# CHECKLIST Bachelor of Engineering (Honours)/Master of Engineering – Chemical 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 (Chemical Engineering Plan code: CHEMIX2350), 80 units comprising -

- 1. 64 units being all courses from part A compulsory (listed below), and
- 2. 8 units from the combination of parts <u>B1</u>, <u>B2</u>, <u>B4</u> and <u>N</u> electives, and
- 8 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 B0 of the BE(Hons)/ME(Chemical) list, 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
	ENGG1100 Engineering Design (2) and	2		ENGG1100 Professional Engineering	1,2	2	
	ENGG1200 Engineering Modelling & Problem Solving (2)			and			
	(discontinued)	2	2/20	* If you have not completed ENGG1200, please contact EAIT Student Admin		2	
	OR			for replacement			
	ENGG1211 Engineering Design, Modelling & Problem Solving (4)	4	2/20				
	(discontinued)						
	MATH1051 Calculus & Linear Algebra I OR	2		MATH1051 Calculus & Linear Algebra I OR	1,2	2	
	MATH1071 Advanced Calculus & Linear Algebra I			MATH1071 Advanced Calculus & Linear Algebra I			
	MATH1052 Multivariate Calculus & Ordinary Differential Equations	2		MATH1052 Multivariate Calculus & Ordinary Differential Equations	1,2	2	
	OR	_		OR	-,-		
	MATH1072 Advanced Multivariate Calculus & Ordinary Differential Equations			MATH1072 Advanced Multivariate Calculus & Ordinary Differential			
				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)	2	2/20	MATH2001 Calculus & Linear Algebra II	1,2,S	2	
	OR		-				
	MATH2001 Advanced Calculus & Linear Algebra II						
	CHEE2003 Fluid & Particle Mechanics	2		CHEE2003 Fluid & Particle Mechanics (moves to semester 1 in 2022)	1	2	
	CHEE2010 Engineering Investigation & Statistical Analysis	2		CHEE2010 Engineering Investigation & Statistical Analysis (moves to semester 1 in 2022)	1	2	
	CHEM2056 Physical Chemistry for Engineering	2		CHEM2056 Physical Chemistry for Engineering	1	2	

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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
ENGG7290 Engineering Placement Semester (discontinued)	8	2/22	ENGG7292 Engineering Placement B	1,2	2	2/23
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	
CHEE7111 Advanced Process and System Modelling	2		CHEE7111 Advanced Process and System Modelling	1	2	
CHEE7112 Integrated Safety Design and Management	2		CHEE7112 Integrated Safety Design and Management	1	2	
CHEE7113 Whole of Process Optimisation and Control	2		CHEE7113 Whole of Process Optimisation and Control	1	2	
CHEE7103 Chemical Engineering ME Design Project	4		CHEE7103 Chemical Engineering ME Design Project	2	4	
 ENGG7701 Engineering Grand Challenges	2		ENGG7701 Engineering Grand Challenges	2	2	

# 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	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	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 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	1,2	2	

√/X compl.	Part B2 - Electives						
	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	

CHEE4003 Special Topics A	2		CHEE4003 Special Topics A	2	2	
CHEE4015 Special Topics VII (discontinued)	1	2/21	Any BE Elective		1	
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 Physical & Chemical Processing of Minerals (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	2	2	2/22
 MINE3219 Process Mineralogy and Comminution (discontinued)	2	1/21	METL3219 Process Mineralogy and Comminution	1	2	1/2
 MINE4207 Special Topics in Minerals Processing I (discontinued)	1	2/20	Any BE Elective		2	

√/X compl.	Part B4 - Advanced Electives						
	CHEE4012 Industrial Wastewater & Solid Waste Management	2		CHEE4012 Industrial Wastewater & Solid Waste Management	2	2	
	CHEE4020 Biomolecular Engineering (discontinued)	2	1/21	BIOE4020 Bioprocess Engineering	1	2	1/22
	CHEE4022 Principles of Adsorption	2		CHEE4022 Principles of Adsorption	2	2	
	CHEE4034 Cell & Tissue Engineering (discontinued)	2	1/20	BIOE6034 Cell and Tissue Engineering	1	2	1/21
	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	2		ENGG3500 Reservoir Engineering	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	1/22
MINE4204 Aqueous Solution Processes (discontinued)	2	1/21	METL6204 Hydrometallurgy and Electrometallurgy	1	2	1/22

## PART N

√/X compl.	Part N - Electives	#	Last offered	If NOT completed – you can choose*:	Sem offering	#	First offered
	CHEE7502 Sustainable Bioresource Engineering	2		CHEE7502 Sustainable Bioresource Engineering	1	2	
	CIVL7131 Urban Hydrology	2		CIVL7131 Urban Hydrology	1	2	
	ENVM7524 Carbon & Energy Management	2		ENVM7524 Carbon & Energy Management	1,2	2	
	MATE7001 Environmental Performance of Materials	2		MATE7001 Environmental Performance of Materials	1	2	
	MATE7013 Advanced Manufacturing	2		MATE7013 Advanced Manufacturing	1	2	
	MATE7014 Advanced Materials Characterization	2		MATE7014 Advanced Materials Characterization	2	2	
	MATE7015 Additive Manufacturing	2		MATE7015 Additive Manufacturing	2	2	
	TIMS7317 Corporate Sustainability	2		TIMS7317 Corporate Sustainability	1,2	2	
	WATR7103 Advanced Wastewater and Biosolids Treatment (discontinued)	2	2/22	WATR6103 Advanced Wastewater and Biosolids Treatment	2	2	
	WATR7104 Sewer Networks - Design, Operation and Maintenance	2		WATR7104 Sewer Networks - Design, Operation and Maintenance	2	2	
	WATR7105 Integrated Urban Water Management (discontinued)	2	1/20	WATR6105 Integrated Urban Water Management (from 1/21)	1	2	1/21
	WATR7106 Emerging Issues in the Urban Water Cycle and Public Health (discontinued)	2	2/20	WATR6106 Emerging Issues in the Urban Water Cycle and Public Water (from 2/21)	2	2	2/21
	WATR7107 Wastewater Modelling and Control	2		WATR7107 Wastewater Modelling and Control	2	2	

WATR7109 Drinking Water Supply: Source, Treatment and Distribution	2	1/20	WATR6109 Drinking Water Supply: Source, Treatment, Distribution	1	2	1/21
(discontinued)			(from 1/21)			