Bachelor of Advanced Science MAJOR Mathematics

This study plan should be used as a general guide for your course. We recommend you consult with your CSE Course/Major Advisor and particularly if your intended enrolment varies from this plan.

The information in the study plan is current at the time of creation and may be subject to future change. If you would prefer a part-time study plan, please adjust the below study planner; reviewing subject prerequisites to ensure you are on track for course completion.

Useful study planning/enrolment resources:

To search for information on subjects: Subject Search
To register for your classes: Class Registration
For important dates check: Academic Calendars
Further enrolment resources: Enrolment Resources

	STUDY PERIOD 1	STUDY PERIOD 2
Year 1		Course **CH1020**:03 Preparatory Chemistry or **Elective** (only if already satisfied via the previous study)
		Course **MA1000**:03 Mathematical Foundations *PREREQ: MA1020 or MA0020 or Maths B or Maths C*
		Elective
		Elective

	STUDY PERIOD 1	STUDY PERIOD 2
Year 2	Course Select Availability in Study Period 3 **MA1003**:03 Mathematical Techniques *PREREQ: MA1000 or MA1011 or MA1009*	Course **SC1109**:03 Modelling Natural Systems-Advanced *PREREQ: MA1000 or MA1009*
	Course **SC1101**:03 Science Technology and Truth	Major **MA2210**:03 Linear Algebra *PREREQ: MA1003*
	Major Select 3 credit points of subjects from **List 1 (Breadth Subjects)**	Major Select 3 credit points of subjects from **List 1 (Breadth Subjects)**
	Elective	**Elective**

Year 3

STUDY PERIOD 1	STUDY PERIOD 2
Course **SC2209**:03 Quantitative Methods in Science-Advanced *PREREQ: MA1003 and SC1109 plus 6 credit points of Level 1 subjects*	Major **MA3210**:03 Probability and Stochastic Processes *PREREQ: MA2000 and (MA2210 or MA2201)*
Major **MA2000:**03 Mathematics for Scientists and Engineers *PREREQ: MA1003*	Major **MA3212**:03 Optimisation and Operations Research *PREREQ: MA2000 and (MA2210 or MA2201)*
Elective	**Elective**
	Elective

TRIMESTER 1	TRIMESTER 2	TRIMESTER 3
Major **MA2211:**03 Discrete Mathematics *PREREQ: Maths B or MA1020 or MA2000*		

Year 4

STUDY PERIOD 1	STUDY PERIOD 2
Course Select Availability in Study Period 1, 2, 3, 7 or 11 **SC3003**:03 Science Research Internship *PREREQ:15 credit points of AQ, BC, BS, BZ, CH, EV, EA, MA, MB, PH or SC Level 2 subjects* OR **SC3008**:03 Professional Placement *PREREQ: Students must have completed 12 credit points for second-year subjects.* *Enrolment is restricted to students with an approved placement*	
Course Select an ADVANCED SKILL subject from **List 1**	
Major **MA3211**:03 Mathematical Modelling and Differential Equations *PREREQ: MA2000 and (MA2210 or MA2201)*	
Elective	

BREADTH SUBJECTS - LIST 1	
STUDY PERIOD 1	**STUDY PERIOD 2**
BM1000:03 Introductory Biochemistry and Microbiology	BS1001:03 Introduction to Biological Processes
BS1007:03 Introduction to Biodiversity	CH1002:03 Chemistry: Principles and Applications
CH1001:03 Chemistry: A Central Science	EA1110:03 Evolution of the Earth
EG1000:03 Engineering 1	~~MA1003:03 Mathematical Techniques~~
EV1005:03 Environmental Processes and Global Change	MA1580:03 Foundations of Data Science
~~MA1000:03 Mathematical Foundation~~	PH1007:03 Advanced Stream Physics 2
PH1005:03 Advanced Stream Physics 1	

TRIMESTER 1	TRIMESTER 3
CP1401:03 Problem Solving and Programming I	CP1404:03 Programming II

ADVANCED SKILL SUBJECTS - LIST 1	
STUDY PERIOD 1	**STUDY PERIOD 2**
BS5260:03 Modelling Ecological Dynamics	BC5203:03 Advanced Bioinformatics
MA2000:03 Mathematics for Scientists and Engineers *PREREQ: MA1003*	CH5002:03 Research Skills and Communication in Chemistry (Advanced) *PREREQ: Satisfactory completion of 9 credit points of Level 2, 3 or 5 CH subjects*
^EA5409:03 Mineralogy and Geophysics	SC5502:03 Design and Analyses in Ecological Studies
^PH5014:03 Research Skills and Communication in Physics (Advanced)	

^Note: EA5409 and PH5014 are not offered in 2023

BSc SKILL SUBJECTS - LIST 2	
STUDY PERIOD 1	**STUDY PERIOD 2**
MA2000:03 Mathematics for Scientists and Engineers *PREREQ: MA1003*	CH2103:03 Analytical Chemistry *PREREQ: CH1001 OR CH1011*
MA2830 Data Visualisation	EV2502:03 Introduction to Geographic Information Systems *PREREQ: At least 12 credit points of Level 1 subjects*
SC3010:03 Sensors and Sensing for Scientists *PREREQ: BZ2001 or SC2202 or SC2209 or SC2201*	MA2210:03 Linear Algebra *PREREQ: MA1003*

TRIMESTER 3
CP2404:03 Database Modelling

COURSE NOTES

A maximum of 30 credit points may be taken at Level 1.
A minimum of 18 credit points of science subjects must be taken at Level 3 or higher.

ADDITIONAL INFORMATION

Bachelor of Advanced Science Handbook
Mathematics Major