



Course Code:	1016MSC
Course Name:	Anatomy & Physiology Systems 1
Trimester:	Trimester 3, 2017
Program:	Diploma of Health Sciences
Credit Points:	10
Course Coordinator:	Dr Nassim Saremi
Document modified:	27 September 2017

### Teaching Team

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

Name	Email
Dr Nassim Saremi	<a href="mailto:Nassim.Saremi@staff.griffithcollege.edu.au">Nassim.Saremi@staff.griffithcollege.edu.au</a>

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### 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.

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## **Prerequisites**

There are no prerequisites for this course

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## **Brief Course Description**

Anatomy & Physiology Systems I is a 10 Credit Point course situated 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.

A number of major body systems will be covered within Anatomy & Physiology Systems I, integrating anatomy with physiology. This course includes lectures and laboratory experiences in the study of the musculoskeletal system, nervous system, endocrine and reproductive systems, it will provide foundational knowledge for students destined to undertake advanced studies in anatomy and physiology, and will develop analytical laboratory skills.

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## **Rationale**

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## **Aims**

Anatomy & Physiology Systems I aims to help students build up a working knowledge of the developmental, histological, anatomical and physiological functions of the 4 above-mentioned human body systems. Clinical relevant discussions of each system will also be incorporated into the course. Students are required to integrate information from both lectures and practical classes of each system studied.

This course, and Anatomy & Physiology Systems II, which is delivered in the second trimester of the Diploma program, aims to provide a solid foundation of anatomy and physiology knowledge onto which future studies in the fields of medicine, oral health and dentistry, pharmacy, exercise science and biomedical science can be built. It also aims to enthuse students about the wonders of the human body and induct them into the world of Health.

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## **Learning Outcomes**

After successfully completing this course you should be able to:

1. correctly use anatomical and physiological terms as they relate to the human body;
  2. identify and describe the major structures and organization of the musculoskeletal system and the physiological basis of human movement;
  3. identify and describe the anatomical and physiological attributes of the central, peripheral and autonomic nervous systems;
  4. identify and understand the function of major peripheral nerves;
  5. demonstrate understanding of the physiological basis of various reflex responses;
  6. identify the anatomical features and physiological functions of the major organs of the endocrine system; specifically the thyroid and adrenal glands;
  7. identify the anatomical structure and physiological functions of the components of the special senses i.e. vision, audition, olfaction, gestation;
  8. identify the anatomical features and the physiological function of the major organs of the male and female reproductive systems;
  9. demonstrate understanding of anatomical & physiological attributes of pregnancy & foetal development;
  10. demonstrate competency in laboratory procedures including animal dissection, microscopy, human and animal tissue handling, and identification of anatomical structures on human cadaveric material
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## **Texts and Supporting Materials**

### **Required Texts:**

Marieb E. N., Hoehn K. N. and MyiLibrary (2016). *Human Anatomy & Physiology, Global Edition*. [S.l.]: Pearson Education Limited.

Available at:

<http://libraryproxy.griffith.edu.au/login?url=http://lib.myilibrary.com?ID=803991>.

Marieb E. N., Mitchell S. J. and Zao P. Z. (2014) *Human anatomy & physiology laboratory manual*. Boston: Pearson.

### **Laboratory Kit / Laboratory Coat**

It is compulsory for Diploma of Health Science students to purchase laboratory kits and

laboratory coats. These are Available from the campus Science Store (G24 Glycomics Building).

**Student laboratory kits include:** timer, marker pen and safety glasses. Please Note: It is only necessary to purchase one set of laboratory support materials for use across your Diploma program.

Laboratory Rules document available on the course site via the Griffith College Student Portal.

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## Organisation and Teaching Strategies

The course is taught through lectures, workshops and laboratory classes. Comprehensive lecture notes will be available on the course site on the Griffith College Student Portal.

In order to encourage deep learning, your lecturer will choose specific structures or mechanisms to cover in depth. Where applicable, clinical case studies will be used to illustrate/develop concepts, and encourage knowledge transfer to real-life situations. Workshops are conducted each week to discuss, in greater detail, questions related to the lecture material.

## Class Contact Summary

**\*Lectures:** 3 hours per week (week 1 - 12).

**\*Workshops:** 1 hour per week (week 1 - 12)

**\*Laboratories:** 5 x 3 hour laboratory sessions (weeks 2, 4, 6, 10, 11).

**- Students will also be required to attend a lab session in weeks 8 & 12 to complete the Mid-trimester and Final Lab Examinations.**

### Laboratories

The laboratories are **COMPULSORY**. They run for a total of 3 hours each week as detailed above.

**Satisfactory completion** of laboratories will be required; details will be provided during the lab sessions. Lab marks will be allocated for the Mid Trimester Lab Exam in week 7 and Final Lab Exam in week 12. A medical certificate is required if a student fails to attend any laboratory session.

**IMPORTANT NOTE:** As human material will be used for some of the anatomy labs, respect for such human material is of utmost importance. Inappropriate behaviour in the laboratory class will not be tolerated and any offending students will be excluded from future laboratory classes.

**Students must review the Laboratory Safety requirements** prior to attending their first laboratory, and **comply with the dress and behaviour codes** as described; white laboratory coats and closed-in shoes are mandatory (please refer to the Laboratory Rules booklet available on the course website).

Forgetting to bring your Personal Protective Equipment (PPE) may result in exclusion from laboratories.

**Laboratory Coats** You may be excluded from laboratories if you forget your lab coat. If you forget your lab coat, you may purchase a disposable lab coat (\$5 cash only) from the Science Store (G24 Glycomics Building). The Science Store is open between 7.45am and 3.45pm Monday to Friday. Students are advised that classes will not be held up while students are organising the purchase of disposable laboratory coats.

**Please Note:** You will be excluded from the laboratory if you:

- \* wear inappropriate footwear, or
- \* forget your safety glasses.

**Timers / Marker Pens** Students are required to bring their own timers and marker pens to laboratories.

### **Attendance**

100% attendance is expected for all classes. You are reminded that your attendance in class will be marked for all elements. To receive full attendance, you must be present in the classroom on all occasions.

You are expected to bring work done at home to class for group and individual discussion. Further development of ideas is expected during workshop time.

### **Preparation and Participation in Class**

You are expected to read your text book and the lecture notes plus attempt any workshop exercises before class so that each week you can actively contribute to your learning and the learning of others in your classes. You are expected to ask and answer questions and to initiate discussions and stimulate debate in group and class situations.

### **Consultation Times**

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

### **Course Materials**

Lecture notes will be made available to you on the Learning @ Griffith College website and you are advised to print these out and bring them to each class so that extra notes can be added.

### **Independent Study**

Independent study requires that you spend time outside classes engaged in research necessary to complete your assignments. Research includes reading the required text books, using library and internet facilities. For this 10 CP course, you will need to spend at least 10 hours per week engaged in activities that will help your learning and fulfil the course objectives. Thus, provided you have well used the formal contact hours each week, you would then

complete any remaining hours engaged in independent study.

### 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 in any trimester [please see Griffith College Policy Library - Program Progression Policy - for more information].

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### Content Schedule

Details of laboratory aims and activities can be found in the Anatomy and Physiology Systems I Laboratory Notes booklet available on the course website.

### Weekly Teaching Schedule

Week	Topic	Activity	Readings
	Classification and review of bone function	Lecture	Lab Manual (pp1-48); Marieb (Chapt 6 & 7) Lab Notes & Guide
	Features & functions of the axial skeleton	Lecture	
	Features & functions of the axial skeleton 2	Lecture	
	Introduction to course and assessment	Workshop	
	Bone/Skeletal System	Workshop	
	Features & functions of the appendicular skeleton	Lecture	Lab Manual (pp49-86); Marieb (Ch 7 & 8)
	Joints	Lecture	
	Details of knee, shoulder & hip	Lecture	
	Anatomy overview and skeletal system (lab 1)	Laboratory	Lab Manual (pp49-86); Marieb (Ch 7 & 8)
	Joints	Workshop	
	Anatomy overview and skeletal system	Laboratory	
	Muscle I - gross anatomy & naming	Lecture	Lab Manual (Ex 15); Marieb (CH 10); Lab notes/guide

	Muscle II - regional functional anatomy	Lecture	
	Muscle III - regional functional anatomy	Lecture	
	Muscle I	Workshop	
	Muscle IV - regional functional anatomy; Physiology of muscle contraction; Muscle contraction & smooth muscle	Lecture	Lab Manual (Ex 15); Marieb (Ch.9 & 10); lab Notes/Guide
	Musculoskeletal Joints	Laboratory	Lab Manual (Ex 15); Marieb (Ch.9 & 10); lab Notes/Guide
	Physiology of muscle contraction	Lecture	
	Muscle contraction & smooth muscle	Lecture	
	Muscle II	Workshop	
	Nervous system & nervous tissue	Lecture	Lab Manual (p.p 125-164); Marieb (Ch 11-12)
	Brain functional anatomy I	Lecture	
	Brain functional anatomy II	Lecture	
	Nervous System - Brain	Workshop	
	Mid-trimester exam	Exam	Based on week 1, 2, 3, and 4 materials
	Spinal Cord	Lecture	
	Nervous System CNS, PNS & ANS	Laboratory	Lab Manual (Ex 19,20) lab notes/guide
	Peripheral nervous system/reflexes/autonomic nervous system	Lecture	
	Cranial Nerves	Lecture	
	Nervous system - Spinal Cord/PNS	Workshop	
	Major nerves upper/lower limbs	Lecture	Lab manual (Ex 24); Marieb (Ch 15) lab Notes/Guide
	Eye & Vision I	Lecture	
	Eye & Vision II	Lecture	

	Special Senses I	Workshop	
	Ear, hearing & equilibrium	Lecture	Marieb (Ch 16) Lab notes/guide
	Ear, hearing & equilibrium	Lecture	
	Mid trimester lab exam	Laboratory	Based on labs 1,2 & 3
	Physiology of taste & olfaction	Lecture	
	Special Senses II	Workshop	
	Endocrine overview & hormone function	Lecture	Lab manual (Ex 19); Marieb (Ch 13, 14, 15) Lab notes/guide
	Pituitary & hypothalamus	Lecture	
	Structure & function of the Thyroid gland	Lecture	
	Endocrine System	Workshop	
	Structure and function of the adrenal gland	Lecture	Marieb (Ch 16 & 24); Lab notes/guide
	Endocrine control of metabolism I	Lecture	
	Endocrine control of metabolism II	Lecture	
	Endocrinology	Workshop	
	Special senses/bovine eye dissection	Laboratory	Lab manual (Ex 19); Marieb (Ch 13, 14, 15) Lab notes/guide
	Male reproductive system I	Lecture	Lab Manual (Ex42); Marieb (Ch 27) lab notes/guide
	Endocrine/reproductive	Laboratory	Lab manual (Ex 42); lab notes/guides
	Male reproductive system II	Lecture	
	Female reproductive system I	Lecture	
	Reproduction & Development I	Workshop	
	Female reproductive system II	Lecture	Lab Manual (Ex 42); Marieb (Ch 27); Lab notes/guide
	Final Lab Examination	Laboratory	



	Pregnancy and childbirth I	Lecture	
	Pregnancy and childbirth II	Lecture	
	Reproduction & Development II	Workshop	
	Revision	Workshop	
13, 14	Final Exam Block	Examination	

## Assessment

This section sets out the assessment requirements for this course.

### Summary of Assessment

Item	Assessment Task	Weighting	Relevant Learning Outcomes	Due Date
1	Mid trimester laboratory exam	10%	1,2,3,4,5,7,10	8
2	Mid trimester exam	25%	1,2&3	5
3	Final laboratory exam	15%	1-10	12
4	Final exam  - <i>Students must pass this assessment with a mark of at least 20 out of 50 to pass the course</i>	50%	1,3,4,5,6,7,8,9	Final Examination Period

## **Assessment Details**

### **1. Mid trimester lab exam**

Rationale: To test students practical knowledge of the material emphasized in the lab environment

Assessment details: The 20 minute lab exam will consist of 20 questions and will require the identification of anatomical structures on various models and specimens. The questions will be based on material covered during the first three laboratory sessions. It will be held during lab time in week 8.

Marking criteria: The lab quizzes will be marked against established marking criteria

### **2. Mid trimester exam**

Rationale: To assess students knowledge and understanding of the skeletal and muscular systems. Material covered is up to and including lecture 12 (end of week 4).

Assessment details: The mid trimester exam will be 1.5 hours long and will be scheduled outside of normal class times. The day, time and venue of the mid-trimester exam will be advised by week 3 of trimester.

Marking criteria: The mid trimester examination will be marked against an established answer guide and undergo a full moderation process.

### **3. Laboratory exam**

Rationale: To assess students ability to identify specific anatomical structures and relate physiological mechanisms.

Assessment details: The 30 minute laboratory exam will require the identification of anatomical structures on various models and specimens. The questions will be based on material covered in labs throughout the entire trimester with emphasis on material after the mid trimester lab exam. It will be held during lab time in week 12.

Marking criteria: The laboratory examination will be marked against an established answer guide.

### **4. Final examination**

Rationale: To assess students ability to clearly express in written form their knowledge and understanding of nervous system, special senses, endocrine system and reproductive systems. Exam will allow students to demonstrate their knowledge of content and critical thinking ability.

Assessment details: The final exam will be three hours long and will consist of multiple choice questions and written short/long answer questions. This exam will incorporate material from the entire trimester, but with greater emphasis on material covered after the mid-trimester exam.

Marking criteria: The final examination will be marked against established model answers and undergo a full moderation process.

## **Requirements to pass this course**

In order to pass this course and in addition to meeting the laboratory requirements, students must:

- 1. attend and attempt all assessment items, AND**
- 2. obtain at least 40% (20/50) in the Final examination, AND**
- 3. achieve an overall course grade (sum of all assessments) of 50%.**

## **Submission and Return of Assessment Items**

Normally you will be able to collect your assignments in class within fourteen [14] days of the due date for submission of the assignment.

## **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 assessment item you must submit a written request to your lecturer via the Student Website at least 48 hours before the date the assessment item 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. medical certificate]. Please refer to the Griffith College website - Policy Library - for guidelines regarding extensions and deferred assessment.

## **Penalties for late submission without an approved extension**

Penalties apply to assignments that are submitted after the due date without an approved extension. Assessment submitted after the due date will be penalised 10% of the TOTAL marks available for assessment (not the mark awarded) for each day the assessment is late. Assessment submitted more than five days late will be awarded a mark of zero (0) For example:

- > 5 minutes and <= 24 hours 10%
- > 24 hours and <= 48 hours 20%
- > 48 hours and <= 72 hours 30%
- > 72 hours and <= 96 hours 40%
- > 96 hours and <= 120 hours 50%
- > 120 hours 100%

Note:

- Two day weekends will count as one day in the calculation of a penalty for late submission.
- When a public holiday falls immediately before or after a weekend, the three days will count as one day in the calculation of a penalty for late submission.
- When two public holidays (e.g. Easter), fall immediately before or after, or one day either side of a weekend, the four days will count as two days in calculating the penalty for late submission.
- When a single public holiday falls mid-week, the day will not be counted towards the calculation of a penalty.

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

## **Assessment Feedback**

Your assessment will be marked so that you can learn from your work. Feedback will be provided so that you can see the level you have reached in any skill. Your tutor will give you comments on your work and will be happy to discuss your assessment further, if you wish. You may see your tutor in his/her consultation time.

Marks awarded for in-trimester assessment 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 piece of assessment in this course - marks for this item will be provided with the final course result.

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

### **Additional Course Generic Skills**

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### **Additional Course Information**

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 on the Griffith College portal whenever these are available.

Student feedback on their courses can be found by going to ‘Student Feedback’ under Support in the Griffith College Student Portal.

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### **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 a breach of academic integrity 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 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. Please refer to the Laboratory Rules document available on the course site via the Griffith College Student Portal.

**Students must wear closed in shoes to all laboratory sessions for workplace health and safety reasons.**

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