# CHECKLIST Bachelor of Engineering (Honours)/Master of Engineering – Electrical Engineering (2350): 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)/ME (Electrical Engineering Plan code: ELENGX2350), 80 units comprising -

- 1. 52 units from <u>part A</u> compulsory (listed below), and
- 2. 22 units from the combination of parts <u>B</u>, <u>C</u>, N1 and N2 electives, with
  - (i) a minimum of 6 units from part B advanced electives, and
  - (ii) a minimum of 6 units from part N1 electrical engineering, and
  - (iii) a maximum of 8 units from part C coverage electives, and
- 3. 6 units from electives, being courses on the BE(Hons)/ME list or other courses approved by the executive dean, with:
  - (i) a maximum of 4 units from courses in part D, and
  - (ii) a maximum of 4 units from level one courses not on the BE(Hons)/ME list.

#### PART A

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
	52 units from Part A - Compulsory						
	ENGG1100 Engineering Design (2) and ENGG1200 Engineering Modelling & Problem Solving (2)	2		ENGG1100 Professional Engineering and	1,2	2	
	(discontinued) OR	2	2/20	* Please contact EAIT Student Admin for ENGG1200 replacement			
	ENGG1211 Engineering Design, Modelling & Problem Solving (4) (discontinued)	4	2/20				
	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	
	CSSE1001 Introduction to Software Engineering	2		CSSE1001 Introduction to Software Engineering OR ENGG1001 Programming for Engineers (NEW)	1,2 1,2	2	1/21
	ENGG1300 Introduction to Electrical Systems	2		ENGG1300 Introduction to Electrical Systems	1,2	2	
	PHYS1002 Electromagnetism and Modern Physics	2		<b>PHYS1002</b> Electromagnetism and Modern Physics (semester 2 only from 2022)	2	2	
	CSSE2010 Introduction to Computer Systems	2		CSSE2010 Introduction to Computer Systems	1,2	2	
	ELEC2003 Electromechanics & Electronics (discontinued)	2	1/21	ELEC2300 Fundamentals of Electromagnetism & Electromechanics	1	2	1/22

Once you have completed the BE(Hons)/ME Transition Plan – Electrical continuation 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.

MATH2001 Advanced Calculus & Linear Algebra II	2		MATH2001 Calculus & Linear Algebra II	1,2,S	2	
CSSE2310 Computer Systems Principles and Programming	2		CSSE2310 Computer Systems Principles and Programming	1,2	2	
ELEC2004 Circuits, Signals & Systems	2		ELEC2004 Circuits, Signals & Systems	2	2	
ENGG2800 Team Project I	2		ENGG2800 Team Project I	1,2	2	
MATH2010 Analysis of Ordinary Differential Equations AND	1		MATH2010 Analysis of Ordinary Differential Equations AND	1,2	1	
STAT2202 Probability Models for Engineering & Science (discontinued)	1	2/20	STAT2201 Analysis of Eng. & Scientific Data (1) or STAT2203 Probability Models and Data Analysis for Engineering (2)	1,2 2	1	
CSSE3010 Embedded Systems Design & Interfacing	2		CSSE3010 Embedded Systems Design & Interfacing	1	2	
ELEC3004 Signals, Systems & Control	2		ELEC3004 Circuits, Signals and Systems	1	2	
ELEC3400 Electronic Circuits (discontinued)	2	1/21	ELEC2400 Electronic Devices & Circuits	1	2	
ELEC3100 Fundamentals of Electromagnetic Fields & Waves	2		ELEC3100 Fundamentals of Electromagnetic Fields & Waves	2	2	
ELEC3300 Electrical Energy Conversion & Utilisation (discontinued)	2	2/20	ELEC3310 Electrical Energy Conversion & Utilisation	2	2	
ENGG3800 Team Project II	2		ENGG3800 Team Project II	2	2	
ENGG4900 Professional Practice and the Business Environment (discontinued)	2	2/23	ENGG4901 Professional Practice and the Business Environment A Or ENGG4902 Professional Practice and the Business Environment B	1,2	2	
ENGG7290 Engineering Placement Semester (discontinued)	8	2/22	ENGG7291 Engineering Placement A	1	8	
ENGG7701 Engineering Grand Challenges	2		ENGG7701 Engineering Grand Challenges	2	2	

### PART B

√/X compl.	Part B – Electives	#	Last offered	If NOT completed – you can choose*:	Sem offering	#	First offered
	COMS4103 Photonics (discontinued)	2	1/20	COMS4113 Photonics	1	2	1/21
	COMS4104 Microwave Engineering	2		COMS4104 Microwave Engineering	1	2	
	COMS4105 Communication Systems	2		COMS4105 Communication Systems	2	2	
	CSSE4010 Digital System Design	2		CSSE4010 Digital System Design	2	2	
	ELEC4300 Power Systems Analysis (discontinued)	2	1/20	ELEC4310 Power Systems Analysis	1	2	1/21
	ELEC4400 Advanced Electronic & Power Electronics Design (discontinued)	2	2/20	ELEC4410 Advanced Electronic & Power Electronics Design	2	2	2/21
	ELEC4620 Digital Signal Processing	2		ELEC4620 Digital Signal Processing	2	2	
	ELEC4630 Image Processing and Computer Vision	2		ELEC4630 Image Processing and Computer Vision	1	2	
	METR4201 Control Engineering 1	2		METR4201 Control Engineering 1	1	2	
	METR4202 Robotics & Automation	2		METR4202 Robotics & Automation	2	2	

## PART C

√/X compl.	Part C - Coverage Electives	#	Last offered	If NOT completed – you can choose*:	Sem offering	#	First offered
	COMP3702 Artificial Intelligence	2		COMP3702 Artificial Intelligence	2	2	
	COMP3710 Pattern Recognition and Analysis	2		COMP3710 Pattern Recognition and Analysis	2	2	
	COMP4702 Machine Learning	2		COMP4702 Machine Learning	2	2	
	COMS3200 Computer Networks I	2		COMS3200 Computer Networks I	1	2	
	COMS4200 Computer Networks II (discontinued)	2	2/20	COMS6200 Computer Networks II	2	2	2/21
	CSSE2002 Programming in the Large	2		CSSE2002 Programming in the Large	1,2	2	
	CSSE4011 Advanced Embedded Systems	2		CSSE4011 Advanced Embedded Systems	1	2	
	ELEC4000 Special Topics in Electrical Engineering 4A	2		ELEC4000 Special Topics in Electrical Engineering 4A	1,2	2	

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ELEC4001 Special Topics in Electrical Engineering 4B	2		ELEC4001 Special Topics in Electrical Engineering 4B	1,2	2	
ELEC4302 Power System Protection	2		ELEC4302 Power System Protection	2	2	
ELEC4320 Modern Asset Management and Condition Monitoring in Power System	2		ELEC4320 Modern Asset Management and Condition Monitoring in Power System	2	2	
ELEC6403 Biomedical Instrumentation (discontinued)	2	2/20	BIOE6403 Biomedical Instrumentation	2	2	2/21
ELEC6601 Medical Imaging (discontinued)	2	2/20	BIOE6601 Medical Imaging	2	2	2/2
ENGG1400 Engineering Mechanics: Statics & Dynamics (discontinued)	2	2/20	ENGG1700 Statics and Materials	1,2	2	1/2
ENGG2000 Humanitarian Engineering	2		ENGG2000 Humanitarian Engineering	2	2	
ENGG4800 Project Management	2		ENGG4800 Project Management	1	2	

## PART D

√/X compl.	Part D	#	Last offered	If NOT completed – you can choose*:	Sem offering	#	First offered
	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 N - Electives	#	Last offered	If NOT completed – you can choose*:	Sem offering	#	First offered
	COMS7305 Advanced Microwave Engineering	2		COMS7305 Advanced Microwave Engineering	2	2	
	COMS7307 Advanced Photonics (discontinued)	2	2021	COMS7307 Advanced Photonics (discontinued)	2	2	
	<b>COMS7309</b> Computational Techniques in Electromagnetics	2		<b>COMS7309</b> Computational Techniques in Electromagnetics	2	2	
	ELEC7051 Transformer Technology Design and Operation	2		ELEC7051 Transformer Technology Design and Operation	2	2	
	ELEC7309 Power System Planning and Reliability	2		ELEC7309 Power System Planning and Reliability	2	2	

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ELEC7310 Electricity Market Operation and Securi	γ 2		ELEC7310 Electricity Market Operation and Security	1	2	
<b>ELEC7313</b> Renewable Energy Integration: Technolotto Technical Challenges	pgies 2		<b>ELEC7313</b> Renewable Energy Integration: Technologies to Technical Challenges	1	2	
ELEC7901 Advanced Medical Device Engineering (discontinued)	2	1/20	BIOE6901 Medical Device Engineering	1	2	1/21
ELEC7902 Biomedical Signal Processing (discontinu	1ed) 2	2/20	BIOE7902 Biomedical Signal Processing	2	2	2/21
METR7203 Control Engineering 2 (discontinued)	2	1/20	METR6203 Control Engineering 2	1	2	1/21
COMS7000 Advanced Topics in Communications I	2		COMS7000 Advanced Topics in Communications I	1,2	2	
CSSE7080 Advanced Topics in Computer Systems	2		CSSE7080 Advanced Topics in Computer Systems A	1,2	2	
CSSE7081 Advanced Topics in Computer Systems I	3 2		CSSE7081 Advanced Topics in Computer Systems B	1,2	2	
ELEC7300 Advanced Topics in Power	2		ELEC7300 Advanced Topics in Power	1,2	2	
ENGG7300 Advanced Topics in Engineering I	2		ENGG7300 Advanced Topics in Engineering I	1,2	2	
ENGG7301 Advanced Topics in Engineering II	2		ENGG7301 Advanced Topics in Engineering II	1,2	2	
CSSE7610 Concurrency: Theory and Practice	2		CSSE7610 Concurrency: Theory and Practice	2	2	
ENGG7302 Advanced Computational Techniques i Engineering	n 2		ENGG7302 Advanced Computational Techniques in Engineering	1,2	2	
ENGG7811 Research Methods	2		ENGG7811 Research Methods	1,2	2	

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