

# 2022 Study Plan

## Bachelor of Engineering (Honours) (Chemical) with Bachelor of Biotechnology - Semester 2 Start

Year 1				
S 2	MATHS 1011 Mathematics IA <input type="checkbox"/>	*CHEM 1200 Chemistry IB <input type="checkbox"/> <b>OR</b> CHEM 1201 Foundations of Chemistry IB <input type="checkbox"/>	▲ENG 1001 Introduction to Engineering <input type="checkbox"/>	BIOLOGY 1201 Biology I: Human Perspectives <input type="checkbox"/>
Year 2				
S 1	MATHS 1012 Mathematics IB <input type="checkbox"/>	*CHEM 1100 Chemistry IA <input type="checkbox"/> <b>OR</b> CHEM 1101 Foundations of Chemistry IA <input type="checkbox"/>	CHEM ENG 1007 Introduction to Process Engineering <input type="checkbox"/>	ENG 1003 Programming (Matlab and Excel) <input type="checkbox"/>
S 2	MATHS 2107 Statistics & Numerical Methods II <input type="checkbox"/>	CHEM ENG 2011 Process Engineering Thermodynamics <input type="checkbox"/>	CHEM ENG 2014 Heat and Mass Transfer <input type="checkbox"/>	BIOTECH 2010 Principles of Biotechnology II <input type="checkbox"/>
Year 3				
S 1	MATHS 2106 Differential Equations for Engineers II <input type="checkbox"/>	CHEM ENG 2010 Process Design II <input type="checkbox"/>	CHEM ENG 2018 Process Fluid Mechanics <input type="checkbox"/>	MICRO 2504 Microbiology II (Biotechnology) <input type="checkbox"/>
S 2	CHEM ENG 3033 Separation Process Engineering <input type="checkbox"/>	CHEM ENG 3030 Process Design III <input type="checkbox"/>	CHEM ENG 3031 Process Control & Instrumentation <input type="checkbox"/>	CHEM ENG 3036 Unit Operations Laboratory <input type="checkbox"/>
Internship				
All Engineering students commencing from 2019 are required to complete a minimum of 8 weeks of <a href="#">internship</a> during the course of their studies – see note below elective table.				
Year 4				
S 1	CHEM ENG 4056 Process Design IV <input type="checkbox"/>	CHEM ENG 4034 Chemical Engineering Practice <input type="checkbox"/>	CHEM ENG 3034 Chemical Reactor Engineering <input type="checkbox"/>	ENG 3005 Research Methods & Project Management <input type="checkbox"/>
S 2	CHEM ENG 4014 Plant Design Project (6 units) <input type="checkbox"/>		CHEM ENG 4054 Research Project <input type="checkbox"/>	BIOCHEM 2503 Biochemistry II (Biotechnology): Metabolism <input type="checkbox"/>
Year 5				
S 1	CHEM ENG 4050 Advanced Chemical Engineering <input type="checkbox"/>	CHEM ENG 3035 Fluid & Particle Mechanics <input type="checkbox"/>	Level IV Chemical Engineering Elective (see elective table) <input type="checkbox"/>	BIOCHEM 2502 Biochemistry II (Biotechnology): Molecular & Cell Biology <input type="checkbox"/>
S 2	Level III Biotechnology Elective (see elective table) <input type="checkbox"/>	Level III Biotechnology Elective (see elective table) <input type="checkbox"/>	BIOCHEM 3000 Molecular & Structural Biology III (6 units) <input type="checkbox"/>	

Year 6			
S 1	CHEM ENG 3029 Material Science and Engineering	<input type="checkbox"/>	BIOTECH 3000 Biotechnology Practice III (6 units) <input type="checkbox"/> Level III Biotechnology Elective (see elective table) <input type="checkbox"/>

Core Courses	Elective (see table)	Double Degree Courses
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### Electives Table

Level IV Chemical Engineering Elective					
<b>S1</b>	CHEM ENG 4051	Water and Wastewater Engineering	<b>S2</b>	CHEM ENG 4048	Biofuels, Biomass and Wastes
	MECH ENG 4112	Combustion Technologies & High Temperature Processes		CHEM ENG 4058	Metallurgical Processes
<b>TBC</b>	<del>CHEM ENG 4075</del>	<del>Winery Engineering (not offered 2022)</del>	<b>WS</b>	CHEM ENG 4074	Brewery Engineering
Level III Biotechnology Elective					
<b>S1</b>	BIOINF 3005	Transcriptomics Applications III	<b>S2</b>	BIOCHEM 3001	Cancer, Stem Cells & Development III
	BIOINF 3010	Genomics Applications III		BIOINF 3000	Bioinformatics III
<b>TBC</b>	BIOTECH 3010	Advanced Research Platforms III			
	BIOTECH 3020	Molecular Microbiology and Vaccines III			
	BIOTECH 3030	Protein Purification: Principles and Practice III			

#### NOTES

**EAL:** Unless exempted, International students are required to take ENG 1011 Introduction to Engineering - EAL in lieu of ENG 1001 Introduction to Engineering

**Chemistry:** Students with at least C+ in SACE Stage 2 Chemistry (or equivalent) must enrol in CHEM 1100 Chemistry IA and CHEM 1200 Chemistry IB. All other students must enrol into CHEM 1101 Foundations of Chemistry IA and CHEM 1201 Foundations of Chemistry IB.

**Internships:** All Engineering students commencing from 2019 are required to complete a minimum of 8 weeks of internship during the course of their studies. Internships are self-sourced and further information can be found on the Engineering Internships web page: <https://ecms.adelaide.edu.au/study-with-us/student-support/internships/engineering>.

**Program Rules:** For academic program rules please refer to the following website: <https://calendar.adelaide.edu.au/faculty/ecms>

#### Information and Enrolment Advice:

Ask ECMS

Email: [askecms@adelaide.edu.au](mailto:askecms@adelaide.edu.au)

Website: <https://ecms.adelaide.edu.au/study-with-us/student-support>