Course Code:	**BIO001A**
Course Name:	**Biology**
Semester:	**Semester 1, 2016**
Program:	Certificate IV Tertiary Preparation Program
Credit Points:	10
Course Coordinator:	Dr Dayana Matthews
Document modified:	09 Dec 2015 12:28:13

Teaching Team

Your lecturer/tutor can be contacted via the email system on the portal.

Staff Consultation

Your lecturer/tutor is available each week for consultation outside of normal class times. Times that your lecturer/tutor will be available for consultation will be given in the first week of lectures. A list of times and rooms will be published on the Griffith College Portal under the “myTimetable” link.

Prerequisites

There are no prerequisites for this course

Brief Course Description

This module is designed to develop a broad scientific knowledge of the living world. It will focus on concepts relating to biological structure, function, diversity, distribution, genetics, and interactions of living organisms.

Rationale

The purpose of this course is to introduce students to the study of living organisms as a foundation course essential to further studies in the natural and allied sciences. The course will also enhance general biological understanding, and will be relevant to many tertiary disciplines as well as provide knowledge essential to everyday living as an informed citizen.

Aims

The aim of this course is to provide students with an understanding and basic knowledge of concepts and processes associated with the study of living organisms. The course will also provide opportunities to develop observational, analytical, problem solving, technical and report writing skills.

Learning Outcomes

Upon successful completion of this course you will be able to...

1. Recognize the basic biological concepts relating to environmental organisms and the relationships between these organisms

2. List the components and describe the organism relationships within an ecosystem

3. Define biological diversity, list classifications of speciation, explain Darwin\\\'s Theory of Evolution

4. List the components of plant and animal cells and explain how cells obtain energy. Annotate cell division diagrams

5. List components of plant tissues and describe the process of photosynthesis and tropism

6. Annotate diagrams of chromosome structure and mutations and complete a Punnet Square demonstrating Mendelian inheritance

7. Annotate diagrams of the structure and function of DNA and RNA and describe the process of protein synthesis

8. List the biological classes of microorganisms and explain how these can be harnessed for use in industrial applications

9. Demonstrate skills in data analysis, problem solving, and report writing.

10. Demonstrate safe and effective manipulative skills in the laboratory.

Texts and Supporting Materials

There is no set text for this course

Organisation and Teaching Strategies

The teaching and assessment portion of the semester is 14 weeks duration - inclusive. Lessons are usually provided in four (4) hour blocks during each of the first thirteen (13) weeks of semester. However, if classes are small, the sessions will be of three (3) hours duration.

For each of Weeks 1-13 you are expected to attend the entire teaching session. Each session will involve:

- Approximately two [2] hours will be spent each week in lectures. During this time concepts and techniques that need to be known to pass this course are presented and discussed.
- Approximately two [2] hours will be spent each week to support the class lectures. These may include tutorials involving problem solving, video analysis, set exercises, computer based research, laboratory classes.

Where class times conflict with Public Holidays, 'makeup' classes may be organised on a different day. Further time is made available for student consultation with the Lecturer each week [see Staff Consultation].

Class Contact Summary

Attendance:
Your attendance in class will be marked twice during a four hour class. To receive full attendance, you must be present in the classroom on both occasions.

Participation in Class:
During classes each week you are expected to actively participate in exercises covering the current topic, and complete a worksheet at the end of each module for assessment.

Consultation Times:
Attendance during consultation times is optional but you are encouraged to use this extra help to improve your learning outcomes.

Lecture Notes & Course Materials:
You are required to bring a copy of the lecture notes printed from the Griffith College website to classes each week. Before attending classes each week you are also expected to prepare by pre-reading the lecture notes and attempting any given exercises.

Independent Learning:
Throughout this course you will be encouraged to take personal responsibility for managing your own learning and your own time. In addition to the 4 hours of contact time, another 6-7 hours minimum per week is required in undertaking learning and project activities related to this course.

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].

Content Schedule

Mount Gravatt students - BIO001A Labs at Nathan campus

Lab safety lecture in Week 1 and on-line safety tests in Week 1.
Students cannot enter labs unless on-line safety tests have been completed.

Labs for this course will only be on Fridays 10:00am to 12:00pm in weeks 2, 3 & 4 in room N34_2.10 (Nathan campus).

Weekly Teaching Schedule

Week	Topic	Activity	Readings
1	BIO001A Biology Introduction	Lecture	
	Ecology and Microbes	Lecture	
2	Structure of Ecosystems	Lecture	
	Research Assignment Topics chosen	Tutorial	
	Worksheet for assessment	Assessment	
3	Diversity and Evolution	Lecture	
	Laboratory Safety	Tutorial	
4	Diversity and Evolution	Class	
	Worksheet for assessment	Assessment	

5	Cell Biology and Cellular Processes	Class	
6	Cell Biology and Cellular Processes	Class	
	Worksheet for assessment	Assessment	
7	Plant Physiology	Class	
	Worksheet for assessment	Assessment	
8	Genetics	Class	
	Mid-Semester Exam (30%)	Assessment	
9	Genetics	Class	
	Worksheet for assessment	Assessment	
10	Genetics	Class	
	Assignment (10%)	Assessment	
	Worksheet for assessment	Assessment	
11	Introduction to Microbiology	Class	
	Laboratory report due (10%)	Assessment	
12	Introduction to Microbiology	Class	
	Worksheet for assessment	Assessment	
13	REVISION	Class	

Assessment

This section sets out the assessment requirements for this course.

Summary of Assessment

Item	Assessment Task	Weighting	Relevant Learning Outcomes	Due Date
1	Individual Research Assignment	10%	1,8,9	10
2	Take Home laboratory report	10%	1,4,5,9,10	7
3	Mid-Semester Exam	30%	1,2,3,4,9	8
4	Classwork Participation	10%	1,8,9	2, 4, 6, 7, 9, 10 & 12
5	Final Exam	40%	5,6,7,8,9	14

Assessment Details

You will be required to complete the following assessment throughout the semester:

Note: All assessment undertaken within this course is to be completed individually.

Mid-Semester Exam (30%)
This test is conducted in week 8 of semester and will assess your understanding of various biological terms, concepts and processes up to and including week 6 of semester(Cell Biology & Cellular Processes) . Contents include week 1 to 6 materials.

Individual Research Assignment (10%) This assignment must be submitted in week 10 of semester and involves accessing and comparing scientific research on the topics you have chosen to do research on. This helps you to understand and practice the process of scientific journal/report writing.

Classwork and Participation (10%)
You will be required to complete a worksheet the topics covered in each module during class time in weeks 2, 4, 6, 7, 9, 10 & 12.

Laboratory Report (10%)
The laboratory report is to be given out in a laboratory session and you will have a week to finalise your laboratory results and findings and complete your lab report and submit in week 12 .

Final Exam (40%)
The final exam for this course in week 14 will assess your understanding of topics covered from week 7 (Plant Physiology) to week 12 of semester.

Submission and Return of Assessment Items

Normally you will be able to access your results within fourteen [14] days of the due date for submission of the assignment. ALL assessment submitted in this course must be retained by Griffith College as directed by the Australian Skills Quality Authority (ASQA) made under section 28 (1) of the National Vocational Education and Training Regulator Act 2011.

Retention of Originals

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

Extensions

To apply for an extension of time for an assignment, 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 Medical Certificate]. Please refer to the Griffith College website - Policy Library - for guidelines regarding extensions and deferred assessment.

Assessment Feedback

Marks awarded for assessment items will also be available on the on-line grades system on the Student Website within fourteen [14] days of the due date.

Generic Skills

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	Taught	Practised	Assessed
Written Communication	Yes	Yes	Yes
Oral Communication	Yes	Yes	Yes
Information Literacy	Yes	Yes	Yes
Secondary Research	Yes	Yes	Yes
Critical and Innovative Thinking	Yes		Yes
Academic Integrity	Yes	Yes	Yes
Self Directed Learning	Yes	Yes	
Team Work	Yes	Yes	
Cultural Intelligence	Yes	Yes	
English Language Proficiency	Yes	Yes	Yes

Additional Course Generic Skills

Additional Course Information

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, pre-meditated 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 lecturers, tutors and academic 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.

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 Academic Integrity Policy on the Griffith College website – Policy Library.

Risk Assessment Statement

This course follows Griffith College and Griffith University Workplace Health and Safety Laboratory guidelines.

The aim of workplace health and safety is to make sure that people do not get sick or injured at the workplace. The legislation dealing with this in Queensland is called the Workplace Health and Safety Act, 1995. Anyone who can affect workplace health and safety has an obligation under this Act.

As a student, you have an obligation to yourself and others to undertake activities in a safe manner. You must follow instructions which are provided for safety. You must not put yourself or anyone else at risk. Care especially needs to be taken when you are performing activities which can affect others.

Note: For all Diploma level programs, Griffith College acknowledges content derived from Griffith University.