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2024 Commencement Mechatronic Engineering Specialisation with a Minor in Data Science Bachelor of Engineering (Honours)



## **Recommended Study Plan**

This study plan is **a guide only** for students commencing the Bachelor of Engineering (Hons) with a specialisation in Mechatronic Engineering and a minor in Data Science in 2024. Please note that all course selections must adhere to the course list outlined at <u>UQ Courses and Programs</u>. If you have any questions or concerns regarding your course selections, please speak with a <u>Academic Advisor</u>.

#8 Compulsory Core #8	Compulsory Specialisation	Preparatory courses or general elective #0-#4	
#8 Mechatronic Engineering Extension Courses	#4 Data Science Compulsory Courses	#4 Data Science Elective Course	

## February Commencement

SEMESTER	R YEAR 1						
Sem 1 Feb	ENGG1100 Professional Engineering	MATH1051 Calculus & Linear Algebra I (or) MATH1071 Advanced Calculus & Linear Algebra I	ENGG1300 Introduction to Electrical Systems	Preparatory courses or general elective *			
Sem 2 July	ENGG1001 Programming for Engineers (or) CSSE1001 Introduction to Software Engineering	MATH1052 Multivariate Calculus & ODEs (or) MATH1072 Advanced Multivariate Calculus & Ordinary	ENGG1700 Statics and Materials	Preparatory courses or general elective*			
SEMESTER	R YEAR 2						
Sem 1 Feb	METR2800 Mechatronic System Design Project I	MECH2300 Structures & Materials	ELEC2300 Fundamentals of Electromagnetism & Electromechanics	MATH2001 Calculus & Linear Algebra II			
Sem 2 July	CSSE2010 Intro to Computer Systems	MECH2210 Intermediate Mechanical & Space Dynamics	ELEC2004 Circuits, Signals & Systems	MATH2010 Analysis of Analysis of ODEs Scientific Data			
SEMESTER YEAR 3							
Sem 1 Feb	METR3100 Control Systems Implementation	METR4201 Control Engineering 1	ELEC2400 Electronic Devices & Circuits	INFS1200 Introduction to Information Systems			
Sem 2 July	METR4810 Mechatronic System Design Project II	MECH2100 Machine Element Design	METR4202 Robotics & Automation				
SEMESTER	R YEAR 4						
Sem 1 Feb	METR4911 Thesis/Design Project	ENGG4901 Professional Practice & the Business Environment	ELEC3004 Signals, Systems & Data Science Electi Control				
Sem 2 July	Thesis/Design Project	METR6203 Control Engineering 2	MECH3200 Advanced Dynamics & Vibrations	Data Science Elective*			

## Recommended Study Plan .

## July Commencement

SEMESTER	R YEAR 1					
Sem 2 July	ENGG1100 Professional Engineering	MATH1051 Calculus & Linear Algebra I (or) MATH1071 Advanced Calculus & Linear Algebra I		ENGG1300 Introduction to Electrical Systems	Preparatory courses or general elective*	
Sem1 Feb	ENGG1001 Programming for Engineers (or) CSSE1001 Introduction to Software Engineering	MATH1052 Multivariate Calculus & ODEs (or) MATH1072 Advanced Multivariate Calculus & Ordinary Differential Equations		ENGG1700 Statics and Materials	Preparatory courses or general elective*	
SEMESTER	R YEAR 2					
Sem 2 July	MECH2100 Machine Element Design	MECH2210 Intermediate Mechanical & Space Dynamics		CSSE2010 Introduction to Computer Systems	MATH2001 Calculus & Linear Algebra	
Sem 1 Feb	METR2800 Mechatronic System Design Project I	MECH2300 Structures & Materials		ELEC2300 Fundamentals of Electromagnetism & Electromechanics	INFS1200 Introduction to Information Systems	
SEMESTER YEAR 3						
Sem 2 July	ELEC2400 Electronic Devices & Circuits	MATH2010 Analysis of ODEs	STAT2201 Analysis of Eng.& Scientific Data	MECH3200 Advanced Dynamics & Vibrations	DATA2001 Fundamentals of Data Science	
Sem 1 Feb	METR3100 Control Systems Implementation	METR4201 Control Engineering I		ELEC2004 Circuits, Signals & Systems	Data Science Elective*	
SEMESTER	R YEAR 4					
Sem 2 July	METR4912 Thesis/Design Project	METR4202 Robotics & Automation		METR4810 Mechatronic System Design Project II	METR6203 Control Engineering 2	
Sem 1 Feb	mesis/Design Project	ENGG4901 Professional Practice & the Business Environment		ELEC3004 Signals, Systems & Control	Data Science Elective*	

Refer to the course list for electives:

Bachelor of Engineering (Honours) - my.UQ - The University of Queensland, Australia