جامعة الشرقية
A' SHARQIYAH UNIVERSITY

Course Descriptor
AHND281- Human Anatomy and Physiology Lab

Proposed Academic Year	2021-22	**Last Reviewed Academic Year**	2019-20
Course Code	AHND281	**Course Title**	Human Anatomy and Physiology Lab
Credit hours	1	**Level of study**	Undergraduate
College / Centre	CAHS	**Department**	FSHN
Co-requisites	AHND210	**Pre-requisites**	BIOL101

1. COURSE OUTLINE

[The course is designed to provide the students applied scientific disciplines with knowledge about the normal function and mechanism of various physiological and systems basis on the anatomical and histological correlation, including: cells physiology and body fluid, membranes physiology, nerves and muscles, contractions of skeletal muscles, excitation contraction coupling, Neuromuscular transmission, Autonomic nervous system, Sensory nervous system, Cardiovascular system, Digestive system, Respiratory system, Reproductive system, and finally Endocrine system.

2. AIMS

The aim of this module is to familiarize the student with the anatomical structure and physiological function of normal tissues in the body. The modules will introduce students to: the function of various body systems, the normal secretion of the cells such as hormones, enzymes and chemotactic substances, the body fluid & hemodynamic, the body thermal regulation, and the nerve impulses.

3. LEARNING OUTCOMES, TEACHING, LEARNING and ASSESSMENT METHODS

Learning Outcomes *(Definitive)* Upon successful completion of this course, students will be able to**:**	**Teaching and Learning methods *(Indicative)***	**Assessment *(Indicative)***
1. Identify the anatomical and histological structure of selected body Tissue / Organ.	Lectures and presentations	In-lab tests, quizzes
2. Relate the function of the tissue to its structure o the students can understand the concentrations of electrolytes in body fluid and the way of hemodynamic.	Lectures and presentations	In-lab tests, quizzes
3. Recognize the importance of keeping normal physiological activities of various body tissues.	Lectures and presentations	In-lab tests, quizzes

4. Evaluate the physiological concepts and Interpret the effect of hormones on the body tissues	Lectures and presentations	In-lab tests, quizzes
5. Apply technological advancement / modern equipment and techniques for physiological measurements and thus relate the concepts of anatomy & physiology to the advancement in science and technology.	Demonstration and presentations	Quiz and written examination

4. ASSESSMENT WEIGHTING

Assessment	Percentage of final mark (%)
Quizzes	20%
Mid-term Exam	20%
Lab Reports	20%
Final Examination	40%
TOTAL	**100%**

5. ACHIEVING A PASS

Students will achieve**01** credit hours for this course by passing **ALL** of the course assessments *[alternatively, list the compulsory pass assessments*]* and achieving a **minimum overall score of 50%**

NB *Ensure that ALL learning outcomes are taken into account

6. COURSE CONTENT (Indicative)

Introduction to the course. Laboratory Safety guidelines.
The human body: An Orientation. Using the microscope for histological
Examination.
Preparing tissues for histological microscopic examination: Epithelial
tissues, glandular epithelia, connective tissue, muscle tissue & nervous
tissue.
Bones and joints of the body: Functions and actions
Blood collection, examination & RBC count. hemoglobin, & Pack cell evaluation in normal and anemic cases.
WBC count. Blood platelets: evaluation and assessments.

Blood types and grouping	
Monitoring blood pressure & Pulse.	
Body temperature	
Urine analysis: Its physical characteristics & chemical compositions.	
TOTAL HOURS	**45**
Plus **RECOMMENDED INDEPENDENT STUDY HOURS**	**15**
TOTAL COURSE HOURS	**60**

7. RECOMMENDED REFERENCES

Core text/s:

< 1. Gerard J. Tortora (2006). A brief atlas of the skeleton, surface anatomy, and selected Medical images. 13th eds. John Wiley & Sons.

2. Human Anatomy and Physiology Lab Manual. ASU

Recommended Reading:

3. Kapit, W. & Elson, L. (2002). The Anatomy Coloring book, 3rd edition, Benjamin Cummings.
4. Young, B. & Heath J. W. (2006). Wheater's Functional Histology: A Text and Color Atlas. 5th Edition, Churchill Livingstone, London

Library + online resources:

Open Educational Resources: