Bachelor of Science MAJOR Physics

MAJOR Choose a second major*

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

**NOTE-This second major study plan should NOT be used to map a double major with math or data science.*
These double majors have specific study plans that should be used instead.

	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** **MA1000**:03 Mathematical Foundations *PREREQ: MA1020 or MA0020 or Maths B or Maths C*	Course **CH1020**:03 Preparatory Chemistry or **Elective** **MA1003**:03 Mathematical Techniques *PREREQ: MA1000 or MA1011 or MA1009*
	Major **PH1005**:03 Advanced Stream Physics 1 *PREREQ: Maths B or MA1020 or MA0020 or MA1000 or MA1008. Allow concurrent for MA1000 and MA1008.*	Major **PH1007**:03 Advanced Stream Physics 2 *PREREQ: (Maths B or equivalent or MA1020 or MA0020 and PH1005) or (Physics and Maths C)*
	Second Major	**Second Major**

^Note: SC1109 is compulsory in the Adv 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 **SC2209**:03 Quantitative Methods in Science-Advanced *PREREQ: MA1003 and SC1109 plus 6 credit points of level 1 subjects*	Major **PH2240**:03 Atomic and Nuclear Physics *PREREQ: PH2002 and MA1003*
	Course **MA2000**:03 Mathematics for Scientists and Engineers *PREREQ: MA1003* *REQUIRED: SKILL SUBJECT from **List 2***	**Second Major**
	Major **PH2002**:03 Classical Mechanics and Quantum Physics 1 *PREREQ: MA1003 and PH1005 and (PH1006 or PH1007 or (EG1012 and EG1011))*	**Second Major**
	Major **PH2019**:03 Introduction to Electromagnetism Optics and Early Quantum *PREREQ: (EG1012 or PH1005) and MA1003*	**Second Major**

	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 cp of second year.* *Enrolment is restricted to students with an approved placement*	
	Major **PH3008**:03 Statistical Mechanics and Transport *PREREQ: PH2019 and PH2002 and MA2000*	Major **PH3002**:03 Quantum Physics 2 *PREREQ: MA2000 and PH2002*
	Major **PH3021**:03 Physics of the Earth, Solar System, and Universe *PREREQ: MA2000 and PH2002 and PH2019*	**Second Major**
	Second Major	**Second Major**
	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 *PREREQ: CH1001*
CH1001:03 Chemistry: A Central Science	EA1110:03 Evolution of the Earth
EG1000:03 Engineering 1	MA1003:03 Mathematical Techniques *PREREQ: MA1000*
EV1005:03 Environmental Processes and Global Change	MA1580:03 Foundations of Data Science
MA1000:03 Mathematical Foundation	PH1007:03 Advanced Stream Physics 2 *PREREQ: PH1005 OR (High School Physics and M*
PH1005:03 Advanced Stream Physics 1	

TRIMESTER 1	TRIMESTER 2	TRIMESTER 3
CP1401:03 Problem Solving and Programming I CP1401:03 Problem Solving and Programming I **EXTERNAL OFFERING*	CP1401:03 Problem Solving and Programming I-**EXTERNAL OFFERING*	CP1404:03 Programming II CP1404:03 Programming II **EXTERNAL OFFERING*
	CP1404:03 Programming II **EXTERNAL OFFERING*	

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 3
~~CP2404:03 Database Modelling~~ ~~CP2404:03 Database Modelling~~ ~~**EXTERNAL OFFERING*~~

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 major as a second major must either i. undertake this major in conjunction with the Mathematics major; or prior to commencing this course; ii. have satisfied both MA1020 and CH1020 subject material in order to undertake this major in conjunction with the Data Science major, or iii. have satisfied either MA1020 or CH1020 subject material for other major combinations. Students must select MA1000 and MA1003 as undergraduate elective subjects and MA2000 as the List 2 subject.

ADDITIONAL INFORMATION

2023 Bachelor of Science Handbook
Physics Major