



The University of Southern Queensland

## Course specification

### Description: Anatomy and Physiology

| Subject | Cat-nbr | Class | Term    | Mode | Units | Campus   |
|---------|---------|-------|---------|------|-------|----------|
| NSC     | 1931    | 40388 | 1, 2005 | ONC  | 1.00  | Wide Bay |

|                                   |        |
|-----------------------------------|--------|
| <b>Academic group:</b>            | FOSCI  |
| <b>Academic org:</b>              | FOS002 |
| <b>Student contribution band:</b> | 2      |
| <b>ASCED code:</b>                | 010913 |

### STAFFING

Examiner: Helen Ison

Moderator: Andrew Hoey

### REQUISITES

Pre-requisite: Students must be enrolled in one of the following Programs: BNUR or BNPO

### RATIONALE

A basic knowledge and understanding of the structure and functioning of the cells, tissues and organs of healthy people is essential for subsequent studies in pharmacology and pathophysiology. This course provides the foundation knowledge required to integrate and apply clinical nursing practices.

### SYNOPSIS

A body systems approach is used in this course to study the essential anatomy and physiology of healthy people. Body systems covered in this course include cardiovascular system, blood, lymphatic and immune systems, respiratory system, digestive system, urinary system, integumentary system, musculoskeletal system, and an introduction to the nervous and endocrine systems.

### OBJECTIVES

On successful completion of this course students will be able to:

1. explain the relevance of the concept of homeostasis to the human body;
2. describe the structure and function of body cells, tissues and organs;
3. demonstrate knowledge and an understanding of the structure and function of many of the body systems in healthy people;
4. demonstrate a basic understanding of the integration of body functions to maintain the constancy of the internal environment.
5. demonstrate skills and knowledge required to perform laboratory experiments safely with appropriate equipment

## TOPICS

|     | Description   | Weighting (%) |
|-----|---|---------------|
| 1.  | CELLS, TISSUES & HOMEOSTASIS: Anatomy and function of cellular structure and tissues, Importance of homeostatic control for life.                                 | 9.00          |
| 2.  | NOMENCLATURE: Anatomical and biomedical terms.  | 3.00          |
| 3.  | INTRODUCTION TO THE NERVOUS AND ENDOCRINE SYSTEM: Overview of the central and peripheral nervous systems, Hypothalamic and Pituitary Control of Hormone function. | 9.00          |
| 4.  | THE CARDIOVASCULAR SYSTEM: Anatomy and physiology of the heart and blood vessels, Maintenance of blood pressure.  | 13.00         |
| 5.  | BLOOD AND THE IMMUNE SYSTEM: Major components of blood, functions and formation of blood, Introduction to the lymphatic system and immune processes.              | 13.00         |
| 6.  | RESPIRATORY SYSTEM: Anatomy and physiology of the respiratory system, Internal and external respiration, Control of breathing.                                    | 9.00          |
| 7.  | MUSCULOSKELETAL SYSTEM: Anatomy and physiology of the voluntary muscles, bones and joints.  | 10.00         |
| 8.  | INTEGUMENTARY SYSTEM: Anatomy and physiology of skin.   | 3.00          |
| 9.  | DIGESTIVE SYSTEM: Anatomy of the digestive tract and associated organs, Digestion and absorption of nutrients.  | 9.00          |
| 10. | URINARY SYSTEM: Anatomy of the urogenital system, Processes of urine formation and excretion, Control of body fluid and electrolyte balance.                      | 13.00         |
| 11. | REPRODUCTION: Anatomy and physiology of the male and female reproductive systems. Outline of embryonic and foetal anatomy and physiology.                         | 9.00          |

## TEXT and MATERIALS required to be PURCHASED or ACCESSED

ALL textbooks and materials are available for purchase from USQ BOOKSHOP (unless otherwise stated). Orders may be placed via secure internet, free fax 1800642453, phone 07 46312742 (within Australia), or mail. Overseas students should fax +61 7 46311743, or phone +61 7 46312742. For costs, further details, and internet ordering, use the 'Textbook Search' facility at <http://bookshop.usq.edu.au> click 'Semester', then enter your 'Course Code' (no spaces).

Craft, J and Hoey, A 2005, *Instructional Guide for Anatomy and Physiology*, USQ Publication, Toowoomba.

(ALL STUDENTS MUST PURCHASE THE INSTRUCTIONAL GUIDE)

Marieb, EN 2004, *Human Anatomy and Physiology*, 6th edn, Benjamin/Cummings, Menlo Park, CA.

## REFERENCE MATERIALS

Reference materials are materials that, if accessed by students, may improve their knowledge and understanding of the material in the course and enrich their learning experience.

Frenay, AC & Mahoney, RM 2001, *Understanding Medical Terminology*, 10th edn, WM C Brown Publishers, Dubuque, USA.

Hubbard, J & Mehan, D 1997, *The Physiology of Health & Illness with Related Anatomy*, Stanley Thornes, Cheltenham, England.

Kapit, W & Elson, L 2002, *The Anatomy Colouring Book*, 3rd edn, Benjamin/Cummings, San Francisco.

Lindsay, M (Ed) 1991, *The Visual Dictionary of the Human Body*, Dorling Kindersley, New York.

MacKenna, BR & Callender, R 1997, *Illustrated Physiology*, Churchill Livingstone, New York.

Marieb, EN 2004, *Study Guide Human Anatomy & Physiology*, 6th edn, Benjamin/Cummings, Menlo Park, CA.

Martini, FH & Mark, D & Helgeson, J 1995, *Fundamentals of Anatomy and Physiology Interactive study guide*, Prentice Hall, New Jersey.

(Computer File includes 8 audio cassettes, video tutor and CD-ROM)

Martini, FH & Ober, WC 2004, *Fundamentals of Anatomy and Physiology*, 6th edn, Prentice Hall, New Jersey.

(Text, Application Manual and CD-ROM)

Rutishauser, S 1994, *Physiology and Anatomy: A Basis for Nursing and Health Care*, Churchill Livingstone, Edinburgh, New York.

Seiger, CM 1998, *Fundamentals of Anatomy and Physiology: Study Guide*, 4th edn, Prentice Hall, New Jersey.

Van De Graaff, K & Fox, S 1999, *Concepts of Human Anatomy and Physiology*, 5th edn, Wm C Brown, Dubuque, IA.

Vander, A, Sherman, J and Luciano, D 2001, *Human Physiology: The Mechanisms of Body Function*, 8th edn, McGraw-Hill, New York.

## STUDENT WORKLOAD REQUIREMENTS

| ACTIVITY                        | HOURS  |
|---------------------------------|--------|
| Examinations                    | 3.00   |
| Laboratory or Practical Classes | 10.00  |
| Lectures                        | 32.00  |
| Private Study                   | 102.00 |
| Tutorials                       | 6.00   |

## ASSESSMENT DETAILS

| Description                 | Marks out of | Wtg(%) | Due date                    |
|-----------------------------|--------------|--------|-----------------------------|
| WEEKLY QUIZZES              | 50.00        | 10.00  | 01 Mar 2005<br>(see note 1) |
| PTA 1HR CLOSED CMA M/C TST  | 33.00        | 22.00  | 01 Mar 2005<br>(see note 2) |
| PTB 1HR CLOSED SHRT ANS TST | 12.00        | 8.00   | 01 Mar 2005<br>(see note 3) |
| PTA 2HR CLOSED EXAM M/C     | 66.00        | 44.00  | END S1<br>(see note 4)      |
| PTB 2HR CLOSED EXAM S/A     | 24.00        | 16.00  | END S1<br>(see note 5)      |

### NOTES

1. Examiner will advise the day of the weekly quizzes are due
2. Examiner to advise date of the mid-semester test
3. Examiner to advise date of the mid-semester test
4. Examination dates will be available during the Semester. Please refer to the examination timetable when published.
5. Examination dates will be available during the Semester. Please refer to the examination timetable when published.

## IMPORTANT ASSESSMENT INFORMATION

- 1 Attendance requirements:  
It is the students' responsibility to attend and participate appropriately in all activities (such as lectures, tutorials, laboratories and practical work) scheduled for them, and to study all material provided to them or required to be accessed by them to maximise their chance of meeting the objectives of the course and to be informed of course-related activities and administration.
- 2 Requirements for students to complete each assessment item satisfactorily:  
To complete each of the assessment items satisfactorily, students must obtain at least 50% of the marks available for each assessment item.
- 3 Penalties for late submission of required work:  
If students submit assignments after the due date without prior approval then a penalty of up to 10% of the total marks gained by the student for the assignment will apply for each working day late.
- 4 Requirements for student to be awarded a passing grade in the course:  
To be assured of a passing grade, students must demonstrate, via the summative assessment items, that they have achieved the required minimum standards in relation to the objectives of the course by: (i) satisfactorily completing the examination and assignments; and (ii) obtaining at least 50% of the total weighted marks available for all summative assessment items.
- 5 Method used to combine assessment results to attain final grade:  
The final grades for students will be assigned on the basis of the weighted aggregate of the marks (or grades) obtained for each of the summative assessment items in the course.
- 6 Examination information:

In a Closed Examination, candidates are allowed to bring only writing and drawing instruments into the examination.

- 7 Examination period when Deferred/Supplementary examinations will be held:  
Any Deferred or Supplementary examinations for this course will be held in the second week of the semester following this course offering and the examiner will advise students involved in writing of the date time and location of any such examination.
- 8 University Regulations:  
Students should read USQ Regulations 5.1 Definitions, 5.6. Assessment, and 5.10 Academic Misconduct for further information and to avoid actions which might contravene University Regulations. These regulations can be found at the URL <http://www.usq.edu.au/corporateservices/calendar/part5.htm> or in the current USQ Handbook.

### **ASSESSMENT NOTES**

- 9 Students who obtain an overall passing mark, but who do not perform satisfactorily in an examination, may, at the discretion of the examiner, be granted a supplementary examination. Students will be granted a deferred examination only if they perform satisfactorily in all other assessment items.
- 10 Students who, for medical, family/personal, or employment-related reasons, are unable to complete an assignment or to sit for an examination at the scheduled time may apply to defer an assessment in a course. Such a request must be accompanied by appropriate supporting documentation. One of the following temporary grades may be awarded IDS (Incomplete - Deferred Examination); IDM (Incomplete Deferred Make-up); IDB (Incomplete - Both Deferred Examination and Deferred Make-up).
- 11 In order to attend laboratory classes, students must provide and wear appropriate personal protective equipment. This shall include a laboratory coat, closed in shoes, and safety glasses. Such equipment must be approved by supervising staff. Failure to provide and wear the appropriate safety equipment will result in students being excluded from classes.