



Bachelor of Science (Domestic students)

Program code

1018

Available at

Gold Coast Campus

Duration

3 years full-time

6 years part-time

Credit points

240

Indicative fee

\$9,527.00* per year [\(more\)](#)

* 2020 indicative annual CSP fee

[Calculate](#) your fees

Entry requirements

15

Overall position (OP) 2019

66

Rank 2019 [\(more\)](#)

OR VET qualification

Certificate III

[\(Additional requirements\)](#)

Commencing in

Trimester 1, Trimester 2 and Trimester

3

Prerequisites

English (4SA)

Assumed knowledge

Maths A or B (4SA)



VET Guarantee

If you receive a VET and meet subject prerequisites, you are guaranteed a place in this program.

Degree requirements: Students who started Trimester 3 - 2019

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 70 credit points of free-choice electives **or**
- 60 credit points for a major, 60 credit points for a second major and 10 credit points of free-choice electives **or**
- 70 credit points for the Physics major and 60 credit points of free-choice electives **or**
- 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

Domestic students enrolled in this program whose first language is not English may complete the following **English Language Enhancement (ELE)** course as an elective.

- [5903LHS Language and Communication for Sciences](#)

Students whose first language is English are not permitted to undertake this ELE 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 - 2019

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 the following course in their first trimester of study in place of a free-choice elective:

Trimester	Course code	Course title	CP
Tri 1,2 or 3	5903LHS	Language and Communication for Sciences	10

Year 1

You must select **80 credit points** from the following Level 1 Science courses:

Trimester	Course code	Course title	CP
Tri 1	1001NSC	Human Biology (Nathan campus only)	10
Tri 1,3	1041SCG	Biological Systems (Biochemistry and Molecular Biology major / Geography major / Marine Biology major / Wildlife Biology major)	10
Tri 1,3	1023SCG	Chemistry I (Biochemistry and Molecular Biology major / Chemistry major / Geography major / Marine Biology major / Wildlife Biology major)	10
Tri 1,2	1201SCG	Linear Algebra (Applied Mathematics major/ Physics major)	10
Tri 2	1042SCG	Genetics and Evolutionary Biology (Biochemistry and Molecular Biology major / Marine Biology major / Wildlife Biology major)	10
Tri 1,3	1015SCG	Quantitative Reasoning (Biochemistry and Molecular Biology major / Chemistry major / Geography major / Marine Biology major / Wildlife Biology major)	10
Tri 1,2	1031SCG	Physics 1A (Physics major)	10
Tri 1,3	1043SCG	Introduction to Environmental Sustainability (Geography major / Marine Biology major / Wildlife Biology major)	10
Tri 2	1044SCG	Earth Systems (Geography major / Marine Biology major / Wildlife Biology major)	10
Tri 2	1024SCG	Chemistry II (Biochemistry and Molecular Biology major / Chemistry major)	10
Tri 2	1032SCG	Physics 1B (Physics major) (see Note 1)	10
Tri 2,3	1014SCG	Statistics	10
Tri 2,3	1202SCG	Calculus I (Applied Mathematics major / Physics major)	10
Tri 2	1444ENV	Global Environmental Challenges	10
Tri 1,2 or 3	1017SCG	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	Course title	CP
Tri 1,2		Major	60
		AND	
Tri 1,2		Free-choice electives	70
		OR	
Tri 1,2		Major	60
		AND	
Tri 1,2		Second major	60
		AND	
Tri 1,2		Free-choice elective	10
		OR	
Tri 1,2		Physics major	70
		AND	
Tri 1,2		Free-choice electives	60
		OR	
Tri 1,2		Physics major	70
		AND	
Tri 1,2		Applied Mathematics major	60

You must complete the following courses:

Trimester	Course code	Course title	CP
Tri 1	2991SCG	Professional Practice in Science	10
Tri 1,2	3992NSC_Y1	Science Capstone	10
		AND	
Tri 1,2	3992NSC_Y2	Science Capstone	10
		OR	
Tri 2	3892ENV	Environmental Capstone	20
		OR	
Tri 1,2	3900ESC	Work Integrated Learning Placement	20

Majors (7 available)

Applied Mathematics

You must complete the following foundation courses:

Trimester	Course code	Course title	CP
Tri 1,2	1201SCG	Linear Algebra (see Note 1)	10
Tri 2,3	1202SCG	Calculus I	10

Note 1: Students who successfully completed Mathematics B or C should complete 1201SCG. 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	Course title	CP
Tri 1	2201NSC	Linear Algebra and Differential Equations	10
Tri 1	2205NSC	Calculus II	10
Tri 2	2202NSC	Numerical Methods and MATLAB	10
Tri 2	2204NSC	Introduction to Mathematical Modelling	10
Tri 1	3201NSC	Advanced Differential Equations and Modelling	10
Tri 1	3203NSC	Complex Analysis and Applications	10

Biochemistry and Molecular Biology

Gold Coast

You must complete the following foundation courses:

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

You must complete the following courses:

Trimester	Course code	Course title	CP
Tri 1	2008MSC	Structural Biochemistry	10
Tri 1	2013NSC_Y1	Biotechniques Laboratory (not offered from 2018)	5
		AND	
Tri 2	2013NSC_Y2	Biotechniques Laboratory (not offered from 2018)	5
		OR	
Tri 2	2018NSC	Biosciences Laboratory Skills	10
Tri 2	2011MSC	Metabolism	10
Tri 1	3014MSC	Molecular Biology	10
Tri 1	3016MSC	Macromolecular and Cellular Biochemistry	10
Tri 2	3004NSC	Biomolecular Sciences Lab (not offered from 2019)	10
		OR	
Tri 2	3012MSC	Clinical Biochemistry	10
		OR	
Tri 2	3022MSC	Molecular Medicine	10
		OR	
Tri 2	3013MSC	Infectious Disease	10

Chemistry

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You must complete the following foundation courses:

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

You must complete 40 credit points from the following courses:

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

You must complete 10 credit points from the following courses:

Trimester	Course code	Course title	CP
Tri 1	3105NSC	Advanced Organic Chemistry	10
Tri 2	3202ENV	Advanced Analytical Chemistry	10

You must complete 10 credit points from the following courses:

Trimester	Course code	Course title	CP
Tri 1	3201ENV	Aquatic Chemistry and Pollution	10
Tri 1	3225ENV	Natural Products and NMR	10

Geography Gold Coast

You must complete the following foundation courses:

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

You must select 40 credit points from the following courses:

Trimester	Course code	Course title	CP
Tri 1	2107ENV	Introduction to Geographic Information Systems	10
Tri 1	2416ENV	Environmental Anthropology	10
Tri 1	2203ENV	Environmental Chemistry and Monitoring	10
Tri 2	2221ENV	Environmental Politics and Policy	10
Tri 2	2281ENV	Economics and the Environment	10
Tri 2,3	2212ENV	Ecotox and Impact Assessment (offered online)	10

You must select 20 credit points from the following courses:

Trimester	Course code	Course title	CP
Tri 1	3201ENV	Aquatic Chemistry and Pollution	10
Tri 1	3307ENV	Environmental and Social Futures	10
Tri 2	3119MED	Environmental Toxicology and Risk Assessment	10
Tri 2	3306ENV	Environmental Management	10

Marine Biology

You must complete the following foundation courses:

Trimester	Course code	Course title	CP
Tri 1,3	1015SCG	Quantitative Reasoning	10
Tri 1,3	1041SCG	Biological Systems	10
Tri 1,3	1023SCG	Chemistry I	10
Tri 1,3	1043SCG	Introduction to Environmental Sustainability	10
Tri 2,3	1014SCG	Statistics	10
Tri 2	1042SCG	Genetics and Evolutionary Biology	10
Tri 2	1007ENV	Introduction to Marine Science	10

You must complete 40 credit points from the following courses:

Trimester	Course code	Course title	CP
Tri 1	2291ENV	Applied Data Science	10
Tri 1	2804ENV	Coastal Environments	10
Tri 2	2305ENV	Marine Megafauna: Sentinels of the Sea	10
Tri 2	2603ENV	Ecology	10
Tri 2,3	2212ENV	Ecotox and Impact Assessment (offered online)	10

You must complete the following courses:

Trimester	Course code	Course title	CP
Tri 1	3801ENV	Estuarine Ecology	10
Tri 2	3332ENV	Marine Conservation and Resource Management	10

Physics

You must complete the following foundation courses:

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

Note 1: Students who successfully completed Mathematics B or C should complete 1201SCG. 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 1201SCG in their second trimester of study.

You must complete the following courses:

Trimester	Course code	Course title	CP
Tri 1	2304NSC	Statistical and Solid State II	10
Tri 1	2302NSC	Modern Physics Laboratory	10
Tri 2	2305NSC	Quantum Mechanics, Relativity and Elementary Particles	10
Tri 2	2301NSC	Electromagnetism and Optics	10
Tri 1	3301NSC	Quantum Physics III	10
Tri 2	3304NSC	Physics Laboratory III	10
Tri 2	3303NSC	Physics of Solids and Nanoscale Structures	10

Wildlife Biology

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You must complete the following foundation courses:

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

You must complete the following courses:

Trimester	Course code	Course title	CP
Tri 1	2291ENV	Applied Data Science	10
Tri 1	2303ENV	Zoology	10
Tri 2	2603ENV	Ecology	10
Tri 2	2702ENV	Botany	10
Tri 1	3606ENV	Conservation Biology	10
Tri 2	3308ENV	Emerging Topics in Conservation	10

Electives (1 available)

Free-choice electives

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	Course title	CP
Tri 2	2002NSC	Human Physiology	10
Tri 1	2000MSC	Molecular Genetics	10
Tri 1	2003NSC	Metabolism	10
Tri 2	2003MSC	Fundamentals of Microbiology	10
Tri 1	2005NSC	Protein Science	10
Tri 2	2007MSC	Microbiology	10
Tri 1	2007NSC	Human Anatomy	10
Tri 1	2008MSC	Structural Biochemistry	10
Tri 1	2008NSC	General Microbiology	10
Tri 2	2010NSC	Applied Microbiology	10
Tri 2	2012NSC	Molecular Biology	10
Tri 1	2013NSC_Y1	Biotechniques Laboratory	5

Trimester	Course code	Course title	CP
		AND	
Tri 2	2013NSC_Y2	Biotechniques Laboratory	5
		OR	
Tri 2	2018NSC	Biosciences Laboratory Skills	10
Tri 1,2 or 3	2043MKT	Entrepreneurship and New Business Ventures (Tri 1: NA,OL; Tri 2: SB,GC; Tri 3: NA,GC)	10
Tri 2	2051ENV	Ecology	10
Tri 1	2071ENV	Soils and Geomorphology	10
Tri 1	2101NSC	Inorganic Chemistry	10
		OR	
Tri 1	2208ENV	Inorganic Chemistry	10
Tri 2	2102NSC	Spectroscopic and Molecular Analysis	10
Tri 1	2103NSC	Organic Chemistry	10
		OR	
Tri 1	2014MSC	Organic Chemistry	10
Tri 2	2106NSC	Physical and Analytical Chemistry	10
Tri 1	2107ENV	Introduction to Geographic Information Systems	10
Tri 1	2201NSC	Linear Algebra and Differential Equations	10
Tri 2	2202ENV	Physical and Analytical Chemistry	10
Tri 2	2202NSC	Numerical Methods and MATLAB	10
Tri 1	2203ENV	Environmental Chemistry and Monitoring	10
		OR	
Tri 2	2209ENV	Environmental Chemistry	10
Tri 2	2204NSC	Introduction to Mathematical Modelling	10
Tri 1	2205NSC	Calculus II	10
Tri 2	2221ENV	Environmental Politics and Policy	10
Tri 2	2251ENV	Animal Diversity	10
		OR	
Tri 1	2303ENV	Zoology	10
Tri 1	2261ENV	Plant Diversity	10
		OR	
Tri 2	2702ENV	Botany	10
Tri 2	2281ENV	Economics and the Environment	10
Tri 1	2291ENV	Applied Data Science	10
Tri 2	2301NSC	Electromagnetism and Optics	10
Tri 1,2	2302NSC	Modern Physics Laboratory	10
Tri 2	2304ENV	Rivers and Catchments	10
Tri 1,2	2304NSC	Statistical and Solid State II	10
Tri 2,3	2305ENV	Marine Megafauna: Sentinels of the Sea	10
Tri 2	2305NSC	Quantum Mechanics, Relativity and Elementary Particles	10
Tri 1	2416ENV	Environmental Anthropology	10
Tri 1	2804ENV	Coastal Environments	10
Tri 2	2803ENV	Marine Chemical Ecology and Biotechnology	10
Tri 2,3	2212ENV	Ecotox and Impact Assessment (offered online)	10
Tri 1,2	3001NSC	Molecular Cell Biology	10
		OR	
Tri 1	3016MSC	Macromolecular and Cellular Biochemistry	10

Trimester	Course code	Course title	CP
Tri 1	3004MSC	Immunology	10
Tri 2	3004NSC	Biomolecular Sciences Lab (not offered from 2019)	10
		OR	
Tri 2	3012MSC	Clinical Biochemistry (offered at Gold Coast)	10
		OR	
Tri 1	3009NSC	Biomedical Sciences Laboratory (offered at Nathan)	10
Tri 1	3006MSC	Clinical Microbiology	10
Tri 1	3009NSC	Biomedical Sciences Laboratory	10
Tri 2	3012MSC	Clinical Biochemistry	10
Tri 2	3013MSC	Infectious Disease	10
Tri 2	3014NSC	Advanced Physiology	10
Tri 2	3018NSC	Microbiology Laboratory	10
Tri 2	3020NSC	Techniques in Molecular Microbiology	10
Tri 2	3022MSC	Molecular Medicine	10
Tri 1,2 or 3	3031IBA	Griffith Innovation Challenge (offered GC only in T2-2019)	10
Tri 2	3102NSC	Advanced Analytical Chemistry	10
		OR	
Tri 2	3202ENV	Advanced Analytical Chemistry	10
Tri 1	3103NSC	NMR and Structural Chemistry	10
		OR	
Tri 1	3225ENV	Natural Products and NMR	10
Tri 1	3105NSC	Advanced Organic Chemistry	10
Tri 2	3119MED	Environmental Toxicology and Risk Assessment	10
Tri 1	3201ENV	Aquatic Chemistry and Pollution	10
		OR	
Tri 1	3431ENV	Water Pollution Chemistry	10
Tri 1	3201NSC	Advanced Differential Equations and Modelling	10
Tri 2	3202NSC	Biological Mathematics	10
Tri 1	3203NSC	Complex Analysis and Applications	10
Tri 2	3204NSC	Advanced Numerical Methods	10
Tri 1	3241ENV	Conservation Ecology	10
Tri 1	3301NSC	Quantum Physics III	10
Tri 2	3303NSC	Physics of Solids and Nanoscale Structures	10
Tri 2	3304NSC	Physics Laboratory III	10
Tri 2	3306ENV	Environmental Management	10
Tri 1	3307ENV	Environmental and Social Futures	10
Tri 2	3308ENV	Emerging Topics in Conservation	10
Tri 2	3332ENV	Marine Conservation and Resource Management	10
Tri 2	3441ENV	Land Degradation and Catchment Management	10
Tri 1	3606ENV	Conservation Biology	10
Tri 2	3701ENV	Microbial Ecology and Biogeochemistry	10
Tri 1	3801ENV	Estuarine Ecology	10
Tri 1,2 or 3	3103ENV	Industry Placement	10
Tri 1,2 or 3	3900ESC	Work Integrated Learning Placement	20
Tri 2,3	3001ENV	Industry Affiliates Program	20