

# Bachelor of Advanced Science

MAJOR **Advanced Molecular and Cell Biology**

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](#)

	STUDY PERIOD 1	STUDY PERIOD 2
<b>Year 1</b>	Course <b>SC1101:03</b> Science Technology and Truth	Course <b>SC1109:03</b> Modelling Natural Systems-Advanced ^ <i>PREREQ: MA1000 or MA1009</i>
	Course <b>MA1000:03</b> Mathematical Foundations <i>PREREQ: MA1020 or MA0020 or Maths B or Maths C</i>	Course <b>MA1003:03</b> Mathematical Techniques <i>PREREQ: MA1000 or MA1011 or MA1009</i>
	Major <b>BM1000:03</b> Introductory Biochemistry and Microbiology <i>PREREQ: CH1020, CH0020 or Senior Chemistry*</i>	Major <b>BS1001:03</b> Introduction to Biological Processes
	<b>Second Major</b>	<b>Second Major</b>

### Missing chem and also want a MCB double major?

JCU's [Certificate of Higher Ed](#) has an online subject, CH0020 that is available before the start of your degree. Passing this subject will allow you to enrol in BM1000 in SP1. If choosing this option, further chemistry requirements are needed for your degree. You could also consider delaying SC1101 to second year and taking CH1020 concurrently with BM1000. Discuss which option is best for you with your academic advisor, [Lionel.hebbard@jcu.edu.au](mailto:Lionel.hebbard@jcu.edu.au).

		STUDY PERIOD 1	STUDY PERIOD 2
Year 2	Course	<b>SC2209:03</b> Quantitative Methods in Science-Advanced <i>PREREQ: MA1003 and SC1109 plus 6 credit points of Level 1 subjects</i>	Major <b>BC2023:03</b> Molecular Genetics <i>PREREQ: At least 18 credit points of Level 1 subjects including BM1000</i>
	Major	<b>BC2013:03</b> Principles of Biochemistry <i>PREREQ: At least 18 credit points of Level 1 subjects which includes BM1000 and BS1001</i>	Major <b>BC2024:03</b> Principles of Molecular Cell Biology <i>PREREQ: At least 18 credit points of Level 1 subjects including BM1000</i>
	Second Major		Second Major
	<b>Elective</b> ( <i>Provided chemistry already satisfied via previous study</i> )		Second Major

		STUDY PERIOD 1	STUDY PERIOD 2
Year 3	Course	Select Availability in Study Period 1, 2, 3, 7 or 11 <b>SC3003:03</b> Science Research Internship <i>PREREQ: 15 credit points of AQ, BC, BS, BZ, CH, EV, EA, MA, MB, PH or SC Level 2 subjects</i> OR <b>SC3008:03</b> Professional Placement <i>PREREQ: Students must have successfully completed 12 credit points of second year subjects. Enrolment is restricted to students with an approved placement</i>	
	Course	Select an ADVANCED SKILL subject-List 1	
	Major	<b>BC5101:03</b> Advanced Genes, Genomes and Development	Major <b>BC5201:03</b> Advanced Bioengineering
	Major	<b>BC5102:03</b> Advanced Molecular Basis of Disease	Second Major
	Second Major		Second Major

## 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 <i>PREREQ: MA1003</i>	CH5002:03 Research Skills and Communication in Chemistry (Advanced) <i>PREREQ: Satisfactory completion of 9 credit points of Level 2, 3 or 5 CH subjects</i>
^EA5409:03 Mineralogy and Geophysics	SC5502:03 Design and Analyses in Ecological Studies
^PH5014:03 Research Skills and Communication in Physics (Advanced)	

*^Note: EA5409 and PH5014 are not offered in 2023*

### 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.

### ADDITIONAL INFORMATION

[2023 Bachelor of Advanced Science Handbook](#)  
[Advanced Molecular and Cell Biology Major](#)