

# CHECKLIST Bachelor of Engineering (Honours) – Mechanical Engineering: Completion of pre-2021 program

## 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.

You must complete for the BE(Hons) (Mechanical Engineering) - a Single Major or Extended Major, or Major & Minor; 64 units comprising -

- a major - 52 units, comprising-
  - 46 units, being all courses from [part A](#) (listed below); and
  - 6 units from part B - advanced electives; and; and
- 12 units from electives
  - a minimum of 4 units from courses on the BE(Hons) list, other than courses on the BE Year 1 part D list, and
  - a maximum of 4 units from courses on the BE(Hons) Year 1 part D list, and
  - a maximum of 4 units from level one courses not on the BE(Hons) list

OR

- an extended major - 60 units, comprising-
  - 46 units, being all courses from [part A - compulsory](#); and
  - 14 units from the combination of part B and C electives, (with a minimum of 8 units from part B); and
- 4 units from electives.

Tick the courses you have completed and nominate the alternative course you plan to choose (if required). Discontinued courses are coloured red.

✓/X compl.	Pre-2021 Part A list	#	Last offered	If NOT completed – you can choose*:	Sem offering	#	First offered
46 units, being all courses from Part A – compulsory							
	<b>ENGG1100</b> Engineering Design (2) <b>and</b> <b>ENGG1200</b> Engineering Modelling & Problem Solving (2) (discontinued) OR <b>ENGG1211</b> Engineering Design, Modelling & Problem Solving (4) (discontinued)	2 2 4	2/20 2/20	<b>ENGG1100</b> Professional Engineering and * if you have not completed ENGG1200, please contact EAIT Student Admin	1,2	2	
	<b>MATH1051</b> Calculus & Linear Algebra I OR <b>MATH1071</b> Advanced Calculus & Linear Algebra I	2		<b>MATH1051</b> Calculus & Linear Algebra I OR <b>MATH1071</b> Advanced Calculus & Linear Algebra I	1,2	2	
	<b>MATH1052</b> Multivariate Calculus & Ordinary Differential Equations OR <b>MATH1072</b> Advanced Multivariate Calculus & Ordinary Differential Equations	2		<b>MATH1052</b> Multivariate Calculus & Ordinary Differential Equations OR <b>MATH1072</b> Advanced Multivariate Calculus & Ordinary Differential Equations	1,2	2	
	<b>ENGG1400</b> Engineering Mechanics: Statics & Dynamics (discontinued)	2	2/20	<b>ENGG1700</b> Statics & Materials	1,2	2	1/21
	<b>ENGG1500</b> Engineering Thermodynamics	2		<b>ENGG1500</b> Engineering Thermodynamics	1	2	
	<b>ENGG1300</b> Introduction to Electrical Systems	2		<b>ENGG1300</b> Introduction to Electrical Systems	1,2	2	
	<b>MATH2000</b> Calculus & Linear Algebra II (discontinued) or <b>MATH2001</b> Advanced Calculus & Linear Algebra II	2	2/21	<b>MATH2001</b> Calculus & Linear Algebra II	1,2,S	2	

Once you have completed the BE(Hons) Transition Plan – Mechanical continuation checklist, you may either email your checklist to the Faculty on [enquiries@eait.uq.edu.au](mailto:enquiries@eait.uq.edu.au) or book an appointment with an Academic Advisor directly.

	<b>MECH2300</b> Structures & Materials	2		<b>MECH2300</b> Structures & Materials	1	2	
	<b>MECH2305</b> Introduction to Engineering Design and Manufacturing	2		<b>MECH2305</b> Introduction to Engineering Design and Manufacturing	1	2	
	<b>MECH2410</b> Fundamentals of Fluid Mechanics	2		<b>MECH2410</b> Fundamentals of Fluid Mechanics	1	2	
	<b>MECH2100</b> Machine Element Design	2		<b>MECH2100</b> Machine Element Design	2	2	
	<b>MECH2210</b> Intermediate Mechanical & Space Dynamics	2		<b>MECH2210</b> Dynamics I	2	2	
	<b>MECH2700</b> Engineering Analysis I	2		<b>MECH2700</b> Engineering Analysis I	2	2	
	<b>MATH2010</b> Analysis of Ordinary Differential Equations AND <b>STAT2201</b> Analysis of Engineering & Scientific Data	2		<b>MATH2010</b> Analysis of Ordinary Differential Equations AND <b>STAT2201</b> Analysis of Engineering & Scientific Data	1,2	1	
	<b>MECH3400</b> Thermodynamics & Heat Transfer	2		<b>MECH3400</b> Thermodynamics & Heat Transfer	1	2	
	<b>MECH3600</b> Engineering Management & Communication (discontinued)	2	1/22	<b>MECH3610</b> Systems Engineering Principles	1	2	1/23
	<b>MECH3300</b> Finite Element Method & Fracture Mechanics (discontinued)	2	1/22	<b>MECH3780</b> Computational Mechanics	1	2	1/23
	<b>MECH3100</b> Mechanical Systems Design	2		<b>MECH3100</b> Systems Engineering Practice	2	2	
	<b>MECH3200</b> Advanced Dynamics & Vibrations	2		<b>MECH3200</b> Advanced Dynamics & Vibrations	2	2	
	<b>MECH3410</b> Fluid Mechanics	2		<b>MECH3410</b> Fluid Mechanics	2	2	
	<b>METR4201</b> Control Engineering 1	2		<b>METR4201</b> Control Engineering 1	1	2	
	<b>ENGG4900</b> Professional Practice and the Business Environment (discontinued)	2	2/23	<b>ENGG4901</b> Professional Practice and the Business Environment A OR <b>ENGG4902</b> Professional Practice and the Business Environment B	1,2	2	1/24
	<b>MECH4500</b> Engineering Thesis (discontinued) <b>MECH4501</b> Engineering Thesis (discontinued) <b>ENGG4011</b> Professional Engineering Project (6) (discontinued) OR <b>MECH4552</b> Major Design Project (discontinued)	4 4 6 4	2/20 2/20 2/20 1/20	<b>ENGG4600</b> Engineering Thesis <b>ENGG4601</b> Engineering Thesis <b>ENGG4013</b> Professional Engineering Project (discontinued) OR <b>MECH4552</b> Major Design Project (discontinued)	1 2 1,2 2	4	1/21 2/21  2/21

## Extended Major

If you are enrolled in the extended major, you must enrol in an additional 8 units from introductory or advanced electives from Part B1 or B2, including a minimum of 6 units from Part B2.

Once you have completed the BE(Hons) Transition Plan – Mechanical continuation checklist, you may either email your checklist to the Faculty on [enquiries@eait.uq.edu.au](mailto:enquiries@eait.uq.edu.au) or book an appointment with an Academic Advisor directly.

✓/X compl.	Part B1 - Introductory Electives	#	Last offered	If NOT completed – you can choose*:	Sem offering	#	First offered
	<b>CHEM1100</b> Chemistry 1	2		<b>CHEM1100</b> Chemistry 1	1,2	2	
	<b>CSSE1001</b> Introduction to Software Engineering	2		<b>CSSE1001</b> Introduction to Software Engineering	1,2	2	
	<b>ENGG1600</b> Introduction to Research Practices - The Big Issues	2		<b>ENGG1600</b> Introduction to Research Practices - The Big Issues	2	2	
	<b>PHYS1002</b> Electromagnetism and Modern Physics	2		<b>PHYS1002</b> Electromagnetism and Modern Physics	2	2	
	<b>ENGG2000</b> Humanitarian Engineering	2		<b>ENGG2000</b> Humanitarian Engineering	1,2	2	

✓/X compl.	Part B2 – Advanced Electives	#	Last offered	If NOT completed – you can choose*:	Sem offering	#	First offered
	<b>AERO4300</b> Aerospace Composites	2		<b>AERO4300</b> Aerospace Composites	2	2	
	<b>AERO4450</b> Aerospace Propulsion	2		<b>AERO4450</b> Aerospace Propulsion	1	2	
	<b>AERO4470</b> Hypersonics	2		<b>AERO4470</b> Hypersonics	1	2	
	<b>AERO4800</b> Space Engineering	2		<b>AERO4800</b> Space Engineering	1	2	
	<b>CHEE4302</b> Electrochemistry & Corrosion (discontinued)	2	2/20	<b>MATE4302</b> Electrochemistry and Corrosion	2	2	2/21
	<b>ELEC2003</b> Electromechanics & Electronics (discontinued)	2	1/21	<b>ELEC2300</b> Electromagnetism and Electromechanics	1	2	1/22
	<b>ENGG4103</b> Engineering Asset Management	2		<b>ENGG4103</b> Engineering Asset Management	1	2	
	<b>ENGY4000</b> Energy Systems	2		<b>ENGY4000</b> Energy Systems	1	2	
	<b>FIRE3700</b> Introduction to Fire Safety Engineering	2		<b>FIRE3700</b> Introduction to Fire Safety Engineering	1	2	
	<b>MECH2310</b> Science & Engineering of Metals	2		<b>MECH2310</b> Science & Engineering of Metals	2	2	
	<b>MECH3250</b> Engineering Acoustics	2		<b>MECH3250</b> Engineering Acoustics	2	2	
	<b>MECH3301</b> Materials Selection	2		<b>MECH3301</b> Materials Selection	2	2	

Once you have completed the BE(Hons) Transition Plan – Mechanical continuation checklist, you may either email your checklist to the Faculty on [enquiries@eait.uq.edu.au](mailto:enquiries@eait.uq.edu.au) or book an appointment with an Academic Advisor directly.

	<b>MECH3750</b> Engineering Analysis II (discontinued)	2	<b>2/22</b>	If <b>MECH2700 &amp; MECH3780 OR MECH2700 &amp; MECH3300</b> completed, then exemption – <b>advanced Mech Eng elective to be taken in lieu</b>		2	
	<b>MECH4304</b> Net Shape Manufacturing	2		<b>MECH4304</b> Net Shape Manufacturing	1	2	
	<b>MECH4950</b> Advanced Manufacturing in Practice	2		<b>MECH4950</b> Advanced Manufacturing in Practice	2	2	
	<b>MECH4951</b> Special Topics D (discontinued)	1		<b>Any BE Elective</b>			
	<b>MECH6480</b> Computational Fluid Dynamics	2		<b>MECH6480</b> Computational Fluid Dynamics	2	2	
	<b>METR3100</b> Control System Implementation	2		<b>METR3100</b> Control System Implementation	1	2	
	<b>METR4202</b> Robotics & Automation	2		<b>METR4202</b> Robotics & Automation	2	2	
	<b>PHYS2082</b> Space Science & Stellar Astrophysics	2		<b>PHYS2082</b> Space Science & Stellar Astrophysics	2	2	
	<b>TIMS3309</b> Fundamentals of Technology and Innovation Management	2		<b>TIMS3309</b> Fundamentals of Technology and Innovation Management	2	2	

✓/x compl.	Part B3 - Electives	#	Last offered	If NOT completed – you can choose*:	Sem offering	#	First offered
	<b>ENGY4000</b> Energy Systems	2		<b>ENGY4000</b> Energy Systems	1	2	
	<b>MECH3250</b> Engineering Acoustics	2		<b>MECH3250</b> Engineering Acoustics	2	2	
	<b>MECH3750</b> Engineering Analysis II (discontinued)	2	<b>2/22</b>	If <b>MECH2700 &amp; MECH3780 OR MECH2700 &amp; MECH3300</b> completed, then exemption – <b>advanced Mech Eng elective to be taken in lieu</b>		2	
	<b>METR3100</b> Control System Implementation	2		<b>METR3100</b> Control System Implementation	1	2	

Once you have completed the BE(Hons) Transition Plan – Mechanical continuation checklist, you may either email your checklist to the Faculty on [enquiries@eait.uq.edu.au](mailto:enquiries@eait.uq.edu.au) or book an appointment with an Academic Advisor directly.