CHECKLIST Bachelor of Engineering (Honours) – Mechatronic Engineering (2342): Completion of pre-2021 program

Full name:_____ Student Number:_____ Date:_____

Points to note

- **You need to ensure that you meet minimum program and major requirements (listed below)**
- **You cannot count the same course twice**
- **You need to ensure that you don't take courses that are incompatible with courses that you have already counted towards your program, and that any prerequisites have been met**

You must complete for the BE(Hons) (Mechatronic Engineering Plan code: MECTRY2342), 64 units comprising -

(i) 50 units, being all courses from part A - compulsory; and
(ii) 10 units from part B1 - electives, (with a minimum of 6 units at level three or higher); and
(iii) 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	✓/X compl
	50 units, being all courses from: Part A – compulsory							
	ENGG1100 Engineering Design (2) **and** **ENGG1200** Engineering Modelling & Problem Solving **(2)** (discontinued) **OR** **ENGG1211** Engineering Design, Modelling & Problem Solving (4) (discontinued)	2 2 4	 **2/20** **2/20**	**ENGG1100** Professional Engineering and * If you have not completed ENGG1200, please contact EAIT Student Admin for replacement	1,2	2		
	MATH1051 Calculus & Linear Algebra I **OR** **MATH1071** Advanced Calculus & Linear Algebra I	2		**MATH1051** Calculus & Linear Algebra I **OR** **MATH1071** Advanced Calculus & Linear Algebra I	1,2	2		
	MATH1052 Multivariate Calculus & Ordinary Differential Equations **OR** **MATH1072** Advanced Multivariate Calculus & Ordinary Differential Equations	2		**MATH1052** Multivariate Calculus & Ordinary Differential Equations **OR** **MATH1072** Advanced Multivariate Calculus & Ordinary Differential Equations	1,2	2		
	ENGG1300 Introduction to Electrical Systems	2		**ENGG1300** Introduction to Electrical Systems	1,2	2		
	ENGG1400 Engineering Mechanics: Statics & Dynamics (discontinued)	2	**2/20**	***ENGG1700*** *Statics & Materials (NEW)*	1,2	2	**1/21**	
	CSSE1001 Introduction to Software Engineering	2		**CSSE1001** Introduction to Software Engineering **or** **ENGG1001** Programming for Engineers (NEW)	1,2	2		
	CSSE2010 Introduction to Computer Systems	2		**CSSE2010** Introduction to Computer Systems	1,2	2		
	MATH2001 Advanced Calculus & Linear Algebra II	2		**MATH2001** Calculus & Linear Algebra II	1,2,S	2		
	MECH2300 Structures & Materials	2		**MECH2300** Structures & Materials	1	2		
	ELEC2004 Circuits, Signals & Systems	2		**ELEC2004** Circuits, Signals & Systems	2	2		
	MATH2010 Analysis of Ordinary Differential Equations	1		**MATH2010** Analysis of Ordinary Differential Equations	1,2	1		
	MECH2210 Intermediate Mechanical & Space Dynamics	2		**MECH2210** Dynamics I	2	2		
	METR2800 Mechatronic System Design Project I	2		**METR2800** Mechatronic System Design Project I	2	2		

✓ - course already completed **X** – course to be undertaken

Checked by (Faculty: Name and Date): _____

	STAT2202 Probability Models for Engineering & Science (discontinued)	1	**2/20**	***STAT2201*** *Analysis of Eng. & Scientific Data (1)*	1,2	1		
	ELEC2003 Electromechanics & Electronics (discontinued)	2	**1/21**	***ELEC2300*** *Fundamentals of Electromagnetism & Electromechanics NEW*	1	2	**1/22**	
	ELEC3004 Signals, Systems & Control	2		**ELEC3004** Signals, Systems & Control	1	2		
	METR3100 Control System Implementation	2		**METR3100** Control System Implementation	1	2		
	METR4201 Control Engineering 1	2		**METR4201** Control Engineering 1	1	2		
	MECH2100 Machine Element Design	2		**MECH2100** Machine Element Design	2	2		
	MECH3200 Advanced Dynamics & Vibrations	2		**MECH3200** Advanced Dynamics & Vibrations	2	2		
	METR4202 Robotics & Automation	2		**METR4202** Robotics & Automation	2	2		
	ENGG4900 Professional Practice and the Business Environment	2		**ENGG4900** Professional Practice and the Business Environment	1,2	2		
	METR4810 Mechatronic System Design Project II	2	**Not offered in 2022**	**METR4810** Mechatronic System Design Project II	1	2		
	METR4900 Thesis/Design Project (discontinued) or **METR4901** Thesis/Design Project (discontinued)	4	**1/20** **2/20**	***METR4911*** *Thesis/Design Project* *or* ***METR4912*** *Thesis/Design Project*	1 2	4	**1/21** **2/21**	
		Part A units completed pre-2021:		**Part A units to be substituted/completed:**				
				Total Part A (must add up to 50 units):				

✓/X compl.	Part B0 - Preparatory Mathematics & Science Electives	#	Last offered	If NOT completed – you can choose*:	Sem offering	#	First offered	✓/X compl
	CHEM1090 Introductory Chemistry	2		**CHEM1090** Introductory Chemistry	1	2		
	MATH1050 Mathematical Foundations	2		**MATH1050** Mathematical Foundations	1,2	2		
	PHYS1171 Physical Basis of Biological Systems	2		**PHYS1171** Physical Basis of Biological Systems	1,2	2		

✓/X compl.	Part B1 - Introductory Electives	#	Last offered	If NOT completed – you can choose*:	Sem offering	#	First offered	✓/X compl
	Mechanical Design							
	MECH2305 Introduction to Engineering Design and Manufacturing	2		**MECH2305** Introduction to Engineering Design and Manufacturing	1	2		
	MECH3100 Mechanical Systems Design	2		**MECH3100** Systems Engineering Practice	2	2		
	MECH3300 Finite Element Method & Fracture Mechanics (discontinued)	2	**1/22**	***MECH3780*** *Computational Mechanics, NEW*	1	1	**1/23**	

Once you have completed the 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.

BE(Hons) Transition Plan – Mechatronic continuation **Checked by (Faculty: Name and Date):** _____

	Materials							
	MECH2310 Science & Engineering of Metals	2		**MECH2310** Science & Engineering of Metals	2	2		
	MECH3301 Materials Selection	2		**MECH3301** Materials Selection	2	2		
	Embedded Systems					2		
	CSSE2310 Computer Systems Principles and Programming	2		**CSSE2310** Computer Systems Principles and Programming	1,2	2		
	CSSE3010 Embedded Systems Design & Interfacing	2		**CSSE3010** Embedded Systems Design & Interfacing	1	2		
	Electrical and Electronic Systems							
	ELEC3300 Electrical Energy Conversion & Utilisation (discontinued)	2	**2/20**	***ELEC3310*** *Electrical Energy Conversion & Utilisation*	2	2	**2/21**	
	ELEC3400 Electronic Circuits (discontinued)	2	**1/21**	***ELEC2400*** *Electronic Devices & Circuits (NEW)*	1	2	**1/22**	
	ELEC4400 Advanced Electronic & Power Electronics Design (discontinued)	2	**2/20**	***ELEC4410*** *Advanced Electronic & Power Electronics Design*	2	2	**2/21**	
	Intelligent Systems							
	CSSE2002 Programming in the Large	2		**CSSE2002** Programming in the Large	1,2	2		
	COMP3506 Algorithms & Data Structures	2		**COMP3506** Algorithms & Data Structures	2	2		
	COMP3702 Artificial Intelligence	2		**COMP3702** Artificial Intelligence	2	2		
	COMP4702 Machine Learning	2		**COMP4702** Machine Learning	1	2		
	Sensors and Sensing							
	MECH3250 Engineering Acoustics	2		**MECH3250** Engineering Acoustics	2	2		
	ELEC3100 Fundamentals of Electromagnetic Fields & Waves	2		**ELEC3100** Fundamentals of Electromagnetic Fields & Waves	2	2		
	PHYS1002 Electromagnetism and Modern Physics	2		**PHYS1002** Electromagnetism and Modern Physics (semester 2 only from 2022)	1,2	2		
	Signal and Image processing							
	ELEC4620 Digital Signal Processing	2		**ELEC4620** Digital Signal Processing	1,2	2		
	ELEC4630 Image Processing and Computer Vision	2		**ELEC4630** Image Processing and Computer Vision	1,2	2		
	MECH3750 Engineering Analysis II (discontinued)	2	**2/22**	If **MECH2700** & **MECH3780** completed, then exemption – **advanced Mech Eng elective to be taken in lieu**		2		
	Thermofluid Systems							
	MECH2410 Fundamentals of Fluid Mechanics	2		**MECH2410** Fundamentals of Fluid Mechanics	1	2		
	MECH3400 Thermodynamics & Heat Transfer	2		**MECH3400** Thermodynamics & Heat Transfer	1	2		
	MECH3410 Fluid Mechanics	2		**MECH3410** Fluid Mechanics	2	2		
	ENGG1500 Engineering Thermodynamics	2		**ENGG1500** Thermodynamics: Energy and the Environment	1,2	2		

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