Engineering

Bachelor of Engineering (Honours) / Science (3767)

Aerospace Engineering (AEROAH) / Physics (PHYSL1)

T1 Entry 2025 Sample Plan

UNSW SYDNEY

Year 1	
Term 1	**DESN1000** Introduction to Engineering Design and Innovation
	MATH1131 Mathematics 1A OR **MATH1141** Higher Mathematics 1A
	PHYS1121 Physics 1A OR **PHYS1131** Higher Physics 1A
	SCIF0000 (0 UoC) Introduction to University
Term 2	**MATH1231** Mathematics 1B OR **MATH1241** Higher Mathematics 1B
	MMAN1130 Design and Manufacturing
Term 3	**ENGG1300** Engineering Mechanics
	PHYS1221 Physics 1B OR **PHYS1231** Higher Physics 1B
	ENGG1811 Computing for Engineers OR **COMP1511** Programming Fundamentals OR **COMP1911** Computing 1A

Year 2	
Term 1	**MMAN2700** Thermodynamics
	ELEC1111 Electrical Circuit Fundamentals
	MATH2089 Numerical Methods and Statistics
Term 2	**ENGG2400** Mechanics of Solids 1
	PHYS2114 Electromagnetism
Term 3	**ENGG2500** Fluid Mechanics for Engineers
	DESN2000 Engineering Design and Professional Practice
	MMAN2300 Engineering Mechanics 2

Year 3	
Term 1	**AERO3410** Aerospace Structures
	PHYS2111 Quantum Physics
	Employability Experience Course
Term 2	**AERO3110** Aerospace Design 1
	DESN3000 Strategic Design Innovation
	MATH2121 Theory and Applications of Differential Equations OR **MATH2221** Higher Theory and Applications of Differential Equations
Term 3	**MATH2069** Mathematics 2A
	Employability Experience Course

Year 4	
Term 1	**PHYS3112** Experimental and Computational Physics
	AERO3630 Aerodynamics
	AERO3660 Flight Performance and Propulsion
Term 2	**MMAN3200** Linear Systems and Control
	PHYS3111 Quantum Mechanics
	Physics Elective
Term 3	**AERO4110** Aerospace Design 2
	SCIF1000 Skills in Science

Year 5	
Term 1	**MMAN4951** Research Thesis A
	AERO4620 Dynamics of Aerospace Vehicles, Systems and Avionics
	PHYS3113 Thermal Physics and Statistical Mechanics
Term 2	**MMAN4952** Research Thesis B
	Physics Elective
	Discipline Elective
Term 3	**MMAN4953** Research Thesis C
	SCIF3010 (0 UoC) Graduation Portfolio
	Recommended Discipline Elective*
	Discipline Elective

NOTES

This is intended as a guide only. Courses do not need to be studied in the exact structure that they appear here.

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 discipline elective" list.**

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T2 Entry 2025 Sample Plan

	Year 1	Year 2	Year 3	Year 4	Year 5
Term 2	**MATH1131** Mathematics 1A	**ENGG2400** Mechanics of Solids 1	**AERO3110** Aerospace Design 1	**MMAN3200** Linear Systems and Control	**MMAN4951** Research Thesis A
	PHYS1121 Physics 1A OR **PHYS1131** Higher Physics 1A	**MMAN1130** Design and Manufacturing	**DESN3000** Strategic Design Innovation	**PHYS3111** Quantum Mechanics	**Physics Elective**
	ENGG1811 Computing for Engineers OR **COMP1511** Programming Fundamentals OR **COMP1911** Computing 1A		**PHYS2114** Electromagnetism	**MATH2121** Theory and Applications of Differential Equations OR **MATH2221** Higher Theory and Applications of Differential Equations	**Recommended Discipline Elective***
	SCIF0000 (0 UoC) Introduction to University				
Term 3	**MATH1231** Mathematics 1B OR **MATH1241** Higher Mathematics 1B	**DESN2000** Engineering Design and Professional Practice	**MATH2069** Mathematics 2A	**SCIF1000** Skills in Science	**MMAN4952** Research Thesis B
	ENGG1300 Engineering Mechanics	**ENGG2500** Fluid Mechanics for Engineers	**Employability Experience Course**	**Employability Experience Course**	**AERO4110** Aerospace Design 2
	DESN1000 Introduction to Engineering Design and Innovation	**MMAN2300** Engineering Mechanics 2		**Physics Elective**	**Discipline Elective**
Term 1	**ELEC1111** Electrical Circuit Fundamentals	**MMAN2700** Thermodynamics	**AERO3410** Aerospace Structures	**PHYS3112** Experimental and Computational Physics	**MMAN4953** Research Thesis C
	PHYS1221 Physics 1B OR **PHYS1231** Higher Physics 1B	**MATH2089** Numerical Methods and Statistics	**AERO3630** Aerodynamics	**Discipline Elective**	**PHYS3113** Thermal Physics and Statistical Mechanics
		PHYS2111	**AERO3660** Flight Performance and Propulsion		**AERO4620** Dynamics of Aerospace Vehicles, Systems and Avionics
					SCIF3010 (0 UoC) Graduation Portfolio

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Engineering

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T3 Entry 2025 Sample Plan

	Year 1	Year 2	Year 3	Year 4	Year 5
Term 3	**DESN1000** Introduction to Engineering Design and Innovation	**MMAN2300** Engineering Mechanics 2	**MATH2069** Mathematics 2A	**SCIF1000** Skills in Science	**MMAN4951** Research Thesis A
	MATH1131 Mathematics 1A OR **MATH1141** Higher Mathematics 1A	**ENGG1300** Engineering Mechanics	**ENGG2500** Fluid Mechanics for Engineers	**Physics Elective**	**AERO4110** Aerospace Design 2
	PHYS1121 Physics 1A OR **PHYS1131** Higher Physics 1A	**DESN2000** Engineering Design and Professional Practice		**Recommended Discipline Elective***	**Employability Experience Course**
	SCIF0000 (0 UoC) Introduction to University				
Term 1	**MATH1231** Mathematics 1B OR **MATH1241** Higher Mathematics 1B	**MMAN2700** Thermodynamics	**PHYS2111** Quantum Physics	**AERO3410** Aerospace Structures	**MMAN4952** Research Thesis B
	ELEC1111 Electrical Circuit Fundamentals	**MATH2089** Numerical Methods and Statistics	**AERO3630** Aerodynamics	**PHYS3112** Experimental and Computational Physics	**AERO4620** Dynamics of Aerospace Vehicles, Systems and Avionics
	PHYS1221 Physics 1B OR **PHYS1231** Higher Physics 1B		**AERO3660** Flight Performance and Propulsion	**Employability Experience Course**	**PHYS3113** Thermal Physics and Statistical Mechanics
Term 2	**MMAN1130** Design and Manufacturing	**MATH2121** Theory and Applications of Differential Equations OR **MATH2221** Higher Theory and Applications of Differential Equations	**DESN3000** Strategic Design Innovation	**PHYS3111** Quantum Mechanics	**MMAN4953** Research Thesis C
	ENGG1811 Computing for Engineers OR **COMP1511** Programming Fundamentals OR **COMP1911** Computing 1A	**ENGG2400** Mechanics of Solids 1	**AERO3110** Aerospace Design 1	**Discipline Elective**	**SCIF3010** (0 UoC) Graduation Portfolio
		PHYS2114 Electromagnetism	**MMAN3200** Linear Systems and Control		**Physics Elective**
					Discipline Elective

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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 discipline elective" list.**