



1. General Course Information

1.1 Course Details

Course Code:	1014MSC
Course Name:	Cells, Tissues and Regulation
Trimester:	1, 2023
Program:	Diploma of Health Science
Credit Points:	10
Course Coordinator:	Dr Michael Hahn
Document modified:	1/03/2023

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 that will follow this course.

Assumed Knowledge

There is no assumed knowledge for this course

1.2 Teaching Team

Your teacher 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 teacher is available each week for consultation outside of normal class times. Times that your teacher will be available for consultation will be given in the first week of learning experiences. A list of times will be published on the Griffith College Portal on the course site.

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 such as laptop or tablet (mobile phones are not suitable). In addition, up-to-date browser access, a reliable high-speed internet connection with enough upload and download capacity, a webcam and headset including microphone are needed.

2. Aims, Outcomes & Generic Skills

2.1 Course Aims

Using a variety of resources and teaching methods including online PowerPoint presentations, videos, laboratory related activities/demonstrations and face to face lectorials 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 team 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 team 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 Graduate Capabilities and Employability Skills

For further details on the Graduate Capabilities and Employability Skills please refer to the [Graduate Generic Skills and Capabilities policy](#).

Griffith College is committed to producing graduates who are able to demonstrate progress toward the development of a number of generic skills / capabilities that will allow them to successfully continue their studies at the tertiary level. This set of skills includes employability related skills that will ensure graduates are capable in the workplace of the future.

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

Graduate Capabilities and Employability Skills			Focus within this course
Interacting with People	Teamwork		✓
	Communication		✓
	Respect for Culture and Diversity		✓
Readiness for the Workplace	Problem Solving		✓
	Planning and Organisation		✓
	Creativity and Future Thinking		✓



3. Learning Resources

3.1 Required Learning Resources

PowerPoint presentations, video links, revision questions and answers, laboratory activity/demonstrations manual, links to online quizzes, recordings of face to face learning experiences 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. (2018). Human Anatomy & Physiology, Global Edition. [9781292260853]
: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.

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 weighted Epigeum 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.

[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

Preparation and Participation in Learning

You need to prepare before attending your scheduled Learning Experience (In Class). Work through the Learning Content (Before Class) prepared by your teacher which is found on the course site. Make sure you complete the Learning Activities (After Class) set each week. 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.

Attendance

You are expected to actively engage in all learning experiences 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.

Laboratories: Four two-hour sessions throughout the trimester. These practical sessions provide learning activities that are essential to learning outcomes in the course. Students will work in small groups to conduct experiments and develop problem solving skills. The laboratory course will include the following topics:

- o Compulsory Laboratory Introduction /Induction and Light Microscopy
- o Tissues
- o Osmolarity and tonicity
- o Introduction to microbiology

With the laboratory timetable made available on the Griffith College student portal.

PLEASE NOTE: ATTENDANCE AT LABORATORY SESSIONS IS COMPULSORY. Non-attendance at a laboratory session must be reported to the course convenor within 3 working days with appropriate supporting evidence. Students who miss laboratory sessions and do not report their absence will not be allowed to sit the laboratory quiz and therefore will not be able to successfully complete the course.

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 the course site. The learning materials are arranged in Modules. In each Module you will find Learning Content (Before Class), Learning Experiences (In Class) and Learning Activities (After Class). **Learning Content (Before Class)** will be engaged with prior to the scheduled **Learning Experience (In Class)**. This will ensure you are prepared for the scheduled Learning Experience (In Class) by being aware of the content to be covered and therefore will be able to actively participate in the session. **Learning Activities (After Class)** are accessed after the scheduled session for purposes of review, consolidation of learning, and preparation for the Evidence of Learning Tasks (Assessments) in the course.

In addition, **Missed Class** learning material is provided in the course, providing support, interactive tools and directions for students who occasionally cannot attend the weekly scheduled Learning Experience (In Class) perhaps due to illness or other commitments. The Missed Class learning material should also be used in conjunction with Learning Content (Before Class) and Learning Activities (After Class) resources.

Self-Directed Learning

You will be expected to learn independently. This means you must organise and engage with the course Learning Content (Before Class) even when you are not specifically asked to do so by your teacher. The weekly guide (below) will be helpful to organise your learning. This involves revising the weekly Learning Content (Before Class) and completing the Learning Activities (After Class). It also means you will need to find additional information to evidence your learning 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%, students are engaged in their learning 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 teachers. 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.



4. Weekly Guide: Learning Content, Learning Experiences and Learning Activities

The information below lays out how your learning will be organised throughout the trimester.

When referring to the table below the type of learning content, experiences and activities 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. Learning experiences will also include 4 laboratory classes and when these are timetabled will be available on the course portal.

Week	Learning Content (Before Class)	Learning Experiences (In Class)	Learning Activities (After Class)	Evidence of Learning (Assessment)	LO
					
Module 1: The Cellular Basis of Life					
1	Structure and Function of Cells: Interactive online presentation, containing week 1 content, summary, self-paced quiz and learning objectives.	Course introduction Feedback on questions raised in week 1 presentation and Self-paced quiz	Complete questions raised in week 1 material, create your own summary, complete the self-paced quiz and make some notes on the learning objectives.		1,6
2	Introduction to Microbiology				1,6
Module 2: Tissues and Body Compartments					
3	From cells to tissues			Module 1 Moodle quiz	2,6
4	The Integumentary System				2
5	Diffusion, Osmosis and Active Transport	Presentation on how to successfully complete Research assignment Feedback on practice Mid trimester exam answers	Complete team contract exercise for Research Assessment Complete Practice Mid trimester		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			Mid trimester Exam	3
7	The action potential				3
8	Synapses	Students present research project drafts and receive feedback/instruction on how to improve their draft before final submission	Kahoot quiz Nervous System		3,5
9	Endocrinology		Kahoot quiz Endocrinology		





Module 4: Homeostasis.					
10	Principles of Homeostasis		Complete Poster Research Project	Module 3 Moodlequiz	4
11	Physiological examples of Homeostasis			Research Project	4
12	Physiological examples of Homeostasis	Practice Final exam feedback	Complete Practice Final exam		4
	Exam Week			Final Exam	4



5. Evidence of Learning (Assessment)

5.1 Evidence of Learning Summary

Please note that web applications such as ChatGPT, Google, Google Translate, Grammarly and Youdao (or equivalent services) are not permitted for assessment creation, translation, or extensive language assistance purposes. Wikipedia, and Baidu, Weibo and WeTalk are not permitted to be used.

	 Evidence of Learning (Assessment)	 Weighting	 Learning Outcome	 Due Date
1	Module 1 quiz	10% (7 % - exam, 3% - practice exam)	1	Week 3
2	Mid trimester examination	20% (16 % - exam, 4% - practice exam)	2	Week 6
3	Laboratory activity/ demonstration quiz	15%	6	TBA
4	Module 3 quiz	20% (16 % - exam, 4% - practice exam)	3	Week 10
5	Research project	15%	5	Week 11
6	Final examination	20% (16 % - exam, 4% - practice exam)	4	Final Exam period

5.2 Evidence of Learning Task Detail

(Please note for each quiz described below, details of exam component is provided only. Details of practice exam will be provided throughout the course)

1.Evidence of Learning Task 1: Module 1 Quiz 10% (7% exam, 3% practice exam)

Task Type: Examination

Due Date: Week 3

Weight: 7%, Marked out of 23

Length: 20 minutes

Quiz Type: Closed book, Invigilated

Task Description: Quiz is closed book and is designed to assess the knowledge and understanding of the core concepts covered in module 1. Quiz consists of 20 multiple choice questions

Criteria and Marking: Correct answers to multiple choice questions

Quiz Format: Online quiz

2.Evidence of Learning Task 2: Mid Trimester Examination 20% (16% exam, 4% practice exam)

Task Type: Examination

Due Date: Week 6

Weight: 16%, Marked out of 30

Length: 45 minutes

Exam Type: Closed book, Invigilated

Task Description: closed book exam designed to assess the knowledge and understanding of the core concepts covered in module 2. Quiz consists of 15 multiple choice questions and 3 short answer questions.

Criteria and Marking: Correct answers to multiple choice questions and comparison with model short answers question responses.

Exam Format: Online exam

3.Evidence of Learning Task 3: Laboratory Activity/demonstration Quiz 15%

Task Type: Quizzes

Due Date: TBA after final lab is completed

Weight: 15%, Marked out of 18

Length: 25 minutes

Quiz Type: Closed book, Invigilated

Task Description: a closed book quizzes designed to assess student knowledge of a number of basic laboratory techniques and ability to evaluate laboratory data. Quiz consists of 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

Criteria and Marking: Correct answers to multiple choice questions and comparison with model short answers question responses.

Quiz Format: Online quizzes

4.Evidence of Learning Task 4: Module 3 Quiz 20% (16% exam, 4% practice exam)

Task Type: Quiz

Due Date: Week 10

Weight: 16%, Marked out of 30

Length: 45 minutes

Quiz Type: Closed book, Invigilated

Task Description: Quiz is a closed book and designed to assess the knowledge and understanding of the core concepts covered in module 3. Quiz consists of 15 multiple choice questions and 3 short answer questions.

Criteria and Marking: Correct answers to multiple choice questions and comparison with model short answers question responses.

Quiz Format: Online quiz/exam

5.Evidence of Learning Task 5: Research Project 15%

Task Type: Assignment – Written Assignment

Due Date: Week 11

Weight: 15%, Marked out of 50

Length: Not Applicable

Task Description: Students are to design a poster presentation in a team setting based on the experimental research carried out by an Australian medical researcher. This task is aimed at developing research and referencing skills and the capacity to work in a cohesive team. 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.

Criteria and Marking: Assessments are graded against a set of marking criteria which is available to students on the portal.

Submission: Directly to course coordinator

6.Evidence of Learning Task 6: Final Examination 20% (16% exam, 4% practice exam)

Task Type: Examination

Due Date: Examination week 13

Weight: 16%, Marked out of 30

Length: 45 minutes

Quiz Type: Closed book, Invigilated

Task Description: Quiz is a closed book exam and is designed to assess the knowledge and understanding of the core concepts covered in module 4. Quiz consists of 15 multiple choice questions and 3 short answer questions.

Criteria and Marking: Correct answers to multiple choice questions and comparison with model short answers question responses.

Exam Format: On Campus

IMPORTANT NOTE: In order to pass this course students must:

- 1. attend and attempt all evidence of learning tasks; AND**
- 2. obtain at least 40% in the final examination, AND**
- 3. achieve an overall course result (sum of all evidence of learning) of 50%.**

5.3 Late Submission

An Evidence of Learning Task submitted after the due date, without an approved extension from the teacher, 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 Evidence of Learning Task, for each calendar day that the task is late. Evidence of learning tasks submitted more than seven calendar 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 Tasks

1. 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 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 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 tasks 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 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, 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 teachers 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 Evidence of Learning Task – The Disability Services policy

The [Disability Services policy](#) (accessed within the [Policy Library](#)) outlines the principles and processes that guide the College in making reasonable adjustments to evidence of learning tasks 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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