

1. General Course Information

1.1 Course Details

Course Code:	FND001	
Course Name:	Biology	
Trimester:	Trimester 3, 2021	
Program:	Diploma of Educational Studies	
Credit Points:	10	
Course Coordinator:	Jesse Rostagno	
Document modified:	30 August 2021	

Course Description

This course will give students in the Diploma of Educational Studies an intensive overview of Queensland Senior Biology Units 1-4 (Grade 11 and 12 inclusive). The P–10 Australian Curriculum: Science is assumed knowledge for this course. This course aligns with the QCAA Senior Biology syllabus and aims to give students knowledge and understanding of Cells and Multicellular Organisms, Maintaining the Internal Environment, Biodiversity and Interconnectedness of Life, and Heredity and the Continuity of Life.

Assumed Knowledge

The P-10 Australian Curriculum: Science is assumed knowledge for this course

1.2 Teaching Team

Your teacher can be contacted via the email system on the portal.

Name	Email
Jesse Rostagno	jesse.rostagno@griffithcollege.edu.au

1.3 Staff Consultation

Your teacher is available each week for consultation outside of normal class times. Times that your teacher will be available for consultation will be found on the Course Site.

1.4 Timetable

Your timetable is available on the Griffith College Digital Campus at Class Timetable in Student and Services.

1.5 Technical Specifications

All students must have access to a computer or suitable mobile device.

2. Aims, Outcomes & Generic Skills

2.1 Course Aims

This course aims to equip students with an increased knowledge and understanding of required mathematics topics for further studies in education.



2.2 Learning Outcomes

After successfully completing this course you should be able to:

- 1. Describe, explain, and apply scientific concepts, theories, models and systems and their limitations
- 2. Analyse and interpret evidence of scientific, and biological concepts, theories, and models.
- 3. Evaluate processes, claims and conclusions using the scientific method.
- 4. Communicate understanding, finding, arguments and conclusions

2.3 Generic Skills and Capabilities

For further details on the Generic Skills please refer to the <u>Graduate Generic Skills and Capabilities policy</u>.

Griffith College aims to develop graduates who have an open and critical approach to learning and a capacity for lifelong learning. Through engagement in their studies, students are provided with opportunities to begin the development of these and other generic skills.

Studies in this course will give you opportunities to begin to develop the following skills:

Generic Skills and Capabilities	Taught	Practised	Assessed	
Acquisition of discipline knowledge and skills with critical judgement	8	~	~	~
Communication and collaboration		~	~	~
Self-directed and active learning	R		~	
Creative and future thinking	5		~	~
Social responsibility and ethical awareness	Ū.		~	
Cultural competence and awareness in a culturally diverse environment	ŧiŧi		~	



3. Learning Resources

3.1 Required Learning Resources

There are two textbooks that will be used in this course.

Biology for Queensland, An Australian Perspective, Units 1 & 2, Oxford, Third Edition, Australia Biology for Queensland, An Australian Perspective, Units 3 & 4, Oxford, Third Edition, Australia

These can be purchased as online copies or physical copies, depending on your preference.

Your teacher will show you where and how to purchase these resources in Week 1.

Non-programmable scientific calculator.

3.2 Recommended Learning Resources

N/A

3.3 College Support Services and Learning Resources

The College provides many facilities and support services to assist students in their studies. Links to information about College support resources that are available to students are included below for easy reference.

<u>Digital Library</u> – Databases to which Griffith College students have access to through the Griffith Library Databases.

MyStudy – there is a dedicated website for this course via MyStudy on the Griffith College Digital Campus.

Griffith College is committed to ensuring academic integrity is understood and maintained by all staff and students. All students learn about academic integrity through engagement with the Academic Integrity online modules within the suite of Academic and Professional Studies courses.

Services and Support provides a range of services to support students throughout their studies including academic advice and assignment help from Student Learning Advisors, and personal and welfare support from Student Counsellors.

<u>Jobs and Employment</u> in the Student Hub can assist students with career direction, resume and interview preparation, job search tips, and more.

<u>IT Support</u> provides details of accessing support, information on s numbers and internet access and computer lab rules.

3.4 Other Information about your Learning

Attendance

You are expected to actively engage in all learning experiences and learning activities which underpin the learning content in this course. You are expected to engage with the learning content and learning activities outside of timetabled class times. This requires you to be an active agent of your learning. You are expected to bring all necessary learning resources to class such as the required textbook and /or Workbook. In addition, you are encouraged to BYOD (bring your own device) to class such as a laptop or tablet. This is not a requirement as computer lab facilities are available on campus, however, the use of such devices in the classroom is encouraged with appropriate and considerate use principles being a priority.

Preparation and Participation in Learning

In order to enhance your learning, you need to prepare before participating in the learning experiences. Absorb the learning content and complete the learning activities that are provided online before you attend the scheduled learning experiences. Make sure you complete the learning activities set each week; they are designed to support your learning. Active participation in your learning will enhance your success. Ask questions when something is unclear or when you want to bring some issue to your teacher's attention; respond to questions to test your knowledge and engage in discussion to help yourself and others learn.

Consultation Sessions

Teachers offer extra time each week to assist students outside the classroom. This is known as 'consultation time.' You may seek assistance from your teacher on email or in person according to how the teacher has explained this to the class. Attendance during consultation time is optional but you are encouraged to use this extra help to improve your learning outcomes.

Course Learning Materials

Learning materials are made available to you in MyStudy on the Griffith College Digital Campus. The learning materials are arranged in Modules. In each Module you will find Learning Content, Learning Experiences and Learning Activities. Learning Content will be engaged with prior to the scheduled Learning Experience (your weekly class). This will ensure you are prepared for the scheduled Learning Experience by being aware of the content to be covered and therefore will be able to actively participate in the session. Learning Activities are accessed after the scheduled session for purposes of review, consolidation of learning, and preparation for the Evidence of Learning tasks (assessment) in the course.

In addition, **Anytime Anywhere** learning material is provided in the course. This learning material provides support, interactive tools and directions for students who occasionally cannot attend the weekly scheduled Learning Experience (either in person or on Zoom) perhaps due to illness or other commitments. The Anytime Anywhere learning material should also be used in conjunction with Learning Content and Learning Activities resources.

Self-Directed Learning

You will be expected to learn independently. This means you must organise and engage with the course learning content even when you are not specifically asked to do so by your teacher. The weekly guide will be helpful to organise your learning. This involves revising the weekly course learning material and completing the learning activities. It also means you will need to find additional information to evidence your learning (assessment) beyond that given to you, and to construct your own response to a question or topic. All of this requires careful

planning of your time. Expect to spend, on average, at least 10 hours per week including class time for each of your courses.

Program Progression

You are reminded that satisfactory Program Progression requires that attendance in classes is maintained at equal to or greater than 80%, and that GPA is maintained at equal to or greater than 3.5 [please see Griffith College Policy Library - Program Progression Policy - for more information].

Teacher and Course Evaluation

Your feedback is respected and valued by your teacher. You are encouraged to provide your thoughts on the course and teaching, both positive and critical, directly to your teacher or by completing course and teacher evaluations via Griffith College's evaluation tool whenever these are available.

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- 4. Learning Content, Learning Experiences and Learning Activities
- 4.1 Modules for Learning Content, Learning Experiences and Learning Activities

	Learning Content	Learning Experiences	Learning Activities	Evidence of Learning	Learning outcome
Мо	dule 1 – Cells and	d Multicellular Organisms			
1	Chapter 3 – Cell Structure Chapter 4 – Cell Function and Energy	Introduction to Course and Course Outline What is biology? Cells as the Basis of Life – Cell Structure Comparing Cells Group Work	To Be Advised - Activities assigned in class		1, 2
2	Chapter 5 – From Cell to Multicellular Organism Chapter 6 – Transport and gas exchange in animals	Multicellular organism worksheets Stem Cells and Group Discussion Mammal circulatory system, transport system, respiratory and lymphatic systems	To Be Advised - Activities assigned in class		1, 2

3	Chapter 7 – Exchange of nutrients and waste in animals	Digestive and waste systems in human and animal - processes	To Be Advised - Activities assigned in class	Module 1 Assessment – 20%	1, 2
	Chapter 8 – Plant systems – gas exchange and transport	Gas exchange via photosynthesis and respiration diagrams			
Мос		g the Internal Environment		'	
4	Chapter 9 – Coordination and Control	Homeostasis Human endocrine system and the nervous systems in humans and	To Be Advised - Activities assigned in class		1, 2
	Chapter 10 – Control of temperature and water balance	animals Temperature control, endothermic and exothermic			
		Osmoregulation in animals and plants			
5	Chapter 11 – Disease and its causes	Infectious and Non-Infectious Diseases	To Be Advised - Activities assigned in	Module 2 Assessment – 20%	1, 2
	Chapter 12 – Identifying, monitoring, and	'Understanding pathogens' workshop Immunity exercises	class		
	controlling disease	Group discussions on transmission and spread of diseases			
		Monitoring, preventing, and controlling disease evaluation			
Мос	dule 3 – Biodiversi	ty and the Interconnectedness of Life			
6	Chapter 2 – Biodiversity	Describing Biodiversity Linnaean biological classifications Species definitions and classification activities	To Be Advised - Activities assigned in class	Assignment Instruction Due Week 10 (20%)	1, 2, 3, 4
	Chapter 3 – Biological Interactions	Comparing abiotic and biotic environments Classifying ecosystems			
		Comparing and discussing differences between aquatic and terrestrial ecosystems			
7	Chapter 4 –	Ecosystem Management Energy in ecosystems and ecological	To Be Advised		1, 2, 3
•	Functioning Ecosystems	pyramids workshop	- Activities assigned in class		1, 4, 0
	Chapter 5 – Populations	Distribution, abundance, and population growth group task			
		Carrying capacity and density dependant factors			

	Chapter 6 – Changes in	Changes in ecosystems discussion – natural vs. human					
	ecosystems						
8	Revision or Catch-Up Week	Any activities we have not yet completed from previous weeks		Module 3 Assessment – 20%	1, 2, 3		
		Practice questions and revision					
Мос	Module 4 – Heredity and Continuity of Life						
9	Chapter 7 – DNA Structure	Chemical structures of DNA	To Be Advised		1, 2		
	and Replication	Cell division activity	assigned in				
	Chapter 8 – Cellular Replication	Gene, alleles, gene linkage and variation – probability game					
	1 222	Group ethical discussion – using technologies to detect problems in embryos					
10	Chapter 9 – Gene Expression	Control of gene expression activity	To Be Advised - Activities assigned in class		1, 2, 3, 4		
	Chapter 10 – Mutations	Genetic mutations and chromosome mutations – causes and effects	Ciuss				
	Chapter 11 – Inheritance	Predicting genotypes and phenotypes activity					
		Non-mendelian genetics					
		Sex – linked inheritance discussion					
11	Chapter 13 – The concept of	Continuity of Life on Earth	To Be Advised - Activities		1, 2, 3, 4		
	evolution	Evolution and history of life on earth	assigned in class				
	Chapter 14 – Natural	Mass extinction events					
	Selection and microevolution	Natural selection workshop – gene frequencies, variation, and microevolution					
	Chapter 15 – Speciation and	Speciation and diversification					
	Macroevolution	Group discussion – the evolution of humans					
12	Revision or Catch-Up Week	Competition of course content		Module 4 Assessment	1, 2, 3, 4		
		Practice test		– 20 %			
		Revision					



5. Evidence of Learning (Assessment Plan)

5.1 Evidence of Learning Summary

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	Evidence of learning	Weighting	Learning outcome	Due Date
1	Module 1 Assessment	20%	1, 2	Week 3
2	Module 2 Assessment	20%	1, 2	Week 6
3	Module 3 Assessment	20%	2, 3	Week 8
4	Assignment	20%	3, 4	Week 10
5	Module 4 Assessment	20%	1, 2, 3, 4	Week 12

5.2 Evidence of Learning Task Detail

All assessment items must be reasonably attempted and submitted, as a minimum requirement, plus an overall score of at least 50% to pass this course.

1. Title: Module 1 Assessment

Type: Online Quiz

Learning Outcome Assessed: 1, 2

Weight: 20% Task Description:

Online Quiz at the end of Module 1, to show an application of knowledge based on the learning activities of the first 3 Weeks. The quiz will be a combination of short answers, multiple choice, and problem solving/modelling questions. This quiz represents the QCAA Senior Biology Unit 1.

2. Title: Module 2 Quiz Type: Online Quiz

Learning Outcome Assessed: 1, 2

Weight: 20% Task Description:

Online Quiz at the end of Module 2, to show an application of knowledge based on the learning activities of weeks 4 - 5. The quiz will be a combination of short answers, multiple choice, and problem solving/modelling questions. This quiz represents the QCAA Senior Biology Unit 2.

3. Title: Module 3 Quiz Type: Online Quiz

Learning Outcome Assessed: 2, 3

Weight: 20% Task Description:

Online Quiz at the end of Module 3, to show an application of knowledge based on the learning activities of Weeks 6 - 8. The quiz will be a combination of multiple choice and problem solving/modelling questions. This quiz represents parts of the QCAA Senior Biology Unit 3.

4. Title: Research Assignment

Type: Assignment

Learning Outcome Assessed: 3 and 4

Weight: 20% Task Description:

This assignment will be based on a topic assigned by your teacher in class, which will relate to the 'Biodiversity and Interconnectedness of life' concepts. Students will be expected to write an academic style assignment following APA7 guidelines. More details will be provided in class and on the course site.

Submission: This assignment must be submitted via the assignment submission point, found under the "Evidence of Learning" tab in the FND114 course site.

5. Title: Module 4 Assessment

Type: Online Quiz

Learning Outcome Assessed: 1, 2 and 3

Weight: 20% Task Description:

Online Quiz at the end of Module 4 to show an application of knowledge based on the learning activities of the Weeks 9 - 12. The quiz will be a combination of short answers, multiple choice, and problem solving/modelling questions. This quiz represents the QCAA Senior Biology Unit 4.

5.3 Late Submission

An Evidence of Learning (assessment) task submitted after the due date, without an approved extension from the Course Coordinator, will be penalised. The standard penalty is the reduction of the mark allocated to the Evidence of Learning task by 5% of the maximum mark applicable for the assessment item, for each working day or part working day that the task is late. Evidence of Learning tasks submitted more than five working days after the due date are awarded zero marks.

Please refer to the Griffith College website - Policy Library > <u>Assessment Policy</u> for guidelines and penalties for late submission.

5.4 Other Information about Evidence of Learning

Retention of Originals

You must be able to produce a copy of all work submitted if so requested, as applicable. Copies should be retained until after the release of final results for the course, as applicable.

Requests for extension

To apply for an extension of time for an evidence of learning item, you must submit an Application for Extension of Assignment form to your teacher at least 24 hours before the date the assignment is due. Grounds for extensions are usually: serious illness, accident, disability, bereavement or other compassionate circumstances and must be able to be substantiated with relevant documentation [e.g. Griffith College Student Medical Certificate]. Please refer to the Griffith College website - Policy Library - for guidelines regarding extensions and deferred assessment.

Return of Evidence of Learning Items

- Marks awarded for in-trimester Evidence of Learning tasks, except those being moderated externally
 with Griffith University, will be available on the Student Portal within fourteen [14] days of the due date.
 This does not apply to the final Evidence of Learning task in this course (marks for this task will be
 provided with the final course result).
- 2. Students will be advised of their final grade through the Student Portal. Students can review their final Evidence of Learning task after student grades have been published. Review of Evidence of Learning tasks will not be permitted after the final date to enrol.
- 3. Marks for **all** Evidence of Learning tasks including the final exam (if applicable) will be recorded in the Moodle Course Site and made available to students through the Moodle Course Site.

The sum of your marks of evidence of learning items in this course does not necessarily imply your final grade for the course. Standard grade cut off scores can be varied for courses, so you need to wait for the official release of grades to have your grade for this course confirmed.

Policies & Guidelines

Griffith College assessment-related policies can be found in the <u>Griffith College Policy Library</u> which include the following policies:

Assessment Policy, Special Consideration, Deferred Assessment, Alternate Exam Sittings, Medical Certificates, Academic Integrity, Finalisation of Results, Review of Marks, Moderation of Assessment, Turn-it-in Software Use. These policies can be accessed within the Policy Library

Academic Integrity Griffith College is committed to maintaining high academic standards to protect the value of its qualifications. Academic integrity means acting with the values of honesty, trust, fairness, respect and responsibility in learning, teaching and research. It is important for students, teachers, researchers and all staff to act in an honest way, be responsible for their actions, and show fairness in every part of their work. Academic integrity is important for an individual's and the College's reputation.

All staff and students of the College are responsible for academic integrity. As a student, you are expected to conduct your studies honestly, ethically and in accordance with accepted standards of academic conduct. Any form of academic conduct that is contrary to these standards is considered a breach of academic integrity and is unacceptable.

Some students deliberately breach academic integrity standards with intent to deceive. This conscious, premeditated form of cheating is considered to be one of the most serious forms of fraudulent academic behaviour, for which the College has zero tolerance and for which penalties, including exclusion from the College, will be applied.

However, Griffith College also recognises many students breach academic integrity standards without intent to deceive. In these cases, students may be required to undertake additional educational activities to remediate their behaviour and may also be provided appropriate advice by academic staff.

As you undertake your studies at Griffith College, your teachers and Student Learning Advisors will provide you with guidance to understand and maintain academic integrity; however, it is also your responsibility to seek out guidance if and when you are unsure about appropriate academic conduct.

In the case of an allegation of a breach of academic integrity being made against a student he or she may request the guidance and support of a Griffith College Student Learning Advisor or Student Counsellor.

Please ensure that you are familiar with the Griffith College Academic Integrity Policy; this policy provides an overview of some of the behaviours that are considered breaches of academic integrity, as well as the penalties and processes involved when a breach is identified.

For further information please refer to the Griffith College website - Policy Library > Academic Integrity Policy

Reasonable Adjustments for Assessment - The Disability Services policy

The <u>Disability Services policy</u> (accessed within the <u>Policy Library</u>) outlines the principles and processes that guide the College in making reasonable adjustments to assessment for students with disabilities while maintaining academic robustness of its programs.

Risk Assessment Statement

There are no out of the ordinary risks associated with this course.

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