

COURSE DESCRIPTIONS

Faculty	Technical Faculty				
Department	Allied medical science			NQF level	5
Course Title	Anatomy and physiology	Code	60403141	Prerequisite	-
Credit Hours	3	Theory	3	Practical	0
Course Leader	Lec. DaniaQ Murshed	email	d.murshed@jadara.com		
Lecturers	Lec.Nusibah Rahahleh	emails	n.rahahleh@jadaara.edu.jo		
Lecture time		Classroom		Attendance	Fulltime
Semester	second	Production	2023	Updated	2026-2027
Type of Teaching	<input type="checkbox"/> Face to Face <input checked="" type="checkbox"/> Blended <input type="checkbox"/> Online				

Short Description

This comprehensive course provides allied health students with a systematic and high-level understanding of the human body, focusing on the fundamental relationship between structure and function. The course develops a basic understanding of the anatomical design of various body organs and systems (structure) and the physiological mechanisms (function) by which they operate and interact. Emphasis is placed on studying the integrated regulation of these processes among the major body systems, thus enhancing students' overall comprehension of the human body in both health and disease.

Course Objectives

At the end of this course the students will be able to

1. Acquire knowledge and understanding of the functions and mechanisms of the body systems and organs.
2. Define anatomy and physiology.
3. Describe the body organs, their locations, compositions, functions, physiology and specific characteristics.
4. Interpret normal and abnormal anatomy and physiology.
5. Match anatomical knowledge with the physiological functions.
6. Interpret graphs of anatomical and physiological data.
7. Develop a vocabulary of appropriate terminology to effectively communicate information related to anatomy and physiology.
8. Synthesize ideas to connect knowledge of anatomy and physiology to real-world situations, including healthy lifestyle decisions

Course Intended Learning Outcomes (CILOs)

A. Knowledge - Theoretical Understanding

- a1. Acquire knowledge and understanding of the functions and mechanisms of the body systems and organs.
- a2. Define anatomy and physiology.

B. Knowledge - Practical Application
a3. Describe the body organs, their locations, compositions, functions, physiology and specific characteristics.
C. Skills - Generic Problem Solving and Analytical Skills
b1. Interpret normal and abnormal anatomy and physiology. b2. Match anatomical knowledge with the physiological functions.
D. Skills - Communication, ICT, and Numeracy
b3. Interpret graphs of anatomical and physiological data. b4. Develop a vocabulary of appropriate terminology to effectively communicate information related to anatomy and physiology.
E. Competence: Autonomy, Responsibility, and Context
c1. Synthesize ideas to connect knowledge of anatomy and physiology to real-world situations, including healthy lifestyle decisions
Teaching and Learning Methods
<input checked="" type="checkbox"/> Face to Face Lectures <input checked="" type="checkbox"/> Brain Storming <input type="checkbox"/> Synchronous remote <input type="checkbox"/> Asynchronous remote <input checked="" type="checkbox"/> Using Video <input checked="" type="checkbox"/> Discussions <input type="checkbox"/> Research Project <input type="checkbox"/> Case Study <input type="checkbox"/> Field visit <input checked="" type="checkbox"/> Problem solving
Assessment Methods
<input type="checkbox"/> Formative Assessment <input checked="" type="checkbox"/> Quiz <input type="checkbox"/> Lab Exam <input checked="" type="checkbox"/> Homework <input type="checkbox"/> Project Assessment <input type="checkbox"/> Oral Presentation <input checked="" type="checkbox"/> Midterm <input checked="" type="checkbox"/> Final Exam

Course Contents					
Week	Hours	CILOs	Topics	Teaching & Learning Methods	Assessment Methods
1.	3	a1, a2, a3, b1, b2. b3.b4. c1.	<ul style="list-style-type: none"> • Introduction to Anatomy and physiology • Anatomy and physiology • Levels of Body Organization • Body Systems and their Organs • Intercellular fluid, interstitial, and Extracellular fluid Na+ & water balance 	Face to Face Lectures, Brain Storming, Using Video, Discussions, Problem solving	Formative Assessment, Quiz, Homework, Midterm, Final Exam
2.	3	a1, a3, b1, b2. b3.b4. c1	<ul style="list-style-type: none"> • Anatomy and physiology of the cell • Movement of substances through the cell membrane: <ul style="list-style-type: none"> - Diffusion, osmosis, active and passive transport • Body tissues (Epithelium, Connective, Muscular, Nervous) • Tissue regeneration Membranes of the body 	Face to Face Lectures, Brain Storming, Using Video, Discussions, Problem solving	Formative Assessment, Quiz, Homework, Midterm, Final Exam
3.	3	a1, a3, b1, b2. b3.b4. c1	<ul style="list-style-type: none"> • Blood: • Composition and function • Blood groups • Blood vessels • Functions of the Circulatory System 	Face to Face Lectures, Brain Storming, Using Video, Discussions, Problem solving	Formative Assessment, Quiz, Homework, Midterm, Final Exam

			Heart functions: Cardiac cycle, cardiac output, and blood pressure		
4.	3	a1, a3, b1, b2. b3.b4. c1	<ul style="list-style-type: none"> • Cardiovascular System: • Functions of the Circulatory System Heart functions: Cardiac cycle, cardiac output, and blood pressure	Face to Face Lectures, Brain Storming, Using Video, Discussions, Problem solving	Formative Assessment, Quiz, Homework, Midterm, Final Exam
5.					
6.	3	a1, a3, b1, b2. b3.b4. c1	<ul style="list-style-type: none"> • Respiratory system: • Upper respiratory tract • Lower respiratory tract • Muscles of respiration • Physiology of respiration: <ul style="list-style-type: none"> – Control of Respiration – Gaseous exchange 	Face to Face Lectures, Brain Storming, Using Video, Discussions, Problem solving	Formative Assessment, Quiz, Homework, Midterm, Final Exam
7.	1		Midterm exam and discussion		Midterm
8.	3	a1, a3, b1, b2. b3.b4. c1	<ul style="list-style-type: none"> • The nervus system: • Structure and function of the nervous system organs <ul style="list-style-type: none"> - Brain - Spinal cord - Peripheral nervous system • Cranial nerves Functions of the Autonomic Nervous System	Face to Face Lectures, Brain Storming, Using Video, Discussions, Problem solving	Formative Assessment, Quiz, Homework, Midterm, Final Exam
9.					
10.	3	a1, a3, b1, b2. b3.b4. c1	<ul style="list-style-type: none"> • Physiology of the special senses: - Vision - Hearing - Olfactory - Taste 	Face to Face Lectures, Brain Storming, Using Video, Discussions, Problem solving	Formative Assessment, Quiz, Homework, Midterm, Final Exam
11.	3	a1, a3, b1, b2. b3.b4. c1	<ul style="list-style-type: none"> • Lymphatic system: • Lymph, lymph vessels, lymph organs, lymph nodes, and lymph tissues Functions of Lymph, lymph vessels, lymph organs, lymph nodes, and lymph tissues	Face to Face Lectures, Brain Storming, Using Video, Discussions, Problem solving	Formative Assessment, Quiz, Homework, Midterm, Final Exam
12.	3	a1, a3, b1, b2. b3.b4. c1	<ul style="list-style-type: none"> • Endocrine System: • Location, Shape, Size, structure, and functions of Endocrine Glands <ul style="list-style-type: none"> - Pituitary Gland - Thyroid Gland - Parathyroid Glands - Adrenal Glands - Pancreatic Islets - Pineal Gland 	Face to Face Lectures, Brain Storming, Using 3Video, Discussions, Problem solving	Formative Assessment, Quiz, Homework, Midterm, Final Exam

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13.	3	a1, a3, b1, b2. b3.b4. c1	<ul style="list-style-type: none"> • Digestive system • Structure, organs, and functions of the Digestive system: • The upper/ lower tracts <ul style="list-style-type: none"> - Mouth and Salivary glands - Pharynx and Esophagus - Stomach - Small and Large Intestines - Pancreas - Liver - Biliary Tract • Control of Digestion • Absorption Physiology of defecation 	Face to Face Lectures, Brain Storming, Using Video, Discussions, Problem solving	Formative Assessment, Quiz, Homework, Midterm, Final Exam
14.	3	a1, a3, b1, b2. b3.b4. c1	<ul style="list-style-type: none"> • Urinary and reproductive system: • Structure, organs, and functions of the Urinary system <ul style="list-style-type: none"> - Kidneys - Ureters - Urinary bladder - Urethra • Structure, organs, and functions of the Female reproductive system: <ul style="list-style-type: none"> - External genitalia and Internal genitalia - Vagina - Uterus - Fallopian tubes - Breast and mammary glands • Structure, organs, and functions of the Male reproductive system <ul style="list-style-type: none"> - Scrotum - Spermatic cords - Seminal vesicles - Ejaculatory ducts - Prostate gland Urethra and penis 	Face to Face Lectures, Brain Storming, Using Video, Discussions, Problem solving	Formative Assessment, Quiz, Homework, Midterm, Final Exam
15.			<ul style="list-style-type: none"> • Skin: • Structure of the skin: <ul style="list-style-type: none"> - Epidermis - Dermis - Subcutaneous layer • Accessory organs of the skin: <ul style="list-style-type: none"> - Nails - Hair follicles - Sebaceous glands - Sweat glands • Functions of the skin and its accessories 		
16.	3	a1, a3, b1, b2.	<ul style="list-style-type: none"> • Musculoskeletal system: • Structure, organs, and functions of the Skeletal system 	Face to Face Lectures, Brain Storming, Using	Formative Assessment, Quiz, Homework,

		b3.b4. c1	<ul style="list-style-type: none"> - Skeleton - Bones - Joints - Cavities • The main division of the skeleton (shape, position, number of bones) • Axial skeleton: <ul style="list-style-type: none"> - Skull - Vertebral column - Thoracic cage • Appendicular skeleton: <ul style="list-style-type: none"> - Shoulder girdle and upper limb - Pelvic girdle and lower limb • Articulation and movement • Healing of bones • Function of joints • Functions of muscles • Energy sources for muscle • Mechanism of muscle contraction • Healing of the muscles Repair of the nerves' supply to the muscle 	Video, Discussions, Problem solving	Midterm, Final Exam
17.			•		
18.	2		Final exam	Written exam	Final exam

Infrastructure	
Textbook	Martini, F. H., Nath, J. L., & Bartholomew, E. F. (2024). Fundamentals of anatomy & physiology (12th ed.). Pearson.
References	<ol style="list-style-type: none"> 1. Moini, (2016). Anatomy and Physiology for Health Professionals, (2nd Ed.), Jones and Bartlett learning. 2. Moore, Dalley&Agur, (2014). Clinically Oriented anatomy, Lippincott & Williams. 3. Peate, I. & Nair, M. (2017). Fundamentals of Anatomy and Physiology: For Nursing and Healthcare Students (2nd Ed) 4. Mosby's Anatomy and Physiology Coloring Book (2014), (2nd Ed). Mosby. 5. Stanfield, P. S., Hui, Y. H., Cross, H. (2015). Essential Medical Terminology, Jones and Bartlett learning.
Required reading	
Electronic materials	http://highered.mheducation.com/sites/0073403628/information_center_view0/index.html
Other	

Assessment method		Grade	CILOS							
			a1	a2	a3	b1	b2	b3	b4	c1
First (Midterm)		30	5	2	5	4	4	4	4	2
Second (if applicable)										
Final Exam		40	5	5	7	5	5	5	5	3
Coursework		30								
Coursework assessment methods	Assignments									
	Case study									
	Discussion and interaction	10	10							
	Group work activities									
	Lab tests and assignments									
	Presentations									
	Quizzes	20	4	2	4	2	2	2	2	2
Total		100	24	9	16	11	11	11	11	7

Plagiarism

Plagiarism is claiming that someone else's work is your own. The department has a strict policy regarding plagiarism and, if plagiarism is indeed discovered, this policy will be applied. Note that punishments apply also to anyone assisting another to commit plagiarism (for example by knowingly allowing someone to copy your code).

Plagiarism is different from group work in which a number of individuals share ideas on how to carry out the coursework. You are strongly encouraged to work in small groups, and you will certainly not be penalized for doing so. This means that you may work together on the program. What is important is that you have a full understanding of all aspects of the completed program. In order to allow proper assessment that this is indeed the case, you must adhere strictly to the course work requirements as outlined above and detailed in the coursework problem description. These requirements are in place to encourage individual understanding, facilitate individual assessment, and deter plagiarism.