

# **Mechanical Engineering specialisation plus Biomedical Engineering major 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 plus Biomedical Engineering Major in 2023. Please note that all course selections must adhere to the program 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](#) in the School of Mechanical and Mining Engineering.

### February Commencement

SEMESTER YEAR 1					
Sem 1 Feb	<b>ENGG1100</b> Professional Engineering	<b>MATH1051</b> Calculus & Linear Algebra I (or) <b>MATH1071</b> Advanced Calculus & Linear Algebra I	<b>ENGG1001</b> Programming for Engineers (or) <b>CSSE1001</b> Introduction to Software Engineering	<b>ENGG1700</b> Statics and Materials	
Sem 2 July	<b>ENGG1500</b> Thermodynamics: Energy & the Environment	<b>MATH1052</b> Multivariate Calculus & ODEs (or) <b>MATH1072</b> Advanced Multivariate Calculus & Ordinary	<b>ENGG1300</b> Introduction to Electrical Systems	Elective	
SEMESTER YEAR 2					
Sem 1 Feb	<b>MECH2305</b> Intro to Engineering Design & Manufacturing	<b>MECH2410</b> Fundamentals of Fluid Mechanics	<b>MATH2001</b> Advanced Calculus & Linear Algebra II	<b>MECH2300</b> Structures & Materials	
Sem 2 July	<b>MECH2100</b> Machine Element Design	<b>MECH2210</b> Intermediate Mechanical & Space Dynamics	<b>MECH2700</b> Computational Engineering & Data Analysis	Elective	
SEMESTER YEAR 3					
Sem 1 Feb	<b>MECH3610</b> Systems Engineering Principles	<b>MATH2010</b> Analysis of ODEs	<b>STAT2201</b> Analysis of Eng.& Scientific Data	<b>MECH3400</b> Thermodynamics & Heat Transfer	<b>BIOE1001</b> Principles of Biomedical & Bioprocess Engineering
Sem 2 July	<b>MECH3100</b> Systems Engineering Practice	<b>MECH3200</b> Advanced Dynamics & Vibrations	<b>BIOE4305</b> Biomaterials: Materials in Medicine	<b>BIOE3001</b> Quantitative Methods in Biomedical Engineering	
SEMESTER YEAR 4					
Sem 1 Feb	<b>ENGG4600</b> Engineering Thesis (or) <b>ENGG4552</b> Major Design Project	<b>METR4201</b> Control Engineering I	<b>MECH3780</b> Computational Mechanics	<b>BIOE6901</b> Medical Device Engineering	
Sem 2 July		<b>ENGG4900</b> Professional Practice & the Business Environment	Major Elective	Major Elective	

Refer to the 2023 course list for electives:

[Bachelor of Engineering \(Honours\) - my.UQ - The University of Queensland, Australia](#)

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### July Commencement

SEMESTER YEAR 1					
Sem 2 July	<b>ENGG1100</b> Professional Engineering	<b>MATH1051</b> Calculus & Linear Algebra I (or) <b>MATH1071</b> Advanced Calculus & Linear Algebra I	<b>ENGG1001</b> Programming for Engineers (or) <b>CSSE1001</b> Introduction to Software Engineering		<b>ENGG1700</b> Statics and Materials
Sem 1 Feb	<b>ENGG1500</b> Thermodynamics: Energy & the Environment	<b>MATH1052</b> Multivariate Calculus & ODEs (or) <b>MATH1072</b> Advanced Multivariate Calculus & Ordinary	<b>ENGG1300</b> Introduction to Electrical Systems		Elective
SEMESTER YEAR 2					
Sem 2 July	<b>MATH2001</b> Advanced Calculus & Linear Algebra II	<b>MECH2210</b> Intermediate Mechanical & Space Dynamics	<b>MATH2010</b> Analysis of ODEs	<b>STAT2201</b> Analysis of Eng. & Scientific Data	<b>MECH2700</b> Computational Engineering & Data Analysis
Sem 1 Feb	<b>MECH2305</b> Intro to Engineering Design & Manufacturing	<b>BIOE1001</b> Principles of Biomedical & Bioprocess Engineering	<b>MECH2410</b> Fundamentals of Fluid Mechanics		<b>MECH2300</b> Structures & Materials
SEMESTER YEAR 3					
Sem 2 July	<b>MECH2100</b> Machine Element Design	<b>MECH3200</b> Advanced Dynamics & Vibrations	<b>BIOE4305</b> Biomaterials: Materials in Medicine		<b>BIOE3001</b> Quantitative Methods in Biomedical Engineering
Sem 1 Feb	<b>MECH3610</b> Systems Engineering Principles	<b>MECH3780</b> Computational Mechanics	<b>MECH3400</b> Thermodynamics & Heat Transfer		Elective
SEMESTER YEAR 4					
Sem 2 July	<b>ENGG4601</b> Engineering Thesis	<b>MECH3100</b> Systems Engineering Practice	Major Elective		Major Elective
Sem 1 Feb		<b>ENGG4900</b> Professional Practice & the Business Environment	<b>METR4201</b> Control Engineering I		<b>BIOE6901</b> Medical Device Engineering

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