

2024 Commencement Mechanical Engineering Specialisation with a Major in Materials Engineering Bachelor of Engineering (Honours)



Recommended Study Plan

This study plan is a **guide only** for students commencing the Bachelor of Engineering (Hons) in Mechanical Engineering with a Materials Engineering major in 2024. Please note that all course selections must adhere to the course list outlined at [UQ Courses and Programs](#). If you have any questions or concerns regarding your course selections, please speak with an [Academic Advisor](#).

Compulsory Core #8	Compulsory Specialisation #36	Preparatory courses or First Year or General Elective #0-#4
#4 Materials Courses for Mechanical Engineers	#8 Materials Engineering Compulsory courses	#4 Materials Engineering Elective Courses

February Commencement

SEMESTER YEAR 1					
Sem 1 Feb	ENGG1100 Professional Engineering	MATH1051 Calculus & Linear Algebra I (or) MATH1071 Advanced Calculus & Linear Algebra I	ENGG1001 Programming for Engineers (or) CSSE1001 Introduction to Software Engineering	ENGG1700 Statics and Materials	
Sem 2 July	ENGG1500 Thermodynamics: Energy & the Environment	MATH1052 Multivariate Calculus & ODEs (or) MATH1072 Advanced Multivariate Calculus & Ordinary	ENGG1300 Introduction to Electrical Systems	Preparatory Course or First Year or General Elective	
SEMESTER YEAR 2					
Sem 1 Feb	MECH2305 Intro to Engineering Design & Manufacturing	MATH2001 Calculus & Linear Algebra II	MECH2300 Structures & Materials	MECH2410 Fundamentals of Fluid Mechanics	
Sem 2 July	MECH2100 Machine Element Design	MECH2210 Intermediate Mechanical & Space Dynamics	MECH2700 Computational Engineering & Data Analysis	Preparatory Course or First Year or General Elective	
SEMESTER YEAR 3					
Sem 1 Feb	MECH3610 Systems Engineering Principles	MATH2010 Analysis of ODEs	STAT2201 Analysis of Eng. & Scientific Data	MECH3400 Thermodynamics & Heat Transfer	MECH3780 Computational Mechanics
Sem 2 July	MECH3100 Systems Engineering Practice	MECH3200 Advanced Dynamics & Vibrations	MECH2310 – Science & Engineering of Metals	MECH3301 – Materials Selection	
SEMESTER YEAR 4					
Sem 1 Feb	ENGG4600 Engineering Thesis (or) ENGG4552	METR4201 Control Engineering 1	CHEE3301 – Polymer Engineering	Materials Engineering Elective Course	
Sem 2 July	Major Design Project	ENGG4902 Professional Practice & the Business Environment	MATE4302 – Electrochemistry & Corrosion	Materials Engineering Elective Course	

July Commencement

SEMESTER		YEAR 1		
Sem 2 July	ENGG1100 Professional Engineering	MATH1051 Calculus & Linear Algebra I (or) MATH1071 Advanced Calculus & Linear Algebra I	ENGG1001 Programming for Engineers (or) CSSE1001 Introduction to Software Engineering	ENGG1700 Statics and Materials
Sem 1 Feb	ENGG1500 Thermodynamics: Energy & the Environment	MATH1052 Multivariate Calculus & ODEs (or) MATH1072 Advanced Multivariate Calculus & Ordinary Differential Equations	ENGG1300 Introduction to Electrical Systems	First Year or Preparatory Course or General Elective
SEMESTER		YEAR 2		
Sem 2 July	MECH2210 Intermediate Mechanical & Space Dynamics	MATH2001 Calculus & Linear Algebra II	MECH2700 Computational Engineering & Data Analysis	First Year or Preparatory Course or General Elective
Sem 1 Feb	MECH2305 Intro to Engineering Design & Manufacturing	MATH2010 Analysis of ODEs	STAT2201 Analysis of Eng. & Scientific Data	MECH2300 Structures & Materials
				MECH2410 Fundamentals of Fluid Mechanics
SEMESTER		YEAR 3		
Sem 2 July	MECH2100 Machine Element Design	MECH3200 Advanced Dynamics & Vibrations	MECH2310 – Science & Engineering of Metals	MECH3301 – Materials Selection
Sem 1 Feb	MECH3610 Systems Engineering Principles	METR4201 Control Engineering 1	MECH3400 Thermodynamics & Heat Transfer	MECH3780 Computational Mechanics
SEMESTER		YEAR 4		
Sem 2 July	ENGG4601 Engineering Thesis	MECH3100 Systems Engineering Practice	MATE4302 – Electrochemistry & Corrosion	Materials Engineering Elective
Sem 1 Feb		ENGG4901 Professional Practice & the Business Environment	CHEE3301 – Polymer Engineering	Materials Engineering Elective

*Refer to course list for details on how to combine electives.

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