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| Course Code:        | 1808NRS                       |
| Course Name:        | Human Anatomy & Physiology 2  |
| Trimester:          | Health Care Trimester 3, 2017 |
| Program:            | Diploma of Health Care        |
| Credit Points:      | 10                            |
| Course Coordinator: | Sarah Morgan Smith            |
| Document modified:  | 19 September 2017             |

#### Teaching Team

Sarah Morgan-Smith - Lecturer

Dr. Sue Parker – Tutorials & Laboratories

Dr. Phil Bellinger - Tutorials

Ramona Clarke - Tutorials

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

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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

This course builds on knowledge and skills obtained in 1805NRS Human Anatomy and Physiology 1. Students investigate the structure and function of the normal human body; the role of homeostasis in the maintenance of metabolism, normal body temperature, and fluid, electrolyte and acid base balance; and the relevance of such knowledge to the maintenance of human health.

Professional practice in a range of health disciplines is underpinned and informed by knowledge and understanding of the anatomy and physiology of the human body. This understanding assists with identification and interpretation of clinical changes.

Changes to the body across the lifespan are also explored. Core concepts are taught using an integrated and exploratory approach to facilitate the ability of students to transfer, assimilate and utilise knowledge gained in this course to other courses within their program, and to apply what they have learnt to nursing practice.

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## Rationale

This course addresses the generic skills of the Griffith College Graduate by enhancing the student’s ability to work autonomously and in teams, communicate effectively, problem solve as well as develop professional responsibility.

Sound knowledge and understanding of anatomy and physiology is essential for health care students. Firstly, it provides a foundation for applying skills used in health assessment. Secondly it enables the student to move seamlessly into the study of pathophysiology in subsequent human health and nursing studies.

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## Aims

The principal aim of this course is to build on students' knowledge and understanding of the normal anatomy and physiology of the human body and the relevance of such knowledge to the maintenance of health in order to inform effective health care practice.

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## Learning Outcomes

After successfully completing this course you should be able to:

1. Use appropriate terminology, identify the key anatomical structures and explain the key physiological functions of the following systems:
    - a. cardiovascular,
    - b. respiratory,
    - c. gastrointestinal system,
    - d. renal system,
    - e. reproductive including the processes of pregnancy, and human development;
  2. Explain the multi-factorial mechanisms that contribute to homeostasis including:
    - a. metabolism, b. temperature regulation, and c. fluid, electrolyte and acid-base balance; and
  3. Discuss the influence of homeostasis on human nutritional requirements and implications for diet and exercise.
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## Texts and Supporting Materials

O'Loughlin, V., Bidle, T., & McKinley, M. (2016). *Anatomy & Physiology: An Integrative Approach*. 2nd edition. New York: McGraw-Hill.

Human Anatomy & Physiology II Workbook will be located on the 1808NRS course website on the Griffith College Student Portal.

## Recommended Readings:

The DHC teaching team strongly recommends students use the on-line websites associated with the prescribed text.

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## Organisation and Teaching Strategies

The two main teaching and learning strategies are engagement and blended learning. Teaching methods will include a combination of face-to-face strategies: interactive lectures, laboratories and/or tutorials. Students are also encouraged to utilise web materials including designated self-directed activities and worksheets. The teaching methods have been designed to facilitate the development of a strong knowledge base in anatomy and physiology. Students will gain skills in team work and problem solving in the laboratory setting.

It is standard practice at Griffith College that lectures timetabled in lecture capture-enabled venues are recorded and made available to students on the relevant course site. Lecture Captured sessions are not intended as a substitute for a Lecture. Students are encouraged to attend the lectures in real time and use Lecture Capture as supplementary.

### *Class Contact Summary*

Classes for Human Anatomy and Physiology 2:

**Lectures:** 2 hours per week (weeks 1-10).

**Tutorials:** 1 hour per week (weeks 1-10) & Revision week 2 hours (week 11).

**Workshops:** 2 hours per week (week 1-10) – 1hr large group workshop/1hr small group workshop

**Laboratory:** 5 x 2 hours (Weeks 3, 5, 6, 7 & 8)

### **Attendance**

#### **ATTENDANCE AT LABORATORY CLASSES IS ESSENTIAL**

The laboratory component of the course introduces the students to kinaesthetic activities that students report are helpful to understanding complex biological concepts. Students must have completed the relevant workbook questions before attending each lab. **The Human Anatomy & Physiology II Workbook must be brought to each lab**, failure to have the relevant workbook may result in **exclusion from the lab**. Preparation of your workbooks are enhanced by completing weekly module worksheets, including online learning aids to suit students busy extracurricular lifestyle, whilst identifying areas that they need to work on to understand imperative concepts. Each of the module worksheets is supported with web-based materials see the Griffith College MyStudy site for this course.

If you are unable to attend a Lab for extenuating reasons you will be required to submit evidence explaining any absence (e.g. medical certificate). Students who miss a lab will be required to **complete the relevant workbook section** in their own time and have it checked and signed off by their tutor, before the next consecutive lab.

A maximum of one laboratory session may be missed (with documentary evidence). If more than one lab session is missed, consultation with the Course Convenor and/or Program Convenor will be required to determine if it is appropriate for you to continue in the course.

Students will work in small groups to analyse experiments and develop problem solving

skills. Content covered in the laboratories will be assessed within the intra semester and final examinations. An attendance roll will be maintained for all lab classes. Students are expected to attend their scheduled laboratory class, punctuality is important.

Health and safety regulations stipulate that students **MUST WEAR COMPLETELY CLOSED-IN SHOES AND LABORATORY COATS TO ALL LABORATORIES.**

Students will not be permitted to enter a laboratory with open footwear (sandals, toeless or backless shoes). If you fail to follow the health and safety instructions within the lab you may be excluded from the laboratory session.

Students must complete the on-line modules for workplace health and safety for Griffith University labs and submit the certificate of completion for "Student Basic Health & Safety Induction" and "Health Lab Induction" before the first laboratory session. Students may be required to bring their prescribed textbook and laboratory workbook to laboratories. Information regarding the Human Anatomy & Physiology workbooks will be provided on the course site, and in the first lecture.

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

You are expected to complete your readings and review the lecture notes plus complete Module Worksheet activities prior to class so that each week you can actively contribute to your learning. 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 and students are encouraged to use this extra help to enable you to meet the stated learning outcomes.

### **Course Materials**

Lecture notes will be made available to you on the 1808NRS MyStudy website and you are encouraged to print these out and bring them to each class so that extra notes can be added. All drawings completed during the lecture will be uploaded to the 1808NRS MyStudy website.

### **Independent Study**

Independent study requires that you spend time outside classes engaged in learning necessary to acquire the knowledge, skills and attitudes needed to both achieve the learning outcomes and complete your assignments. Independent study 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 study both timetabled classes and independent study.

### **Program Progression**

Students 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 (Australian students) or equal to or greater than 4.0 (International students) in any trimester [please see Griffith College Policy Library - Program Progression Policy - for more information].

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## Content Schedule

### Weekly Teaching Schedule

| Week | Topic   | Activity   | Readings  |
|------|---|------------|---|
|      | Structure & function of the Cardiovascular System | Lecture    | Course Text Chapter 19: Cardiovascular System: Heart pp.731 - 750   |
|      | Structure & function of the Cardiovascular System | Tutorial   | Chapter 19: Cardiovascular system: Heart pp.731 -750<br>Human Anatomy & Physiology workbook 1               |
|      | Structure & function of the Cardiovascular System | Workshop   | Module Worksheet Topic 1.1 - Structure & function of the Cardiovascular System                              |
|      | CVS: Activity of the Heart                        | Lecture    | Course Text Chapter 19: Cardiovascular System: Heart pp. pp.750 – 775                                       |
|      | The Cardiovascular System                         | Tutorial   | Module Worksheet Topic 1.2 – Activity of the Heart<br>Human Anatomy & Physiology workbook 2                 |
|      | Cardiovascular System                             | Workshop   | ECG trace/Auscultation  |
|      | Blood vessels, circulation & lymphatics           | Lecture    | Course Text Chapter 20 & 21: CVS: Vessels and Circulation & Lymphatic System                                |
|      | Blood vessels, circulation & lymphatics           | Tutorial   | Module Worksheet Topic 1.3 Blood vessels, circulation & lymphatics<br>Human Anatomy & Physiology workbook 2 |
|      | Practice Exam Questions                           | Workshop   | Human Anatomy & Physiology workbook 2   |
|      | Lab : The Cardiovascular System                   | Laboratory | Human Anatomy & Physiology workbook 1   |
|      | Structure & function of the Respiratory System    | Lecture    | Course Text Chapter 23: Respiratory System  |

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|--|--|----------|--|
|  | The respiratory system                         | Tutorial | Module Worksheet Topic 2.1 Structure & function of the Respiratory System                                      |
|  | Structure & function of the Respiratory System | Workshop | Human Anatomy & Physiology workbook 3  |
|  | Lung volumes, capacity & breathing control     | Lecture  | Course Text Chapter 23: Respiratory System   |
|  | Lung volumes, capacity & breathing control     | Tutorial | Module Worksheet Topic 2.2 Lung volumes, capacity & breathing control<br>Human Anatomy & Physiology workbook 3 |
|  | Lung volumes, capacity & breathing             | Workshop | Concept drawings/Auscultation  |
|  | Lab 2: CVS – Activity of the heart             | Lab      | Human Anatomy & Physiology workbook 2  |
|  | Structure & function of the Digestive System   | Lecture  | Course Text Chapter 26: Digestive System   |
|  | Structure & function of the Digestive System   | Tutorial | Module Worksheet Topic 3.1 Structure & function of the Digestive System  |
|  | Digestive System                               | Workshop | Human Anatomy & Physiology workbook 4  |
|  | Lab 3: Respiratory                             | Lab      | Human Anatomy & Physiology workbook 3  |
|  | Nutrition & Metabolism                         | Lecture  | Course Text Chapter 27: Nutrition & Metabolism   |
|  | Nutrition & Metabolism                         | Tutorial | Module Worksheet Topic 3.2 Nutrition & Metabolism<br>Course<br>Human Anatomy & Physiology workbook 4           |
|  | Nutrition & Metabolism                         | Workshop | Concept drawings<br>Human Anatomy & Physiology workbook 4  |

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|--|--|----------|---|
|  | Lab 4:<br>Digestive<br>System  | Lab      | Human Anatomy & Physiology workbook 4   |
|  | Structure &<br>function of the<br>Urinary<br>System  | Lecture  | Course Text Chapter 24: Urinary System  |
|  | Structure &<br>function of the<br>Urinary<br>System  | Tutorial | Module Worksheet Topic 4.1 Structure &<br>function of the Urinary System                        |
|  | Structure &<br>function of the<br>Urinary<br>System  | Workshop | Human Anatomy & Physiology workbook 5   |
|  | Lab 5: Renal<br>System   | Lab      | Human Anatomy & Physiology workbook 5   |
|  | Fluid,<br>electrolytes &<br>pH   | Lecture  | Course Text Chapter 25: Fluid and Electrolytes  |
|  | Fluid,<br>electrolytes &<br>pH   | Tutorial | Module Worksheet Topic 4.2 Fluid, electrolytes<br>& pH  |
|  | Fluid,<br>electrolytes &<br>pH   | Workshop | Human Anatomy & Physiology workbook 5   |
|  | The<br>Reproductive<br>System:<br>Structure &<br>function;<br>pregnancy;<br>development;<br>heredity | Lecture  | Course Text Chapter 28: Reproductive System<br>Chapter 29: Development, Pregnancy &<br>Heredity |
|  | The<br>Reproductive<br>System:<br>Structure &<br>function;<br>pregnancy;<br>development;<br>heredity | Tutorial | Module Worksheet Topic 5.1 The Reproductive<br>System<br>Human Anatomy & Physiology workbook 6  |



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|----|------------------------------------|----------|---|
|    | The Reproductive System            | Workshop | Concept drawings<br>Human Anatomy & Physiology workbook 6 |
| 11 | Revision session: Exam Preparation | Tutorial | Trimester content   |

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## Assessment

This section sets out the assessment requirements for this course.

### *Summary of Assessment*

| Item | Assessment Task       | Weighting | Relevant Learning Outcomes | Due Date         |
|------|-----------------------|-----------|----------------------------|------------------|
| 1    | Weekly quizzes        | 20%       | 1,2,3                      | Weeks 1 - 10     |
| 2    | Intra-Trimester Exam  | 30%       | 1,2,3                      | Week 7           |
| 3    | End of Trimester Exam | 50%       | 1,2,3                      | Examination Week |

### *Assessment Details*

Overall assessment in this course is designed to ensure students have attained the learning outcomes for the course. As this course is designed to provide foundational knowledge in biological sciences, students will be assessed primarily on their knowledge and understanding of anatomy and physiology of the human body.

#### **1. Weekly Quizzes**

Rationale: These quiz items are designed to assist students studying biological sciences as they relate to nursing. Quizzes have been designed to guide student learning and to enhance learning outcomes in this course. Students will receive early and regular feedback on their performance.

Assessment details: These quizzes consist of ten questions each. The question style includes

multiple choice, matching, and labelling. There are ten weekly quizzes each worth 2%. Marking criteria: Each quiz will be marked in accordance with pre-determined model answers that have been internally moderated.

## **2. Intra Trimester Exam**

Rationale: This individual assessment item is designed to assess the knowledge and understanding of the core concepts covered in the first part of the trimester. Including, Learning Outcomes 1, 2, 3.

Assessment details: This assessment item will contain a variety of questions including multiple choice, anatomical diagram labelling and short answer questions/responses. This is an open book exam, however, students can **ONLY BRING** their own completed Human Anatomy & Physiology workbook 1 – 3 as the open book resource. These Human Anatomy & Physiology workbooks contain activities to be completed within the laboratory under direction, and also diagrams and questions to be answered with the support of students' text, tutor and tutorial activities. Human Anatomy & Physiology workbooks will be reviewed in the tutorial. Please note that content will focus on applied questions and laboratory activities, including identification of anatomical structures, knowledge of anatomy, problem solving activities and analysis of experiments.

Due Date: Week 7

Marking criteria: This exam will be marked following a strict marking guide and will undergo a full moderation process.

## **3. Final Examination**

Rationale: This individual assessment item is designed to assess the knowledge and understanding of the core concepts covered throughout the entire trimester. The exam will assess student learning stemming from core concepts covered in lectures, worksheets and laboratories presented during the whole course. Please note that content covered in laboratories will be assessed including identification of anatomical structures, knowledge of anatomy, problem solving activities and analysis of experiments.

Assessment details: The exam will consist of multiple choice questions, short answer questions and anatomical diagram labelling.

Marking criteria: This exam will be marked following a strict marking guide and will undergo a full moderation process.

Further details on assessment will be provided to students via the course site on Griffith College's Student Portal and in classes during the trimester.

## **Requirements to pass the course:**

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

- a. submit a minimum of one weekly quiz, AND**
- b. attempt the mid trimester and final examinations, AND**
- c. achieve a minimum cumulative total of 50% from all graded assessments.**

## **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.

## **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*

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 |
|----------------|--------|-----------|----------|
|----------------|--------|-----------|----------|

|                                  |     |     |     |
|----------------------------------|-----|-----|-----|
| Written Communication            |     | Yes | Yes |
| Oral Communication               |     | Yes |     |
| Information Literacy             | Yes | Yes | Yes |
| Secondary Research               | Yes | Yes | Yes |
| Critical and Innovative Thinking | Yes | Yes | Yes |
| Academic Integrity               | Yes | Yes | Yes |
| Self Directed Learning           |     | Yes | Yes |
| Team Work                        |     | Yes |     |
| Cultural Intelligence            |     | Yes |     |
| English Language Proficiency     |     | Yes | 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 for Diploma of Health Care – available on the course site via the Griffith College MyStudy Student Portal.

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

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