

CHECKLIST Bachelor of Engineering (Honours) Mechanical 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 Mechanical Engineering:

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

- (i) 8 units for [BE\(Hons\) core courses](#), and
- (ii) 36 units for a [BE\(Hons\) Mechanical Engineering specialisation](#), and
 - i. 32 units for all [Mechanical Engineering Compulsory Courses](#), and
 - ii. 4 units from [Mechanical Engineering Research Courses](#)
- (iii) 2 to 6 units from [Mechanical Engineering Advanced Elective Courses](#), and
- (iv) 0 to 4 units from [Mechanical 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 – Mechanical 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.

Specialisation Mechanical Engineering

Complete 48 units comprising:

- i. 36 units for one Specialisation from Mechanical Engineering, and
 - i) 32 units for all [Mechanical Engineering Compulsory Courses](#), and
 - ii) 4 units from [Mechanical Engineering Research Courses](#)
- ii. 6 units for all [Mechanical Engineering Extension Courses](#) , and
- iii. 2 to 6 units from [Mechanical Engineering Advanced Elective Courses](#), and
- iv. 0 to 4 units from [Mechanical Engineering Breadth Elective Courses](#)

✓/X compl.	Mechanical Engineering Specialisation list (36 units)	Sem offering	#	First offered	Approved substitution	Last offered
32 units for all Compulsory Courses						
	ENGG1300 Introduction to Electrical Systems	1,2	2		Course must be completed	
	ENGG1500 Thermodynamics: Energy and the Environment	1,2	2		ENGG1500 Engineering Thermodynamics	
	ENGG1700 Statics & Materials	1,2	2		ENGG1400 Engineering Mechanics: Statics & Dynamics (discontinued)	2/20
	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	
	MECH2305 Introduction to Engineering Design and Manufacturing	1	2		Course must be completed	
	MECH2410 Fundamentals of Fluid Mechanics	1	2		Course must be completed	
	MATH2001 Calculus & Linear Algebra II	1,2	2		MATH2001 Advanced Calculus & Linear Algebra II MATH2000 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		Course must be completed	
	MECH3100 Mechanical Systems Design	2	2		Course must be completed	
	MECH3200 Advanced Dynamics and Vibrations	2	2		Course must be completed	
	MECH3400 Thermodynamics and Heat Transfer	1	2		Course must be completed	
	MECH3610 Systems Engineering Principles (NEW)	1	2		MECH3600 Engineering Management & Communication (discontinued)	1/22
	ENGG4901 Professional Practice and the Business Environment A or ENGG4902 Professional Practice and the Business Environment B	1,2	2	1/24	ENGG4900 Professional Practice and the Business Environment (discontinued)	2/23
	METR4201 Control Engineering I	1	2		Course must be completed	

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4 units from Mechanical Engineering Research Courses						
	ENGG4552 Major Design Project (4) or ENGG4600 Engineering Thesis (4) or ENGG4601 Engineering Thesis (4)	1,2 1 2	4 4 4		MECH4552 Major Design Project (4) (discontinued) MECH4500 Engineering Thesis (4) (discontinued) or MECH4501 Engineering Thesis (4) (discontinued) or ENGG4011 Professional Engineering Project (6) (discontinued)	2/20

6 units for all Mechanical Engineering Extension Courses						
	MECH2700 Computational Engineering & Data Analysis	2	2		Course must be completed	
	MECH3780 Computational Mechanics	1	2		MECH3300 Finite Element Method & Fracture Mechanics (discontinued)	1/22
	MECH3410 Fluid Mechanics	2	2		Course must be completed	

2 to 6 units from Mechanical 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	
	ENGY4000 Energy Systems	1	2		No substitution	
	ENGG4103 Engineering Asset Management	1	2		No substitution	
	FIRE3700 Introduction to Fire Safety Engineering	1	2		No substitution	
	MATE4302 Electrochemistry and Corrosion	2	2		CHEE4302 Electrochemistry & Corrosion (discontinued)	2/20
	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	
	METR3100 Control System Implementation	1	2		No substitution	
	METR4202 Robotics & Automation	2	2		No substitution	

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	TIMS3309 Technology and Innovation Management	2	2		No substitution	
0 to 4 units from Mechanical Engineering Breadth Electives						
	ELEC2300 Electromagnetism and Electromechanics (NEW)	1	2		ELEC2003 Electromechanics & Electronics (discontinued).	1/21
	ENGG1600 Introduction to Research Practices - The Big Issues	2	2		No substitution	
	FIRE3700 Introduction to Fire Safety Engineering	1	2		No substitution	
	MECH2310 Science and Engineering of Metals	2	2		No substitution	
	PHYS2082 Space Science & Stellar Astrophysics	2	2		No substitution	
	<p>Mechanical Engineering Breadth Electives can also be chosen from course lists for the following majors:</p> <ul style="list-style-type: none"> ○ Aerospace Engineering ○ Biomedical Engineering ○ Materials Engineering ○ Mining Engineering <p><i>Courses on this list may require pre-requisites. Please seek academic advice if required.</i></p>					