

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



## Recommended Study Plan

This study plan is a **guide only** for students commencing the Bachelor of Engineering (Hons) in a Mechanical Engineering Specialisation with a major in Biomedical Engineering 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](#).

<b>Compulsory Core #8</b>	<b>Compulsory Specialisation #36</b>	<b>Preparatory courses or First Year or General Elective #0-#4</b>
<b>#4 Biomedical Engineering courses for Mechanical Engineers</b>	<b>#8 Biomedical Engineering Compulsory Courses</b>	<b>#4 Biomedical Engineering Elective Courses</b>

### 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	MECH2300 Structures & Materials	MATH2001 Calculus & Linear Algebra II	MECH2305 Intro to Engineering Design & Manufacturing	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	BIOE1001 Principles of Biomedical & Bioprocess Engineering
Sem 2 July	MECH3100 Systems Engineering Practice	MECH3200 Advanced Dynamics & Vibrations	BIOE4305 Biomaterials: Materials in Medicine	BIOE3001 Quantitative Methods in Biomedical Engineering	
SEMESTER YEAR 4					
Sem 1 Feb	ENGG4600 Engineering Thesis (or) ENGG4552 Major Design Project	METR4201 Control Engineering 1	MECH3780 Computational Mechanics	BIOE6901 Medical Device Engineering	
Sem 2 July		ENGG4902 Professional Practice & the Business Environment	Biomedical Engineering Elective	Biomedical Engineering Elective	

## 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	Preparatory Course or First Year or General Elective
SEMESTER		YEAR 2		
Sem 2 July	Preparatory Course or First Year or General Elective	MATH2001 Calculus & Linear Algebra II	MECH2210 Intermediate Mechanical & Space Dynamics	MECH2700 Computational Engineering & Data Analysis
Sem 1 Feb	MECH2300 Structures & Materials	MATH2010 Analysis of ODEs	STAT2201 Analysis of Eng. & Scientific Data	MECH2305 Intro to Engineering Design & Manufacturing
				MECH2410 Fundamentals of Fluid Mechanics
SEMESTER		YEAR 3		
Sem 2 July	MECH2100 Machine Element Design	MECH3200 Advanced Dynamics & Vibrations	ENGG4902 Professional Practice & the Business Environment	Biomedical Engineering Elective
Sem 1 Feb	MECH3610 Systems Engineering Principles	MECH3400 Thermodynamics & Heat Transfer	MECH3780 Computational Mechanics	BIOE1001 Principles of Biomedical & Bioprocess Engineering
SEMESTER		YEAR 4		
Sem 2 July	ENGG4601 Engineering Thesis	MECH3100 Systems Engineering Practice	BIOE4305 Biomaterials: Materials in Medicine	BIOE3001 Quantitative Methods in Biomedical Engineering
Sem 1 Feb		METR4201 Control Engineering 1	BIOE6901 Medical Device Engineering	Biomedical Engineering Elective

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

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