

## RECOMMENDED STUDY PLAN

**2021**

DEGREE Bachelor of Engineering (Honours) – Bachelor of Science NAME \_\_\_\_\_

BEng. MAJOR Chemical Engineering (CEM) - BSc MAJOR Choose a Major from Table B

To assist you with subject information, we recommend you consult with your CSE Course/Major Advisor and refer to [Subject Search](#). If you would prefer a part-time study plan, please adjust the below planner, reviewing subject prerequisites to ensure you are on track for course completion.

Year 1	Study Period 1 - SP1	Study Period 2 - SP2
	Degree Core: <u>EG1000</u> Engineering 1	Degree Core: <u>EG1010</u> Process Engineering
	Degree Core: <u>EG1002</u> Computing and Sensors	Degree Core: <u>EG1011</u> Statics and Dynamics PREREQ: PH1005 OR (PHYSICS AND MATHS C)
	Degree Core: <u>MA1000</u> Mathematical Foundations PREREQ: MA1020 OR MATHS B OR MATHS C	Degree Core: <u>EG1012</u> Electric Circuits
	Degree Core: <u>PH1005</u> Advanced Stream Physics 1 PREREQ: MATHS B OR MA1020 OR MA1000 OR MA1008	Degree Core: <u>MA1003</u> Mathematical Techniques PREREQ: MA1000 OR MA1011 OR MA1009

Year 2	Study Period 1 - SP1	Study Period 2 - SP2
	Degree Core: <u>MA2000</u> Mathematics for Scientists and Engineers PREREQ: MA1003	BEng Major Core: <u>CH1002</u> Chemistry: Principles & Applications PREREQ: CH1001 OR CH1011
	BEng Major Core: <u>CH1001</u> Chemistry: A Central Science PREREQ: CH1020 OR EG1010 OR SENIOR CHEMISTRY	BEng Major Core: <u>CL2502</u> Chemical Engineering Thermodynamics PREREQ: CL2501 AND MA2000
	BEng Major Core: <u>CL2501</u> Process Analysis PREREQ: EG1010	BSc Major Core:
	BSc Major Core:	BSc Major Core:

Year 3	Study Period 1 - SP1	Study Period 2 - SP2
	BEng Major Core: <u>ME2512</u> Thermofluid Mechanics PREREQ: EG1011	BEng Major Core: <u>CH2103</u> Analytical Chemistry PREREQ: CH1001 OR CH1011
	BSc Major Core:	BEng Major Core: <u>CS3008</u> Fluid Mechanics PREREQ: MA2000 AND ME2512
	BSc Major Core:	BSc Major Core:
	<u>List Options</u> : see information below	<u>List Options</u> : see information below

Year 4	Study Period 1 - SP1	Study Period 2 - SP2
	<b>Degree Core:</b> <u>EG3000</u> Introduction to Systems Engineering and Project Management <b>PREREQ:</b> EG1000 AND EG1002 AND EG1010 AND EG1011 AND EG1012 AND MA1000 AND MA1003 AND (PH1005 OR EG1001) OR 36CP	<b>BEng Major Core:</b> <u>EE3600</u> Automatic Control 1 <b>PREREQ:</b> EG1012 AND MA2000
	<b>BEng Major Core:</b> <u>CL3021</u> Mass Transfer Operations <b>PREREQ:</b> CL2501 AND MA2000	<b>BEng Major Core:</b> <u>ME3512</u> Heat and Mass Transfer <b>PREREQ:</b> MA2000
	<b>BEng Major Core:</b> <u>CL3030</u> Reactor Design <b>PREREQ:</b> CL2501 AND MA2000	<b>BEng Major Core:</b> <u>CL4538</u> Bioprocess Engineering <b>PREREQ:</b> CL2502 OR CL3010 AND CL3021 AND CL3030
	<b>BSc Major Core:</b>	<b>BSc Major Core:</b>

Year 5	Study Period 1 - SP1	Study Period 2 - SP2
	<b>Degree Core:</b> <u>EG4011</u> Thesis Part 1 of 2 <b>PREREQ:</b> 72CP	<b>Degree Core:</b> <u>EG4012</u> Thesis Part 2 of 2 <b>PREREQ:</b> EG4011
	<b>BEng Major Core:</b> <u>CL4040</u> Safety, Environment and Sustainability in the Process Industries <b>PREREQ:</b> 48CP	<b>BEng Major Core:</b> <u>CL4537</u> Minerals and Solids Processing <b>PREREQ:</b> 48CP
	<b>BEng Major Core:</b> <u>CL4071</u> Chemical Engineering Design (Part 1 of 2) <b>PREREQ:</b> CL3010 AND CL3021 AND CL3030 AND CL4538 AND CS3008 AND ME3512	<b>BEng Major Core:</b> <u>CL4072</u> Chemical Engineering Design (Part 2 of 2) <b>PREREQ:</b> CL4071
	<b>List Options:</b> <i>see tables below for details</i>	<b>List Options:</b> <i>see tables below for details</i>

**Further Degree Options:**

Select 2 subjects from List 1\* **AND** Select 2 Level 2 or 3 Science subjects **AND** Select a BSc Major from Table B

<b>List 1:</b>		
<b>Study Period 1 – SP1</b>	<b>Study Period 2 – SP2</b>	
<u>CS2001</u> Engineering Strength of Materials PREREQ: EG1011	<u>CP1404</u> Programming II PREREQ: CP1801 OR CP1401 OR CP1200 OR EG1002 OR CP2200 OR SC1201	
<u>EV2301</u> Urban Geography and Design PREREQ: 12CP LEVEL 1 SUBJECTS	<u>EA1110</u> Evolution of the Earth	
<u>PH2002</u> Classical Mechanics and Quantum Physics 1 PREREQ: MA1003 AND PH1005 AND (PH1006 OR PH1007 OR (EG1012 AND EG1011))	<u>CC2511</u> – Embedded Systems Design PREREQ: EG1002 OR CP1300 OR CP1404	
<u>PH2019</u> Introduction to Electromagnetism Optics and Early Quantum PREREQ: (EG1012 OR PH1005) AND MA1003	<u>CP2406</u> Programming III PREREQ: CP1404 OR CP1804 OR CP1300	
<u>EE4000</u> Signal Processing 3 – TSV only PREREQ: 48CP	<u>CS2004</u> Surveying and Construction – TSV ONLY, offered ODD years only	
<u>ME4521</u> Bulk Materials Handling – TSV only, offered ODD years only PREREQ: 48CP	<u>EG2010</u> Materials Science and Engineering – TSV only	
<u>MA2211</u> - Discrete Mathematics – TSV ONLY PREREQ: MATHS B	<u>EV2502</u> Introduction to Geographic Information Systems PREREQ: 12CP LEVEL 1 SUBJECTS	
	<u>MA2210</u> - Linear Algebra PREREQ: MA1003	
	<u>ME2525</u> Machine Element Design – TSV ONLY PREREQ: CS2001	
	<u>PH2240</u> Atomic and Nuclear Physics – TSV ONLY PREREQ: PH2002 AND MA1003	
	<u>CC3501</u> Computer Interfacing and Control PREREQ: CC2511	
	<b>SP11 (Nov-Feb)</b>	
	<u>EV3502</u> Advanced Geographic Information Systems – TSV ONLY PREREQ: AT LEAST 12CP LEVEL 2 INCLUDING EV2502	

\* If undertaking MA1020 only choose 1 subject from this list.