (MTRNBH)

### T2 Entry 2025 Sample Plan



**UNSW**  
SYDNEY

Year 1		Year 2		Year 3		Year 4	
Term 2	<b>PHYS1121</b> Physics 1A <b>OR</b> <b>PHYS1131</b> Higher Physics 1A	Term 2	<b>MATH2019</b> Engineering Mathematics 2E <b>OR MATH2018</b> Engineering Mathematics 2D	Term 2	<b>DESN3000</b> Strategic Design Innovation	Term 2	<b>MMAN4951</b> (4 UoC) Research Thesis A
	<b>MATH1131</b> Mathematics 1A		<b>COMP2521</b> Data Structures and Algorithms		<b>MTRN3100</b> Robot Design		<b>MTRN4230</b> Robotics
	<b>MMAN1130</b> Design and Manufacturing		<b>Free Elective</b>		<b>MMAN2300</b> Engineering Mechanics 2		<b>Recommended Discipline Elective</b>
Term 3	<b>COMP1511</b> Programming Fundamentals	Term 3	<b>DESN2000</b> Engineering Design and Professional Practice	Term 3	<b>MTRN3500</b> Computing Applications in Mechatronics Systems	Term 3	<b>MMAN4952</b> (4 UoC) Research Thesis B
	<b>ENGG1300</b> Engineering Mechanics		<b>MTRN2500</b> Computing for Mechatronic Engineers		<b>General Education Course</b>		<b>Discipline Elective Course</b>
	<b>MATH1231</b> Mathematics 1B		<b>MATH2089</b> Numerical Methods and Statistics		<b>Discipline Elective</b>		<b>General Education Course</b>
Term 1	<b>ELEC1111</b> Electrical Circuit Fundamentals	Term 1	<b>ELEC2141</b> Digital Circuit Design	Term 1	<b>MTRN3210</b> Feedback Control Systems	Term 1	<b>MMAN4953</b> (4 UoC) Research Thesis C
	<b>DESN1000</b> Engineering Design and Innovation		<b>MMAN2700*</b> Thermodynamics		<b>MTRN3020</b> Modelling and Control of Mechatronic Systems		<b>MTRN4010</b> Advanced Autonomous Systems
							<b>Free Elective</b>

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# Engineering Bachelor of Engineering (Honours) (3707)

## Robotics and Mechatronics Engineering (MTRNBH)

### T3 Entry 2025 Sample Plan



**UNSW**  
SYDNEY

Year 1		Year 2		Year 3		Year 4	
Term 3	<b>PHYS1121</b> Physics 1A <u>OR</u> <b>PHYS1131</b> Higher Physics 1A	Term 3	<b>ENGG1300</b> Engineering Mechanics	Term 3	<b>MTRN3500</b> Computing Applications in Mechatronics Systems	Term 3	<b>MMAN4951</b> (4 UoC) Research Thesis A
	<b>MATH1131</b> Mathematics 1A <u>OR</u> <b>MATH1141</b> Higher Mathematics 1A		<b>MTRN2500</b> Computing for Mechatronic Engineers		<b>General Education Course</b>		<b>Discipline Elective Course</b>
	<b>COMP1511</b> Programming Fundamentals		<b>DESN2000</b> Engineering Design and Professional Practice				<b>Discipline Elective Course</b>
Term 1	<b>DESN1000</b> Engineering Design and Innovation	Term 1	<b>MATH2019</b> Engineering Mathematics 2E <u>OR</u> <b>MATH2018</b> Engineering Mathematics 2D	Term 1	<b>MTRN3210</b> Feedback Control Systems	Term 1	<b>MMAN4952</b> (4 UoC) Research Thesis B
	<b>ELEC1111</b> Electrical Circuit Fundamentals		<b>ELEC2141</b> Digital Circuit Design		<b>Free Elective</b>		<b>MTRN4010</b> Advanced Autonomous Systems
	<b>MATH1231</b> Mathematics 1B <u>OR</u> <b>MATH1241</b> Higher Mathematics 1B		<b>MATH2089</b> Numerical Methods and Statistics		<b>Free Elective</b>		<b>MTRN3020</b> Modelling and Control of Mechatronic Systems
Term 2	<b>COMP2521</b> Data Structures and Algorithms	Term 2	<b>MMAN2300</b> Engineering Mechanics 2	Term 2	<b>MTRN3100</b> Robot Design	Term 2	<b>MMAN4953</b> (4 UoC) Research Thesis C
	<b>MMAN1130</b> Design and Manufacturing		<b>ENGG2400</b> Mechanics of Solids 1 <u>OR</u> <b>ENGG2500</b> Fluid Mechanics for Engineering		<b>DESN3000</b> Strategic Design Innovation		<b>MTRN4230</b> Robotics
					<b>General Education Course</b>		<b>Discipline Elective Course</b>

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