



## Module (Course Syllabus) Catalogue 2022-2023

College/ Institute	Shaqlawa Technical College	
Department	Medical Laboratory Technology-	
Module Name	Anatomy & Physiology	
Module Code	ANP105	
Degree	Technical Diploma <input checked="" type="checkbox"/>	Bachelor <input type="checkbox"/>
	High Diploma <input type="checkbox"/>	Master <input type="checkbox"/> PhD <input type="checkbox"/>
Semester	First	
Qualification	Diploma/ Bachelor	
Scientific Title	Lecturer	
ECTS (Credits)	8	
Module type	Prerequisite <input type="checkbox"/>	Core <input checked="" type="checkbox"/> Assist. <input type="checkbox"/>
Weekly hours	4	
Weekly hours (Theory)	(2)hr Class	(70)Total hrs Workload
Weekly hours (Practical)	(2)hr Class	(70)Total hrs Workload
Number of Weeks	14	
Lecturer (Theory)	Ali Zainal Omar	
E-Mail & Mobile NO.	<a href="mailto:alizainal@epu.edu.iq">alizainal@epu.edu.iq</a>	
Lecturer (Practical)		
E-Mail & Mobile NO.	07504967882	
Websites		

## Course Book

<b>Course Description</b>	This course provides students with an understanding the human body anatomy and basic physical and chemical principles that underline physiological processes. Several biological systems are considered, including respiratory, circulatory, digestive and metabolic, thermoregulatory, osmosis regulatory, renal, nervous, musculoskeletal, neural, hormonal, and sensory. The weekly laboratory session will complement the lecture, mainly by providing hands-on experience in observation, data collection, measurement, and problem-solving skills				
<b>Course objectives</b>	The purpose of taking this course is to learn the basic concepts and principles of body anatomy & physiology. Most of the lecture examples will be drawn from mammals, especially humans. This is because our understanding of the function of mammalian systems is better than it is for almost any other animal species. However, there are situations in which presentation of non-mammalian systems will enhance our understanding of anatomy and physiology in general.				
<b>Student's obligation</b>	<p>- <b>Student's obligation</b> Attendance in lecture is expected. You are responsible for everything covered, mentioned, discussed and displayed in class. If you miss a class, get a classmate's notes as my notes will not be available. You cannot excel in this course if you do not come to class.</p> <p>1- <b>Attendance:</b> students are strongly encouraged to attend class on a regular basis, as participation is important to understanding of the material. This is student opportunity to ask questions. Students are responsible for obtaining any information during the class which provided.</p> <p>2- <b>Lateness:</b> Lateness to class is disruptive</p> <p>3- <b>Electronic devices:</b> All cell phones are to be turned off at the beginning of class and put away during the entire class.</p> <p>4- <b>Talking:</b> During class please refrain from side conversations. These can be disruptive to your fellow students and your professor</p>				
<b>Required Learning Materials</b>	<p>- Printouts of weekly lectures taught at the college campus</p> <p>- Reviewing of internet</p>				
<b>Forms of teaching</b>	The material will be presented at a level suitable for undergraduates by lecturing, discussion, video, power points and seminar				
<b>Evaluation</b>	<b>Task</b>		<b>Weight (Marks)</b>	<b>Due Week</b>	<b>Relevant Learning Outcome</b>
	Paper Review				
	Assignments	Homework	5%		Encourages students to search for more detailed knowledge relevant to the topics taught at campus.
		Class Activity	2%		
		Seminar	10%		Enhances the preparation and presenting skills of the students
report	10%		To make students engage		

				more with their favorite topics
		Project		
	Quiz	8%		To encourage students, study every week.
	Midterm Exam	25%		To evaluate students and their achievements at the middle of the term.
	Final Exam	40%		Final evaluation and assessment.
Total	100%			
<b>Specific learning outcome:</b>	<p style="text-align: center;"><b>By the end of this course learners will:</b></p> <p style="text-align: center;">By completing this course, the students can:</p> <ul style="list-style-type: none"> <li>• Describing of human body anatomy accurately</li> <li>• Describe the regulation and maintenance mechanisms of cells. Beside this, the main transporting mechanisms of the body.</li> <li>• Describe initiation and transmission of electrical signals from excitable cells (nerve, muscle and glands).</li> <li>• Differentiate between the function of different muscle groups.</li> <li>• Elucidates how respiration, digestion, excretion ...etc. mechanisms will take place</li> </ul>			
<b>Course References:</b>	<ul style="list-style-type: none"> <li>• Books:</li> </ul> <p>1-Review of medical physiology 23rd edition (2020) by Ganong  2-Physiology (Board Review Series ) 4th edition by Linda S Costanzo (2007)  3- Principles of Animal Physiology By Moyes, C.D. and Schulte, P.M.(2006)  4-Human Physiology by German (2006)  5- Physiology by Stuart Ira Fox, 11th edition (2009). McGraw Hill Higher Education  6-Textbook of Medical Physiology by Guyton 12<sup>th</sup> edition (2019)  7-Anatomy and physiology of human body  8-Basic of anatomy and physiology</p>			
<b>Course topics (Theory)</b>		<b>Week</b>	<b>Learning Outcome</b>	
Introduction to anatomy and physiology		First	Introducing some primary information about anatomy and physiology and the consequences of the practicing them in laboratory beside that	

		giving some bio hazardous precautions about laboratory and ethical rules in treating with human and biological spacemen's
An overview about types of tissue	Second	Showing types of tissue in practice and understanding differentiation between them
Integumentary system	Third	Demonstration of parts of integumentary system with describing the layers and components of each part by using microscope and available tools
Bone and skeletal system of human body	Fourth	Identification of name, location and function of each human body skeleton by using manufactured body skeleton in lab
Membrane transport	Fifth	Manual demonstration of egg osmosis and red blood cell tonicity and seeing the phenomena practically
Muscle anatomy and physiology	Sixth	Frog dissecting and introducing to the exact mechanism of muscle contraction nerve conduction
Cardiovascular anatomy and physiology	Seventh	Teaching measuring blood pressure and manual dissecting of animal heart
Anatomy of nervous system	Eighth	Showing different human reflex by using simple tools in lab
Gastrointestinal anatomy & physiology	Ninth	Introducing digestive tract by using anatomical doll with experimenting different digestive enzymes

Sensory and vision	Tenth	Snellen chart, vision acuity, color blindness, taste and hearing
Respiration, ventilation and gas exchange	Eleventh	Using spirometer to calculating lung capacity
Reproduction system	Twelfth	Showing reproductive organs by using anatomical dolls in lab
Renal physiology	Thirteenth	Showing how kidney work and complete mechanism of urine formation
Acid base balance	Fourteenth	Advance study of kidney

### Questions Example Design (theoretical and practical exam):

All of the activities provided in the workload section are considered when awarding you a grade for this course. In order to pass this course, you will need to earn a 60% or higher on the final exam. Your score on the exam will be calculated as soon as you complete it. If you do not pass the exam on your first try, you may take it again in the second trial.

- Type of the exam (composition and multiple choice)
- Exam's duration (for example one hour)
- The number of the questions: at least four questions. The marks distributed evenly throughout.

The answer should contain preface, main contents and conclusion.

Example

Q1\Match the term of A column with the only one correct answer of B column (3marks)

A	B
1- Clavicle	A-sebaceous gland
2-Horizontal	B-Cervical
3-Thyroid gland	C-Pectoral girdle
4-Rib	D-Endocrine
5-Atlas	E-Floating
6-sebum	F-Transverse

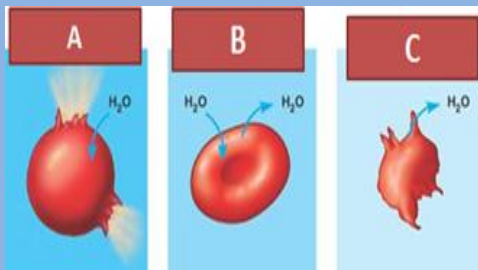
Q2/ Fill in blanks with the correct answer. (5marks)

1-.....is microscopic study of the tissues; also known as microscopic anatomy while, ..... Is the study of structural change associated with disease.

2-..... means nearer to the shoulder joint or the hip joint, while ..... means further away from the shoulder joint or the hip joint.

3- ..... it is specialized for absorption, and filtration with minimal wear & tear. It is a single layered

Q3/ According to the tonicity identify type of solution in A, B and C



**Extra notes:**

**External Evaluator**