# Bachelor of Science MAJOR Molecular and Cell Biology *(CH1020 mapped)*

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<br>**SC1101**:03 Science Technology and Truth | Course<br>**SC1102**:03 Modelling Natural Systems<br>*PREREQ: MA1020 or MA0020 or Senior Mathematics or equivalent*<br>or<br>**SC1109**:03 Modelling Natural Systems-Advanced ^<br>*PREREQ: MA1000 or MA1009* |
| | Course<br>**MA1020**:03 Preparatory Mathematics<br>or<br>**Elective** (only if already satisfied via previous study) | Course<br>Select a BREADTH SUBJECT from **List 1** |
| | Course<br>**CH1020**:03 Preparatory Chemistry | Major<br>**BS1001**:03 Introduction to Biological Processes |
| | Major<br>**BM1000**:03 Introductory Biochemistry and Microbiology<br>*PREREQ: CH1020, CH0020 or Senior Chemistry or allow concurrent enrolment* | **Elective** |

*^Note: SC1109 is compulsory in the Bachelor of Advanced Science and should be taken instead of SC1102 if you are considering switching to that pathway.*

| | STUDY PERIOD 1 | STUDY PERIOD 2 |
|---|---|---|
| Year 2 | Course<br>**SC2202**:03 Quantitative Methods in Science<br>*PREREQ: SC1102 or SC1109*<br>or<br>**SC2209**:03 Quantitative Methods in Science-Advanced<br>*PREREQ: MA1003 and SC1109 plus 6 credit points of level 1 subjects* | Course<br>Select a SKILL SUBJECT from **List 2**<br>*Subjects are available across a number of study periods/trimesters, see List 2 for full availabilities.* |
| | Course<br>Select a BREADTH SUBJECT from **List 1** | Major<br>**BC2024**:03 Principles of Molecular Cell Biology<br>*PREREQ: At least 18 credit points of Level 1 subjects including BM1000* |
| | Major<br>**BC2013**:03 Principles of Biochemistry<br>*PREREQ: At least 18 credit points of Level 1 subjects including BM1000* | Major<br>**BC2023**:03 Molecular Genetics<br>*PREREQ: At least 18 credit points of Level 1 subjects including BM1000* |
| | **Elective** | **Elective** |

| | STUDY PERIOD 1 | STUDY PERIOD 2 |
|---|---|---|
| Year 3 | Course<br>**SC3008**:03 Professional Placement<br>Select Availability in Study Period 1, 2, 3, 7 or 11<br>*PREREQ: Students must have successfully completed 12 credit points of second year subjects.*<br>*Enrolment is restricted to students with an approved placement* | |
| | Major<br>**BC3101**:03 Genes, Genomes and Development<br>*PREREQ: BC2023* | Major<br>**BC3201**:03 Bioengineering<br>*PREREQ: BC2013 and BC2023* |
| | Major<br>**BC3102**:03 Molecular Basis of Disease<br>*PREREQ: BC2013 and BC2024* | **Elective**<br>*RECOMMENDED: BC3202:03 Special Topics in Biochemistry and Molecular Biology* |
| | **Elective** | **Elective**<br>*RECOMMENDED: BC3203:03 Bioinformatics* |
| | **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~~<br>~~*PREREQ: CH1001*~~ |
| ~~CH1001:03 Chemistry: A Central Science~~ | EA1110:03 Evolution of the Earth |
| EG1000:03 Engineering 1 | MA1003:03 Mathematical Techniques<br>*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<br>*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<br>CP1401:03 Problem Solving and Programming I-**EXTERNAL OFFERING* | CP1401:03 Problem Solving and Programming I-**EXTERNAL OFFERING* | CP1404:03 Programming II<br>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<br>*PREREQ: MA1003* | CH2103:03 Analytical Chemistry<br>*PREREQ: CH1001 OR CH1011* |
| MA2830 Data Visualisation | EV2502:03 Introduction to Geographic Information Systems<br>*PREREQ: At least 12 credit points of level 1 subjects* |
| SC3010:03 Sensors and Sensing for Scientists<br>*PREREQ: SC2202 OR (SC2209 OR SC2201 OR BZ2001)* | MA2210:03 Linear Algebra<br>*PREREQ: MA1003* |

| TRIMESTER 3 |
|---|
| CP2404:03 Database Modelling<br>CP2404:03 Database Modelling-<br>**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.

### ADDITIONAL INFORMATION

Bachelor of Science course handbook
Chemistry major handbook