

## RECOMMENDED STUDY PLAN

2021

DEGREE Bachelor of Science MAJOR Mathematics (MTM) – TSV only after 1<sup>st</sup> Year

NAME \_\_\_\_\_

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.

	Study Period 1 - SP1	Study Period 2 - SP2
Year 1	<b>Degree Core:</b> <u>SC1101</u> Science Technology and Truth	<b>Degree Opt Core</b> <u>SC1102</u> Modelling Natural Systems PREREQ: MA1020 <b>OR</b> <u>SC1109</u> Modelling Natural Systems-Advanced^ PREREQ: MA1000 OR MA1009
	<b>Degree Opt Core Breadth-List 1:</b> <i>Recommended:</i> <u>CP1401</u> Problem Solving and Programming I <b>OR</b> <u>CP1404</u> Programming II PREREQ: CP1801 OR CP1401 OR CP1200 OR EG1002 OR CP2200 OR SC1201	<b>Degree Opt Core Breadth-List 1:</b>
	<b>Major Core:</b> MA1000 Mathematical Foundations PREREQ: MA1020 OR MATHEMATICS B OR MATHS C	<b>Major Core:</b> MA1003 Mathematical Techniques PREREQ: MA1000 OR MA1011 OR MA1009
	<b>Degree Core:</b> <u>MA1020</u> Preparatory Math* <i>*This subject is equivalent to QLD-Maths Methods from high school. This core subject may be replaced by an elective if you pass the math competency test.</i>	<b>Degree Core:</b> <u>CH1020</u> Preparatory Chemistry # <i># This subject is equivalent to chemistry from high school. This core subject may be replaced by an elective if you pass the chemistry competency test.</i>

^ Note- SC1109 is compulsory in the Advanced BSc Program and should be taken instead of SC1102 if you are considering that pathway.

	Study Period 1 - SP1	Study Period 2 - SP2
Year 2	<b>Degree Core:</b> <u>SC2202</u> Quantitative Methods in Science PREREQ: SC1102 OR MA1020 OR MATHS B OR EQUIVALENT <b>OR</b> <u>SC2209</u> Quantitative Methods in Science-Advanced PREREQ: SC1109 AND MA1003 PLUS 6CP OF OTHER LEVEL 1 SUBJECTS	<b>Degree Opt Core Skill-List 2:</b>
	<b>Major Core:</b> <u>MA2000</u> Mathematics for Scientists and Engineers PREREQ: MA1003	<b>Major Core:</b> <u>MA2210</u> Linear Algebra PREREQ: MA1003
	<b>Major Core:</b> <u>MA2211</u> Discrete Mathematics PREREQ: MATHS B	<b>Elective/Minor/2<sup>nd</sup> Major:</b> <u>MA2405</u> Advanced Statistical Modelling - Recommended PREREQ: MA1401 OR MA2401 OR SC2202/SC2209
	<b>Elective/Minor/2<sup>nd</sup> Major:</b>	<b>Elective/Minor/2<sup>nd</sup> Major:</b>

Year 3	Study Period 1 - SP1	Study Period 2 - SP2
	<b>Degree Core:</b> <u>SC3008</u> Professional Placement - <i>available any SP</i>	
	<b>Degree Core:</b> <u>SC3010</u> Sensors and Sensing for Scientists PREREQ: SC2202/SC2209	<b>Major Core:</b> <u>MA3210</u> Probability and Stochastic Processes PREREQ: MA2000 AND (MA2210 OR MA2201)
	<b>Major Core:</b> <u>MA3211</u> Mathematical Modelling and Differential Equations PREREQ: MA2000 AND (MA2210 OR MA2201)	<b>Major Core:</b> <u>MA3212</u> Optimisation and Operations Research PREREQ: MA2000 AND (MA2210 OR MA2201)
	<b>Elective/Minor/2<sup>nd</sup> Major:</b>	<b>Elective/Minor/2<sup>nd</sup> Major:</b> <u>MA3405</u> Statistical Data Mining for Big Data - Recommended PREREQ: MA2405 OR MA2000 OR SC2202/SC2209
	<b>Elective/Minor/2<sup>nd</sup> Major:</b>	

#### Further Degree Options:

<b>Breadth-List 1:</b>	
Study Period 1 – SP1	Study Period 2 – SP2
<u>CP1401</u> Problem Solving and Programming I <b>OR</b> <u>CP1404</u> Programming II PREREQ: CP1801 OR CP1401 OR CP1200 OR EG1002 OR CP2200 OR SC1201 <i>both subjects available in SP1 and SP2 **</i>	
<u>BM1000</u> Introductory Biochemistry and Microbiology – TSV only PREREQ: CH1020 OR SENIOR CHEMISTRY	<u>BS1001</u> Introduction to Biological Processes
<u>BS1007</u> Introduction to Biodiversity – TSV only <b>OR</b> <u>BZ1006</u> Diversity of Life – CNS only	<u>CH1002</u> Chemistry: Principles & Applications – TSV only PREREQ: CH1001 OR CH1011
<u>CH1001</u> Chemistry: A Central Science PREREQ: CH1020 OR EG1010 OR SENIOR CHEMISTRY	<u>EA1110</u> Evolution of the Earth
<u>EG1000</u> Engineering 1	<u>PH1007</u> Advanced Stream Physics 2 – TSV only PREREQ: ((MATHS B OR EQUIVALENT OR MA1020) AND PH1005) OR (PHYSICS AND MATHS C)
<u>EV1005</u> Environmental Processes & Global Change	
<u>PH1005</u> Advanced Stream Physics 1 PREREQ: Maths B OR MA1020 OR MA1000 OR MA1008.	

*\*\*CP1404 has been added to the structure from 2019. We would prefer if you would take CP1404.*

<b>Skill-List 2:</b>	
Study Period 1 – SP1	Study Period 2 – SP2
<u>CP2404</u> Database Modelling	<u>EV2502</u> Introduction to Geographic Information Systems PREREQ: 12CP LEVEL 1 SUBJECTS
	<u>CH2103</u> Analytical Chemistry – TSV only PREREQ: CH1001 OR CH1011