

## RECOMMENDED STUDY PLAN

**2021**

DEGREE Bachelor of Advanced 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.

Year 1	Study Period 1 - SP1	Study Period 2 - SP2
	<b>Degree Core:</b> <u>SC1101</u> Science Technology and Truth	<b>Degree Core:</b> <u>SC1109</u> Modelling Natural Systems-Advanced <b>PREREQ:</b> MA1000 OR MA1009
	<b>Degree Core:</b> <u>MA1000</u> Mathematical Foundations <b>PREREQ:</b> MA1020 OR MATHEMATICS B OR MATHS C	<b>Degree Core:</b> <u>MA1003</u> Mathematical Techniques <b>PREREQ:</b> MA1000 OR MA1011 OR MA1009
	<b>Major Core:</b> <u>PH1005</u> Advanced Stream Physics 1 <b>PREREQ:</b> Maths B OR MA1020 OR MA1000 OR MA1008.	<b>Major Core:</b> <u>PH1007</u> Advanced Stream Physics 2 <b>PREREQ:</b> ((MATHS B OR EQUIVALENT OR MA1020) AND PH1005) OR (PHYSICS AND MATHS C)
	<b>Elective/Minor/2<sup>nd</sup> Major:</b> <i>Recommended:</i> <u>CP1401</u> Problem Solving and Programming I <b>OR</b> <u>CP1404</u> Programming II <b>PREREQ:</b> CP1801 OR CP1401 OR CP1200 OR EG1002 OR CP2200 <b>OR SC1201</b>	<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>

Year 2	Study Period 1 - SP1	Study Period 2 - SP2
	<b>Degree Core:</b> <u>SC2209</u> Quantitative Methods in Science-Advanced <b>PREREQ:</b> SC1109 AND MA1003 PLUS 6CP OF OTHER LEVEL 1 SUBJECTS	<b>Major Core:</b> <u>MA2210</u> Linear Algebra <b>PREREQ:</b> MA1003
	<b>Major Core:</b> <u>MA2000</u> Mathematics for Scientists and Engineers <b>PREREQ:</b> MA1003	<b>Elective/Minor/2<sup>nd</sup> Major:</b> <u>MA2405</u> Advanced Statistical Modelling - Recommended <b>PREREQ:</b> MA1401 OR MA2401 OR SC2202/SC2209
	<b>Major Core:</b> <u>MA2211</u> Discrete Mathematics <b>PREREQ:</b> MATHS B	<b>Elective/Minor/2<sup>nd</sup> Major:</b>
	<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>OR</b> <u>SC3003</u> Science Research Internship - <i>available any SP</i>	
	<b>Major Core:</b> <u>MA3211</u> Mathematical Modelling and Differential Equations <b>PREREQ:</b> MA2000 AND (MA2210 OR MA2201)	<b>Degree Core List 1:</b>
	Elective/Minor/2 <sup>nd</sup> Major:	<b>Major Core:</b> <u>MA3210</u> Probability and Stochastic Processes <b>PREREQ:</b> MA2000 AND (MA2210 OR MA2201)
	Elective/Minor/2 <sup>nd</sup> Major:	<b>Major Core:</b> <u>MA3212</u> Optimisation and Operations Research <b>PREREQ:</b> MA2000 AND (MA2210 OR MA2201)
		<b>Elective/Minor/2<sup>nd</sup> Major:</b> <u>MA3405</u> Statistical Data Mining for Big Data - <i>Recommended</i> <b>PREREQ:</b> MA2405 OR MA2000 OR SC2202/SC2209

#### Further Degree Options:

Degree Core List 1: Advanced Skill Subjects		
Study Period 1 – SP1	Study Period 2 – SP2	
	<u>BC5203</u> Advanced Bioinformatics	
	<u>BS5260</u> Modelling Ecological Dynamics	
	<u>CH5002</u> Research Skills and Communication in Chemistry (Adv)	
<u>EA5409</u> Mineralogy and Geophysics – <i>Not currently offered</i>	<u>PH5014</u> Research Skills and Communication in Physics (Advanced) – <i>Not currently offered</i>	
<b>SP3 (Jan-Feb)</b>		
<u>SC5502</u> Design and Analyses in Ecological Studies - <i>This subject will move to SP2 in 2022</i>		