Bachelor of Advanced Science

MAJOR Data Science

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 **SC1101**:03 Science, Technology and Truth	Course **MA1003**:03 Mathematical Techniques *PREREQ: MA1000 or MA1011 or MA1009*
	Course **MA1000**:03 Mathematical Foundations *PREREQ: MA1020 or MA0020 or Maths C*	Course **SC1109**:03 Modelling Natural Systems-Advanced *PREREQ: MA1000 or MA1009*
	Course **CH1020**:03 Preparatory Chemistry or **Elective** (only if already satisfied via previous study)	Major **MA1580**:03 Foundations of Data Science *PREREQ: MA1000 or MA1020 or MA0020 or Maths B*

TRIMESTER 1	TRIMESTER 2	TRIMESTER 3
Elective **Students must select CP1401 Trimester 1*		Major **CP1404**:03 Programming II *PREREQ: CP1801 or CP1401 or CP1200 or EG1002 or CP2200 or SC1201*

	STUDY PERIOD 1	STUDY PERIOD 2
Year 2	Course **SC2209**:03 Quantitative Methods in Science-Advanced *PREREQ: MA1003 and (SC1109 plus 6 credit points of other Level 1 subjects)*	Major **MA2405**:03 Advanced Statistical Modelling *PREREQ: MA1401 or BZ2001 or MA2401 or SC2202 or SC2209 and MA1000*
	Course Select 3 credit points of subjects from **List 1 (Advanced Skill Subjects)** *Recommend MA2000 for MA3212*	Major **MA3405**:03 Statistical Data Mining for Big Data *PREREQ: MA2405 or MA2000 or SC2202 or SC2209*
	Major Select 3 credit points of subjects from **List 1**	**Elective**
	Elective	**Elective**

	STUDY PERIOD 1	STUDY PERIOD 2
Year 3	Course **SC3003**:03 Science Research Internship (SP1, SP2, SP3, SP7, SP11) *PREREQ: 15 credit points of AQ, BC, BS, BZ, CH, EV, EA, MA, MB, PH or SC science level 2 subjects* OR **SC3008**:03 Professional Placement (SP1, SP2, SP3, SP7, SP11) *PREREQ: Must have successfully completed 12 second year credit points. Enrolment is restricted to students with an approved placement*	
	Major **MA3831**:03 Natural Language Processing, Web Scraping and Large Data Processing *PREREQ: CP1404 and MA3405*	Major **MA3832**:03 Neural Network and Deep Learning *PREREQ: MA3405 or MA5405 and CP1404* OR **MA3212:**03 Optimisation and Operations Research *PREREQ: MA2000 and (MA2210 or MA2201)*
	Major Select 3 credit points of subjects from **List 1**	**Elective**
	Elective	**Elective**
	Elective	

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)~~	

MAJOR - LIST 1	
STUDY PERIOD 1	**STUDY PERIOD 2**
MA2211:03 Discrete Mathematics	MA2210:03 Linear Algebra
MA2830:03 Data Visualisation	

	TRIMESTER 3
	CP2404:03 Database Modelling

ADDITIONAL INFORMATION

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.

COURSE HANDBOOK

Bachelor of Advanced Science Handbook
Data Science Major