CHECKLIST Bachelor of Engineering (Honours) – Chemical Engineering (2342): 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) (Chemical Engineering) - a Single Major (CHEMIX2342) or Extended Major (CHEMIY2342), or Major & Minor, 64 units comprising -

a. a major - 52 units, comprising-
   (i) 48 units, being all courses from part A (listed below), and
   (ii) 4 units from a combination of parts B4 and B5 electives, and
b. balance from electives
   (i) a minimum of 4 units from courses on the BE(Hons) list, other than courses on the Chemical Engineering part B0 list, and
   (ii) a maximum of 4 units from courses on the Chemical Engineering part B0 list, and
   (iii) a maximum of 4 units from level one courses not on the BE(Hons) list

OR

a. an extended major - 60 units, comprising-
   (i) 48 units, being all courses from part A (listed below), and
   (ii) 4 units from a combination of parts B4 and B5 electives, with a minimum of 2 units from part B5 and
   (iii) 8 units from the combination of part B1, B2, and B4 electives, with a minimum of 4 units from the combination of part B2 and Part B4 - Advanced ElectivesB4, and
b. balance from electives-

OR

a. a major and a minor - 60 units, comprising-
   (i) 48 units, being all courses from part A (listed below), and
   (ii) 4 units from a combination of parts B4 and B5 electives with a minimum of 2 units from part B5, and
   (iii) 8 units in accordance with the minor course list for Food Engineering, and
b. balance from electives

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
	48 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	 **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	2		**MATH1052** Multivariate Calculus & Ordinary Differential Equations **OR** **MATH1072** Advanced Multivariate Calculus & Ordinary Differential	1,2	2	

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	Equations			Equations			
	CHEM1100 Chemistry 1	2		**CHEM1100** Chemistry 1	1,2	2	
	ENGG1500 Engineering Thermodynamics	2		**ENGG1500** Thermodynamics: Energy and the Environment	1,2	2	
	CHEE2001 Process Principles	2		**CHEE2001** Process Principles	1,2	2	
	CHEM1200 Chemistry 2	2		**CHEM1200** Chemistry 2	1,2,S	2	
	MATH2000 Calculus & Linear Algebra II (discontinued) OR **MATH2001** Advanced Calculus & Linear Algebra II	2	**2/20**	**MATH2001** Calculus & Linear Algebra II	1,2,S	2	
	CHEE2003 Fluid & Particle Mechanics	2		**CHEE2003** Fluid & Particle Mechanics (will change to semester 1 in 2022)	2	2	
	CHEE2010 Engineering Investigation & Statistical Analysis	2		**CHEE2010** Engineering Investigation & Statistical Analysis (will change to semester 1 in 2022)	2	2	
	CHEM2056 Physical Chemistry for Engineering	2		**CHEM2056** Physical Chemistry for Engineering	1	2	
	CHEE3002 Heat & Mass Transfer (discontinued)	2	**1/22**	**CHEE2040** Heat & Mass Transfer	2	2	**2/22**
	CHEE3003 Chemical Thermodynamics (discontinued)	2	**1/22**	**CHEE2030** Chemical Thermodynamics	2	2	**2/22**
	CHEE3020 Process Systems Analysis	2		**CHEE3020** Process Systems Analysis (will change to semester 2 in 2023)	1	2	
	CHEE3004 Unit Operations	2		**CHEE3004** Unit Operations (will change to semester 1 in 2023)	2	2	
	CHEE3005 Reaction Engineering	2		**CHEE3005** Reaction Engineering (will change to semester 1 in 2023)	2	2	
	CHEE3007 Process Modelling & Dynamics	2		**CHEE3007** Process Modelling & Dynamics	2	2	
	CHEE4002 Risk in Process Industries	2		**CHEE4002** Risk in Process Industries	1	2	
	CHEE4009 Transport Phenomena	2		**CHEE4009** Transport Phenomena	1	2	
	CHEE4060 Process & Control System Synthesis (discontinued)	2	**1/23**	**CHEE2020** Process Equipment & Control Systems	2	2	**2/22**
	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	**1/24**
	CHEE4001 Process Engineering Design Project	4		**CHEE4001** Process Engineering Design Project	2	4	

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PART B

✓/X compl.	Part B0 - Preparatory Mathematics & Science Electives	#	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 B1 - Introductory Electives	#	Last offered	If NOT completed – you can choose*:	Sem offering	#	First offered
	BIOL1040 Cells to Organisms	2		**BIOL1040** Cells to Organisms	1,2	2	
	CHEE1001 Principles of Biological Engineering (discontinued)	2	**1/20**	**BIOE1001** Principles of Biomedical & Bioprocess Engineering	1	2	**1/21**
	CSSE1001 Introduction to Software Engineering	2		**CSSE1001** Introduction to Software Engineering **OR** **ENGG1001** Programming for Engineers	1,2	2	**1/21**
	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 and Materials	1,2	2	**1/21**
	ENGG1600 Introduction to Research Practices - The Big Issues	2		**ENGG1600** Introduction to Research Practices - The Big Issues	2	2	
	ENGG2000 Humanitarian Engineering	2		**ENGG2000** Humanitarian Engineering	2	2	
	ENVM1522 Carbon and Energy Management	2		**ENVM1522** Carbon and Energy Management	2	2	
	ERTH1501 Earth Processes & Geological Materials for Engineers	2		**ERTH1501** Earth Processes & Geological Materials for Engineers	1	2	
	PHYS1002 Electromagnetism and Modern Physics	2		**PHYS1002** Electromagnetism and Modern Physics (semester 2 only from 2022)	2	2	

✓/X compl.	Part B2 - Electives	#	Last offered	If NOT completed – you can choose*:	Sem offering	#	First offered
	BIOC2000 Biochemistry & Molecular Biology	2		**BIOC2000** Biochemistry & Molecular Biology	1	2	
	BIOL2202 Genetics	2		**BIOL2202** Genetics	2	2	
	CHEE2501 Environmental Systems Engineering I: Processes (discontinued)	2	**2/20**	**ENVE2501** Environmental Systems	2	2	**2/21**
	CHEE3008 Special Topics C	2		**CHEE3008** Special Topics C	1,2	2	
	CHEE3301 Polymer Engineering	2		**CHEE3301** Polymer Engineering	1	2	

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	CHEE4003 Special Topics A	2		**CHEE4003** Special Topics A	2	2	
	CHEE4015 Special Topics VII (discontinued)	1	**2/21**	**Any BE Elective**			
	CIVL3141 Hydrology and Hydrological Risk (discontinued)	2	**2/23**	**CIVL3155** Hydrology & Free Surface Flows	2	2	**2/22**
	ENGG4103 Engineering Asset Management	2		**ENGG4103** Engineering Asset Management	1	2	
	ENVM3103 Regulatory Frameworks for Environmental Management & Planning	2		**ENVM3103** Regulatory Frameworks for Environmental Management & Planning	1	2	
	FOOD2000 Food Science	2		**FOOD2000** Food Science	1	2	
	FOOD3007 Food Structure & Sensory Science	2		**FOOD3007** Food Structure & Sensory Science	2	2	
	FOOD3008 Food Process Engineering II	2		**FOOD3008** Food Process Engineering II	2	2	
	FOOD3011 Food Product Development	2		**FOOD3011** Food Product Development	2	2	
	FOOD3017 Food Policy, Safety & Quality Management	2		**FOOD3017** Food Policy, Safety & Quality Management	1	2	
	MECH2310 Science & Engineering of Metals	2		**MECH2310** Science & Engineering of Metals	2	2	
	MICR2000 Microbiology & Immunology	2		**MICR2000** Microbiology & Immunology	2	2	
	MICR2001 Food Microbiology I	2		**MICR2001** Food Microbiology I	2	2	
	MINE2201 Metal Production and Recycling (discontinued)	2	**2/21**	**METL2201** Metal Production and Recycling	2	2	**2/22**
	MINE3211 Special Topics in Minerals Processing II (discontinued)	2	**2/20**	**Any BE Elective**			
	MINE3212 Pyrometallurgy (discontinued)	2	**2/21**	**METL6212** Pyrometallurgy	1,2	2	**2/22**
	MINE3219 Process Mineralogy and Comminution (discontinued)	2	**1/21**	**METL3219** Process Mineralogy and Comminution	1	2	**1/22**
	MINE4207 Special Topics in Minerals Processing I (discontinued)	1	**2/20**	**Any BE Elective**			

✓/X compl.	Part B4 - Advanced Electives	#	Last offered	If NOT completed – you can choose*:	Sem offering	#	First offered
	CHEE4012 Industrial Wastewater & Solid Waste Management (discontinued)	2	**2/22**	**CHEE4012** Industrial Wastewater & Solid Waste Management (discontinued)	2	2	
	CHEE4020 Biomolecular Engineering	2	**1/21**	**BIOE4020** Bioprocess Engineering	1	2	**1/22**
	CHEE4022 Principles of Adsorption (discontinued)	2	**2022**	**CHEE4022** Principles of Adsorption (discontinued)	2	2	
	CHEE4034 Cell & Tissue Engineering (discontinued)	2	**1/20**	**BIOE6034** Cell and Tissue Engineering	1	2	**1/21**

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	CHEE4301 Nanomaterials (discontinued)	2	**2/20**	**MATE6301** Nanomaterials	2	2	**2/21**
	CHEE4302 Electrochemistry & Corrosion (discontinued)	2	**2/20**	**MATE4302** Electrochemistry and Corrosion	2	2	**2/21**
	CHEE4303 Interface and Colloid Science and Engineering (discontinued)	2	**1/17**	**CHEE4303** Interface and Colloid Science and Engineering (discontinued)	1	2	
	CHEE4305 Biomaterials: Materials in Medicine (discontinued)	2	**2/20**	**BIOE4305** Biomaterials: Materials in Medicine	2	2	**2/21**
	ENGG3500 Reservoir Engineering (discontinued)	2	**2/20**	**ENGG3500** Reservoir Engineering (discontinued)	2	2	
	ENGY4000 Energy Systems	2		**ENGY4000** Energy Systems	1	2	
	MECH4304 Net Shape Manufacturing	2		**MECH4304** Net Shape Manufacturing	1	2	
	MINE4203 Flotation (Discontinued)	2	**1/21**	**METL4203** Flotation (Discontinued)	1	2	
	MINE4204 Hydrometallurgy and Electrometallurgy (Discontinued)	2	**1/21**	**METL6204** Hydrometallurgy and Electrometallurgy	1	2	**1/22**

✓/x compl.	Part B5 - Advanced Research Electives	#	Last offered	If NOT completed – you can choose*:	Sem offering	#	First offered
	CHEE4006 Individual Inquiry	2		**CHEE4006** Research Project	1	2	
	CHEE4007 Individual Inquiry	2		**CHEE4007** Research Project	2	2	
	CHEE4026 Thesis Project	4		**CHEE4026** Research Thesis	1	4	
	CHEE4027 Thesis Project	4		**CHEE4027** Research Thesis	2	4	

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Minors

Students enrolled in a minor field of study are required to obtain the major, plus an additional 8 units as set out below for the minor.

✓/X compl.	Minor – Food Engineering	#	Last offered	If NOT completed – you can choose*:	Sem offering	#	First offered
	6 units from Group A – Compulsory						
	CHEE1001 Principles of Biological Engineering (discontinued)	2	**1/20**	**BIOE1001** Principles of Biomedical & Bioprocess Engineering	1	2	**1/21**
	MICR2001 Food Microbiology I	2		**MICR2001** Food Microbiology I	2	2	
	FOOD2000 Food Science	2		**FOOD2000** Food Science	1	2	
	2 units from Group B						
	FOOD3007 Food Structure & Sensory Science	2		**FOOD3007** Food Structure & Sensory Science	2	2	
	FOOD3008 Food Process Engineering II	2		**FOOD3008** Food Process Engineering II	2	2	
	FOOD3011 Food Product Development	2		**FOOD3011** Food Product Development	2	2	
	FOOD3017 Food Policy, Safety & Quality Management	2		**FOOD3017** Food Policy, Safety & Quality Management	1	2	

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