

CHECKLIST Bachelor of Engineering (Honours) Mechatronic Engineering Specialisation: Transition to new program (commencing 2024)

* This checklist is for the BE(Hons) component for dual programs with Bachelor of Arts, Bachelor of Business Management, Bachelor of Commerce, Bachelor of Design, Bachelor of Economics, Bachelor of Information Technology

Important Notes:

- The information contained in this document is intended as general advice only. Students must follow the program rules & requirements listed on the [Programs and Courses Website](#) relevant to the year they commence. This planner must be used in conjunction with your program duration course list and program rules.
- Students need to check future course offerings, prerequisites, incompatibilities and restrictions for all courses as these are subject to change.
- Students cannot take courses that are incompatible with courses already counted towards their program and cannot count the same course twice.
- Please contact the relevant Faculty for information regarding the other component of your dual program.

For the BE(Hons) component, with a specialisation in Mechatronic Engineering:

(a) 56 units from the BE(Hons) component, comprising—

- 8 units for [BE\(Hons\) core courses](#), and
- 36 units for a BE(Hons) [Mechatronic Engineering specialisation](#), and
- 8 units for all [Mechatronic Engineering Extension Courses](#), and
- 0 to 4 units from [Mechatronic Engineering Advanced Elective Courses](#), and
- 0 to 4 units from [Mechatronic Engineering Breadth Elective Courses](#)

✓/x compl.	BE(Hons) Core Courses (8 units)	Sem offering	#	First offered	Approved substitution	Last offered
8 units for all Core Courses						
	ENGG1100 Professional Engineering	1,2	2		Course must be completed [ENGG1211 (4 units) will count as 2 units towards Part A in lieu of ENGG1100, and 2 units towards program electives]	
	ENGG1001 Programming for Engineers or CSSE1001 Introduction to Software Engineering	1,2	2		Course must be completed	
	MATH1051 Calculus & Linear Algebra I or MATH1071 Advanced Calculus & Linear Algebra I	1,2	2		Course must be completed	
	MATH1052 Multivariate Calculus & Ordinary Differential Equations or MATH1072 Advanced Multivariate Calculus & Ordinary Differential Equations	1,2	2		Course must be completed	

Once you have completed the BE(Hons)/Bxx Transition Plan – Mechatronic Engineering NEW (Commencing 2024) checklist, you may either email your checklist to the Faculty on enquiries@eait.uq.edu.au or book an appointment with an Academic Advisor directly.

Mechatronic Engineering Specialisation

Complete 48 units comprising:

- I. 36 units for all [Mechatronic Engineering Compulsory Courses](#), and
- II. 8 units for all [Mechatronic Engineering Extension Courses](#), and
- III. 0 to 4 units from [Mechatronic Engineering Advanced Elective Courses](#), and
- IV. 0 to 4 units from [Mechatronic Engineering Breadth Elective Courses](#)

✓/X compl.	Mechatronic Engineering Specialisation (36 units)	Sem offering	#	First offered	Approved substitution	Last offered
36 units for all Compulsory Courses						
	ENGG1300 Introduction to Electrical Systems	1,2	2		Course must be completed	
	ENGG1700 Statics & Materials	1,2	2		ENGG1400 Engineering Mechanics: Statics & Dynamics (discontinued)	
	CSSE2010 Introduction to Computer Systems	1,2	2		Course must be completed	
	ELEC2004 Circuits, Signals and Systems	2	2		Course must be completed	
	ELEC2300 Fundamentals of Electromagnetism and Electromechanics	1	2		ELEC2003 Electromechanics & Electronics (discontinued).	
	MATH2001 Calculus & Linear Algebra II	1,2,S	2		MATH2001 Advanced Calculus & Linear Algebra II	
	MATH2010 Analysis of Ordinary Differential Equations (1) and STAT2201 Probability Models and Data Analysis for Engineering (1)	1,2 1,2	1 1		STAT2202 Probability Models for Engineering & Science (discontinued)	
	MECH2100 Machine Element Design	2	2		Course must be completed	
	MECH2210 Intermediate Mechanical and Space Dynamics	2	2		Course must be completed	
	MECH2300 Structures and Materials	1	2		Course must be completed	
	METR2800 Mechatronic System Design Project I	2	2		Course must be completed	
	METR3100 Control Systems Implementation	2	2		Course must be completed	
	METR4201 Control Engineering I	1	2		Course must be completed	
	METR4202 Robotics & Automation	2	2		Course must be completed	
	METR4810 Mechatronic System Design Project II	1	2		Course must be completed	
	METR4910 Thesis/Design Project (4) Or METR4911 Thesis/Design Project (4)	1 2	4 4		METR4900/METR4901 Thesis/Design Project (4) (discontinued)	
	ENGG4901 Professional Practice and the Business Environment A Or ENGG4901 Professional Practice and the Business Environment B	1 2	2 2	1/24	ENGG4900 Professional Practice and the Business Environment (discontinued)	2/23

Once you have completed the BE(Hons)/Bxx Transition Plan – Mechatronic Engineering NEW (Commencing 2024) checklist, you may either email your checklist to the Faculty on enquiries@eit.ug.edu.au or book an appointment with an Academic Advisor directly.

8 units for all Mechatronic Engineering Extension Courses						
	ELEC2400 Electronic Devices and Circuits	1	2		ELEC3400 Electronic Circuits (discontinued)	1/21
	ELEC3004 Signals, Systems & Control	1	2		Course must be completed	
	MECH3200 Advanced Dynamics & Vibrations	2	2		Course must be completed	
	METR6203 Control Engineering 2	1	2		METR7203 Control Engineering 2 (discontinued)	1/20

0 to 4 units from Mechatronic Engineering Advanced Electives						
	AERO4300 Aerospace Composites	2	2		No substitution	
	AERO4450 Aerospace Propulsion	1	2		No substitution	
	AERO4470 Hypersonics	1	2		No substitution	
	AERO4800 Space Engineering	2	2		No substitution	
	COMP3702 Artificial Intelligence	2	2		No substitution	
	COMP3710 Pattern Recognition and Analysis	2	2		No substitution	
	COMP4702 Machine Learning	1	2		No substitution	
	CSSE3010 Embedded Systems Design & Interfacing	1	2		No substitution	
	CSSE4010 Digital System Design	1	2		No substitution	
	CSSE4011 Advanced Embedded Systems	1	2		No substitution	
	ELEC3100 Fundamentals of Electromagnetic Fields & Waves	2	2		No substitution	
	ELEC3310 Electrical Energy Conversion & Utilisation	2	2		ELEC3300 Electrical Energy Conversion & Utilisation (discontinued)	2/20
	ELEC4310 Power Systems Analysis	1	2		ELEC4300 Power Systems Analysis (discontinued)	1/20
	ELEC4410 Advanced Electronic and Power Electronics Design	2	2		No substitution	
	ELEC4620 Digital Signal Processing	2	2		No substitution	
	ELEC4630 Image Processing and Computer Vision	1	2		No substitution	

Once you have completed the BE(Hons)/Bxx Transition Plan – Mechatronic Engineering NEW (Commencing 2024) checklist, you may either email your checklist to the Faculty on enquiries@eait.uq.edu.au or book an appointment with an Academic Advisor directly.

	ENGG4103 Engineering Asset Management	1	2		No substitution	
	ENGY4000 Energy Systems	1	2		No substitution	
	MECH3250 Engineering Acoustics	2	2		No substitution	
	MECH3301 Materials Selection	2	2		No substitution	
	MECH4304 Net Shape Manufacturing	1	2		No substitution	
	MECH4950 Advanced Manufacturing in Practice	2	2		No substitution	
	MECH4951 Special Topics D	1	1		No substitution	
	TIMS3309 Technology and Innovation Management	2	2		No substitution	

0 to 4 units from Mechatronic Engineering Breadth Electives						
	<p>Mechatronic Engineering Breadth Electives can be chosen from course lists for the following majors:</p> <ul style="list-style-type: none"> ○ Computer Engineering ○ Mining Engineering <p><i>Courses on this list may require pre-requisites. Please seek academic advice if required.</i></p>					