

RECOMMENDED STUDY PLAN

2022

DEGREE Bachelor of Advanced Science MAJOR Physics (PCS)

NAME _____ MAJOR Chemistry (CHY)

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)
	Major Core: <u>CH1001</u> Chemistry: A Central Science PREREQ: CH1020 OR EG1010 OR SENIOR CHEMISTRY	Major Core: <u>CH1002</u> Chemistry: Principles & Applications PREREQ: CH1001 OR CH1011

Note-This plan assumes you have completed high school level Chemistry and do NOT require CH1020 in your study plan. If not, you must give up the Year 2 elective in SP2 and take CH1020 in SP3 in first year.

	Study Period 1 - SP1	Study Period 2 - SP2
Year 2	Degree Core List 1: Advanced Skill Subjects <u>MA2000</u> Mathematics for Scientists and Engineers – REQUIRED-PHYSICS	Major Core: <u>PH2240</u> Atomic and Nuclear Physics PREREQ: PH2002 AND MA1003
	Major Core: <u>PH2002</u> Classical Mechanisms and Quantum Physics 1 PREREQ: MA1003 AND PH1005 AND (PH1006 OR PH1007 OR (EG1012 AND EG1011))	Major Core: <u>CH2103</u> Analytical Chemistry PREREQ: CH1001
	Major Core: <u>PH2019</u> Introduction to Electromagnetism Optics and Early Quantum PREREQ: (EG1012 OR PH1005) AND MA1003	Major Core: <u>CH2310</u> Syntheses and Mechanism in Organic Chemistry PREREQ: CH1001 AND CH1002
	Major Core: <u>CH2210</u> Syntheses and Mechanism in Inorganic Chemistry PREREQ: CH1001 AND CH1002	Elective:

Year 3	Study Period 1 - SP1	Study Period 2 - SP2
	<u>SC2209</u> Quantitative Methods in Science-Advanced PREREQ: SC1109 AND MA1003 PLUS 6CP OF OTHER LEVEL 1 SUBJECTS	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>Both subjects 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	Major Core: <u>CH3110</u> Special Topics in Analytical Chemistry PREREQ: CH2103
Major Core: <u>CH3210</u> Applications of Inorganic Chemistry PREREQ: CH2210	Major Core: <u>CH3310</u> Special Topics in Organic Chemistry PREREQ: CH2310	

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 <i>*required for Physics major.</i>	<u>SC5502</u> Design and Analyses in Ecological Studies
<u>EA5409</u> Mineralogy and Geophysics – <i>Not currently offered</i>	<u>CH5002</u> Research Skills and Communication in Chemistry (Adv)
	<u>PH5014</u> Research Skills and Communication in Physics (Advanced) – <i>Not currently offered</i>

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](#)

[Chemistry major handbook](#)