



1. General Course Information

1.1 Course Details

Course Code:	1014MSC
Course Name:	Cells, Tissues and Regulation
Trimester:	2, 2020
Program:	Diploma of Health Science
Credit Points:	10
Course Coordinator:	Dr Michael Hahn
Document modified:	25/5/2020

Course Description

Cells, Tissues and Regulation is a 10 Credit Point course within the first trimester of the Diploma of Health Science. The Diploma of Health Science is designed to provide students with a pathway to:

- * further university studies in the Health Sciences, or
- * direct employment.

This course describes the functions of cells and the features of the different tissues they form. In addition, how cells and tissues are regulated by cell-to-cell communication within the nervous and endocrine systems to control variables such as body temperature, blood glucose levels and blood pressure to maintain the body's internal balance (homeostasis) is investigated. The importance of microbiology and the mechanisms by which microbes can produce sicknesses, disrupting body homeostasis is also described. The material covered in this course will provide background knowledge that will assist in the understanding of topics covered in the Anatomy and Physiology courses in all trimesters.

Assumed Knowledge

There is no assumed knowledge for this course

1.2 Teaching Team

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

Name	Email
Dr Michael Hahn	Michael.hahn@staff.griffithcollege.edu.au

1.3 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 "Support and Services/Teacher Consultation Times" link.

1.4 Timetable

Your timetable is available on the Griffith College Portal 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

Using a variety of resources and teaching methods including online powerpoint presentations, videos, pre recorded lectures, online/recorded laboratory related demonstrations/simulations and online/recorded tutorials the aim of this course is to provide students with the necessary tools to develop a strong knowledge base in cells, tissues and regulation. Students will gain knowledge of various laboratory techniques, and develop competence in team work and problem solving in the group setting. With respect to the content this course aims to allow students upon completion to be able to:

- * discuss the cellular basis of life
- * to describe how the human body is constructed, beginning with cells types and how these form tissues
- * to provide an overview of how tissues provide the functional framework for the rest of the body and to cover, in some detail, the control systems which allow cells and tissues to communicate to maintain homeostasis within the body.

Cells Tissues and Regulation is one of eight courses delivered in the Diploma of Health Sciences which provides a foundation for entry into a wide range of other programs and fields of study, from microbiology and molecular genetics to biochemistry, pharmacy, physiotherapy, dentistry and medicine.



2.2 Learning Outcomes

After successfully completing this course you should be able to:

1. Discuss the cellular basis of life, including the structure and function of the components of the 2 main cell types, Prokaryotes and Eukaryotes.
2. Describe the fundamentals of human body construction with respect to the different tissues and fluid compartments of the human body.
3. Outline the principles of cell-cell communication in the nervous and endocrine systems.
4. Understand how homeostasis is maintained in the human body.

5. In a group setting design a poster presentation based on the experimental research carried out by an Australian medical researcher.
6. Demonstrate knowledge of a number of different laboratory related techniques including use of a light microscope and the gram stain.









2.3 Generic Skills and Capabilities

For further details on the Generic Skills please refer to the Graduate Generic Skills and Capabilities policy.

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		✓	✓	✓
Communication and collaboration		✓	✓	✓
Self-directed and active learning		✓	✓	
Creative and future thinking			✓	✓
Social responsibility and ethical awareness			✓	✓
Cultural competence and awareness in a culturally diverse environment			✓	



3. Learning Resources

3.1 Required Learning Resources

Powerpoint presentations, video links, revision questions and answers, laboratory demonstrations/simulations manual, links to online quizzes together with advice and/or links to study skill assistance etc will be included on the course site on Griffith College's Student Portal.

Marieb E. N., Hoehn K. N. (2016). Human Anatomy & Physiology, Global Edition. [9781292100425]: Pearson Education Limited.

The online version for the above textbook can be found at <https://www.pearson.com.au/9781292260938>

Marieb E. N. and Mitchell S. J. (2015) Laboratory Manual for Foundation year health (Custom edition), . [9781488609954]: Pearson Education, Limited.

3.2 Recommended Learning Resources

No further resources needed.

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.

[Digital Library](#) – 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 Portal.

[Academic Integrity Tutorial](#) - this tutorial helps students to understand what academic integrity is and why it matters. You will be able to identify types of breaches of academic integrity, understand what skills you will need in order to maintain academic integrity, and learn about the processes of referencing styles.

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.

Jobs and Employment in the [Student Hub](#) can assist students with career direction, resume and interview preparation, job search tips, and more.

[IT Support](#) 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 lecturer or tutor'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 Portal. The learning materials are arranged in Modules. In each Module you will find the learning content, learning activities and learning

experiences. Actively working your way through these course learning materials together with your lecturer or tutor will prepare you to succeed when completing the evidence of learning (assessment).

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 lecturer or tutor. 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 lecturers and tutors. You are encouraged to provide your thoughts on the course and teaching, both positive and critical, directly to your lecturer and tutor or by completing course and lecturer evaluations via Griffith College's evaluation tool whenever these are available.



4. Learning Content, Learning Activities and Learning Experiences

When referring to the table below the type of learning content, activities and experiences shown in Week 1 are similar for each following week but specific for each different topic. Additional activities or experiences are indicated. LO refers to Learning Outcome.

4.1 Modules for Learning and Weekly Learning Content, Learning Activities and Learning Experience





WEEK	Learning Content 	Learning activities 	Learning experiences 	Evidence of learning 	LO
Module 1: The Cellular Basis of Life					
1	Structure and Function of Cells: Powerpoint presentation, summary, revision questions and answers available at the completion of this topic	Watch Videos on Cell Structure and Transcription and Translation Answer Structure and Function of Cells revision questions Complete exercise on transcription and translation	Course introduction Feedback on revision Question answers Laboratory 1 Demonstration/simulation - Introduction to Light Microscopy & Cell Diversity		1,6

2	Introduction to Microbiology		Laboratory 2 Demonstration/simulation – Introduction to Microbiology		1,6
Module 2 : Tissues and Body Compartments					
3	From cells to tissues	Watch Video on Tissues	Laboratory 3 Demonstration/simulation – Tissues	Module 1 moodle online quiz	2,6
4	The Integumentary System				2
5	Diffusion, Osmosis and Active Transport	Watch Video on Body Fluids Complete group contract exercise for Research Assessment Complete Practice Midsem	Presentation on how to successfully complete Research assignment Laboratory 4 Demonstration/simulation – Osmosis Feedback on practice midsem exam answers		2,5,6
Module 3 : How do cells talk to each other? Nervous and endocrine system.					
6	Structure of the neuron, the resting membrane potential			Midtrimester Exam	3
7	The action potential				3
8	Synapses	Kahoot quiz Nervous System	Students present research project drafts and receive feedback/instruction on how to improve their draft before final submission		3,5
9	Endocrinology	Kahoot quiz Endocrinology			
Module 4 : Homeostasis.					
10	Principles of Homeostasis	Complete Poster Research Project		Module 3 moodle online quiz Research Project	4
11	Physiological examples of Homeostasis				4
12	Physiological examples of Homeostasis	Complete Practice Final exam	Practice Final exam feedback		4
	Exam Week			Final Exam	4



5. Evidence of Learning (Assessment Plan)

5.1 Evidence of Learning Summary

	 Evidence of learning	 Weighting	 Learning outcome	 Due Date
1	Multiple choice Module 1 quiz	10%	1	Week 3
2	Mid trimester examination	20%	2	Week 6
3	Laboratory demonstration/simulation quiz	15%	6	Last Laboratory demonstration/simulation session
4	Module 3 quiz	20 %	3	Week 10
5	Research project	15%	5	Week 11
6	Final examination	20%	4	Final Exam period

5.2 Evidence of Learning Task Detail

1. Mid-trimester exam, Final Exam and Module quizzes

Rationale: Each individual quiz is designed to assess the knowledge and understanding of the core concepts covered in each particular module.

Assessment strategy: Each quiz may contain multiple choice and/or short answer questions as well as problem solving activities and analysis of experiments.

Marking criteria: Answers to multiple choice questions and comparison with model short question answers.

2. Research project:

Rationale: Students are to design a poster presentation in a group setting based on the experimental research carried out by an Australian medical researcher. This assessment is aimed at developing research and referencing skills and the capacity to work in a cohesive group. The research project is designed to introduce students to scientific research and the role it plays in the creation of original knowledge. Details of the marking criteria will be available on the student portal.

Marking criteria: Staff assessed as per the marking criteria mentioned above.

3. Laboratory demonstration/simulation online moodle quiz

Rationale: to assess student knowledge of a number of basic laboratory techniques and ability to evaluate laboratory data.

Assessment strategy: This quiz may contain multiple choice and/or short answer questions as well as problem solving activities and analysis of experiments.

Material and skills that will be assessed will likely include: operation of the light microscope, Identification of bacteria and histological sections, concepts associated with osmolarity

Marking criteria: Answers to multiple choice questions and comparison with model short question answers.

5.3 Late Submission

An evidence of learning (assessment) item 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 assessment item by 5% of the maximum mark applicable for the assessment item, for each working day or part working day that the item is late. Evidence of learning items submitted more than five working days after the due date are awarded zero marks.

Please refer to the Griffith College website - Policy Library > Assessment Policy 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. Copies should be retained until after the release of final results for the course.

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

1. Marks awarded for in-trimester evidence of learning items, 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 item in this course (marks for this item 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 exam papers after student grades have been published. Review of final exam papers will not be permitted after the final date to enrol.
3. Marks for **all** evidence of learning items 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 particular courses, so you need to wait for the official release of grades to be sure of your grade for this course.

6. Policies & Guidelines

Griffith College assessment-related policies can be found in the [Griffith College Policy Library](#) which include the following policies:

Assessment Policy, Special Consideration, Deferred Assessment, Alternate Exam Sitting, Medical Certificates, Academic Integrity, Finalisation of Results, Review of Marks, Moderation of Assessment, Turn-it-in Software Use. These policies can be accessed using the 'Document Search' feature 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, 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.

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 Disability Services policy (accessed using the Document Search' feature with the [Policy Library](#)) 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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