Jordan University of Science and Technology

Faculty of Medicine

Doctor Of Medicine (Md) Department

MED130 Anatomy (Lab)

Summer Semester 2023-2024

Course Catalog

0 Credit Hours. Jordan University of Science and Technology Faculty of Medicine Department of Anatomy Summer semester 2022-2023 Course title: Anatomy (for nursing). Course code: MED 130. Credit hours: 4 credits Day Groups Sunday Section 1 Monday Section 2 Tuesday Section 1 Wednesday Section 2 Course Description The anatomy course encompasses lectures and laboratory sessions, aiming to introduce fundamental concepts of gross anatomy. It covers topics such as definitions, subdivisions, approaches to studying gross anatomy, medical terminology, and medical imaging techniques. The course progresses to a systematic examination of the human body, exploring the general shape, structure, and location of organs within various systems. This forms the foundation for a topographic study of anatomy in subsequent modules. Additionally, the course integrates functional aspects of human anatomy with its structure, incorporating clinical significance in anatomical relationships as relevant to each module. Method of instruction 1- Lectures are interactive sessions to have a general overview of the objectives and discuss certain areas. 2- Lectures and/or handouts - are not to replace the recommended textbook, which must be the main resource. 3- Labs are group activities where: A-Students prepare lists of structures to be identified. B-Supervised identification will be carried out. C-Group discussions are very much encouraged. Evaluation and distribution of marks Exam Method Credit First exam (theory and practical) MCQ Online 30%. Second exam (theory and practical) MCQ Online 30%. Final exam (theory and practical) MCQ Online 40%. Attendance Policy: ? The students are expected to attend all classes and lab sessions. ? Repeated tardiness and leaving labs prior to dismissal is a set-up for failure. ? Absence in excess of 10% is defined as unsatisfactory progress and will be reported to the Dean?s office. Recommended textbooks and resources 1. Principles of Human Anatomy by Gerard J Tortora. Latest edition (14th edition) 2. Atlas of human anatomy by Frank H. Netter. Latest edition Course Learning Outcomes Exhibit a comprehensive understanding of the structural organization and functions of various human body systems, including circulatory, respiratory, gastrointestinal, endocrine, lymphatic, musculoskeletal, nervous, and genitourinary systems. Conceptualize the intricate interplay between structure and function in different tissues, organs, and systems of the human body, maintaining homeostasis, and comprehend their deviations in disease states. Apply acquired knowledge of human anatomy and function to analyze and solve queries related to significant clinical cases and diseases. Acquire the skills to gather systematic and relevant clinical history across diverse medical conditions and settings. Demonstrate proficiency in performing clinical skills and procedures with precision. Conduct relevant physical examinations on patients in a professional and ethical manner. Identify major signs and symptoms of disease states, recognizing risk factors and etiologies, employing an interdisciplinary approach to differentially diagnose patients. Competently order and interpret results of essential diagnostic procedures, including laboratory investigations and conventional imaging procedures. Apply safe and accurate methods in the processes of Dissection and Embalming. Critically evaluate research studies guided by the principles of evidence-based medicine. Showcase the ability to work effectively in diverse settings and communities. Learning objectives of the course By the end of the course, the students are expected to achieve the following specific objectives: No. Title Type of activity Objectives 1 Introduction to the human anatomy Lecture. 1. Define human anatomy and its major subdivisions. 2. Introduce students to the approaches of study of anatomy. 3. Describe structural levels of human body organization. 4. Explain how anatomical terminology is used to describe shape and position of body parts and organs. 5. Illustrate the role of modern medical imaging techniques in studying anatomy. 6. Define anatomical position, anatomical planes and sections, and directional and positional terms 2+3 Axial skeleton Lecture and lab 1. Understand the different types of bones. 2. Describe the major bony landmarks. 3. Outline individual bones and their major characteristics. 4. Describe an overview of the skull. 5. Discuss cranial and facial

bones with their main features. 6. Describe major foramina in cranial fossae and their contents. 7. Describe the vertebral column and different types of vertebrae. 8. Define the thoracic cage and discuss the ribs and their attachments and movements. 4 + 5 Appendicular and skeleton Lecture and lab. 1. Describe bones of the shoulder girdle and bones of the upper limb with their major features. 2. Describe bones of the pelvic girdle and bones of the lower limb with their major features 6 Articulations Lecture and lab. 1. Differentiate types and classifications of joints. 2. List the major joints in the body. 3. Describe the shoulder, knee, and hip joints. 4. Relate the types of joint to location and functional relevance. 7-9 Muscular system Lecture and lab. 1. Understand the major anatomical and functional features of different muscles. 2. List groups of muscles of head and neck including expression, mastication, and cervical muscles moving the neck. 3. List groups of muscles of trunk, shoulder, pectoral, and gluteal muscles. 4. List groups of muscles of arm, forearm, and hand. 5. List groups of muscles of thigh, leg, and foot. 6. Understand group formation of muscles of the back. 10+11 Cardiovascular system Lecture and lab. 1. Describe major features of the heart and pericardial cavity. 2. List the great vessels and their major features. 3. Identify major members of pulmonary and systemic circulation. 4. Understand the principle of portal circulation and their anastomosis. 5. Describe the circle of Willis and its major branches and blood vessels of the neck. 6. List blood vessels of thoracic and abdominal aorta. 7. Blood vessels of the upper and lower limb. 12 Respiratory system Lecture and lab. 1. Outline organs of the upper respiratory passages and their major features including nose, nasopharynx, and larynx. 2. Describe the trachea and the bronchial tree and understand the anatomic organization of the lungs into lobes, segments, and lobules. 3. Understand the major features of the pleural cavity. 4. Relate structural features of the respiratory passages to their conductive or gas exchange functions. 13+14 Digestive system Lecture and lab. 1. Outline divisions of the gastrointestinal tract. 2. Describe the oral cavity and pharynx including large salivary glands. 3. Describe the esophagus and the stomach. 4. Understand the divisions of small and large intestine. 5. Describe the rectum and anal canal. 6. Relate the structural differences of different parts of the gastrointestinal tract to their functional requirements. 7. Describe the liver and gallbladder, pancreas and spleen. 15 Urinary system Lecture and lab. 1. Describe the general morphology of the kidney and its frontal section, including kidney capsules, kidney pelvis, and system of calyces. 2. Describe the ureters. 3. Describe the urinary bladder. 4. Understand the difference between male and female urethrae. 16+17 Male and female reproductive system Lecture and lab. 1. List organs of genital system in males and females and their parts. 2. Understand principles of structural differences of male and female genital organs. 18+19+20 Nervous system Lecture and lab. 1. Understand the concept of division of nervous system into central and peripheral systems. 2. List parts of the brain. 3. Discuss the meninges and the ventricular system and CSF circulation. 4. Understand topography of the brain and spinal cord. 5. Outline the cranial and spinal nerves and understand formation of plexus. 6. Understand the principle of dermatomes and myotomes. 7. Understand the principle of segmental and peripheral supply. 21 Endocrine system Lecture 1. List the endocrine glands and their major structural features. 2. Compare endocrine organs and endocrine tissues in the body. The timetable of Lectures and Labs First Week 16/07/2023-20/07/2023 Lecture Teaching Instructor Labs Introduction to the human anatomy On campus Axial skeleton I Online Axial skeleton II On campus Appendicular skeleton I (Upper Limb) Online Second Week 23/07/2023-27/07/2023 Lecture Teaching Instructor Labs Appendicular skeleton II (Lower Limb) On campus Skeletal system (axial skeleton) Joint Online Skeletal system (appendicular skeleton) Muscular system I On campus Muscular system II Online Third Week 30/07/2023-03/08/2023 Lecture Teaching Instructor Labs Muscular system III On campus Muscular system I Cardiovascular system I Online Muscular system II Revision First Exam Fourth Week 06/08/2023-10/08/2023 Lecture Teaching Instructor Labs Cardiovascular system II On campus CVS + Respiratory system Respiratory system Online CVS + Respiratory system Digestive system I On campus Digestive system II Online Fifth Week 13/08/2023-17/08/2023 Lecture Teaching Instructor Labs Urinary system On campus Digestive system + Urinary system Male reproductive system Online Digestive system + Urinary system Female reproductive system On campus Nervous system I Online Sixth Week 20/08/2023-24/08/2023 Lecture Teaching Instructor Labs Nervous system II On campus Revision Nervous system III Online Revision Revision Second Exam Seventh Week 27/08/2023-31/08/2023 Lecture Teaching Instructor Labs Endocrine system On campus Reproductive system + Nervous system Revision Reproductive system + Nervous system Revision Revision

Teaching Method: Blended

Text Book	
Title	Principles of Human Anatomy by Gerard J Tortora. Latest edition (14th edition)
Author(s)	Gerard J Tortora
Edition	14th Edition
Short Name	Ref # 1

Other Information	

Course References

Short name	Book name	Author(s)	Edition	Other Information
2	Atlas of human anatomy by Frank H. Netter. Latest edition	Frank H. Netter.	8th Edition	

Instructor	
Name	**Dr. Wafaa Mahmoud**
Office Location	-
Office Hours	Sun : 15:30 - 16:30 Mon : 09:30 - 11:30 Wed : 12:30 - 14:30 Thu : 13:00 - 15:00
Email	washunnaq@just.edu.jo

Class Schedule & Room

Section 1:
Lecture Time: Sun : 13:30 - 15:30
Room: 1Aالمشرحة

Section 2:
Lecture Time: Tue : 13:30 - 15:30
Room: 1Aالمشرحة

Section 3:
Lecture Time: Sun : 08:30 - 10:30
Room: 1Aالمشرحة

Section 4:
Lecture Time: Tue : 08:30 - 10:30
Room: 1Aالمشرحة

Section 5:
Lecture Time: Sun : 08:30 - 10:30
Room: 1Aالمشرحة

Section 6:
Lecture Time: Mon : 12:30 - 14:30
Room: 1Aالمشرحة

Section 7:
Lecture Time: Tue : 08:30 - 10:30
Room: 1Aالمشرحة

Tentative List of Topics Covered

Weeks	Topic	References

Week 1	Introduction to the human anatomy	From **Ref # 1**, From **2**
Week 1	Axial skeleton I	From **Ref # 1**, From **2**
Week 2	Axial skeleton II	From **Ref # 1**, From **2**
Week 2	Appendicular skeleton I (Upper Limb)	
Week 3	Appendicular skeleton II (Lower Limb)	From **Ref # 1**, From **2**
Week 3	Joint	From **Ref # 1**, From **2**
Week 4	Muscular system I	From **Ref # 1**, From **2**
Week 4	Muscular system II	From **Ref # 1**, From **2**
Week 5	Muscular system III	From **Ref # 1**, From **2**
Week 5	Cardiovascular system I (Heart)	From **Ref # 1**, From **2**
Week 6	Cardiovascular system II (Blood vessels)	From **Ref # 1**, From **2**
Week 6	Respiratory system	
Week 7	Digestive system I	From **Ref # 1**, From **2**
Week 7	Digestive system II	From **Ref # 1**, From **2**
Week 8	Urinary system	From **Ref # 1**, From **2**
Week 8	Male reproductive system	From **Ref # 1**, From **2**
Week 9	Female reproductive system	From **Ref # 1**, From **2**
Week 9	Lymphatic system	From **Ref # 1**, From **2**
Week 10	Nervous system I	From **Ref # 1**, From **2**
Week 10	Nervous system II	From **Ref # 1**, From **2**

Week 11	Nervous system lll	From **Ref # 1**, From **2**
Week 11	Endocrine System	From **Ref # 1**, From **2**
Week 12	Revision	From **Ref # 1**, From **2**
Weeks 13, 14	Exams	From **Ref # 1**, From **2**

Mapping of Course Outcomes to Program Outcomes	**Course Outcome Weight (Out of 100%)**	**Assessment method**
test	20%	

Relationship to Program Student Outcomes (Out of 100%)													
PLO1	PLO2	PLO3	PLO4	PLO5	PLO6	PLO7	PLO8	PLO9	PLO10	PLO11	PLO12	PLO13	PLO14

Policy	
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