

RECOMMENDED STUDY PLAN

2022

DEGREE Bachelor of Advanced Science MAJOR Physics (PCS)

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.

	Study Period 1 - SP1	Study Period 2 - SP2
Year 1	Degree Core: <u>SC1101</u> Science Technology and Truth	Degree Core: <u>SC1109</u> Modelling Natural Systems-Advanced PREREQ: MA1000 OR MA1009
	Degree Core: <u>MA1000</u> Mathematical Foundations PREREQ: MA1020 OR MATHEMATICS B OR MATHS C	Degree Core: <u>MA1003</u> Mathematical Techniques PREREQ: MA1000 OR MA1011 OR MA1009
	Major Core: <u>PH1005</u> Advanced Stream Physics 1 PREREQ: Maths B OR MA1020 OR MA1000 OR MA1008.	Major Core: <u>PH1007</u> Advanced Stream Physics 2 PREREQ: ((MATHS B OR EQUIVALENT OR MA1020) AND PH1005) OR (PHYSICS AND MATHS C)
	Students who have not completed High School Chemistry (or equivalent) must take Degree Core: <u>CH1020</u> Preparatory Chemistry# #This subject is equivalent to chemistry from high school. OR Elective - if student has completed high school level Chemistry or equivalent	Elective:

	Study Period 1 - SP1	Study Period 2 - SP2
Year 2	<u>SC2209</u> Quantitative Methods in Science-Advanced PREREQ: SC1109 AND MA1003 PLUS 6CP OF OTHER LEVEL 1 SUBJECTS	Major Core: <u>PH2240</u> Atomic and Nuclear Physics PREREQ: PH2002 AND MA1003
	Degree Core List 1: Advanced Skill Subjects <u>MA2000</u> Mathematics for Scientists and Engineers - REQUIRED	Elective: <i>Recommended – 2nd year subject from the BSc Skills list 2 (Table below)</i>
	Major Core: <u>PH2002</u> Classical Mechanisms and Quantum Physics 1 PREREQ: MA1003 AND PH1005 AND (PH1006 OR PH1007 OR (EG1012 AND EG1011))	Elective:
	Major Core: <u>PH2019</u> Introduction to Electromagnetism Optics and Early Quantum PREREQ: (EG1012 OR PH1005) AND MA1003	Elective:

		Study Period 1 - SP1	Study Period 2 - SP2
Year 3	Degree Option Core: <u>SC3008</u> Professional Placement PREREQ: COMPLETED 12CP SECOND YEAR SUBJECTS OR <u>SC3003</u> Science Research Internship PREREQ: 15CP OF AQ, BC, BS, BZ, CH, EV, EA, MA, MB, PH OR SC SCIENCE LEVEL 2 SUBJECTS <i>All available in multiple study periods</i>		
	Major Core: <u>PH3008</u> Statistical Mechanics and Transport PREREQ: PH2019 AND PH2002 AND MA2000	Major Core: <u>PH3002</u> Quantum Physics 2 PREREQ: MA2000 AND PH2002	
	Major Core: <u>PH3019</u> Electromagnetic Phenomena PREREQ: MA2000 and PH2019	Elective:	
	Elective:	Elective:	
	Elective:		

Further Degree Options:

Degree Core List 1: Advanced Skill Subjects	
Study Period 1 – SP1	Study Period 2 – SP2
<u>BS5260</u> Modelling Ecological Dynamics	<u>BC5203</u> Advanced Bioinformatics
<u>MA2000</u> Mathematics for Scientists and Engineers	<u>SC5502</u> Design and Analyses in Ecological Studies
<u>EA5409</u> Mineralogy and Geophysics – Not currently offered	<u>CH5002</u> Research Skills and Communication in Chemistry (Adv)
	<u>PH5014</u> Research Skills and Communication in Physics (Advanced) – Not currently offered

BSc Skill-List 2:	
Study Period 1 – SP1	Study Period 2 – SP2
<u>MA2000</u> Mathematics for Scientists and Engineers PREREQ: MA1003	<u>CH2103</u> Analytical Chemistry – TSV only PREREQ: CH1001 OR CH1011
<u>MA2830</u> Data Visualisation	<u>EV2502</u> Introduction to Geographic Information Systems PREREQ: 12CP LEVEL 1 SUBJECTS
<u>SC3010</u> Sensors and Sensing for Scientists PREREQ: SC2202/SC2209	<u>MA2210</u> Linear Algebra PREREQ: MA1003
Trimester 3 (Sept-Dec)	
<u>CP2404</u> Database Modelling	

ADDITIONAL COURSE RULES

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 COURSE REQUIREMENTS

Some majors require attendance in intensive or mixed mode attendance subjects on either the Townsville or Cairns campus. If students must attend intensive mode classes at a campus other than the one they are enrolled at, they are responsible for their own expenses.

COURSE PROGRESSION REQUISITES

Must successfully complete 18 credit points of Level 2 science subjects before attempting any Level 5 science subject

ADDITIONAL INFORMATION

[Bachelor of Advanced Science course handbook](#)

[Physics major handbook](#)