



## The Hashemite University

### Course syllabus

### General Anatomy

1	Course title	General Anatomy
2	Course number	111501104
3	Credit hours (theory, practical)	3 (2 theory, 1 practical)
	Contact hours (theory, practical)	Theory: 2 Practical:1
4	Course meeting time Course location	variable
5	Program title	Doctor of Medicine
7	Awarding institution	The Hashemite University
8	Faculty	faculty of Medicine
9	Department	Basic medical sciences
10	Level of course	first year medical students
11	Year of study and semester (s)	2018/2019 second semester
12	Final Qualification	MD degree
13	Other department (s) involved in teaching the course	None
14	Language of Instruction	English
15	Date of production/revision	09/2018

#### Course Coordinator:

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**Course Description:**

1. The course begins with understanding; the definition and significance of anatomy and its subdivisions; the term of position and movements; and the regional term applied in the study of human gross anatomy.
2. The course introduces the basic structures encountered while dissecting a cadaver (skin, fascia, skeletal muscles, bones, joints, blood & lymphatic vessels, nervous system organization).
3. The course covers the main structures and functions of different body system; (Skeletal, muscular & Joints, CVS, Respiratory, GIT, Urinary, Male and Female Genital, and Nervous System).
4. The course covers the general embryology, which describe the development of embryo, fetal membrane, placenta and the causes of congenital malformations.

**Intended Learning Outcomes (ILOs):**

1. The student should be familiar with the terms used in the study of anatomy.
2. The student should be familiar with basic knowledge concerning the main structures faced while dissecting a human cadaver.
3. The student should be oriented with the structures and their arrangement in each system of human body which helps him in building good basic anatomical knowledge for subsequent modules.
4. The student should be familiar with basic knowledge of general human embryology including the process fertilization, zygote formation, implantation, embryonic period, fetal membranes and placenta formation, and the main causes of congenital malformations.

**Topic Outline and Schedule:**

<b>week</b>	<b>Topic</b>	<b>General Objective</b>	
<b>1</b>	<b>Introduction to Human Anatomy</b>	<ol style="list-style-type: none"> <li>1. Anatomical position.</li> <li>2. Body planes, terms of position, and regional terms.</li> <li>3. Body cavity. Subdivision &amp; contents.</li> <li>4. Levels of organization.</li> </ol>	<b>Introduction.</b>
	<b>Axial Skeleton The Skull</b>	<ol style="list-style-type: none"> <li>1. Outline the bones of axial skeleton.</li> <li>2. Describe the general features of skull.</li> <li>3. Introduce the bones of skull; sutures, fontanel &amp; their significances.</li> <li>4. Describe briefly the cranial cavity and base of skull.</li> <li>5. Outline important foramens of skull.</li> </ol>	
<b>2</b>	<b>Axial Skeleton Mandible, Vertebral Column, Sternum and Ribs</b>	<ol style="list-style-type: none"> <li>1. Describe the features of mandible.</li> <li>2. Describe the general features of vertebral column.</li> <li>3. Describe the structure and significance of inter- vertebral discs.</li> <li>4. Outline the typical parts of the vertebra.</li> <li>5. Describe briefly main features of regional vertebrae, sacrum &amp; coccyx.</li> <li>6. Describe briefly the sternum and ribs.</li> </ol>	<b>Skull, vertebrae, sternum a</b>
	<b>Appendicular Skeleton Bones of Upper Limb</b>	<ol style="list-style-type: none"> <li>1. Outline the bones of upper limb.</li> <li>2. Describe the main features of clavicle, scapula &amp; humerus.</li> <li>3. Describe the features of ulna &amp; radius.</li> <li>4. Outline the general features and name of carpal bones.</li> <li>5. Describe the features of metacarpal bones and phalanges.</li> </ol>	
<b>3</b>	<b>Appendicular Skeleton Bones of Lower Limb</b>	<ol style="list-style-type: none"> <li>1. Outline the bones of lower limb.</li> <li>2. Describe the main features of bones of hip: ilium, ischium, &amp; pubis.</li> <li>3. Describe the main features of femur &amp; patella.</li> <li>4. Describe the features of tibia &amp; fibula.</li> <li>5. Outline bones of foot and arches of foot.</li> </ol>	<b>Skull, vertebrae, sternum a</b>

	<b>Muscular System</b>	<ol style="list-style-type: none"> <li>1. Outline the types of skeletal muscle.</li> <li>2. Outline the nomenclature of skeletal muscles.</li> <li>3. Outline the type of actions of skeletal muscles.</li> </ol>	
4	<b>Muscles of Scalp, Face, &amp; Eye</b>	<ol style="list-style-type: none"> <li>1. Outline the muscles of scalp &amp; face.</li> <li>2. Outline the muscles of mastication.</li> <li>3. Outline the extra-ocular muscles of eye.</li> </ol>	<b>Bones of upper and lower limbs.</b>
	<b>Muscles of the Neck</b>	<ol style="list-style-type: none"> <li>1. Outline the main muscles of neck.</li> <li>2. Outline the muscles of pharynx &amp; larynx.</li> <li>3. Outline the prevertebral muscles of neck.</li> </ol>	
5	<b>Muscles of Thoracic, abdominal &amp; Pelvic Walls</b>	<ol style="list-style-type: none"> <li>1. Outline the muscles of thoracic wall.</li> <li>2. Describe the diaphragm.</li> <li>3. Outline the muscles of anterior abdominal wall.</li> <li>4. Describe briefly the perineum.</li> </ol>	<b>Muscles of the scalp, face, and neck.</b>
	<b>Muscles of upper Limb</b>	<ol style="list-style-type: none"> <li>1. Outline the main muscles of pectoral, shoulder, and scapular region.</li> <li>2. Outline the muscles of arm, forearm, &amp; hand.</li> </ol>	
6	<b>Muscles of lower Limb</b>	<ol style="list-style-type: none"> <li>1. Outline the muscles of the gluteal region &amp; back of thigh.</li> <li>2. Outline the muscles of anterior &amp; lateral compartment of thigh.</li> <li>3. Outline the muscles of leg.</li> <li>4. Describe the popliteal fossa.</li> <li>5. Outline the muscles of foot.</li> </ol>	<b>Muscles of upper limb, and abdomen wall.</b>
	<b>Body Joints</b>	<ol style="list-style-type: none"> <li>1. Outline the type of body joints.</li> <li>2. Outline the structure and types of synovial joints.</li> <li>3. Outline the joints of upper limb (shoulder, elbow, radio-ulnar, wrist, and joints of hand).</li> <li>4. Outline the joints of lower limb (hip, knee, ankle, and joints of foot).</li> </ol>	
	<b>Circulatory System</b>	<ol style="list-style-type: none"> <li>1. Outline the parts of circulatory system.</li> <li>2. Briefly describe the pericardium.</li> </ol>	

7		3. Briefly describe the heart (location, chambers, valves, blood supply).	<b>Muscles of upper limb.</b>
	<b>Circulatory System</b>	1. Outline the great vessels of heart. 2. Outline the branches of aorta. 3. Outline the vessels of head & neck. 4. Outline the blood vessels of upper & lower limbs.	
8	<b>Respiratory System</b>	1. Outline the parts of respiratory system. 2. Outline the structure of nasal cavity, nasopharynx, paranasal sinuses. 3. Outline the larynx.	<b>Muscles of lower limb.</b>
	<b>Respiratory System</b>	1. Describe briefly the trachea & bronchi. 2. Describe briefly the pleural sac. 3. Describe briefly the lungs.	
9	<b>Digestive System</b>	1. Outline the parts of digestive system. 2. Describe briefly the mouth & esophagus. 3. Outline the location, parts, openings, and borders of stomach, & peritoneal folds. 4. Introduce parts & functions of small bowel.	<b>CVS</b>
	<b>First Examination (40 MCQ Written Exam)</b>		
10	<b>Digestive System</b>	1. Outline the parts, location and function of large intestine. 2. Outline the associated digestive glands (salivary glands, pancreas, liver & gall bladder and their functions).	<b>CVS</b>
	<b>Urinary System</b>	1. Outline parts of urinary system. 2. Briefly describe the location, gross structure & blood vessels of kidney. 3. Briefly outline the ureter, urinary bladder & male & female urethra.	
11	<b>Male Genital System</b>	Outline the parts & functions of male genital system.	<b>Respiratory system.</b>
	<b>Female Genital System</b>	Outline the parts & functions of female genital system.	

12	<b>Nervous System The cerebral hemisphere</b>	<ol style="list-style-type: none"> <li>1. Outline the anatomical and functional parts of NS.</li> <li>2. Outline the parts of CNS (brain &amp; spinal cord).</li> <li>3. Outline the meninges &amp; ventricles of brain.</li> <li>4. Outline the lobes &amp; functions of cerebral hemisphere.</li> <li>5. Outline the sulci, gyri &amp; important functional areas.</li> <li>6. Outline the other part of brain (thalamus, hypothalamus, midbrain, pons, medulla oblongata &amp; cerebellum).</li> </ol>	<b>Digestive system.</b>
	<b>Nervous System The spinal cord</b>	<ol style="list-style-type: none"> <li>1. Outline the general features of the spinal cord.</li> <li>2. Outline its meninges.</li> <li>3. Discuss the CSF and outline its function.</li> </ol>	
13	<b>Nervous System The brain stem</b>	<ol style="list-style-type: none"> <li>1. Outline the morphology of the medulla oblongata.</li> <li>2. Outline the morphology of the pons.</li> <li>3. Outline the morphology of the midbrain.</li> </ol>	<b>Urogenital system.</b>
	<b>General Embryology – I</b>	<ol style="list-style-type: none"> <li>1. Embryological terms (sperm, Oocyte, embryo, Zygote, implantation, Conception, blastomeres, Morula, blastocyst, Conceptus primordium, Fetus, abortion, labour).</li> <li>2. Outline the process of spermatogenesis.</li> <li>3. Outline the process of Oogenesis.</li> <li>4. Describe the process of fertilization.</li> </ol>	
14	<b>General Embryology – II</b>	<ol style="list-style-type: none"> <li>1. Describe zygote cleavage, formation of blastocyst &amp; implantation (1st week of development).</li> <li>2. Describe the 2nd week of development.</li> </ol>	<b>Practical Examination (second exam, 20 marks)</b>
	<b>General Embryology – III</b>	<ol style="list-style-type: none"> <li>1. Describe briefly the 3rd week of development of embryo.</li> <li>2. Describe briefly the development of embryo from 4th – 8th weeks.</li> <li>3. Describe fetal membranes &amp; placenta.</li> <li>4. Describe causes of congenital</li> </ol>	

		anomalies. 5. Outline procedures & techniques used to assess fetal status.	
<b>15 &amp; 16</b>		Final exams	

### Teaching Methods and Assignments:

**Development of ILOs is promoted through the following teaching and learning methods:**

1. Textbook & references
2. Lecture notes
3. Cadavers & specimens
4. Human plastic models

### Evaluation Methods:

#### **Grading Policy:**

Grades can be based on the following:

First Exam:	40%.
Practical Exam:	20%.
Final Exam:	40%.
Total Points:	100

### Course Policies:

#### **Attendance policies:**

If a student is absent for a teaching session then they must discuss this with the course instructor. If a student is absent for more than 25% of the course then he may be liable to fail the course

#### **B- Absences from exams and handing in assignments on time:**

If a student misses an examination then they will have the opportunity for a make-up examination, according to the university regulations.

#### **C- Health and safety procedures:**

college Members and students must at all times, conform to Health and Safety rules and procedures.

**D- Honesty policy regarding cheating, plagiarism, misbehavior:**

As a student in this course (and at this university) you are expected to maintain high degrees of professionalism, commitment to active learning and participation in this class and also integrity in your behavior in and out of the classroom. Students violate this policy would be subjected to disciplinary action according to the Hashemite University disciplinary policies

**Required equipment:**

1. Formalin preserved human cadavers and body parts.
2. Plastinated human cadavers and body parts.
3. Plastic models

**References:**

Author	Title
G.J. Tortora	Principle of Human Anatomy, 14 <sup>th</sup> edition or latest edition.
R.S. Snell.	Clinical Anatomy for Medical Students, 9 <sup>th</sup> edition or latest edition.
K.L. Moore and T.V.N. Persaud	Before we are born, 9 <sup>th</sup> edition or latest edition.
Frank H. Netter	Atlas of Human Anatomy, 7 <sup>th</sup> edition or latest edition.

**26. Additional information:**

The semester is 16 weeks:  
 -14 weeks: (2 theory hours and 1.5 practical hours/week)= 28 lectures and 14 practical sessions  
 -Last two weeks for final exams according to university regulations.