



The University of Southern Queensland

Course specification

The current and official versions of the course specifications are available on the web at <http://www.usq.edu.au/coursespecification/current>.
Please consult the web for updates that may occur during the year.

Description: Physiology and Pathophysiology 2

Subject	Cat-nbr	Class	Term	Mode	Units	Campus
BIO	3630	90240	2, 2009	EXT	1.00	Toowoomba

Academic group:	FOSCI
Academic org:	FOS002
Student contribution band:	6
ASCED code:	010913

STAFFING

Examiner: Kerry Withers
Moderator: Guang Liu

REQUISITES

Pre-requisite: BIO1203

RATIONALE

This is the second of two courses that discuss the functioning of the human body in health and disease and is intended for students seeking employment within the health care industry.

SYNOPSIS

This course examines the physiology and pathophysiology of the endocrine and nervous systems, pathophysiology of the reproductive and musculoskeletal systems, gastrointestinal and nutritional diseases and the pathophysiology of ageing and of the skin and internal linings.

OBJECTIVES

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

1. list the major known hormones of the human body and summarize their functions (End-semester Exam);
2. describe the aetiology, pathogenesis, clinical manifestations and consequences of the major endocrine disease states (End-semester Exam);
3. outline the physiology of neurons and neuroglia (End-semester Exam);
4. summarize the functional anatomy of the human nervous system (End-semester Exam);
5. describe the aetiology, pathogenesis, clinical manifestations and consequences of diseases of the sensory, motor and central integrative systems of the nervous system (End-semester Exam);
6. outline the physiology and pathophysiology of cerebrospinal fluid and the cerebral perfusion systems (End-semester Exam);

7. describe the fundamental anatomy and physiology of the human digestive system as well as the liver-bile system and the exocrine pancreas (End-semester Exam);
8. summarize the aetiology, pathogenesis, clinical manifestations and consequences of diseases of the digestive and liver-bile systems and the pancreas (End-semester Exam; Assignment 1);
9. examine the principles of human nutrition and describe the important disease states that result from nutritional imbalances (End-semester Exam);
10. describe the development and functions of the male and female genital systems and the breasts (End-semester Exam);
11. summarize the physiological processes associated with puberty, the menarche, the menstrual cycle, conception and pregnancy, parturition, lactation, and the menopause (End-semester Exam);
12. list the major pathophysiological disorders of the human reproductive systems and breasts and summarise their aetiology and pathological features (End-semester Exam);
13. describe the properties of the skin and internal linings and the major disease states that affect them (End-semester Exam);
14. overview the construction and functions of the somatic muscles, bones and associated supporting tissues (End-semester Exam);
15. describe the aetiology, pathogenesis, clinical manifestations and consequences of major disease (End-semester Exam);
16. describe the degenerative changes to the body that accompany old age and senility (End-semester Exam; Assignment 2).

TOPICS

	Description	Weighting (%)
1.	ENDOCRINE DISEASE STATES - the nature of hormones and cytokines; pathophysiology of endocrine diseases associated with the brain, pituitary, thyroid, parathyroids, adrenals, endocrine pancreas, gonads and placenta.	9.00
2.	NEUROLOGICAL DISEASE STATES - the physiology and pathophysiology of neurons and neuroglia; the functional anatomy of the nervous system; the pathophysiology of the sensory, motor and integrative components of the human nervous system; the functional anatomy of and disease states associated with the cerebrospinal fluid and cerebral blood flow systems.	26.00
3.	GASTROINTESTINAL AND NUTRITIONAL DISEASES - the functional anatomy of the human digestive system, liver-bile system and exocrine pancreas; the pathophysiology of diseases of the human digestive and liver-bile systems and the pancreas; the functions of nutrients in the human diet and the pathophysiology of nutritional disease states.	13.00
4.	DISEASES OF THE REPRODUCTIVE SYSTEMS - embryological origins of the male and female genital systems; puberty, the menarche, menstrual cycle and the menopause; common disease states associated with the male and female genital systems and the breasts; pathophysiological developments associated with pregnancy.	19.00

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| 5. | DISEASES OF THE SKIN AND INTERNAL LININGS - the physiological properties of the human skin and internal linings; major pathophysiological changes associated with the body's internal and external linings. | 7.00 |
| 6. | MUSCULOSKELETAL DISEASE STATES - the histology and functional anatomy of the components of the human musculoskeletal systems; important disease states of the somatic muscles; major bone diseases, including fractures, osteoporosis, osteomyelitis, neoplasia, and arthritis. | 18.00 |
| 7. | THE PATHOPHYSIOLOGY OF AGEING - the known processes that lead to ageing phenomena; the pathophysiological consequences of ageing on individual organ systems and on the body as a whole. | 8.00 |

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).

Kumar V, Abbas AK & Fausta N 2005, *Robbins and Cotran: pathologic basis of disease*, 7th edn, Elsevier Saunders, Philadelphia.

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.

Braunwald, E 2005, *Harrison's principles of internal medicine*, 16th edn, McGraw-Hill, New York, Vol 1-2.

(CD Package; also available electronically through ebrary)

Cotran, RS, Kumar, V & Collins, T 2005, *Robbins & Cotran pathologic basis of disease*, 7th edn, WB Saunders Company, Philadelphia.

Cunningham, FG et al. 2005, *Williams obstetrics*, 22th edn, McGraw-Hill, New York.

Jenkins GW, Kemnitz CP & Tortora GJ 2007, *Anatomy and physiology: from science to life*, 6th edn, John Wiley & Sons, New York.

Porth, CM 2005, *Pathophysiology: concepts of altered health states*, 7th edn, Lippincott, Philadelphia.

Tierney, LM, McPhee, SJ & Papadakis, MA 2000, *Current medical diagnosis and treatment 2001*, McGraw-Hill, New York.

STUDENT WORKLOAD REQUIREMENTS

ACTIVITY	HOURS
Assessments	20.00
Directed Study	46.00
Examinations	2.00
Private Study	97.00

ASSESSMENT DETAILS

Description	Marks out of	Wtg (%)	Due date
ASSIGNMENT 1	100.00	20.00	04 Sep 2009
ASSIGNMENT 2	100.00	20.00	09 Oct 2009
2HR CLOSED EXAMINATION	105.00	60.00	END S2 (see note 1)

NOTES

1. Examination due dates will be available during the semester. Please refer to the examination timetable when published.

IMPORTANT ASSESSMENT INFORMATION

- 1 Attendance requirements:
There are no attendance requirements for this course. However, it is the students' responsibility 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 an assessment item satisfactorily, students must obtain at least 50% of the marks available for that assessment item.
- 3 Penalties for late submission of required work:
If students submit assignments after the due date without (prior) approval of the examiner then a penalty of 5% of the total marks gained by the student for the assignment may apply for each working day late up to ten working days at which time a mark of zero may be recorded. No assignments will be accepted after model answers have been posted.
- 4 Requirements for student to be awarded a passing grade in the course:
To be assured of receiving a passing grade a student must achieve at least 50% of the total weighted marks available for the course.
- 5 Method used to combine assessment results to attain final grade:
The final grades for students will be assigned on the basis of the aggregate of the weighted marks obtained for each of the summative assessment items in the course.
- 6 Examination information:
Candidates are allowed to bring only writing and drawing instruments into the closed examination.
- 7 Examination period when Deferred/Supplementary examinations will be held:

Any Deferred or Supplementary examinations for this course will be held during the next examination period

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 The due date for an assignment is the date by which a student must despatch the assignment to the USQ. The onus is on the student to provide proof of the despatch date, if requested by the Examiner.
- 10 In accordance with University Policy, the Examiner may grant an extension of the due date of an assignment in extenuating circumstances.
- 11 The Faculty will normally only accept assessments that have been written, typed or printed on paper-based media.
- 12 The Faculty will NOT accept submission of assignments by facsimile.
- 13 Students who do not have regular access to postal services or who are otherwise disadvantaged by these regulations may be given special consideration. They should contact the examiner of the course to negotiate such special arrangements.
- 14 In the event that a due date for an assignment falls on a local public holiday in their area, such as a Show holiday, the due date for the assignment will be the next day. Students are to note on the assignment cover the date of the public holiday for the Examiner's convenience.
- 15 Students who do not qualify for a Passing grade may, at the discretion of the Examiner, be awarded a Supplementary Examination and/or assigned additional work to demonstrate to the Examiner that they have achieved the required standard. Students who have undertaken all of the required assessments in a course but who have failed to meet the minimum requirements for a passing grade within the normally prescribed time may be awarded the temporary grade: IM (Incomplete - Make up). An IM grade will only be awarded when, in the opinion of the examiner, a student will be able to meet the minimum requirements for a passing grade after a period of non-directed personal study.
- 16 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).
- 17 Students may be required to provide a copy of assignments submitted for assessment purposes. Such copies should be despatched to the USQ within 24 hours of receipt of a request to do so.

OTHER REQUIREMENTS

- 1 Students can expect that questions in assessment items in this course may draw upon knowledge and skills that they can reasonably be expected to have acquired before enrolling in the course. This includes knowledge contained in pre-requisite courses and appropriate communication, information literacy, analytical, critical thinking, problem solving or

numeracy skills. Students who do not possess such knowledge and skills should not expect to achieve the same grades as those students who do possess them.
