

Bachelor of Engineering (Honours) and Master of Engineering

Mechanical and Aerospace Engineering

Undergraduate Program - Consists of 80 units

Suggested Study Plans from 2025 Commencement Onwards



THE UNIVERSITY
OF QUEENSLAND
AUSTRALIA

CREATE CHANGE

Program and Course requirements

For the **Bachelor of Engineering (Honours) and Master of Engineering** full program and course requirements, [click here](#). Make sure to check your program's rules to ensure you are compliant with requirements.

Prerequisite Courses

Students are expected to be aware if a course has prerequisites and must have successfully completed any required prerequisites before enrolling. A prerequisite course provides the foundational knowledge needed to progress to the next course and may be high school subjects or university-level study/courses.

Prerequisites are listed on the course profile and the course page on the [Programs and Courses website](#).

Electives

Depending on your program, you may need to complete compulsory and elective courses.

Electives are courses you can choose, while compulsory courses are mandatory courses that you must study. You must successfully complete all the required units of elective and compulsory courses to meet the program requirements. Your program rules outline how many electives you can study and the types of electives you can choose from.

Search [Programs and Courses website](#) for your program to confirm program rules and elective options.

Academic Advice

Academic advisors provide specialist help in course selection and can look at your individual study history to make personalised recommendations on your study plan.

If you need assistance with your program, you can [seek Academic Advice](#).

Additional Information

Course profiles are underlined and hyperlinked to their relevant course page which can be accessed by clicking the underlined text.

Students must follow the [program rules and requirements](#) listed on the my.UQ website. Future course offerings are subject to change. [Seek academic advice](#) if you are undertaking a dual degree, have any questions or if you fail any courses.

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Suggested Study Plan from Semester 1, 2025 Commencement Onwards

The following is a colour reference guide, including notes around course offerings and units:

Core Courses	Field of Study	Program Electives
General Electives		



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	Course offered in both Semester 1 & 2
	This course does not consist of 2 units
	Elective may be substituted for another Elective type as per Program requirements

YEAR 1				
Sem 1 Feb	ENGG1100 Professional Engineering	MATH1051 Calculus and Linear Algebra I	ENGG1300 Introduction to Electrical Systems	ENGG1500 Thermodynamics: Energy and the Environment
Sem 2 July	ENGG1001 Programming for Engineers	MATH1052 Multivariate Calc & Ordinary Differential Equations	ENGG1700 Statics and Materials	GENERAL ELECTIVE OR PROGRAM ELECTIVE
YEAR 2				
Sem 1 Feb	MATH2001 Calculus & Linear Algebra II	MECH2300 Structures and Materials	MECH2305 Introduction to Engineering Design and Manufacturing	MECH2410 Fundamentals of Fluid Mechanics
Sem 2 July	MATH2010 ¹ STAT2201 ¹	MECH2100 Machine Element Design	MECH2210 Intermediate Mechanical and Space Dynamics	MECH2700 Computational Engineering and Data Analysis
YEAR 3				
Sem 1 Feb	MECH3400 Thermodynamics and Heat Transfer	MECH3610 Systems Engineering Principles	MECH3780 Computational Mechanics	METR4201 Control Engineering 1
Sem 2 July	MECH3100 Mechanical Systems Design	MECH3200 Advanced Dynamics and Vibrations	MECH3410 Fluid Mechanics	GENERAL ELECTIVE OR PROGRAM ELECTIVE
YEAR 4				
Sem 1 Feb	ENGG4901 ² Professional Practice and the Business Environment A	AERO4450 Aerospace Propulsion	AERO4470 Hypersonics	GENERAL ELECTIVE OR PROGRAM ELECTIVE
Sem 2 July	METR6203 Control Engineering 2	AERO4100 Aero Design and Manufacturing	AERO4200 Flight Mechanics and Avionics	BE(Hons)/ME ELECTIVE
YEAR 5				
Sem 1 Feb	ENGG7291 Engineering Placement A			8 units
Sem 2 July	AERO4300 Aerospace Composites	AERO4800 Space Engineering	BE(Hons)/ME MASTERS ELECTIVE	BE(Hons)/ME MASTERS ELECTIVE

NOTES

¹ MATH2010: Analysis of Ordinary Differential Equations; STAT2201: Analysis of Engineering & Scientific Data

² Offered in Semester 2 under the course code ENGG4902, Professional Practice and the Business Environment B

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Bachelor of Engineering (Honours) and Master of Engineering

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Core Courses	Field of Study	Program Electives
General Electives		



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	Elective may be substituted for another Elective type as per Program requirements

YEAR 1				
Sem 2 July	ENGG1100 Professional Engineering	MATH1051 Calculus and Linear Algebra I	ENGG1300 Introduction to Electrical Systems	ENGG1500 Thermodynamics: Energy and the Environment
Sem 1 Feb	ENGG1001 Programming for Engineers	MATH1052 Multivariate Calc & Ordinary Differential Equations	ENGG1700 Statics and Materials	GENERAL ELECTIVE OR PROGRAM ELECTIVE
YEAR 2				
Sem 2 July	MATH2001 Calculus & Linear Algebra II	MATH2010 ¹ STAT2201 ¹	MECH2210 Intermediate Mechanical and Space Dynamics	MECH2700 Computational Engineering and Data Analysis
Sem 1 Feb	MECH2300 Structures and Materials	MECH2305 Introduction to Engineering Design and Manufacturing	MECH2410 Fundamentals of Fluid Mechanics	GENERAL ELECTIVE OR PROGRAM ELECTIVE
YEAR 3				
Sem 2 July	MECH2100 Machine Element Design	MECH3200 Advanced Dynamics and Vibrations	MECH3410 Fluid Mechanics	BE(Hons)/ME ELECTIVE
Sem 1 Feb	MECH3400 Thermodynamics and Heat Transfer	MECH3610 Systems Engineering Principles	MECH3780 Computational Mechanics	METR4201 Control Engineering 1
YEAR 4				
Sem 2 July	MECH3100 Mechanical Systems Design	METR6203 Control Engineering 2	AERO4100 Aero Design and Manufacturing	AERO4200 Flight Mechanics and Avionics
Sem 1 Feb	ENGG7291 Engineering Placement A			
YEAR 5				
Sem 2 July	AERO4300 Aerospace Composites	AERO4800 Space Engineering	BE(Hons)/ME MASTERS ELECTIVE	BE(Hons)/ME MASTERS ELECTIVE
Sem 1 Feb	ENGG4901 ² Professional Practice and the Business Environment A	AERO4450 Aerospace Propulsion	AERO4470 Hypersonics	GENERAL ELECTIVE OR PROGRAM ELECTIVE

NOTES

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