



# The University of Jordan

## **Accreditation & Quality Assurance Center**

# **Course Syllabus**

Anatomy and Embryology for medical students



1	Course title	Anatomy and Embryology
2	Course number	0502110
3	Credit hours (theory, practical)	3 (2 theory, 1practical)
	Contact hours (theory, practical)	Theory: 2 Practical: 1
4	Prerequisites	Biology 0304102
5	Program title	Doctor of Medicine
6	Program code	05
7	Awarding institution	The University Of Jordan
8	Faculty	School of Medicine
9	Department	Anatomy and Histology
10	Level of course	1st year
11	Year of study and semester (s)	2016/2017 second semester
12	Final Qualification	Doctor of Medicine
13	Other department (s) involved in teaching the course	None
14	Language of Instruction	English
15	Date of production/revision	1/9/2016

## 16. Course Coordinator:

Dr. Amjad Shatarat Office number 05

Office phone 23425

Email: a.shatarat@ju.edu.jo



#### **17. Other instructors:**

Dr. Maher Al-Hadidi Office NO. 123 Office phone 23426

#### **18. Course Description:**

#### A) Gross Anatomy:

The course is designed to provide students with clear and detailed concepts of general anatomy. General overview of the upper and lower limbs, introduction to thorax, abdomen and their main structures.

#### B) Embryology

The course is designed to provide students with clear and detailed concepts of General Embryology. A 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

#### 19. Course aims and outcomes:

The objectives of this course include teaching the students general anatomy and embryology, as well as enabling them to distinguish between various anatomical structures and their functions.

At the end of this course, the student is expected to have general knowledge in human anatomy, distinguish the various structures, and understand the blood & nerve supply and the function of each structure. Furthermore, the student must learn the major phases of fertilization, implantation, and fetal development.

# 20. Topic Outline and Schedule:

week	content	Lecturer	outcomes	evaluation	References
2	Anatomy: Introduction to anatomy and bones of the upper limb Embryology: Male genital system  Anatomy-		<ul> <li>Define anatomical position, planes, and directional terms.</li> <li>Identify and describe bones of the upper limb</li> <li>Distinguish anatomy of the male reproductive system (parts, function and neurovascular supply)</li> <li>Identify</li> </ul>	1- Exams  2- End of course evaluation form  3- Practical session exams	•Clinical Anatomy by Regions, Snell  •Clinical Anatomy by system, Snell  •Grays Atlas of anatomy, Drake  •Langman's
2	Scapular and Pectoral regions Axilla Embryology- female reproductive system	د أمجد الشطرات	<ul> <li>Identify muscles of pectoral and scapular regions, (actions and nerve supply</li> <li>Locate axilla, its boundaries and contents.</li> <li>Distinguish anatomy of the male reproductive system (parts, function and neurovascular supply)</li> </ul>		medical embryology, Sadler
3	Anatomy- Brachial plexus and upper arm		<ul> <li>Describe the brachial plexus, its formation and region of supply.</li> <li>Summarize</li> </ul>		

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	Embryology- gametogensis (Spermatogensis)	muscles, nerves, and blood vessels of the arm • Understand the process of sperm formation and maturation.	
4	Anatomy- cubital fossa and the flexor compartment of the forearm  Embryology-Gametogensis (Oogenesis)	•Recognize boundaries and contents of the cubital fossa. • Describe muscles, nerves, and blood vessels of the forearm (anteriorly) • Understand the process of Oocyte formation and maturation.	
5	Anatomy- extensor compartment of forearm Embryology- First week of development	<ul> <li>Describe muscles, nerves, and blood vessels of the forearm (Laterally and posteriorly)</li> <li>Understand the Ovarian Cycle, ovulation and its related changes.</li> </ul>	
6	Anatomy- the hand region Embryology- fertilization & cleavage	•Describe muscles, nerves, and blood vessels of the hand •Describe the phases of the Fertilization process.	
7	Anatomy- joints of the upper limb and nerve supply Embryology- implantation &	•Explain the anatomy, type of joint, articulations and actions of: Shoulder, elbow	



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	blastocyst	and wrist joints.  •Describe the process of implantation •Identify the meaning of blastocyst.	
8	Anatomy- nerve injuries of the upper limb Embryology- Formation of bilaminar disc	<ul> <li>Understand the clinical consequence of injury to major nerves of the upper limb.</li> <li>define the bilaminar disc and its significance for the implantation during the second week of fetal development.</li> </ul>	
9	Anatomy- thoracic cage and intercostal muscles Embryology- bilaminar germ disc 2	<ul> <li>Outline thoracic wall and its basic structures</li> <li>Describe the formation of the bilaminar germ disc and the amniotic cavity</li> </ul>	
10	Anatomy- Diaphragm Embryology- trilaminar germ disc	<ul> <li>Identify the diaphragm and its anatomy.</li> <li>Describe the formation of trilaminar germ disc</li> </ul>	
11	Anatomy- pleura, lungs, and mediastinum  Embryology- derivatives of the ectoderm and neural tube	<ul> <li>Outline the subdivisions of mediastinum and the anatomy of lungs and pleura.</li> <li>Understand and list derivatives of ectoderm</li> </ul>	
12	<b>Anatomy-</b> Heart,pericardium,	• describe the anatomy of the	



	and great blood vessels  Embryology- derivatives of the mesoderm and endoderm	heart and its conducting system. •highlight major blood vessels in the thorax. •Understand and list derivatives of ectoderm.	
13	Anatomy- anterior abdominal wall and peritoneum Embryology- fetal period- congenital malformations	•describe anatomy of abdominal walls, their function and structure denoting to the arrangement of the peritoneum inside the abdominal cavity. •Describe the normal and pathological development of fetus.	
14	Anatomy- stomach, small and large intestines Embryology- placenta	<ul> <li>identify general anatomical features of the stomach, small and large intestines.</li> <li>describe the anatomy and physiology of the placenta.</li> </ul>	
15	Anatomy- accessory digestive organs Embryology- fetal membranes	<ul> <li>identify general anatomical features of the liver, gallbladder pancreas and bile duct.</li> <li>Describe the formation and progression of the development of the fetal</li> </ul>	



#### 21. Teaching Methods and Assignments:

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

- -Small Group discussions
- Group presentations
- Student demonstration activities (class presentations and Practical sessions demonstrations)

### 22. Evaluation Methods and Course Requirements:

Midterm Exam

**Short Exam** 

Final Exam

Course evaluation forms

### 23. Course Policies:

## A-Attendance policies:

Students are expected to attend all class sessions as listed on the course calendar. Students are not **allowed** to be **absent** for more than **15**% of the credit hours of the course. All students are required to wear a lab coat during the laboratory session.

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

Make-up appeals are considered only for students who provide documentation of a compelling reason for missing the exam.

## 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 University of Jordan disciplinary policies

# E- Grading policy:

Grade-point average according to grading policy at University of Jordan

# F- Available university services that support achievement in the course:

Internet database at the University of Jordan The University of Jordan library

### 24. Required equipment:

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

#### 25. References:

Required book (s), assigned reading and audio-visuals:

Clinical Anatomy. By R. Snell

Recommended books, materials, and media:

Principles of Anatomy and Physiology. Tortora and Grabowsk Grant's atlas of anatomy

26. Additional information:
Name of Course Coordinator:Signature:
Date: Head of curriculum
committee/Department: Signature:
Head of Department: Signature:
Head of curriculum committee/Faculty:
Signature:
Dean:

## Copy to:

Head of Department Assistant Dean for Quality Assurance Course File

