CHECKLIST Bachelor of Engineering (Honours) - Electrical Engineering Specialisation: Transition to new program

***** This checklist is for the BE(Hons) component ONLY for dual programs with Bachelor of Mathematics and Bachelor of Science

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
- Please ensure you read the program rules to check for any special rules with your dual program, as course restrictions may apply
- Please contact the relevant Faculty for information regarding the other component of your dual program

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

(a) 60 units from the BE(Hons) component, comprising—

I. 8 units for all BE(Hons) Core Courses; and

II. 36 units for one Specialisation in Electrical Engineering; and

III. One of the following:

a. 16 units for one Major from Electrical Engineering Major Options*, or

b. 16 units for Electrical Engineering Minor Options**, or

c. 16 units for Electrical Engineering Specialisation No Major option, and

*Majors available in: Biomedical Engineering; Computer Engineering

**Minors available in: Computing; Data Science, Design

✓/X compl.	You must complete (NEW Program requirements)	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 (NEW) **or** **CSSE1001** Introduction to Software Engineering	1,2	2	**1/21**	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	

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

Checked by (Faculty: Name and Date): _____

✓/X compl.	2021 Electrical Engineering specialisation (36 units)	Sem offering	#	First offered	Approved substitution	Last offered
	34 units for all: Compulsory Courses					
	ENGG1300 Introduction to Electrical Systems	1,2	2		Course must be completed	
	CSSE2010 Introduction to Computer Systems	1,2	2		Course must be completed	
	CSSE2310 Computer Systems, Principles and Programming	1,2	2		Course must be completed	
	ELEC2004 Circuits, Signals and Systems	2	2		Course must be completed	
	ELEC2300 Electromagnetism and Electromechanics (NEW)	1	2	**1/22**	**ELEC2003** Electromechanics & Electronics (discontinued)	**1/21**
	ELEC2400 Electronic Circuits and Amplifiers (NEW)	1	2	**1/22**	**ELEC3400** Electronic Circuits (discontinued)	**1/21**
	ENGG2800 Team Project I	1,2	2		Course must be completed	
	MATH2001 Calculus & Linear Algebra II	1,2,S	2		**MATH2001** Advanced Calculus & Linear Algebra II	
	MATH2010 Analysis of Ordinary Differential Equations (1)	1,2	1		Course must be completed	
	STAT2201 Probability Models and Data Analysis for Engineering (1)	1,2	1		**STAT2202** Probability Models for Engineering & Science (discontinued)	**2/20**
	CSSE3010 Embedded Systems Design & Interfacing	1	2		Course must be completed	
	ELEC3004 Signals, Systems & Control	1	2		Course must be completed	
	ELEC3100 Fundamentals of Electromagnetic Fields & Waves	2	2		Course must be completed	
	ENGG3800 Team Project II	2	2		Course must be completed	
	ENGG4900 Professional Practice and the Business Environment	1,2	2		Course must be completed	
	METR4201 Control Engineering I	1	2		Course must be completed	
	REIT4841 Research and Development Methods and Practice (NEW) (4) **or** **REIT4842** Research and Development Methods and Practice (NEW) (4)	1 2	4	**1/22** **2/22**	**ENGG4801** Thesis Project (discontinued) / **ENGG4811** (from 1/21) **or** **ENGG4802** Thesis Project (discontinued) / **ENGG4812** (from 2/21)	**1/21** **2/21**
	2 units from Program Electives					

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.

Checked by (Faculty: Name and Date): _____

Electrical Engineering No Major Option

You must complete 16 units comprising -

i. 2 units for Electrical Engineering Extension Course; and
ii. 6 to 14 units from any Electrical Engineering Advanced Electives; and
iii. 0 to 8 units from any Electrical Engineering Breadth Electives; and
iv. 0 to 4 units from Program Electives
v. 0 to 4 units from General Electives.

✓/X compl.	2 units for: Electrical Engineering Extension Course	Sem offering	#	First offered	Approved substitution	Last offered
	ELEC3310 Electrical Energy Conversion & Utilisation	2	2	**2/21**	**ELEC3300** Electrical Energy Conversion & Utilisation (discontinued)	**2/20**
	6 to 14 units from any: Electrical Engineering Advanced Electives					
	COMS4113 Photonics	1	2	**1/21**	**COMS4103** Photonics (discontinued)	**1/20**
	COMS4104 Microwave Engineering	1	2		No substitution	
	COMS4105 Communication Systems	2	2		No substitution	
	CSSE4010 Digital System Design	2	2		No substitution	
	ELEC4310 Power Systems Analysis	1	2	**1/21**	**ELEC4300** Power Systems Analysis (discontinued)	**1/20**
	ELEC4410 Advanced Electronic & Power Electronics Design	2	2	**2/21**	**ELEC4400** Advanced Electronic & Power Electronics Design (discontinued)	**2/20**
	ELEC4620 Digital Signal Processing	2	2		No substitution	
	ELEC4630 Image Processing and Computer Vision	1	2		No substitution	
	METR4202 Robotics & Automation	2	2		No substitution	
	METR6203 Control Engineering 2	2	2	**2/21**	**METR7203** Control Engineering 2 (discontinued)	**2/20**
	0 to 8 units from any: Electrical Engineering Breadth Electives					
	ELEC4302 Power System Protection	2	2		No substitution	
	ELEC4320 Modern Asset Management and Condition Monitoring in Power System	2	2		No substitution	
	ENGG4020 Systems Safety Engineering	2	2		No substitution	

Electrical Engineering Breadth Electives can also be chosen from course lists for the following majors:

- Biomedical Engineering
- Computer Engineering

Courses on this list may require pre-requisites. Please seek academic advice if required.

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✓/X compl.	Major in Biomedical Engineering (16 units)	Sem offering	#	First offered	Approved substitution	Last offered
	4 units for: Biomedical Engineering courses for Electrical Engineers only					
	BIOE6403 Biomedical Instrumentation	2	2	**2/21**	**ELEC6403** Biomedical Instrumentation (discontinued)	**2/20**
	BIOE6601 Medical Imaging	2	2	**2/21**	**ELEC6601** Medical Imaging (discontinued)	**2/20**
	8 units for: Biomedical Engineering Compulsory Courses					
	BIOE1001 Principles of Biomedical & Bioprocess Engineering	1	2	**1/21**	**CHEE1001** Principles of Biological Engineering (discontinued) or **BIOL1020** Genes, Cells & Evolution	**1/20**
	BIOE3001 Quantitative Methods in Biomedical Engineering (NEW)	2	2	**2/22**	Course must be completed	
	BIOE4305 Biomaterials: Materials in Medicine	2	2	**2/21**	**CHEE4305** Biomaterials: Materials in Medicine (discontinued)	**2/20**
	BIOE6901 Medical Device Engineering	1	2	**1/21**	**ELEC7901** Advanced Medical Device Engineering (discontinued)	**1/20**
	4 units from: Biomedical Engineering Electives					
	BIOC2000 Biochemistry & Molecular Biology	1	2			
	BIOE6028 Metabolic Engineering	2	2	**2/21**	**CHEE4028** Metabolic Engineering (discontinued)	**2/20**
	BIOE6034 Cell and Tissue Engineering	1	2	**1/21**	**CHEE4034** Cell and Tissue Engineering (discontinued)	**1/20**
	BIOE6403 Biomedical Instrumentation	2	2	**2/21**	**ELEC4403/ELEC6403** Biomedical Instrumentation (discontinued)	**2/20**
	BIOE6601 Medical Imaging	2	2	**2/21**	**ELEC6601** Medical Imaging (discontinued)	**2/20**
	BIOL1040 Cells to Organisms	1,2	2		No substitution	
	BIOL2200 Cell Structure & Function	1	2		No substitution	
	BIOL2202 Genetics	2	2		No substitution	
	BINF3014 Advanced Bioinformatics	2	2	**2/21**	**BIOL3014** Advanced Bioinformatics (discontinued)	**2/20**
	BIOM2011 Integrative Cell & Tissue Biology	1	2		No substitution	
	BIOM2012 Systems Physiology	2	2		No substitution	
	BIOM2020 Human Anatomy	1	2		No substitution	
	BIPH2000 Foundations of Biophysics	2	2		No substitution	

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	COMP4702 Machine Learning	1	2		No substitution	
	COMS4113 Photonics	1	2	**1/21**	**COMS4103** Photonics (discontinued)	**1/20**
	COMS4104 Microwave Engineering	1	2		No substitution	
	CSSE2002 Programming in the Large	1,2	2		No substitution	
	CSSE4011 Advanced Embedded Systems	1	2		No substitution	
	ELEC4620 Digital Signal Processing	2	2		No substitution	
	ELEC4630 Image Processing and Computer Vision	1	2		No substitution	
	MATE6301 Nanomaterials	2	2	**2/21**	**CHEE4301** Nanomaterials (discontinued)	**2/20**
	MECH3301 Materials Selection	2	2		No substitution	
	MECH4950 Advanced Manufacturing in Practice	2	2		No substitution	
	METR4202 Robotics & Automation	2	2		No substitution	
	MICR2000 Microbiology & Immunology	2	2		No substitution	
	SCIE2100 Introduction to Bioinformatics	1	2		No substitution	
	CHEE4026 Research Thesis or **CHEE4027** Research Thesis	1 2	4		No substitution	

✓/X compl.	Major in Computer Engineering (16 units)	Sem offering	#	First offered	Approved substitution	Last offered
	4 units for: Computer Engineering Courses for Electrical Engineers only					
	CSSE2002 Programming in the Large	1,2	2		Course must be completed	
	COMP3506 Algorithms & Data Structures	2	2		Course must be completed	
	4 units for: Computer Engineering Compulsory Courses					
	CSSE4010 Digital System Design	2	2		Course must be completed	
	CSSE4011 Advanced Embedded Systems	1	2		Course must be completed	

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✓/X compl.	0 to 8 units from: Computer Engineering Electives (no more than 6 units at level 1 or 2)					
	COMP2140 Web/Mobile Programming (NEW)	2	2	**2/22**	No substitution	
	COMP3301 Operating Systems Architecture	2	2		No substitution	
	COMP3702 Artificial Intelligence	2	2		No substitution	
	COMP3710 Pattern Recognition and Analysis	2	2		No substitution	
	COMP4403 Compilers and Interpreters	1	2		No substitution	
	COMP4500 Advanced Algorithms & Data Structures	2	2		No substitution	
	COMP4702 Machine Learning	1	2		No substitution	
	CYBR3000 Information Security	2	2	**2/21**	**COMS3000** Information Security (discontinued)	**2/20**
	COMS3200 Computer Networks I	1	2		No substitution	
	COMS4113 Photonics	1	2	**1/21**	**COMS4103** Photonics (discontinued)	**1/20**
	COMS4104 Microwave Engineering	1	2		No substitution	
	COMS4105 Communication Systems	2	2		No substitution	
	COMS4507 Advanced Topics in Security	1	2		No substitution	
	COMS6200 Computer Networks II	1	2	**2/21**	**COMS4200** Computer Networks II (discontinued)	**2/20**
	CSSE3012 The Software Process	1	2	**1/21**	**CSSE3002** The Software Process (discontinued)	**1/20**
	CSSE3100 Reasoning About Programs	1	2		No substitution	
	CSSE3200 Project Design Testing and Evaluation (NEW)	2	2	**2/22**	**DECO2800** Design Computing Studio 2 – Testing & Evaluation	
	CSSE4004 Distributed Computing	1	2		No substitution	**1/21**
	CSSE4400 Software Architecture (NEW)	1	2	**1/22**	**CSSE4004** Distributed Computing (discontinued)	**1/21**
	CSSE4630 Principles of Program Analysis	2	2		No substitution	
	COSC3500 High Performance Computing	2	2		No substitution	

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	DECO1400 Introduction to Web Design	1	2		No substitution	
	DECO2500 Human-Computer Interaction	1	2		No substitution	
	ELEC3310 Electrical Energy Conversion & Utilisation	2	2	**2/21**	**ELEC3300** Electrical Energy Conversion & Utilisation (discontinued)	**2/20**
	ELEC4310 Power Systems Analysis	1	2	**1/21**	**ELEC4300** Power Systems Analysis (discontinued)	**1/20**
	ELEC4620 Digital Signal Processing	2	2		No substitution	
	ELEC4630 Image Processing and Computer Vision	1	2		No substitution	
	ENGG2800 Team Project I	1,2	2		No substitution	
	ENGG3800 Team Project II	2	2		No substitution	
	ENGG4800 Project Management	1	2		No substitution	
	INFS1200 Introduction to Information Systems	1,2	2		No substitution	
	INFS2200 Relational Database Systems	2	2		No substitution	
	METR3100 Control System Implementation	1	2		No substitution	
	METR4202 Robotics & Automation	2	2		No substitution	

Electrical Engineering with Minor Option

Complete 16 units comprising:

i. 8 units for one of the following minors:
Computing
Data Science
Design

and

ii. 2 units for Electrical Engineering Extension Course; and

iii. 6 units from Electrical Engineering Advanced Electives

✓/X compl.	Minor in Computing (8 units)	Sem offering	#	First offered	Approved substitution	Last offered
	CSSE2002 Programming in the Large	1,2	2		Course must be completed	
	COMP3506 Algorithms and Data Structures	2	2		Course must be completed	
	4 units from: Computing Electives					
	COMP4702 Machine Learning	1	2		No substitution	
	COSC2500 Numerical Methods in Computational Science	2	2		No substitution	
	COSC3000 Visualization, Computer Graphics & Data Analysis	1	2		No substitution	
	COSC3500 High Performance Computing	2	2		No substitution	
	INFS1200 Introduction to Information Systems	1,2	2		No substitution	
	INFS3208 Cloud Computing	2	2		No substitution	
	MATH3202 Operations Research & Mathematical Planning	1	2		No substitution	

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✓/X compl.	Minor in Data Science (8 units)	Sem offering	#	First offered	Approved substitution	Last offered
	DATA2001 Introduction to Data Science (NEW)	2	2	**2/22**	Course must be completed	
	INFS1200 Introduction to Information Systems	1,2	2		Course must be completed	
	4 units from: Data Science Electives					
	COMP4702 Machine Learning	1	2		No substitution	
	INFS2200 Relational Database Systems	2	2		No substitution	
	INFS3208 Cloud Computing	2	2		No substitution	
	INFS4203 Data Mining	2	2		No substitution	
	STAT2003 Mathematical Probability	1	2		No substitution	
	STAT2004 Statistical Modelling & Analysis	2	2		No substitution	

Where courses are compulsory in both the specialisation and minor, the compulsory course in the minor must be substituted by courses from Data Science Minor Electives.

✓/X compl.	Minor in Design (8 units)	Sem offering	#	First offered	Approved substitution	Last offered
	2 units for all: Design Minor Compulsory Courses					
	DSGN1500 Design for a Better World	2	2		Course must be completed	
	6 units from: Design Electives					
	DSGN1100 Design: Interaction	1	2		No substitution	
	DSGN1200 Design: Experience	2	2		No substitution	
	DSGN2100 Design: Organisation	1	2		No substitution	
	DSGN2200 Design: Environment	2	2		No substitution	
	DSGN3100 Design: Infrastructure	1	2		No substitution	

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