



Faculty of Medicine

Major: Doctor of Medicine

Academic Year: 2022/2023

Subject: Anatomy and Embryology

COURSE SYLLABUS

Student's Copy



1. Course information:

Theory		Practical	
Course Title:	Anatomy and Embryology	Course Title:	Anatomy
Course Code:	1001101	Course Code:	1001101
Co-Requisite:		Co-Requisite:	
Prerequisite:		Prerequisite:	
Course Credit Hours:	3	Course Credit Hours:	2
Class Location:		Class Location:	
Department: Basic medical sciences			
Final Qualification:			

2. Instructor Contact Information:

Coordinator:	Dr. Khaled Saad
Instructor(s):	Dr. Gamal Hosny
Email:	KhaledElbayoumi@isums.edu.jo gamalebrahem@isums.edu.jo
Office:	
Office Hours:	Sunday 10 am- 2pm Monday 9 am- 3 pm



3. Course Description:

Gross Anatomy - The course is designed to provide students with clear and detailed concepts of the upper and lower limbs.

Introduction to thorax, abdomen and their main structures.

Embryology:

- The course is designed to provide students with clear and detailed concepts of general embryology .
- General overview of the fetal development and its major milestones will be learnt; starting from fertilization, implantation and its subsequent development into a bilaminar and trilaminar germ discs.
- By the end of the course ,students will acquire the ability to list derivatives of ectoderm , mesoderm and endoderm

4. Resources Available to Students:

- Required book (s), assigned reading and audio-visuals: - Snell's Clinical Anatomy by Regions 10th Edition - Gray's Anatomy for Students 4th Edition -Netter's atlas of human embryology
- Recommended books, materials, and media: - Principles of Anatomy and Physiology. - Grant's atlas of anatomy.

5. Teaching Methods

- a. Lectures.
- b. Discussion and problem solving.
- c. Individual and groups activities.
- d. In- class coepetition.



6. Intended Learning Outcomes (ILOs):

Upon successful completion of this course students will be able to ...

- 1) Define anatomical position, planes, and directional terms.
- 2) Identify and describe bones of the upper and lower limbs.
- 3) Identify muscles ,nerves and blood vessels of pectoral region,scapular region, arm , forearm ,hand gluteal region , the thigh and the leg.
- 4) Locate axilla, its boundaries and contents and describe the brachial plexus, its formation and region of supply.
- 5) Distinguish anatomy of the male and female reproductive systems
- 6) Understand the process of sperm and oocyte formation and describe the Ovarian Cycle.
- 7) Describe the phases of the Fertilization , implantation, the formation of the bilaminar and trilaminar germ discs.
- 8) Understand and list derivatives of ectoderm , endoderm and mesoderm and describe the formation and progression of the development of the placenta and fetal membranes
- 9) Outline thoracic wall and its basic structures of the: Bones, muscles, vessels, nerves, joints and the diaphragm.
- 10) Describe the lungs, their lobes and fissures, relations, blood and nerve supply and side identification and understand the structure of the pleura and its nerve supply.
- 11) Distinguish the external and internal features of the heart.
- 12) Distinguish basic structures of the anterior abdominal wall , understand the Inguinal canal and explain the general arrangement of the abdominal cavity.

7.Course Policies:

To be explained to students at the first meeting:

1. Attendance Policies:

A. Attendance Policy (absences and tardiness for a traditional course):

- a. Students must attend all classes of this course.
- b. Any student with an absence of 15% of the classes of any course, will be illegible to sit for the final exam and will result in a failing grade being assigned in this course.
- c. Excused absences include documented illness, deaths in the family, and other documented crises, call to active military duty or jury duty, religious holy days, and official University activities. These absences will be accommodated in a way that does not arbitrarily penalize



- students who have valid excuses. Consideration will also be given to students whose dependent children experience serious illnesses.
- d. Students with a legitimate reason to miss a required activity must request an approved absence through Student Academics. Unexcused absence from a scheduled examination or quiz may result in (0 %) being assigned for that assessment. Unexcused absence from an activity for which attendance is may be considered an issue of Professionalism.
 - e. Any student who arrives late will not be allowed to attend the class and will be marked absent.

B. Exam Attendance:

- a. A student who is more than 10 minutes late, will not be permitted to submit the exam.
- b. A student who is late more than 30 minutes will not be permitted to submit the final exam, and no student will be permitted to leave the exam center before the elapse of 30 minutes.

2. Exams Policies:

- a. Students are expected to take their exams on time and as scheduled by their instructors.
- b. Student who are unable to take (quiz, midterm or final) exam due to any reason should contact their instructor immediately.
- c. Make-up exams are of the responsibility of faculty committee.
- d. A final exam, paper, or project is required in all courses.
- e. Seminars and workshops are included in evaluation criteria.
- f. Only registered undergraduate and graduate credit students are allowed to take final exams.
- g. If you are unable to take the final exam at the scheduled time without any acceptable excuse, you may not be allowed to rearrange the final exam separately (Make-up).
- h. If you attend the final exam and do not submit the exam sheet, or do not complete the exam for any reason, you are not allowed to complete the final exam at another time or appeal for a final make-up exam and will be assigned failing for the final exam.
- i. If you do not take your final exam and did not withdraw from the course by the withdrawal deadline you will assign a failing grade for the final exam.



3. **Cheating Policies:** Cheating is officially defined as giving or attempting to give, obtaining or attempting to obtain, information relative to an examination or other work that the student is expected to do alone and not in collaboration with others, or the use of material or information restricted by the instructor. Plagiarism is no lesser an offense than cheating, it means repeating another's sentences as your own, adopting a particularly apt phrase as your own, paraphrasing someone else's argument as your own, and presenting someone else's line of thinking in the development of a thesis as though it were your own.
4. **Penalty for cheating and plagiarism:** The failing grade, shall be assigned for that piece of work to any students cheating or plagiarizing.
5. **Mobiles:** Mobile phones should be kept turned off or silent while in class. Usage of mobile phones is not allowed in classes in any form (talking and/or texting).

8.Course Grading System:

Assessment Tools	Weight (100%)	Description
Exams (Midterm and Final)	80%	<ul style="list-style-type: none">- MCQs and fill in the space questions- True/ False- Short essay- Matching- Identifying structures in drawing.
Practical exam	20%	<ul style="list-style-type: none">- MCQs



9.Course Outlines/ Schedule:

Week	Topic	Chapter	Reference	Estimated number of hours	Teaching method		ILOs
					Theoretical Lectures	Practical Laboratories	
1	<ul style="list-style-type: none"> • Anatomy: Introduction to anatomy and bones of the upper limb. •Embryology: Male genital system 	upper limb.		2	1	1	Define anatomical position, planes, and directional terms. • Identify and describe bones of the upper limb. • Distinguish anatomy of the male reproductive system
		Embryology		1			
2	<ul style="list-style-type: none"> • Anatomy: Scapular, Pectoral regions and Axilla. •Embryology: Female reproductive system 	upper limb.		2	1	1	Identify muscles of pectoral and scapular regions. Locate axilla, its boundaries and contents. • Distinguish anatomy of the female reproductive system
		Embryology		1			
3	Anatomy: Axilla and Brachial plexus.Embryology: Gametogenesis (Spermatogenesis)	upper limb.		2	1	1	Describe the brachial plexus, its formation and region of supply. Understand the process of sperm formation and maturation.
		Embryology		1			
4	Anatomy: Arm compartments. • Embryology: Gametogenesis (Gametogenesis)	upper limb.		2	1	1	Arm muscles nerves, and blood vessels • Understand the process of oocyte formation and maturation.
		Embryology		1			



5	Anatomy: Cubital fossa and compartments of the forearm. • Embryology: First week of development.	upper limb. Embryology		2 1	1	1	<ul style="list-style-type: none"> Recognize boundaries and contents of the cubital fossa. <p>Describe muscles, nerves, and blood vessels of the forearm</p> <ul style="list-style-type: none"> Understand the Ovarian Cycle, ovulation and its related changes.
6	Anatomy: The hand and joints of upper limb. • Embryology: Fertilization & cleavage implantation	upper limb. Embryology		2 1	1	1	<p>Describe muscles, nerves, and blood vessels of the hand</p> <ul style="list-style-type: none"> Explain the anatomy, type of joint, articulations and actions of shoulder, elbow. Describe the phases of the Fertilization
7	Anatomy: Bones of the lower limbs. • Embryology: Bilaminar disc.	Lower limb. Embryology		2 1	1	1	<p>Describe the bones of the lower limbs.</p> <ul style="list-style-type: none"> Define the bilaminar disc and its significance for the implantation
8	Anatomy: Gluteal muscles lumbar plexus. Embryology: Bilaminar germ disc.	Lower limb. Embryology		2 1	1	1	<p>Describe muscles, nerves, and blood vessels of the gluteal region.</p> <ul style="list-style-type: none"> Describe the formation of the bilaminar germ disc
9	Anatomy: Thigh anterior and medial	Lower limb.		2	1	1	<p>Describe muscles, nerves, and blood vessels of the</p>



	compartments, femoral triangle Embryology: Trilaminar germ disc.	Embryology		1			anterior and medial compartments of the thigh • Describe the formation of trilaminar germ disc
10	Anatomy: Posterior compartment of thigh and popliteal fossa. Embryology: Derivatives of the ectoderm, endoderm and mesoderm	Lower limb. Embryology		2 1	1	1	Describe muscles, nerves, and blood vessels of the posterior compartment of the thigh. • Understand and list derivatives of ectoderm, endoderm and mesoderm
11	Anatomy: Leg muscles compartments.	Lower limb.		2	1	1	Describe muscles in each compartment of the leg.
12	Anatomy: Thoracic wall.	Thorax		2	1	1	Outline thoracic wall and its basic structures of the: Bones, muscles, vessels, nerves and joints. • Describe the diaphragm, its shape, nerve supply, openings and function.
13	Anatomy: Lungs and Pleura. Heart and Pericardium.	Thorax		2 2	1 1	1 1	Describe the lungs, their lobes and fissures, relations, blood and nerve supply and side identification. Understand the structure of the pleura Distinguish the external and internal features of the heart. Explain the conducting system of the heart.



14	Embryology: Fetal period- congenital malformations Anatomy: Abdominal wall, Inguinal canal and abdominal cavity.	Embryology Addomen		1 2	1	1	Describe the normal and pathological development of fetus.. Distinguish basic structures of the anterior abdominal wall. • Describe function and nerve supply of muscles of the anterior abdominal wall. • Understand the Inguinal canal, its walls. Explain the general arrangement of the abdominal cavity.
15	Embryology: Placenta and Fetal membranes	Embryology		1	1		Describe the formation and progression of the development of the fetal membranes