



THE UNIVERSITY
OF QUEENSLAND
AUSTRALIA

CREATE CHANGE

Mechatronic Engineering

Bachelor of Engineering (Honours)



Recommended Study Plan

This study plan is a guide only for students commencing the Bachelor of Engineering (Hons) in Mechatronic Engineering in 2020. 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

SEM YEAR 1					
Sem 1 Feb	ENGG1100 Engineering Design	ENGG1400 Engineering Mechanics: Statics & Dynamics	MATH1051 Calculus & Linear Algebra I	CSSE1001 Introduction to Software Engineering	
Sem 2 July	ENGG1200 Engineering Modelling & Problem Solving	MATH1052 Multivariate Calculus & ODEs	ENGG1300 Introduction to Electrical Systems	B0 or B1 Elective	
SEM YEAR 2					
Sem 3 Feb	CSSE2010 Introduction to Computer Systems	MATH2001 Advanced Calculus & Linear Algebra II	MECH2300 Structures & Materials	B0 or B1 Elective	
Sem 4 July	ELEC2004 Circuits, Signals & Systems	MECH2210 Intermediate Mechanical & Space Dynamics	METR2800 Mechatronic System Design Project I	MATH2010 Analysis of ODEs	STAT2202 Probability Models for Eng & Science
SEM YEAR 3					
Sem 5 Feb	ELEC2003 Electromechanics & Electronics	ELEC3004 Signals, Systems & Control	METR3100 Control System Implementation	METR4201 Control Engineering 1	
Sem 6 July	MECH2100 Machine Element Design	MECH3200 Advanced Dynamics & Vibrations	METR4202 Robotics & Automation	B1 Elective	
SEM YEAR 4					
Sem 7 Feb	METR4900 Thesis/Design Project	METR4810 Mechatronic System Design Project II	B1 Elective	B1 Elective	
Sem 8 July		ENGG4900 Professional Practice & the Business Environment	B1 Elective	B1 Elective	

B0 Electives

[CHEM1090](#) Introductory Chemistry
[MATH1050](#) Mathematical Foundations
[PHYS1171](#) Physical Basis of Biological Systems

B1 Electives

[MECH2305](#) Introduction to Engineering Design & Manufacturing
[MECH3100](#) Mechanical Systems Design
[MECH3300](#) Finite Element Method & Fracture Mechanics
[MECH2310](#) Science & Engineering of Metals
[MECH3301](#) Materials Selection
[CSSE2310](#) Computer Systems Principles and Programming
[CSSE3010](#) Embedded Systems Design & Interfacing
[ELEC3300](#) Electrical Energy Conversion & Utilisation
[ELEC3400](#) Electronic Circuits
[ELEC4400](#) Advanced Electronic & Power Electronics Design
[CSSE2002](#) Programming in the Large
[COMP3506](#) Algorithms & Data Structures
[COMP3702](#) Artificial Intelligence
[COMP4702](#) Machine Learning
[MECH3250](#) Engineering Acoustics
[ELEC3100](#) Fundamentals of Electromagnetic Fields & Waves
[PHYS1002](#) Electromagnetism and Modern Physics
[MECH3750](#) Engineering Analysis II
[ELEC4620](#) Digital Signal Processing
[ELEC4630](#) Image Processing and Computer Vision
[MECH2410](#) Fundamentals of Fluid Mechanics
[MECH3400](#) Thermodynamics & Heat Transfer
[MECH3410](#) Fluid Mechanics
[ENGG1500](#) Engineering Thermodynamics

UQ School of Mechanical and Mining Engineering

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 mechmining.uq.edu.au/study



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July Commencement

SEM YEAR 1					
Sem 1 July	ENGG1211 Engineering Design, Modelling & Problem Solving	MATH1051 Calculus & Linear Algebra I	ENGG1300 Introduction to Electrical Systems	B0 or B1 Elective	
Summer Sem					
Sem 2 Feb	CSSE1001 Introduction to Software Engineering	ENGG1400 Engineering Mechanics: Statics & Dynamics	MATH1052 Multivariate Calculus & ODEs	B0 or B1 Elective	
SEM YEAR 2					
Sem 3 July	ELEC2004 Circuits, Signals & Systems	MECH2210 Intermediate Mechanical & Space Dynamics	METR2800 Mechatronic System Design Project I	MATH2010 Analysis of ODEs	STAT2202 Probability Models for Eng & Science
Sem 4 Feb	CSSE2010 Introduction to Computer Systems	MATH2001 Advanced Calculus & Linear Algebra II	MECH2300 Structures & Materials		
SEM YEAR 3					
Sem 5 July	MECH3200 Advanced Dynamics & Vibrations	METR4202 Robotics & Automation	MECH2100 Machine Element Design	B1 Elective	
Sem 6 Feb	ELEC2003 Electromechanics & Electronics	ELEC3004 Signals, Systems & Control	METR3100 Control System Implementation	METR4201 Control Engineering 1	
SEM YEAR 4					
Sem 7 July	METR4901 Thesis/Design Project	ENGG4900 Professional Practice & the Business Environment	B1 Elective	B1 Elective	
Sem 8 Feb		METR4810 Mechatronic System Design Project II	B1 Elective	B1 Elective	

B0 Electives

CHEM1090 Introductory Chemistry
MATH1050 Mathematical Foundations
PHYS1171 Physical Basis of Biological Systems

B1 Electives

MECH2305 Introduction to Engineering Design & Manufacturing
MECH3100 Mechanical Systems Design
MECH3300 Finite Element Method & Fracture Mechanics
MECH2310 Science & Engineering of Metals
MECH3301 Materials Selection
CSSE2310 Computer Systems Principles and Programming
CSSE3010 Embedded Systems Design & Interfacing
ELEC3300 Electrical Energy Conversion & Utilisation
ELEC3400 Electronic Circuits

B1 Electives cont.

ELEC4400 Advanced Electronic & Power Electronics Design
CSSE2002 Programming in the Large
COMP3506 Algorithms & Data Structures
COMP3702 Artificial Intelligence
COMP4702 Machine Learning
MECH3250 Engineering Acoustics
ELEC3100 Fundamentals of Electromagnetic Fields & Waves
PHYS1002 Electromagnetism and Modern Physics
MECH3750 Engineering Analysis II
ELEC4620 Digital Signal Processing
ELEC4630 Image Processing and Computer Vision
MECH2410 Fundamentals of Fluid Mechanics
MECH3400 Thermodynamics & Heat Transfer
MECH3410 Fluid Mechanics
ENGG1500 Engineering Thermodynamics