Bachelor of 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 **SC1102**:03 Modelling Natural Systems *PREREQ: MA1020 or MA0020 or Senior Mathematics or equivalent* or **SC1109**:03 Modelling Natural Systems-Advanced ^ *PREREQ: MA1000 or MA1009*
	Course **MA1020**:03 Preparatory Mathematics **– SP3** or **Elective** (if MA1020 already satisfied via previous study)	Course **CH1020**:03 Preparatory Chemistry or **Elective** (only if already satisfied via previous study)
	Major **MA1000**:03 Mathematical Foundations *PREREQ: MA1020 or MA0020 or Maths B or Maths C*	Major **MA1580**:03 Foundations of Data Science *PREREQ: MA1000 or MA1020 or MA0020 or Maths B*

TRIMESTER 1	TRIMESTER 2	TRIMESTER 3
Course **CP1401**:03 Problem Solving and Programming I *REQUIRED: BREADTH SUBJECT-* ***List 1***		Course **CP1404**:03 Programming II *PREREQ: CP1801 or CP1401 or CP1200 or EG1002 or CP2200 or SC1201* *REQUIRED: BREADTH SUBJECT-* ***List 1***

^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	STUDY PERIOD 2
Year 2	Course **SC2202**:03 Quantitative Methods in Science *PREREQ: SC1102 or SC1109* or **SC2209**:03 Quantitative Methods in Science-Advanced *PREREQ: MA1003 and SC1109 plus 6 credit points of level 1 subjects*	Course Select a SKILL SUBJECT from **List 2** *Subjects are available across a number of study periods/trimesters, see List 2 for full availabilities.*
	Major Select a subject from **List 1** *Subjects are available across a number of study periods/trimesters, see List 1 for full availabilities.*	Major **MA2405**:03 Advanced Statistical Modelling *PREREQ: MA1401 or BZ2001 or MA2401 or SC2202 and MA1000*
	Elective	Major **MA3405**:03 Statistical Data Mining for Big Data *PREREQ: MA2405 or MA2000 or SC2202 or SC2209*
	Elective	Major Select a subject from **List 1** *Subjects are available across a number of study periods/trimesters, see List 1 for full availabilities.*

	STUDY PERIOD 1	STUDY PERIOD 2
Year 3	Course **SC3008**:03 Professional Placement Select Availability in Study Period 1, 2, 3, 7 or 11 *PREREQ: Students must have successfully completed 12 credit points of second year subjects.* *Enrolment is restricted to students with an approved placement*	
	Major **MA3831**:03 Natural Language Processing, Web Scraping and Large Data Processing *PREREQ: CP1401 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)*
	Elective	**Elective**
	Elective	**Elective**
	Elective	

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: SC2202 OR (SC2209 OR SC2201 OR BZ2001)*	MA2210:03 Linear Algebra *PREREQ: MA1003*

TRIMESTER 1	TRIMESTER 2	TRIMESTER 3
		CP2404:03 Database Modelling CP2404:03 Database Modelling- **EXTERNAL OFFERING*

DATA SCIENCE MAJOR - LIST 1		
STUDY PERIOD 1	**STUDY PERIOD 2**	
MA2830:03 Data Visualisation	MA2210:03 Linear Algebra *PREREQ: MA1003*	
TRIMESTER 1	**TRIMESTER 2**	**TRIMESTER 3**
MA2211:03 Discrete Mathematics *PREREQ: Maths B or MA1020 or MA0020*		CP2404:03 Database Modelling *PREREQ: MA1003*

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.

Students studying this as a single major must select CP1401 and CP1404 as List 1 subjects.

ADDITIONAL INFORMATION

2023 Bachelor of Science Handbook
Data Science Major