

Fatima College of Health Sciences

COURSE OUTLINE

1975NRS Anatomy & Physiology 2

Academic Organization:	School of Nursing
Faculty:	Fatima College of Health Sciences
Credit Hours:	4
Course Level:	Undergraduate
Campus/Location/Instruction Mode:	Abu Dhabi / Al Ain – UAE/ on campus
Convenor/s:	
This document was last updated:	06 April 2009
Course approved by	Academic & Assessment Committee

BRIEF COURSE DESCRIPTION

This course focuses on the anatomy and physiology of the human body. Students explore both the structure and function of the normal human body. This course builds on knowledge gained in Anatomy & Physiology I. The course will emphasize the relevance of such knowledge to the maintenance of health of the human body. The ways the body changes across the lifespan will also be explored. Students will be assisted to continue in developing competence in the application of this knowledge within the scope of nursing practice. This can be gained by taking an integrated and exploratory approach to the teaching of core concepts. This strategy seeks to facilitate the ability of students to transfer, assimilate and utilize knowledge gained in this course to other courses within their program.

PREREQUISITES

Anatomy and Physiology 1 (1974NRS) is a prerequisite for enrolment in this course.

SECTION A – TEACHING, LEARNING AND ASSESSMENT

COURSE AIMS

Professional practice in nursing and health is fundamentally underpinned and informed by knowledge and Understanding of anatomy and physiology. The principle aim of this course is to further develop a Knowledge and understanding of the normal anatomy and physiology of the human body.

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of this knowledge within the scope of Nursing practice. This can be gained by taking an integrated and exploratory approach to the teaching of core concepts. This strategy seeks to facilitate the ability of students to transfer, assimilate and utilize Knowledge gained in this course to other courses within their program.

Students will be expected to utilize their reading to extend their depth of understanding, participate in laboratory activities and demonstrate ability to utilize resources in the exploration of course content.

This course builds on knowledge gained in Anatomy and Physiology 1 and interlinks with Clinical Health Assessment (1977NRS) and Nursing Practices (1976NRS) and provides knowledge and essential learning for these courses.

LEARNING OUTCOMES

On completion of this course students will have developed a knowledge and understanding of normal structure and function of the human body. This will be achieved through the development of knowledge and understanding of the following core concepts:

- Structure and function of the cardiovascular system
 - Structure and function of the Lymphatic and Immune system
 - Structure and function of the Respiratory system
 - Structure and function of the Digestive system
 - Nutrition, Metabolism and Temperature Regulation
 - Structure and function of the Renal system
 - Fluid, electrolyte and acid-base balance
 - Structure and function of the Reproductive system
 - Pregnancy, Human Development and Inheritance
1. On completion of this course students will be able to:
 2. Demonstrate effective use of anatomical terminology and demonstrate sound knowledge of anatomical
 3. structures relating to all core concepts.
 4. Demonstrate sound knowledge and understanding of the underlying physiological processes relating to
 5. all core concepts.

CONTENT, ORGANISATION AND TEACHING STRATEGIES

Teaching methods will include a combination of face-to-face strategies: interactive lectures and laboratory/tutorials. Students are also encouraged to utilize 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.

Contact Summary

Lectures:

Each week of semester (excluding student's clinical practicum weeks) 2 hours of lectures will be offered. Students are expected to attend all of these classes. Course content will be explored in a way that explains difficult concepts and the relevance of these concepts to the health of the human body.

Laboratories:

Laboratories are held throughout the semester. **ATTENDANCE AT LABORATORIES IS HIGHLY RECOMMENDED.** These practical sessions provide learning activities that are essential to the learning outcomes in this course. Laboratories will assist students to develop knowledge of anatomical structures. Students will also extend their understanding of physiology. Students will work in small groups to analyse experiments and develop problem-solving skills. Content covered in these laboratories will be assessed within the examinations. An attendance roll will be maintained for all laboratories. Students are expected to attend their scheduled laboratory class.

Students **MUST WEAR CLOSED IN SHOES TO ALL LABORATORIES.** Students will be required to bring their prescribed textbook and laboratory worksheets to laboratories. Laboratory worksheets can be accessed in the resources section of the course website. Tutorials maybe held from time-to-time during the semester designed to assist students with reviewing of key course concepts in preparation for examination.

CONTENT SUMMARY

This timetable may vary from campus to campus. Please access FCHS study chart 1975NRS for full details of your specific campus course delivery.

Week	Lecture Topic	Readings & Assessment
1	The Blood Functions and properties of blood Formation of blood cells Red blood cells White blood cells Platelets Stem cell transplants Hemostasis Blood groups and blood types Clinical connection	Tortora&Derrickson (2009).Principles of Anatomy and Physiology. (12th Ed.) Wiley & Sons, USA. Refer to the Learning @Griffith website Tutorial Worksheets Chapter 19
2	The Heart Anatomy of the heart Heart valves and circulation of blood Cardiac muscle tissue and the cardiac conduction system The cardiac cycle Cardiac output Clinical connection	Tortora. &Derrickson(2009).Principle of Anatomy and Physiology. (12th Ed.) Wiley & Sons, USA. Refer to the Learning @Griffith website Laboratory Worksheets Chapter 20.
3	Blood Vessels Structure and function of blood vessels Capillary exchange Hemodynamics: factors affecting blood flow Control of blood pressure and blood flow	Tortora.&Derrickson,(2009).Principles of Anatomy and Physiology. (12th Ed.) Wiley & Sons, USA. Refer to the Learning @Griffith website Tutorial Worksheets Chapter 21

	<p>Checking circulation Circulatory routes (systemic, pulmonary, and fetal circulations) Clinical connection</p>	
4	<p>The Lymphatic System & immunity Lymphatic system structure and function Innate Immunity Adaptive Immunity Cell mediated Immunity Antibody-mediated Immunity</p>	<p>Tortora&Derrickson,(2009).Principles of Anatomy and Physiology. (12th Ed.) Wiley & Sons, USA. Refer to the Learning @Griffith website Tutorial Worksheets Chapter 22</p>
5 & 6	<p>The Respiratory System Respiratory System anatomy Pulmonary ventilation Lung volumes and Capacities Exchange of oxygen and carbon dioxide Transport of oxygen and carbon dioxide Control of respiration</p>	<p>Tortora&Derrickson (2009).Principles of Anatomy and Physiology. (12th Ed.) Refer to the Learning @Griffith website Tutorial Worksheets Chapter 23</p>
7	<p>The Digestive System Overview of the digestive system Neural innervation of the GI tract Peritoneum Digestive system anatomy and physiology</p>	<p>Tortora&Derrickson (2009).Principles of Anatomy and Physiology. (12th Ed.) Refer to the Learning @Griffith website Tutorial Worksheets Chapter 24</p>
8	<p>Mid - semester exam</p>	
9	<p>The Digestive System & Metabolism Phases of digestion Clinical connection Carbohydrate, lipid, and protein metabolism</p>	<p>Tortora&Derrickson (2009).Principles of Anatomy and Physiology. (12th Ed.) Refer to the Learning @Griffith website Tutorial Worksheets Chapter 24 & 25</p>
10	<p>The urinary System Anatomy and physiology of the kidneys Overview of renal physiology Evaluation of kidney function Urine transportation, storage, and elimination Waste management in other body systems Clinical connections</p>	<p>Tortora&Derrickson,(2009).Principles of Anatomy and Physiology. (12th Ed.) Refer to the Learning @Griffith website Laboratory Worksheets Chapter 26</p>
11	<p>Fluid, electrolyte, and acid base homeostasis Fluid compartments and fluid balance Electrolytes in body fluids Acid - base balance Clinical connection</p>	<p>Tortora&Derrickson,(2009).Principles of Anatomy and Physiology. (12th Ed.) Refer to the Learning @Griffith website Tutorial Worksheets Chapter 27</p>
12	<p>Clinical placement</p>	

13	Clinical placement	
14	The reproductive system Male reproductive system Female reproductive system The female reproductive cycle Birth control methods Clinical connection	Tortora&Derrickson (2009).Principles of Anatomy and Physiology. (12th Ed.) Refer to the Learning @Griffith website Laboratory Worksheets Chapter 28
15	Human development and inheritance Embryonic period Fetal period Prenatal diagnostic test Genotype and phenotype Variations on dominant-recessive inheritance Autosomes, sex chromosomes, and sex determination Sex-linked inheritance	Tortora&Derrickson (2009).Principles of Anatomy and Physiology. (12th Ed.) Refer to the Learning @Griffith website Tutorial Worksheets Chapter 29
16	Revision	

TEXTS AND SUPPORTING MATERIALS

Prescribed Text

Tortora & Derrickson (2008) Principles of Anatomy and Physiology (12th Ed). John Wiley & Sons USA

ASSESSMENT

Summary of Assessment

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.

Item	Assessment Task	Length	Weighting	Total Marks	Relevant Learning Outcomes	Due Day & Time
1	Mid Semester Exam	2 hours	30%	100	1, 2	Refer to Course Timetable
2	Laboratory Challenge Exam	2 hours	30%	100	1, 2	Refer to Course Timetable
3	End of Semester Exam	2 hours	40%	100	1, 2	Refer to Course Timetable

In order to pass this course students must submit **all** assessment items and obtain a minimum overall grade of 50%.

Assessment Details

The three assessment items for this course include:

Item 1 – Mid-semester Examination: This individual closed book examination is designed to assess your knowledge and understanding of the core concepts covered in the first half of the semester. This will examine all content covered (in lectures and laboratories) within the early weeks of the course as indicated by the course convenor. Please note that content covered in laboratories will be assessed in this examination; this will include identification of anatomical structures and your ability to analyze experiments. This exam will consist of both multiple choice and short answer questions as well as anatomical diagram labeling. Please refer to your course timetable for the examination date and time.

Item 2 – Written Individual Assignment: This assessment is designed to enhance your understanding and application of the core concepts, particularly as presented in the laboratory/tutorial section of your course.

Item 3 – Examination: This individual closed book examination is designed to assess your knowledge and understanding of the core concepts covered throughout the later part of semester. This exam will be held in the central examination period set by the college. This assessment will examine all content covered (in lectures and laboratory) in the later weeks of the course as indicated by the course convenor. Please note that content covered in laboratories will be assessed in this examination; this will include identification of anatomical structures and your ability to analyze experiments. This exam will consist of both multiple choice and short answer questions as well as anatomical diagram labeling

Notification of Availability of Feedback on Assessment

The course convenor will provide general feedback on the examination in class. Students may also make an appointment to discuss feedback on assessment items.

GRADUATE SKILLS

The FCHS Graduate Statement states the characteristics that the College seeks to engender in its graduates through its degree programs. Convenors *are encouraged to* make reference to graduate skills development within the subsections

Learning Outcomes, Content, Organization and Teaching Strategies and Assessment.

In this section, convenors *are required to* summarize how this course contributes to the development of all or some of these graduate skills by checking the appropriate boxes in the following table

Graduate Skills	Taught	Practiced	Assessed
Effective communication (written)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Effective communication (oral)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Effective communication (interpersonal)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Information literacy	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Problem solving	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Critical evaluation	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Work autonomously	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Work in teams	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Creativity and innovation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ethical behavior in social / professional / work environments	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Responsible, effective citizenship	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

TEACHING TEAM

Course Convenors

Convenor Details	
Campus Convenor	TBC
Email	
Phone	

Office Hours	Sunday - Thursday: 0700 - 0300 pm
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COURSE COMMUNICATIONS

Course convenors will communicate regularly with students via the course website on FCHS. This will provide a major mechanism for communication within this course and students should check the course announcements on the FCHS website frequently – **daily checking is recommended**. Students are expected to attend face-to-face classes and interact with the teaching team within these times. Students will be encouraged to raise issues that require clarification at these classes. Students may also contact the convenor and teaching staff during scheduled student consultation times. Students will be advised of weekly consultation times via the FCHS course website and on their campus specific course outline. Alternatively, another time may be organized to suit both parties. Email and phone contact are other alternate means of contact. Students are advised to limit email communication to issues that require a short and definitive answer. If the issue requires discussion students are advised to visit the course website.

SECTION B - ADDITIONAL COURSE INFORMATION

Please refer to FCHS policy manual for additional information.

Important Policies:

- FCHS Assessment Policy
- Assessment and academic misconduct policy.

Academic misconduct – Plagiarism

- Plagiarism is taking someone’s thoughts, ideas or work and claiming it as your own. It is an offence against the Moral Rights section of the Copyright Act to use material from any source without indicating the true author or creator of the content. Taking material from the Internet is very easily detected, and could result in disciplinary action. You must sign the Declaration on the Assignment Cover sheet before submission. FCHS has very clear policies in relation to plagiarism see the ‘Assessment and academic misconduct policy’ which can be found in the [Policy Library](#).
- The School may also undertake a random audit of student’s work using plagiarism-checking software. Therefore in addition to a paper copy, students can be required to submit an electronic copy (on a floppy disc) of written assignments. Discs should only contain the final copy of the work submitted. Students are advised to retain an electronic copy of all their written assignments for this purpose.
- A percentage of assessments submitted may be selected for ‘Referencing and Source Audit’ where an audit of references cited and the originality of the work be conducted. If selected you must provide an electronic copy of your assignment, and a hard and/or electronic copy of all references cited in your assignment to the Examiner for inspection.

SECTION C- KEY COLLEGE INFORMATION

ACADEMIC MISCONDUCT

Students must conduct their studies at the College honestly, ethically and in accordance with accepted standards of academic conduct. Any form of academic conduct that is contrary to these

standards is academic misconduct, for which the FCHS may penalize a student. Specifically it is academic misconduct for a student to: present copied, falsified or improperly obtained data as if it were the result of laboratory work, fieldtrips or other investigatory work; include in the student's individual work material that is the result of significant assistance from another person if that assistance was unacceptable according to the instructions or guidelines for that work; assist another student in the presentation of that student's individual work in a way that is unacceptable according to the instructions or guidelines for that work; cheat; (Cheating is dishonest conduct in assessment);Plagiarize (Plagiarism is knowingly presenting the work or property of another person as if it were their own. Visit the FCHS Policy on Academic Misconduct for further details.

PLAGIARISM DETECTION SOFTWARE

The FCHS is piloting the use of plagiarism detection software. Students should be aware that your Course Convenor may use this software to check submitted assignments. If this course is included in the pilot your Course Convenor will provide more detailed information about how the detection software will be used.

KEY STUDENT-RELATED POLICIES

All FCHS policy documents are accessible to students via the College's Policy Library:
Policies you may find helpful are in the Student Handbook, which is mentioned below:

[Student Charter](#)

[Admissions](#)

[Admission Policy](#)

[Admission Requirements](#)

[Student Administration](#)

[Student Records](#)

[Rules and Regulations](#)

[On Campus Behaviour and Academic Performance](#)

[Process of dealing with misconduct](#)

[Privacy and Confidentiality](#)

COLLEGE SUPPORT RESOURCES

The FCHS provides many facilities and support services to assist students in their studies. Links to information about College support resources available to students are included below for easy reference:

- Student Welfare Officer
- Student counselor
- Web based resources

Additional academic skill training including; computing skills; library skills; and academic skills. The study skills resources on the website include self-help\tasks focusing on critical thinking, exam skills, note taking, preparing presentations, referencing, writing, proof reading, and time management.