Course Code:	**1016MSC**
Course Name:	**Anatomy & Physiology Systems 1**
Semester:	**Semester 1, 2016**
Program:	Diploma of Health Sciences
Credit Points:	10
Course Coordinator:	Dr Nassim Saremi
Document modified:	23 Feb 2016 09:09:36

Teaching Team

Your lecturer/tutor can be contacted via the email system on the portal.	
Name	**Email**
Dr Nassim Saremi	
Phillip Bellinger	

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

Anatomy & Physiology Systems I is a 10 Credit Point course situated within the first semester 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.

Rationale

Aims

Anatomy & Physiology Systems I aims to help students build up a working knowledge of the developmental, histological, anatomical and physiological functions of the 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 semester 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.

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

---

Texts and Supporting Materials

Required Text:

Marieb, E.N. & Hoehn, K. (2014). *Human Anatomy and Physiology*(9th ed). San Francisco: Pearson Benjamin Cummings.

Marieb, E.N. & Mitchell, S. (2011). Anatomy and Physiology Laboratory Manual. San Francisco: Pearson Benjamin Cummings.9th Ed.

Printed laboratory guide and manual for Anatomy and Physiology Systems I.

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.

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 - 13).
***Workshops:** 1 hour per week (week 1 - 12)
***Laboratories:** 5 x 3 hour laboratory sessions (week 2, 3, 5, 9 & 13), 2 x 1 hour labs for the mid and final lab exams in weeks 8 & 13.

- *Students will also be required to attend a lab session in weeks 8 & 13 to complete the Lab Examinations.*

Laboratories

The laboratories are **COMPULSORY.** They run for a total of 3 hours each week in weeks2, 3, 5, 9 & 13. Shorter sessions are run in weeks 8 & 13 for the completion of the laboratory exam.

Satisfactory completion of laboratories will be required; details will be provided during the lab sessions. Lab marks will be allocated for the Mid Semester Exam in week 8 and Final Lab Exam in week 13. A medical certificate is required if a student fails to attend their 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 semester [please see Griffith College Policy Library - Program Progression Policy - for more information].

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
1	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	
	Anatomy overview and skeletal system	Laboratory	
2	Features & functions of the appendicular skeleton	Lecture	Lab Manual (pp49-86); Marieb (Ch 7 & 8)
	Joints	Lecture	
	Details of knee, shoulder & hip	Lecture	
	Joints	Workshop	
	Lab induction & anatomy overview and skeletal system (lab 1)	Laboratory	
	Anatomy overview and skeletal system	Laboratory	
3	Muscle I - gross anatomy & naming	Lecture	Lab Manual (Ex 15); Maried (CH 10); Lab notes/guide
	Muscle II - regional functional anatomy	Lecture	
	Muscle III - regional functional anatomy	Lecture	
	Muscle I	Workshop	
	Musculoskeletal Joints (lab2)	Laboratory	
4	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
	Physiology of muscle contraction	Lecture	
	Muscle contraction & smooth muscle	Lecture	
	Muscle II	Workshop	
5	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	
	Nervous System CNS, PNS & ANS (lab3)	Laboratory	Lab Manual (Ex 19,20) lab notes/guide
6			lab Manual (pp 125-169); Marieb (Ch 12. 13.

	Spinal Cord	Lecture	14) Lab Notes/guide
	Peripheral nervous system/reflexes/autonomic nervous system	Lecture	
	Cranial Nerves	Lecture	
	Nervous system - Spinal Cord/PNS	Workshop	
7	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	
	Nervous System CNS, PNS & ANS	Laboratory	Lab Manual (Ex 19,20) lab notes/guide
8	Ear, hearing & equilibrium	Lecture	Marieb (Ch 16) Lab notes/guide
	Ear, hearing & equilibrium	Lecture	
	Physiology of taste & olfaction	Lecture	
	Special Senses II	Workshop	
	Mid sem lab exam (lab4)	Laboratory	Based on labs 1, 2 & 3
9	Endocrine overview & hormone function	Lecture	Lab manal (Ex 19); Marieb (Ch 13, 14, 15) Lab notes/guide
	Pituitary & hypothalamus	Lecture	
	Structure & function of the Thyroid gland	Lecture	
	Endocrine System	Workshop	
	Special senses (lab 5)	Laboratory	Lab manual (Ex 19); Marieb (Ch 13, 14, 15) Lab notes/guide
10	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	
	Quiz at end of lab	Laboratory	
11	Male reproductive system I	Lecture	Lab Manual (Ex42); Marieb (Ch 27) lab notes/guide
	Male reproductive system II	Lecture	
	Female reproductive system I	Lecture	
	Reproduction & Development I	Workshop	
	Endocrine/reproductive	Laboratory	Lab manual (Ex 42); lab notes/guides
12	Female reproductive system II	Lecture	Lab Manual (Ex 42); Marieb (Ch 27); Lab notes/guide
	Pregnancy and childbirth I	Lecture	
	Pregnancy and childbirth II	Lecture	
	Reproduction & Development II	Workshop	
13	Revision	Lecture	
	Revision	Workshop	
	Endocrine/reproductive (lab 6)	Laboratory	Lab manual (Ex 42); lab notes/guides
	Final Lab Examination (lab7)	Laboratory	
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 semester laboratory exam	10%	1,2,3,4,5,7,10	8

2	Mid semester exam	25%	1,2&3	5
3	Final laboratory exam	15%	1-10	13
4	Final exam *- Students must pass this assessment with a mark of at least 20 out of 50 to pass the course*	50%	1,3,4,5,6,7,8,9	14

Assessment Details

1. Mid semester 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 semester 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 semester exam will be 1.5 hours long and will be scheduled outside of normal class times. The day, time and venue of the mid-semester exam will be advised by week 3 of semester.
Marking criteria: The mid semester 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 semester with emphasis on material after the mid semester lab exam. It will be held during lab time in week 13.
Marking criteria: The laboratory examination will be marked against an established answer guide.

4. End-of-semester 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 end-of-semester 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 semester, but with greater emphasis on material covered after the mid-semester exam.
Marking criteria: The end of semester 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 the mid-semester and end-of-semester examinations, AND
2. obtain at least 40% in the final (20/50), End of Semester exam, 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 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

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 assessment items will also be available on the on the Griffith College Student Portal within fourteen [14] of the due date for submission of the assessment.

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	
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

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.

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. 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.

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