

CHECKLIST Bachelor of Engineering (Honours) – Chemical Engineering Specialisation: Transition to new program

* This checklist is for the BE(Hons) component ONLY for dual programs with Bachelor of Computer 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 view the Bachelor of Computer Science transition checklist for the requirements for the BCompSc Core, BCompSc Major and No Major Options**

For the BE(Hons) component, with a specialisation in Chemical 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 Chemical Engineering; and
- III. One of the following:
 - a. 16 units for one Major from Chemical Engineering Major Options*, or
 - b. 16 units for Chemical Engineering Specialisation No Major option

*Majors available in: Biomedical Engineering; Bioprocess Engineering; Environmental Engineering; Materials Engineering; Metallurgical Engineering

✓/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 Chemical Engineering specialisation (36 units)	Sem offering	#	First offered	Approved substitution	Last offered
	34 units for all: Compulsory Courses					
	CHEM1100 Chemistry 1	1,2	2		Course must be completed	
	ENGG1500 Thermodynamics: Energy and the Environment	1,2	2		ENGG1500 Engineering Thermodynamics	
	CHEE2001 Process Principles	2	2		Course must be completed	
	CHEE2003 Fluid & Particle Mechanics (will change to semester 1 in 2022)	2	2		Course must be completed	
	CHEE2010 Engineering Investigation & Statistical Analysis (will change to semester 1 in 2022)	2	2		Course must be completed	
	CHEE2020 Process Equipment & Control Systems (NEW)(from 2022)	2	2	2/22	CHEE4060 Process & Control System Synthesis (discontinued)	1/23
	CHEE2030 Chemical Thermodynamics	2	2	2/22	CHEE3003 Chemical Thermodynamics (discontinued)	1/22
	CHEE2040 Heat & Mass Transfer	2	2	2/22	CHEE3002 Heat & Mass Transfer (discontinued)	1/22
	CHEM2056 Physical Chemistry for Engineering	2	2		Course must be completed	
	CHEE3004 Unit Operations (will change to semester 1 in 2023)	2	2		Course must be completed	
	CHEE3005 Reaction Engineering (will change to semester 1 in 2023)	2	2		Course must be completed	
	CHEE3007 Process Modelling & Dynamics	2	2		Course must be completed	
	CHEE3020 Process Systems Analysis (will change to semester 2 in 2023)	1	2		Course must be completed	
	CHEE4001 Process Engineering Design Project	2	4		Course must be completed	
	CHEE4002 Risk in Process Industries	1	2		Course must be completed	
	ENGG4900 Professional Practice and the Business Environment	1,2	2		Course must be completed	
	2 units from Program Electives					

Once you have completed the checklist, you may either email your checklist to the Faculty on enquiries@eit.uq.edu.au or book an appointment with an Academic Advisor directly.
BE(Hons) Transition Plan – Chemical Engineering NEW Checked by (Faculty: Name and Date): _____

Chemical Engineering No Major Option

Complete 16 units comprising -

- i. 8 to 16 units from Chemical Engineering Advanced Electives or Chemical Engineering Research Electives; and
- ii. 0 to 8 units from any Chemical Engineering Breadth Electives; and
- iii. 0 to 4 units from Program Electives; and
- iv. 0 to 4 units from General Electives

✓/X compl.	8 to 16 units from: Chemical Engineering Advanced Electives <u>or</u> Chemical Engineering Research Electives	Sem offering	#	First offered	Approved substitution	Last offered
	Chemical Engineering Advanced Electives					
	BIOE6028 Metabolic Engineering	2	2	2/21	CHEE4028 Metabolic Engineering (discontinued)	2/20
	BIOE6034 Cell and Tissue Engineering	1	2	1/21	CHEE4034 Cell & Tissue Engineering (discontinued)	1/20
	BIOE4305 Biomaterials: Materials in Medicine	2	2	2/21	CHEE4305 Biomaterials: Materials in Medicine (discontinued)	2/20
	CHEE3008 Special Topics C	1,2	2		No substitution	
	CHEE3301 Polymer Engineering	1	2		No substitution	
	CHEE4003 Special Topics A	2	2		No substitution	
	CHEE4009 Transport Phenomena	1	2		No substitution	
	CHEE4012 Industrial Wastewater & Solid Waste Management	2	2		No substitution	
	CHEE4020 Bioprocess Engineering	1	2		No substitution	
	CHEE4022 Principles of Adsorption	2	2		No substitution	
	CHEE4303 Interface and Colloid Science and Engineering	2	2		No substitution	
	ENGG3500 Reservoir Engineering	2	2		No substitution	
	ENGY4000 Energy Systems	1	2		No substitution	
	MATE6301 Nanomaterials	2	2	2/21	CHEE4301 Nanomaterials (discontinued)	2/20
	MATE4302 Electrochemistry and Corrosion	2	2	2/21	CHEE4302 Electrochemistry & Corrosion (discontinued)	2/20
	MECH4304 Net Shape Manufacturing	1	2		No substitution	
	MINE3208 Physical Separation Processes	2	2		MINE3208 Mineral and Coal Beneficiation	
	MINE3212 Pyrometallurgy	2	2		No substitution	

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	MINE3219 Process Mineralogy and Comminution	1	2		No substitution	
	MINE4203 Flotation	1	2		No substitution	
	MINE4204 Hydrometallurgy and Electrometallurgy	1	2		MINE4204 Aqueous Solution Processes	
✓/X compl.	Chemical Engineering Research Electives	Sem offering	#	First offered	Approved substitution	Last offered
	CHEE4006 Research Project	1	2		No substitution	
	CHEE4007 Research Project	2	2		No substitution	
	CHEE4026 Research Thesis	1	4		No substitution	
	CHEE4027 Research Thesis	2	4		No substitution	

✓/X compl.	0 to 8 units from any: Chemical Engineering Breadth Electives	Sem offering	#	First offered	Approved substitution	Last offered
	ENGG4103 Engineering Asset Management	1	2		No substitution	
	CHEM1200 Chemistry 2	1,2,S	2		No substitution	
	FIRE3700 Introduction to Fire Safety Engineering	2	2		No substitution	
	FOOD2000 Food Science	1	2		No substitution	
	FOOD3007 Food Structure & Sensory Science	2	2		No substitution	
	FOOD3011 Food Product Development	2	2		No substitution	
	FOOD3017 Food Policy, Safety & Quality Management	1	2		No substitution	
	MATH2001 Calculus & Linear Algebra II	1,2,S	2		MATH2000 Calculus & Linear Algebra II (discontinued)	
	METR3100 Control System Implementation	2	2		No substitution	
	MICR2000 Microbiology & Immunology	2	2		No substitution	
	MICR2001 Food Microbiology I	2	2		No substitution	

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

Biomedical Engineering
 Bioprocess Engineering
 Environmental Engineering
 Materials Engineering
 Metallurgical Engineering

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BE(Hons) Transition Plan – Chemical Engineering NEW

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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 Chemical Engineers <u>only</u>					
	CHEE4020 Bioprocess Engineering	1	2		CHEE4020 Biomolecular Engineering	
	BIOE6034 Cell & Tissue Engineering	1	2	1/21	CHEE4034 Cell & Tissue Engineering (discontinued)	1/20
	8 units for: Biomedical Engineering Compulsory Courses					
	BIOE1001 Principles of Biomedical & Bioprocess Engineering	1	2	1/21	CHEE1001 Principles of Biological Engineering (discontinued)	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		No substitution	
	BIOE6028 Metabolic Engineering	2	2	2/21	CHEE4028 Metabolic Engineering (discontinued)	2/20
	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	
	COMP4702 Machine Learning	1	2		No substitution	

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	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		CHEE4006 Individual Inquiry OR CHEE4007 Individual Inquiry (plus 2 units electives)	

✓/X compl.	Major in Bioprocess Engineering (16 units)	Sem offering	#	First offered	Approved substitution	Last offered
	12 units for all: Bioprocess Engineering Compulsory Courses					
	BIOE1001 Principles of Biomedical & Bioprocess Engineering or BIOL1020 Genes, Cells & Evolution	1 1,2	2	1/21	CHEE1001 Principles of Biological Engineering (discontinued)	1/20
	BIOC2000 Biochemistry & Molecular Biology	1	2		Course must be completed	
	BIOL2202 Genetics	2	2		Course must be completed	
	BIOT3009 Quality Management Systems in Biotechnology: GMP, GLP, GCP	1	2		Course must be completed	
	CHEE4020 Bioprocess Engineering	1	2		CHEE4020 Biomolecular Engineering	
	BIOE6028 Metabolic Engineering	2	2	2/21	CHEE4028 Metabolic Engineering (discontinued)	2/20

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	0 to 4 units from: Bioprocess Engineering Electives					
	BIOC3005 Molecular Systems Biology	2	2		No substitution	
	BIOE3001 Quantitative Methods in Biomedical Engineering (NEW)	2	2	2/22	No substitution	
	BIOE4305 Biomaterials: Materials in Medicine	2	2	2/21	CHEE4305 Biomaterials: Materials in Medicine (discontinued)	2/20
	BIOE6034 Cell & Tissue Engineering	1	2	1/21	CHEE4034 Cell & Tissue Engineering (discontinued)	1/20
	BIOL3303 Genomics	1	2	1/21	BIOL3004 Genomics & Bioinformatics (discontinued)	1/20
	BIOT3004 Commercialisation of Biotechnology Products	2	2		No substitution	
	CHEE4012 Industrial Wastewater & Solid Waste Management	2	2		No substitution	
	FOOD1001 Principles of Food Preservation	1	2		No substitution	
	FOOD3008 Food Process Engineering II	2	2		No substitution	
	SCIE2100 Introduction to Bioinformatics	1	2		No substitution	
	0 to 4 units from: Bioprocess Engineering Research Electives					
	CHEE4006 Research Project	1	2		No substitution	
	CHEE4007 Research Project	2	2		No substitution	
	CHEE4026 Thesis Project or CHEE4027 Thesis Project	1 2	4		No substitution	

✓/X compl.	Major in Environmental Engineering (16 units)	Sem offering	#	First offered	Approved substitution	Last offered
	8 units for all: Environmental Engineering Compulsory Courses					
	ENVE2501 Environmental Systems	2	2	2/21	CHEE2501 Environmental Systems Engineering I: Processes (discontinued)	2/20
	ENVE3150 Environmental System Dynamics and Modelling	2	2	2/21	CIVL3150 Modelling of Environmental Systems (discontinued)	2/20
	ENVE3160 Environmental Phenomena (NEW)	1	2	1/23	Course must be completed	
	ENVE4610 Engineering the Circular Economy (NEW)	1	2	1/23	Course must be completed	

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	4 to 8 units from: Environmental Engineering Electives					
	CIVL3420 Sustainable Transport Engineering	2	2		No substitution	
	CHEE4012 Industrial Wastewater & Solid Waste Management	2	2		No substitution	
	CIVL4111 Ocean, Coastal & Estuarine Engineering (NEW)	2	2	2/23	CIVL4110 Coastal & Estuarine Engineering (discontinued)	2/22
	CIVL4112 Hydro- and Marine Power Renewable Energy Systems (NEW)	2	2	2/23	No substitution	
	CIVL4121 Environmental Hydraulics and Flood Management (NEW)	2	2	2/23	CIVL4120 Advanced Hydraulic Engineering and Structures (discontinued)	2/22
	CIVL4145 Groundwater Modelling and Management	1	2	2/22	CIVL4140 Contaminant Transport Modelling (discontinued)	1/21
	CIVL4525 Sustainable Infrastructure Design (NEW)	1	2	1/23	CIVL4180 Sustainable Built Environment (discontinued)	2/22
	ENGY4000 Energy Systems	1	2		No substitution	
	ENVE6110 Environmental Sensor System & Monitoring	1	2	1/23	CIVL7135 Environmental Sensor Systems and Monitoring Techniques (discontinued)	1/22
	ENVM3103 Regulatory Frameworks for Environmental Management & Planning	1	2		No substitution	
	WATR6105 Integrated Urban Water Management	1	2	1/21	WATR7105 Integrated Urban Water Management (discontinued)	1/20
	WATR6106 Emerging Issues in the Urban Water Cycle and Public Water	1	2	1/21	WATR7106 Emerging Issues in the Urban Water Cycle and Public Water (discontinued)	1/20
	WATR6108 Advanced Unit Operations in Water Management	1	2	1/21	WATR7108 Advanced Unit Operations in Water Management (discontinued)	1/20
	WATR6109 Drinking Water Supply: Source, Treatment and Distribution	1	2	1/21	WATR7109 Drinking Water Supply: Source, Treatment and Distribution (discontinued)	1/20
	0 to 4 units from a. Environmental Engineering Research Electives; and/or b. Environmental Engineering Breadth Electives; and/or c. Chemical Engineering Advanced Electives; and/or d. Civil Engineering Advanced Electives.					
	Environmental Engineering Research Electives					
	CHEE4006 Research Project	1	2		No substitution	
	CHEE4007 Research Project	2	2		No substitution	
	CHEE4026 Research Thesis or CHEE4027 Research Thesis	1 2	4		No substitution	
	Environmental Engineering Breadth Electives					

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	ENVM2100 Foundations of Sustainable Development	2	2		No substitution	
	ENVM3103 Regulatory Frameworks for Environmental Management & Planning	1	2		No substitution	
	ENVM3201 Catchment Processes & Management	1	2		No substitution	
	ERTH1501 Earth Processes & Geological Materials for Engineers	1	2		No substitution	
	ERTH2004 Structural & Metamorphic Geology	2	2		No substitution	
	ERTH3250 Hydrogeology	2	2		No substitution	
	GEOM1000 Fundamentals of Geographic Information & Technologies	2	2		No substitution	
	GEOM2001 Geographical Information Systems	1	2		No substitution	
	GEOS1100 Environment & Society	1,2	2		No substitution	
	GEOS2100 Environmental Systems	1	2		No substitution	
	GEOS3102 Global Change: Problems & Prospects	2	2		No substitution	

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✓/X compl.	Major in Materials Engineering (16 units)	Sem offering	#	First offered	Approved substitution	Last offered
	4 units for: Materials Engineering Courses for Chemical Engineers <u>only</u>					
	ENGG1700 Statics & Materials (NEW)	1,2	2	1/21	Course must be completed	
	MECH2300 Structures and Materials	1	2		Course must be completed	
	8 units for: Materials Engineering Compulsory Courses					
	MECH2310 Science and Engineering of Metals	2	2		Course must be completed	
	CHEE3301 Polymer Engineering	1	2		Course must be completed	
	MECH3301 Materials Selection	2	2		Course must be completed	
	MATE4302 Electrochemistry and Corrosion	2	2	2/21	CHEE4302 Electrochemistry & Corrosion (discontinued)	2/20
	4 units from: Materials Engineering Electives					
	AERO4300 Aerospace Composites	2	2		No substitution	
	BIOE4305 Biomaterials: Materials in Medicine	2	2	2/21	CHEE4305 Biomaterials: Materials in Medicine (discontinued)	2/20
	CHEE4006 Research Project	1	2		No substitution	
	CHEE4007 Research Project	2	2		No substitution	
	CHEE4026 Research Thesis or CHEE4027 Research Thesis	1 2	4		No substitution	
	MATE6301 Nanomaterials	2	2	2/21	CHEE4301 Nanomaterials (discontinued)	2/20
	MECH2305 Introduction to Engineering Design and Manufacturing	1	2		No substitution	
	MECH4304 Net Shape Manufacturing	1	2		No substitution	

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✓/X compl.	Major in Metallurgical Engineering (16 units)	Sem offering	#	First offered	Approved substitution	Last offered
	10 units for all: Metallurgical Engineering Compulsory Courses					
	MINE3208 Physical Separation Processes	2	2		MINE3208 Mineral and Coal Beneficiation	
	MINE3212 Pyrometallurgy	2	2		Course must be completed	
	MINE3219 Process Mineralogy and Comminution	1	2		Course must be completed	
	MINE4203 Flotation	1	2		Course must be completed	
	MINE4204 Hydrometallurgy and Electrometallurgy	1	2		MINE4204 Aqueous Solution Processing & Electrometallurgy	
	2 to 6 units from: Metallurgical Engineering Electives					
	MINE2201 Physical & Chemical Processing of Minerals	2	2		No substitution	
	CHEE4012 Industrial Wastewater & Solid Waste Management	2	2		No substitution	
	MATE4302 Electrochemistry and Corrosion	2	2	2/21	CHEE4302 Electrochemistry & Corrosion (discontinued)	2/20
	ENGY4000 Energy Systems	1	2		No substitution	
	MATE6301 Nanomaterials	2	2	2/21	CHEE4301 Nanomaterials (discontinued)	2/20
	MECH4304 Net Shape Manufacturing	1	2		No substitution	
	MECH2300 Structures & Materials	1	2		No substitution	
	0 to 4 units from: Metallurgical Engineering Research Electives					
	CHEE4006 Research Project	1	2		No substitution	
	CHEE4007 Research Project	2	2		No substitution	
	CHEE4026 Research Thesis or CHEE4027 Research Thesis	1 2	4		No substitution	

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