## Bachelor of Science (International students)

## Program code <br> 1018

## Commencing in

For Continuing Students Only

## Available at

Gold Coast Campus
Duration
3 years full-time

## Credit points

240
Degree requirements: Students who started Trimester 3-2020
For Domestic and those International students not required to complete the English Language Enhancement course
For the award of Bachelor of Science (BSc), you must successfully complete 240 credit points, made up of the core courses AND :

- 60 credit points for a major and 80 credit points of free-choice electives or
- 60 credit points for a major, 60 credit points for a second major and 20 credit points of free-choice electives or
- 70 credit points for the Physics major and 70 credit points of free-choice electives or
- 70 credit points for the Physics major and 60 credit points for the Applied Maths major and 10 credit points of freechoice electives


## For International students required to complete the English Language Enhancement course

For the award of Bachelor of Science (BSc), you must successfully complete 240 credit points, made up of the core courses AND :

- 10 credit points for the English Language Enhancement course (5901LHS); AND
- 60 credit points for a major and 70 credit points of free-choice electives or
- 60 credit points for a major and 70 credit points for a second major or
- 70 credit points for the Physics major and 60 credit points of free-choice electives.
- 70 credit points for the Physics major and 60 credit points for the Applied Maths major.


## Other program requirements

You must successfully complete:

- no more than 100 credit points of Level 1 courses (the first digit of a course code denotes the level);
- at least 60 credit points of Level 3 courses or higher.

This degree may be awarded with Distinction where a student achieves a minimum program GPA of 6.5 with no failed courses. The words "This award was achieved with Distinction" will be recorded on the testamur.

## Australian Qualifications Framework (AQF) Level and Type

The Australian Qualifications Framework (AQF) is the national policy for regulated qualifications in Australian education and training. This qualification is accredited as an AQF Level 7 - Bachelor Degree.

## English Language Enhancement

All undergraduate International students are required to complete an English Language Enhancement Course unless specific criteria are met as specified in Section 5.0 Qualifications Procedure.

The following course must be completed in the first trimester of study:

- 5903LHS Language and Communication for Sciences

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Students whose first language is English are not permitted to undertake this course.

## Program learning outcomes

Program learning outcomes

Program Learning Outcomes communicate to the community the value of the Griffith educational experience as benchmarked against national qualification standards.

Program Learning Outcomes for this award describe the knowledge, skills and the application of knowledge and skills you will acquire through studying the Griffith program of your choice.

Course list: Students starting Trimester 3-2020
Course offering information in program structures is a guide only. Please check the actual offering information in the Course Catalogue.

Note: Students must check the prerequisite and incompatible requirements before selecting any course within this program.

## English Language Enhancement course

Students required to undertake the English Language Enhancement course must complete 5903LHS in their first trimester of study.
The English Language Enhancement course is to be taken in place of a Free-choice elective in your program.

| Trimester | Course code | Requirement | Course title | CP |
| :---: | :---: | :---: | :---: | :---: |
| Tri 1,2 or 3 | 5903 LHS | English Enhancement | Language and Communication for Sciences | 10 |

## Year 1

You must select $\mathbf{8 0}$ credit points from the following Level 1 Science courses:

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| Trimester | Course code | Requirement | Course title | CP |
| :---: | :---: | :---: | :---: | :---: |
| Tri 1 | 1001NSC | Listed Elective | Human Biology: from Cells to Systems (Clinical Science major) | 10 |
| Tri 1 | 1007ENV | Listed Elective | Introduction to Marine Science (Marine Biology major) | 10 |
| Tri 2 | 1014NSC | Listed Elective | Fundamentals of Biochemistry (Clinical Sciences major / Microbiology major) | 10 |
| Tri 1,3 | 1041SCG | Listed Elective | Biological Systems (Biochemistry and Molecular Biology major / Clinical Science major / Geography major / Marine Biology major / Microbiology major / Wildlife Biology major) | 10 |
| Tri 1,3 | 1023SCG | Listed Elective | Chemistry I (Biochemistry and Molecular Biology major / Chemistry major / Geography major / Marine Biology major / Wildlife Biology major) | 10 |
|  |  |  | OR |  |
| Tri 1,3 | 1021SCG | Listed Elective | Chemistry 1A (Clinical Sciences major / Microbiology major) | 10 |
| Tri 1,2 | 1201SCG | Listed Elective | Linear Algebra (Applied Mathematics major/ Physics major) | 10 |
| Tri 2 | 1042SCG | Listed Elective | Genetics and Evolutionary Biology (Biochemistry and Molecular Biology major / Clinical Sciences major / Marine Biology major / Microbiology major / Wildlife Biology major) | 10 |
| Tri 1,3 | 1015SCG | Listed Elective | Quantitative Reasoning (Biochemistry and Molecular Biology major / Chemistry major / Clinical Sciences major / Geography major / Marine Biology major / Microbiology major / Wildlife Biology major) | 10 |
| Tri 1,2 | 1031SCG | Listed Elective | Physics 1A (Physics major) | 10 |
| Tri 1,3 | 1043SCG | Listed Elective | Introduction to Environmental Sustainability (Geography major / Marine Biology major / Wildlife Biology major) | 10 |
| Tri 2 | 1044SCG | Listed Elective | Earth Systems (Geography major / Marine Biology major / Wildlife Biology major) | 10 |
| Tri 2 | 1024SCG | Listed Elective | Chemistry II (Biochemistry and Molecular Biology major / Chemistry major) | 10 |
|  |  |  | OR |  |
| Tri 2 | 1022SCG | Listed Elective | Chemistry 1B (Clinical Sciences major / Microbiology major) (Nathan campus only) | 10 |
| Tri 2 | 1032SCG | Listed Elective | Physics 1B (Physics major) (see Note 1) | 10 |
| Tri 2,3 | 1014SCG | Listed Elective | Statistics (Biochemistry and Molecular Biology major / Microbiology major / Chemistry major / Geography major / Marine Biology major / Wildlife Biology major) | 10 |
| Tri 2,3 | 1202SCG | Listed Elective | Calculus I (Applied Mathematics major / Physics major) | 10 |
| Tri 2 | 1444ENV | Listed Elective | Global Environmental Challenges (not offered from 2021) | 10 |
|  |  |  | OR |  |
| Tri 2 | 1024ENG | Listed Elective | Intro to Digital and Spatial Analysis | 10 |
| Tri 1,2 or 3 | 1017SCG | Listed Elective | Foundation Mathematics (see Note 2) | 10 |

Note 1: Students undertaking 1032SCG must complete 1202SCG.

Note 2: It is recommended that students who have not completed Maths B (or equivalent) complete 1017SCG in their first trimester of study. Students entering the program with Mathematics B or C (or equivalent) will not be permitted to complete 1017SCG

## Years 2 and 3

You must complete one of the following options:

| Trimester | Course code | Requirement | Course title | CP |
| :---: | :--- | :--- | :--- | :---: |
| Tri 1,2 |  |  | Major | 60 |
|  |  |  | AND |  |
| Tri 1,2 |  |  | Free-choice electives | 80 |
|  |  | OR |  |  |
| Tri 1,2 |  |  | Major | 60 |
|  |  | AND |  |  |
| Tri 1,2 |  |  | Second major | 60 |
|  |  | Free-choice elective | 20 |  |
| Tri 1,2 |  |  | OR | 70 |
|  |  |  | AND | 70 |
| Tri 1,2 |  |  | Free-choice electives | 70 |
|  |  |  | Physics major |  |
| Tri 1,2 |  |  | AND | 70 |
|  |  |  | Applied Mathematics major |  |
| Tri 1,2 |  |  | AND | 60 |
|  |  |  | Free-choice elective |  |
| Tri 1,2 |  |  |  | 10 |
|  |  |  |  |  |
| Tri 1,2 |  |  |  |  |

You must complete the following courses:

| Trimester | Course code | Requirement | Course title | CP |
| :--- | :--- | :--- | :--- | :---: |
| Tri 1,2 | 3992NSC_Y1 | Core to Program | Science Capstone | 10 |
|  |  |  | AND |  |
| Tri 1,2 | 3992 NSC_Y2 | Core to Program | Science Capstone | 10 |
|  |  |  | OR |  |
| Tri 2 | 3892 ENV | Core to Program | Environmental Capstone | 20 |
|  |  |  | OR |  |
| Tri 1,2 | 3900 ESC | Core to Program | Work Integrated Learning Placement | 20 |

## Majors (9 available)

## Applied Mathematics Major

## Applied Mathematics

You must complete the following foundation courses:

| Trimester | Course code | Requirement | Course title | CP |
| :---: | :---: | :--- | :--- | :---: |
| Tri 1,2 | 1201 SCG | Recommended Prereq | Linear Algebra (see Note 1) | 10 |
| Tri 2,3 | 1202 SCG | Recommended Prereq | Calculus I | 10 |

Note 1: Students who successfully completed Mathematics B or C should complete 1201 SCG . Students who successfully completed only Mathematics A will complete 1017SCG Foundation Mathematics in their first trimester of study and complete 1201SCG in their second trimester of study.

You must complete the following courses:

| Trimester | Course code | Requirement | Course title | CP |
| :--- | :--- | :--- | :--- | :---: |
| Tri 2 | 2201 NSC | Core to Major | Linear Algebra and Applications | 10 |
| Tri 1 | 2205 NSC | Core to Major | Calculus II | 10 |
| Tri 1 | 2202 NSC | Core to Major | Numerical Methods | 10 |
| Tri 2 | 2204 NSC | Core to Major | Introduction to Mathematical Modelling | 10 |
| Tri 1 | 3201 NSC | Core to Major | Advanced Differential Equations and Modelling | 10 |
| Tri 1 | $3203 N S C$ | Core to Major | Complex Analysis and Applications | 10 |

## Science Majors

## Biochemistry and Molecular Biology

## Gold Coast

You must complete the following foundation courses:

| Trimester | Course code | Requirement | Course title | CP |
| :--- | :--- | :--- | :--- | :---: |
| Tri 1,3 | 1015 SCG | Recommended Prereq | Quantitative Reasoning | 10 |
| Tri 1,3 | 1041 SCG | Recommended Prereq | Biological Systems | 10 |
| Tri 1,3 | 1023 SCG | Recommended Prereq | Chemistry I | 10 |
| Tri 2 | 1042 SCG | Recommended Prereq | Genetics and Evolutionary Biology | 10 |
| Tri 2 | 1024 SCG | Recommended Prereq | Chemistry II | 10 |
| Tri 2,3 | 1014 SCG | Recommended Prereq | Statistics | 10 |

You must complete the following courses:

| Trimester | Course code | Requirement | Course title | CP |
| :--- | :--- | :--- | :--- | :---: |
| Tri 1 | 2008 MSC | Core to Major | Structural Biochemistry | 10 |
| Tri 1 | 2013 NSC_Y1 | Core to Major | Biotechniques Laboratory (not offered from 2022) | 5 |
|  |  |  | AND |  |
| Tri 2 | 2013 NSC_Y2 | Core to Major | Biotechniques Laboratory (not offered from 2022) | 5 |
|  |  |  | OR |  |
| Tri 2 | 2013 NSC | Core to Major | Biotechniques Laboratory (Nathan) | 10 |
|  |  |  | OR |  |
| Tri 2 | 2018 NSC | Core to Major | Biosciences Laboratory Skills (Gold Coast) | 10 |
| Tri 2 | 2011 MSC | Core to Major | Metabolism | 10 |
| Tri 1 | 3014 MSC | Core to Major | Molecular Biology (not offered from 2023) | 10 |
|  |  | OR |  |  |
| Tri 2 | 2012 NSC | Core to Major | Molecular Biology | 10 |
| Tri 1 | 3016MSC | Core to Major | Macromolecular and Cellular Biochemistry | 10 |

You must complete 10 credit points from the following courses:

| Trimester | Course code | Requirement | Course title | CP |
| :--- | :---: | :--- | :--- | :---: |
| Tri 2 | 3004 NSC | Elective to Major | Biomolecular Sciences Lab (not offered from 2019) | 10 |
| Tri 2 | 3012 MSC | Elective to Major | Clinical Biochemistry | 10 |
| Tri 2 | 3022 MSC | Elective to Major | Molecular Medicine | 10 |
| Tri 2 | 3013MSC | Elective to Major | Infectious Disease | 10 |
| Tri 2 | 3030NSC | Elective to Major | Applied Bioinformatics | 10 |

Chemistry

## Gold Coast

You must complete the following foundation courses:

| Trimester | Course code | Requirement | Course title | CP |
| :--- | :--- | :--- | :--- | :---: |
| Tri 1,3 | 1023 SCG | Recommended Prereq | Chemistry I | 10 |
| Tri 1,3 | 1015 SCG | Recommended Prereq | Quantitative Reasoning | 10 |
| Tri 2 | 1024 SCG | Recommended Prereq | Chemistry II | 10 |
| Tri 2,3 | 1014 SCG | Recommended Prereq | Statistics | 10 |
|  |  |  | OR |  |
| Tri 2,3 | 1202 SCG | Recommended Prereq | Calculus I | 10 |

You must complete 40 credit points from the following courses:

| Trimester | Course code | Requirement | Course title | CP |
| :--- | :--- | :--- | :--- | :---: |
| Tri 1 | 2014 MSC | Elective to Major | Organic Chemistry | 10 |
| Tri 1 | 2203 ENV | Elective to Major | Environmental Chemistry and Monitoring | 10 |
| Tri 2 | 2208 ENV | Elective to Major | Inorganic Chemistry | 10 |
| Tri 2 | 2102 NSC | Elective to Major | Spectroscopic and Molecular Analysis | 10 |
| Tri 2 | 2202 ENV | Elective to Major | Physical and Analytical Chemistry | 10 |

You must complete 10 credit points from the following courses:

| Trimester | Course code | Requirement | Course title | CP |
| :---: | :---: | :--- | :--- | :---: |
| Tri 1 | 3105NSC | Elective to Major | Advanced Organic Chemistry | 10 |
| Tri 2 | 3202ENV | Elective to Major | Advanced Analytical Chemistry | 10 |

You must complete 10 credit points from the following courses:

| Trimester | Course code | Requirement | Course title | CP |
| :--- | :---: | :--- | :--- | :---: |
| Tri 1 | 3201 ENV | Elective to Major | Aquatic Chemistry and Pollution | 10 |
| Tri 1 | $3225 E N V$ | Elective to Major | NMR in Biological Systems | 10 |

## Clinical Sciences (Nathan)

This major is offered on the Nathan campus only

You must complete the following foundation courses:

| Program 1018 generated on Fri, 19 Apr 2024 05:05:53 GMT |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :---: |
| Tri 1,3 | 1015 SCG | Recommended <br> Prereq | Quantitative Reasoning | CP |
| Tri 1,3 | 1041 SCG | Recommended <br> Prereq | Biological Systems | 10 |
| Tri 1,3 | 1021 SCG | Recommended <br> Prereq | Chemistry 1A (Nathan) | 10 |
| Tri 1,3 | 1023 SCG | Recommended <br> Prereq | Chemistry I (Gold Coast) | 10 |
| Tri 1 | 1001 NSC | Recommended <br> Prereq | Human Biology: from Cells to Systems (Nathan <br> only) | 10 |
| Tri 2 | 1014 NSC | Recommended <br> Prereq | Fundamentals of Biochemistry (Nathan only) | 10 |
| Tri 2 | 1042 SCG | Recommended <br> Prereq | Genetics and Evolutionary Biology | 10 |
| Tri 2 | 1022 SCG | Recommended <br> Prereq | Chemistry 1B (Nathan) | 10 |
| Tri 2 | 1024 SCG | Recommended <br> Prereq | Chemistry II (Gold Coast) | 10 |

You must complete the following courses:

| Trimester | Course code | Requirement | Course title | CP |
| :--- | :--- | :--- | :--- | :---: |
| Tri 1 | 2013 NSC_Y1 | Core to <br> Major | Biotechniques Laboratory (Nathan) (not offered from <br> 2022) | 5 |
|  |  |  | AND |  |
| Tri 2 | 2013 NSC_Y2 | Core to <br> Major | Biotechniques Laboratory (Nathan) (not offered from <br> 2022) | 5 |
| Tri 2 | 2013 NSC | Core to <br> Major | Biotechniques Laboratory (Nathan) |  |
| Tri 2 | 2018 NSC | Core to <br> Major | Biosciences Laboratory Skills (Gold Coast) | 10 |
| Tri 1 | 2005 NSC | Core to <br> Major | Protein Science (Nathan) | 10 |
| Tri 1 | 2008 MSC | Core to <br> Major | Structural Biochemistry (Gold Coast) | 10 |
| Tri 1 | 2007 NSC | Core to <br> Major | Human Anatomy and Physiology 1 | 10 |
| Tri 2 | 2002 NSC | Core to <br> Major | Human Anatomy and Physiology 2 (Nathan) | 10 |
| Tri 1 | 3009 NSC | Core to <br> Major | Biomedical Sciences Laboratory (Nathan) | 10 |
| Tri 2 | 3014 NSC | Core to <br> Major | Advanced Physiology (Nathan) | 10 |
|  |  | 10 |  |  |

## Geography <br> Gold Coast

You must complete the following foundation courses:

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| Trimester | Course code | Requirement | Course title | CP |
| :---: | :---: | :--- | :--- | :---: |
| Tri 1,3 | 1015 SCG | Recommended Prereq | Quantitative Reasoning | 10 |
| Tri 1,3 | 1041 SCG | Recommended Prereq | Biological Systems | 10 |
| Tri 1,3 | 1023 SCG | Recommended Prereq | Chemistry I | 10 |
| Tri 1,3 | 1043 SCG | Recommended Prereq | Introduction to Environmental Sustainability | 10 |
| Tri 2,3 | 1014 SCG | Recommended Prereq | Statistics | 10 |
| Tri 2 | 1044 SCG | Recommended Prereq | Earth Systems | 10 |

You must select 40 credit points from the following courses:

| Trimester | Course code | Requirement | Course title | CP |
| :--- | :--- | :--- | :--- | :---: |
| Tri 1,3 | 2107 ENV | Elective to <br> Major | Introduction to Geographic Information Systems | 10 |
| Tri 1 | 2416 ENV | Elective to <br> Major | Environmental Anthropology | 10 |
| Tri 1 | 2203 ENV | Elective to <br> Major | Environmental Chemistry and Monitoring | 10 |
| Tri 2 | 2221 ENV | Elective to <br> Major | Environmental Politics and Policy (not offered in 2020, <br> 2021,2022 and 2023) | 10 |
| Tri 2 | 2313 AFE | Elective to <br> Major | Environmental and Energy Economics | 10 |
| OR | OR | 10 |  |  |
| Tri 1,3 | 2004 GIR | Elective to <br> Major | The Government Business Nexus: Intervening, Lobbying <br> and Responding | 10 |
| Tri 2 | 2281 ENV | Elective to <br> Major | Economics and the Environment | 10 |
| Tri 2,3 | 2212 ENV | Elective to <br> Major | Ecotox and Impact Assessment (offered online) | 10 |

You must select 20 credit points from the following courses:

| Trimester | Course code | Requirement | Course title | CP |
| :--- | :--- | :--- | :--- | :---: |
| Tri 1 | 3201 ENV | Elective to Major | Aquatic Chemistry and Pollution | 10 |
| Tri 1 | 3307 ENV | Elective to Major | Environmental and Social Futures (not offered in 2021) | 10 |
|  |  |  | OR |  |
| Tri 1,3 | 4118 ENV | Elective to Major | Policymaking and Planning for Climate Change | 10 |
| Tri 2 | 3119 MED | Elective to Major | Environmental Toxicology and Risk Assessment | 10 |
| Tri 2 | 3306ENV | Elective to Major | Environmental Management | 10 |

## Marine Biology

## This major is available on the Gold Coast campus only.

You must complete the following foundation courses:

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| Trimester | Course code | Requirement | Course title | CP |
| :--- | :--- | :--- | :--- | :---: |
| Tri 1,3 | 1015 SCG | Recommended Prereq | Quantitative Reasoning | 10 |
| Tri 1,3 | 1041 SCG | Recommended Prereq | Biological Systems | 10 |
| Tri 1,3 | 1023 SCG | Recommended Prereq | Chemistry I (Gold Coast) | 10 |
|  |  |  | OR |  |
| Tri 1,3 | 1021 SCG | Recommended Prereq | Chemistry 1A (Nathan) (from 2021) | 10 |
| Tri 1 | 1007 ENV | Recommended Prereq | Introduction to Marine Science (Gold Coast) | 10 |
| Tri 1,3 | 1043 SCG | Recommended Prereq | Introduction to Environmental Sustainability | 10 |
| Tri 2,3 | 1014 SCG | Recommended Prereq | Statistics | 10 |
| Tri 2 | 1042 SCG | Recommended Prereq | Genetics and Evolutionary Biology | 10 |

You must complete 40 credit points from the following courses:

| Trimester | Course code | Requirement | Course title | CP |
| :--- | :--- | :--- | :--- | :---: |
| Tri 1 | 2291 ENV | Elective to Major | Applied Data Science | 10 |
| Tri 1 | $2804 E N V$ | Elective to Major | Coastal Environments (Gold Coast) | 10 |
| Tri 2 | $2305 E N V$ | Elective to Major | Marine Megafauna and Planetary Health (Gold Coast) | 10 |
| Tri 2 | $2603 E N V$ | Elective to Major | Ecology (Gold Coast) (not offered from 2023) | 10 |
|  |  |  | OR |  |
| Tri 2 | 2051 ENV | Elective to Major | Ecology (NA and GC from 2023) | 10 |
| Tri 2,3 | 2212ENV | Elective to Major | Ecotox and Impact Assessment (offered online) | 10 |

You must complete the following courses:

| Trimester | Course code | Requirement | Course title | CP |
| :--- | :---: | :--- | :--- | :---: |
| Tri 1 | 3801 ENV | Core to <br> Major | Estuarine Ecology (Gold Coast) | 10 |
| Tri 2 | 3332ENV | Core to <br> Major | Marine Conservation and Resource Management (Gold <br> Coast) | 10 |

## Microbiology (Nathan)

This major is available on the Nathan campus only.

You must complete the following foundation courses:

| Trimester | Course code | Requirement | Course title | CP |
| :--- | :--- | :--- | :--- | :---: |
| Tri 1,3 | 1015SCG | Recommended Prereq | Quantitative Reasoning | 10 |
| Tri 1,3 | 1041 SCG | Recommended Prereq | Biological Systems | 10 |
| Tri 1,3 | 1021 SCG | Recommended Prereq | Chemistry 1A (Nathan) | 10 |
|  |  |  | OR |  |
| Tri 1,3 | 1023 SCG | Recommended Prereq | Chemistry I (Gold Coast) (from 2021) | 10 |
| Tri 2 | 1014 NSC | Recommended Prereq | Fundamentals of Biochemistry (Nathan) | 10 |
| Tri 2 | 1042 SCG | Recommended Prereq | Genetics and Evolutionary Biology | 10 |
| Tri 2,3 | 1014 SCG | Recommended Prereq | Statistics | 10 |
| Tri 2 | 1022 SCG | Recommended Prereq | Chemistry 1B (Nathan) | 10 |
|  |  | OR |  |  |
| Tri 2 | 1024 SCG | Recommended Prereq | Chemistry II (Gold Coast) (from 2021) | 10 |

You must complete the following courses:

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| Trimester | Course code | Requirement | Course title | CP |
| :---: | :---: | :---: | :---: | :---: |
| Tri 1 | 2013NSC_Y1 | Core to <br> Major | Biotechniques Laboratory (Nathan) (not offered from 2022) | 5 |
|  |  |  | AND |  |
| Tri 2 | 2013NSC_Y2 | Core to <br> Major | Biotechniques Laboratory (Nathan) (not offered from 2022) | 5 |
|  |  |  | OR |  |
| Tri 2 | 2013NSC | Core to <br> Major | Biotechniques Laboratory (Nathan) | 10 |
|  |  |  | OR |  |
| Tri 2 | 2018NSC | Core to <br> Major | Biosciences Laboratory Skills (Gold Coast) (from 2021) | 10 |
| Tri 1 | 2005NSC | Core to <br> Major | Protein Science (Nathan) | 10 |
|  |  |  | OR |  |
| Tri 1 | 2008MSC | Core to <br> Major | Structural Biochemistry (Gold Coast) (from 2021) | 10 |
| Tri 1 | 2008NSC | Core to <br> Major | General Microbiology (Nathan) | 10 |
| Tri 2 | 2010NSC | Core to <br> Major | Applied Microbiology (Nathan) | 10 |
| Tri 2 | 3018NSC | Core to <br> Major | Microbiology Laboratory (Nathan) | 10 |
| Tri 2 | 3020NSC | Core to <br> Major | Techniques in Molecular Microbiology (Nathan) | 10 |

## Wildlife Biology

## Gold Coast

You must complete the following foundation courses:

| Trimester | Course code | Requirement | Course title | CP |
| :--- | :--- | :--- | :--- | :---: |
| Tri 1,3 | 1015 SCG | Recommended Prereq | Quantitative Reasoning | 10 |
| Tri 1,3 | 1041 SCG | Recommended Prereq | Biological Systems | 10 |
| Tri 1,3 | 1023 SCG | Recommended Prereq | Chemistry I | 10 |
| Tri 1,3 | 1043 SCG | Recommended Prereq | Introduction to Environmental Sustainability | 10 |
| Tri 2 | 1042 SCG | Recommended Prereq | Genetics and Evolutionary Biology | 10 |
| Tri 2,3 | 1014 SCG | Recommended Prereq | Statistics | 10 |
| Tri 2 | 1044 SCG | Recommended Prereq | Earth Systems | 10 |

You must complete the following courses:

| Trimester | Course code | Requirement | Course title | CP |
| :--- | :--- | :--- | :--- | :---: |
| Tri 1 | 2291 ENV | Core to Major | Applied Data Science | 10 |
| Tri 1 | 2303 ENV | Core to Major | Zoology | 10 |
| Tri 2 | 2603 ENV | Core to Major | Ecology (not offered from 2023) | 10 |
|  |  |  | OR |  |
| Tri 2 | 2051 ENV | Core to Major | Ecology | 10 |
| Tri 2 | 2702 ENV | Core to Major | Botany | 10 |
| Tri 1 | 3606 ENV | Core to Major | Conservation Biology | 10 |
| Tri 2 | 3308 ENV | Core to Major | Emerging Topics in Conservation | 10 |

## Physics Major

## Physics

You must complete the following foundation courses:

| Trimester | Course code | Requirement | Course title | CP |
| :--- | :--- | :--- | :--- | :---: |
| Tri 1,2 | 1201SCG | Recommended Prereq | Linear Algebra (see Note 1) | 10 |
| Tri 1,2 | 1031 SCG | Recommended Prereq | Physics 1A | 10 |
| Tri 2,3 | 1202 SCG | Recommended Prereq | Calculus I | 10 |
| Tri 2 | 1032 SCG | Recommended Prereq | Physics 1B | 10 |

Note 1: Students who successfully completed Mathematics B or C should complete 1201 SCG . Students who successfully completed only Mathematics A will complete 1017SCG Foundation Mathematics in their first trimester of study in place of an elective course and then complete 1201 SCG in their second trimester of study.

You must complete the following courses:

| Trimester | Course code | Requirement | Course title | CP |
| :---: | :---: | :--- | :--- | :---: |
| Tri 1 | $2304 N S C$ | Core to Major | Statistical and Solid State II (not offered from 2021) | 10 |
|  |  |  | OR |  |
| Tri 2 | $2307 E S C$ | Core to Major | Analytical and Statistical Mechanics | 10 |
| Tri 1 | 2302 NSC | Core to Major | Modern Physics Laboratory | 10 |
| Tri 1 | 2305NSC | Core to Major | Quantum Mechanics, Relativity and Elementary Particles | 10 |
| Tri 2 | 2301NSC | Core to Major | Electromagnetism and Optics | 10 |
| Tri 1 | 3301NSC | Core to Major | Quantum Physics III | 10 |
| Tri 2 | 3304NSC | Core to Major | Physics Laboratory III | 10 |
| Tri 2 | 3303 NSC | Core to Major | Physics of Solids and Nanoscale Structures | 10 |
|  |  | OR |  |  |
| Tri 2 | $3309 E S C ~$ | Core to Major | Condensed Matter Physics | 10 |

## Electives (1 available)

Free-choice electives (Science)
You may select free-choice electives from the list below or any Undergraduate free-choice elective/s offered across the University provided prerequisites are met. If you require guidance, please liaise with your Program Director.

| Trimester | Course code | Requirement | Course title | CP |
| :--- | :--- | :--- | :--- | :---: |
| Tri 1 | 2006 ESC | Free-choice <br> Elective | Archaeology: Discovering the Human Past | 10 |
| Tri 2 | 2002 NSC | Free-choice <br> Elective | Human Anatomy and Physiology 2 | 10 |
| Tri 1 | 2000 MSC | Free-choice <br> Elective | Molecular Genetics | 10 |
| Tri 1 | 2003 NSC | Free-choice <br> Elective | Metabolism | 10 |
| Tri 2 | 2003 MSC | Free-choice <br> Elective | Fundamentals of Microbiology | 10 |
| Tri 1 | 2005 NSC | Free-choice <br> Elective | Protein Science | 10 |
| Tri 2 | 2007 MSC | Free-choice <br> Elective | Microbiology | 10 |
| Tri 1 | 2007 NSC | Free-choice <br> Elective | Human Anatomy and Physiology 1 | 10 |
| Tri 1 | 2008 MSC | Free-choice <br> Elective | Structural Biochemistry | 10 |

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| Trimester | Course code | Requirement | Course title | CP |
| :---: | :---: | :---: | :---: | :---: |
| Tri 1 | 2008NSC | Free-choice Elective | General Microbiology | 10 |
| Tri 2 | 2010NSC | Free-choice Elective | Applied Microbiology | 10 |
| Tri 2 | 2012NSC | Free-choice Elective | Molecular Biology | 10 |
| Tri 1 | 2013NSC_Y1 | Free-choice Elective | Biotechniques Laboratory (Nathan) (not offered from 2022) | 5 |
|  |  |  | courseLineOperator |  |
| Tri 2 | 2013NSC_Y2 | Free-choice Elective | Biotechniques Laboratory (Nathan) (not offered from 2022) | 5 |
|  |  |  | courseLineOperator |  |
| Tri 2 | 2013NSC | Free-choice Elective | Biotechniques Laboratory (Nathan) | 10 |
|  |  |  | courseLineOperator |  |
| Tri 2 | 2018NSC | Free-choice Elective | Biosciences Laboratory Skills (Gold Coast) | 10 |
| Tri 1,2 or 3 | 2043IBA | Free-choice Elective | Innovation, Creativity and Entrepreneurship | 10 |
| Tri 2 | 2051ENV | Free-choice Elective | Ecology | 10 |
| Tri 1 | 2071ENV | Free-choice Elective | Soils and Geomorphology | 10 |
| Tri 1 | 2101NSC | Free-choice Elective | Inorganic Chemistry (Nathan) | 10 |
|  |  |  | courseLineOperator |  |
| Tri 1 | 2208ENV | Free-choice Elective | Inorganic Chemistry (Gold Coast) | 10 |
| Tri 2 | 2102NSC | Free-choice Elective | Spectroscopic and Molecular Analysis | 10 |
| Tri 1 | 2103NSC | Free-choice Elective | Organic Chemistry (Nathan) | 10 |
|  |  |  | courseLineOperator |  |
| Tri 1 | 2014MSC | Free-choice Elective | Organic Chemistry (Gold Coast) | 10 |
| Tri 2 | 2106NSC | Free-choice Elective | Physical and Analytical Chemistry | 10 |
| Tri 1,3 | 2107ENV | Free-choice Elective | Introduction to Geographic Information Systems | 10 |
| Tri 2 | 2201NSC | Free-choice Elective | Linear Algebra and Applications | 10 |
| Tri 2 | 2202ENV | Free-choice Elective | Physical and Analytical Chemistry | 10 |
| Tri 1 | 2202NSC | Free-choice Elective | Numerical Methods | 10 |
| Tri 1 | 2203ENV | Free-choice Elective | Environmental Chemistry and Monitoring (Gold Coast) | 10 |
|  |  |  | courseLineOperator |  |
| Tri 2 | 2209ENV | Free-choice Elective | Environmental Chemistry (Nathan) | 10 |
| Tri 2 | 2204NSC | Free-choice Elective | Introduction to Mathematical Modelling | 10 |


| Trimester | Course code | Requirement | Course title | CP |
| :---: | :---: | :---: | :---: | :---: |
| Tri 1 | 2205NSC | Free-choice Elective | Calculus II | 10 |
| Tri 1,3 | 2004GIR | Free-choice Elective | The Government Business Nexus: Intervening, Lobbying and Responding | 10 |
| Tri 2 | 2251ENV | Free-choice Elective | Animal Diversity (Nathan) (not offered from 2021) | 10 |
|  |  |  | courseLineOperator |  |
| Tri 1 | 2303ENV | Free-choice Elective | Zoology | 10 |
| Tri 1 | 2261ENV | Free-choice Elective | Plant Diversity (Nathan) (not offered from 2021) | 10 |
|  |  |  | courseLineOperator |  |
| Tri 2 | 2702ENV | Free-choice Elective | Botany | 10 |
| Tri 2 | 2281ENV | Free-choice Elective | Economics and the Environment | 10 |
| Tri 1 | 2291ENV | Free-choice Elective | Applied Data Science | 10 |
| Tri 2 | 2301NSC | Free-choice Elective | Electromagnetism and Optics | 10 |
| Tri 1,2 | 2302NSC | Free-choice Elective | Modern Physics Laboratory | 10 |
| Tri 2 | 2304ENV | Free-choice Elective | Rivers and Catchments | 10 |
| Tri 1,2 | 2304NSC | Free-choice Elective | Statistical and Solid State II (not offered from 2021) | 10 |
| Tri 2 | 2307ESC | Free-choice Elective | Analytical and Statistical Mechanics | 10 |
| Tri 2,3 | 2305ENV | Free-choice Elective | Marine Megafauna and Planetary Health | 10 |
| Tri 1 | 2305NSC | Free-choice Elective | Quantum Mechanics, Relativity and Elementary Particles | 10 |
| Tri 1 | 2416ENV | Free-choice Elective | Environmental Anthropology | 10 |
| Tri 1 | 2804ENV | Free-choice Elective | Coastal Environments | 10 |
| Tri 2 | 2803ENV | Free-choice Elective | Marine Biodiscovery | 10 |
| Tri 2,3 | 2212ENV | Free-choice Elective | Ecotox and Impact Assessment (offered online) | 10 |
| Tri 1,2 | 3001NSC | Free-choice Elective | Molecular Cell Biology (Nathan) | 10 |
|  |  |  | courseLineOperator |  |
| Tri 1 | 3016MSC | Free-choice Elective | Macromolecular and Cellular Biochemistry (Gold Coast) | 10 |
| Tri 1 | 3004MSC | Free-choice Elective | Immunology | 10 |
| Tri 2 | 3012MSC | Free-choice Elective | Clinical Biochemistry (offered at Gold Coast) | 10 |
|  |  |  | courseLineOperator |  |
| Tri 1 | 3009NSC | Free-choice Elective | Biomedical Sciences Laboratory (offered at Nathan) | 10 |


| Trimester | Course code | Requirement | Course title | CP |
| :---: | :---: | :---: | :---: | :---: |
| Tri 1 | 3006MSC | Free-choice Elective | Clinical Microbiology | 10 |
| Tri 1 | 3009NSC | Free-choice Elective | Biomedical Sciences Laboratory | 10 |
| Tri 2 | 3012MSC | Free-choice Elective | Clinical Biochemistry | 10 |
| Tri 2 | 3013MSC | Free-choice Elective | Infectious Disease | 10 |
| Tri 2 | 3014NSC | Free-choice Elective | Advanced Physiology | 10 |
| Tri 2 | 3018NSC | Free-choice Elective | Microbiology Laboratory | 10 |
| Tri 2 | 3020NSC | Free-choice Elective | Techniques in Molecular Microbiology | 10 |
| Tri 2 | 3022MSC | Free-choice Elective | Molecular Medicine | 10 |
| Tri 2,3 | 2034IBA | Free-choice Elective | Griffith Innovation Challenge | 10 |
| Tri 2 | 3102NSC | Free-choice Elective | Advanced Analytical Chemistry (Nathan) | 10 |
|  |  |  | courseLineOperator |  |
| Tri 2 | 3202ENV | Free-choice Elective | Advanced Analytical Chemistry (Gold Coast) | 10 |
| Tri 1 | 3103NSC | Free-choice Elective | NMR and Structural Chemistry (Nathan) (not offered from 2021) | 10 |
| Tri 1 | $3225 E N V$ | Free-choice Elective | NMR in Biological Systems | 10 |
| Tri 1 | 3105NSC | Free-choice Elective | Advanced Organic Chemistry | 10 |
| Tri 2 | 3119MED | Free-choice Elective | Environmental Toxicology and Risk Assessment | 10 |
| Tri 1 | 3201ENV | Free-choice Elective | Aquatic Chemistry and Pollution (Gold Coast) | 10 |
|  |  |  | courseLineOperator |  |
| Tri 1 | 3431 ENV | Free-choice Elective | Water Pollution Chemistry (Nathan) | 10 |
| Tri 1 | 3201NSC | Free-choice Elective | Advanced Differential Equations and Modelling | 10 |
| Tri 1 | 3203NSC | Free-choice Elective | Complex Analysis and Applications | 10 |
| Tri 2 | 3204NSC | Free-choice Elective | Advanced Numerical Methods | 10 |
| Tri 1 | 3241 ENV | Free-choice Elective | Quantitative Ecology (not offered from 2021) | 10 |
| Tri 1 | 3301NSC | Free-choice Elective | Quantum Physics III | 10 |
| Tri 2 | 3303NSC | Free-choice Elective | Physics of Solids and Nanoscale Structures | 10 |
|  |  |  | courseLineOperator |  |
| Tri 2 | 3309ESC | Free-choice Elective | Condensed Matter Physics | 10 |


| Trimester | Course code | Requirement | Course title | CP |
| :---: | :---: | :---: | :---: | :---: |
| Tri 2 | $3304 N S C$ | Free-choice Elective | Physics Laboratory III | 10 |
| Tri 2 | 3306ENV | Free-choice Elective | Environmental Management | 10 |
| Tri 1 | 3307ENV | Free-choice Elective | Environmental and Social Futures | 10 |
| Tri 2 | 3308ENV | Free-choice Elective | Emerging Topics in Conservation | 10 |
| Tri 2 | 3332ENV | Free-choice Elective | Marine Conservation and Resource Management | 10 |
| Tri 2 | 3441 ENV | Free-choice Elective | Land Degradation and Catchment Management | 10 |
| Tri 1 | 3606ENV | Free-choice Elective | Conservation Biology | 10 |
| Tri 2 | 3701 ENV | Free-choice Elective | Microbial Ecology and Biogeochemistry (Not offered from 2021) | 10 |
| Tri 1 | 3801ENV | Free-choice Elective | Estuarine Ecology | 10 |
| Tri 1,2 or 3 | 3911ESC | Free-choice Elective | Work Integrated Learning Special Topic | 10 |
| Tri 1,2 or 3 | 3922ESC | Free-choice Elective | Research Special Topic | 10 |

