

The Hashemite University



الجامعة
الهاشمية



Deanship of Academic Development
and International Outreach

عمادة التطوير الأكاديمي
والتواصل الدولي

Syllabus: General Anatomy (111501104)
Second Semester
2024/2025

COURSE INFORMATION	
Course Name: General Anatomy Semester: Second Semester Department: Anatomy Physiology and Biochemistry Faculty: Medicine	Course Code: 111501104 Section: All Core Curriculum: MD program
Day(s) and Time(s): Anatomy lectures: to be determined Anatomy labs: to be determined Classroom: Anatomy lectures: Hall lectures 301 & 302 , 3 rd floor, Faculty of Medicine building Anatomy labs: In Anatomy labs (1004&106) ground floor, Faculty of Medicine building.	Credit Hours: 3 Prerequisites: None
COURSE DESCRIPTION	
<p>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.</p> <p>2. The course introduces the basic structures encountered while dissecting a cadaver (skin, fascia, skeletal muscles, bones, joints, blood & lymphatic vessels, nervous system organization).</p> <p>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).</p>	

4. The course covers the General Embryology, which describe the development of embryo, fetal membrane, placenta and the causes of congenital malformations.

DELIVERY METHODS

The course will be delivered through a combination of active learning strategies. These will include:

- PowerPoint lectures and active classroom based discussion
- Collaborative learning through small groups acting in an interdisciplinary context.
- Relevant films and documentaries.
- Video lectures.
- E-learning resources: e-reading assignments and practice quizzes through Moodle and Microsoft Teams.
- Lab sessions in the dissecting room showing plastic & plastinated models.

FACULTY INSTRUCTORS INFORMATION

Course coordinator:	
Name	Dr. Mohamed Fathi Mohamed Mohamed Elrefai
Academic Title:	Ass. Professor of Anatomy and Embryology
Office Location:	3014, College of medicine, Hashemite University
Telephone Number:	5604
Email Address:	mohamed@hu.edu.jo mohamed@staff.hu.edu.jo
Office Hours:	Sunday: 11-1 Tuesday: 11.00-1.00
Instructors	
Name	Mohamed Fathi Elrefai
Academic title	Assistant professor of Anatomy & Embryology
Office location	3014, 3rd floor, Ibn Sina Medical Faculties complex
Email	mohamed@hu.edu.jo
Office hours	Sunday:11-1, Tuesday: 11-1
Name	Ashraf Sadek
Academic title	Assistant professor of Anatomy& Embryology
Office location	3031, 3rd floor, Ibn Sina Medical Faculties complex
Email	Ashrafm@hu.edu.jo
Office hours	Sunday:11-1, Tuesday: 11-1
Name	Amani Allam
Academic title	Assistant professor of Anatomy& Embryology
Office location	3015, 3rd floor, Ibn Sina Medical Faculties complex
Email	Amany@hu.edu.jo
Office hours	Sunday:11am-1pm, Wednesday: 11am-1pm
Name	Mustafa Yousef

Academic title	Lecturer of Anatomy
Office location	3019, 3 rd floor, Ibn Sina Medical Faculties complex
Email	Mustafas@hu.edu.jo
Office hours	Sunday: 11.30-1.30, Tuesday: 11.30-1.30
Name	Razan Sartawi
Academic title	Assistant professor of Anatomy
Office location	3016, 3 rd floor, Ibn Sina Medical Faculties complex
Email	Razany@hu.edu.jo
Office hours	Sunday 9-11am, Wednesday 9-11 am

REFERENCES AND LEARNING RESOURCES

Required Textbook

- Gray's anatomy for students, 4th edition.
- Principles of Human Anatomy, 14th edition.
- Clinical Anatomy for medical students, 5th edition
- Before we are birth, 10th edition
- Atlas of Human Anatomy, Last edition.

Additional Resources:

- All lecture slides will be uploaded as PDF files.
- All instructors have open discussions with the students during the office hours to answer any question.

STUDENT LEARNING OUTCOMES MATRIX*

Anatomy & Embryology lectures

Program Learning Outcomes (MD Program learning outcomes)	Course objectives	Topics	Course Student Learning Outcomes	Assessment Method
(D1, D5 & E2)	A-Biomedical Knowledge 1. Describe the general anatomical features of skeletal system.	Introduction to Human Anatomy	1. Anatomical position. 2. Body planes, terms of position, and regional terms. 3. Body cavity. Subdivision & contents. 4. Levels of organization.	<ul style="list-style-type: none"> • MCQ Exams • Online Quizzes
(D1, D5 & E2)	2. Describe the general anatomical features of muscular system. 3. Describe the general anatomical features of respiratory system. 4. Describe the general anatomical	Axial Skeleton I: The Skull	1. Outline the bones of axial skeleton. 2. Describe the general features of skull. 3. Introduce the bones of skull; sutures, fontanel & their significances. 4. Describe briefly the cranial cavity and base of skull. 5. Outline important foramens of skull.	<ul style="list-style-type: none"> • MCQ Exams • Online Quizzes

(D1, D5 & E2)	<p>features of cardiovascular system.</p> <ol style="list-style-type: none"> 5. Describe the general anatomical features of gastrointestinal system. 6. Describe the general anatomical features of urinary system. 7. Describe the general anatomical features of genital system. 8. Describe the general anatomical features of nervous system. <p>B-Clinical Skills</p> <ul style="list-style-type: none"> • Know key clinical anatomical landmarks of the major organs. <p>C-Critical thinking skills:</p> <ul style="list-style-type: none"> • Observe, identify and predict health problem based on previous experience and make decisions based on evidence rather than opinion 	<p>Axial Skeleton II: Mandible, Vertebral Column, Sternum and Ribs</p>	<ol style="list-style-type: none"> 1. Describe the features of mandible. 2. Describe the general features of vertebral column. 3. Describe the structure and significance of inter-vertebral discs. 4. Outline the typical parts of the vertebra. 5. Describe briefly main features of regional vertebrae, sacrum & coccyx. 6. Describe briefly the sternum and ribs. 	<ul style="list-style-type: none"> • MCQ Exams • Online Quizzes
---------------	--	---	---	---

(D1, D5 & E2)		<p>Appendicular Skeleton I: Bones of Upper Limb</p>	<ol style="list-style-type: none"> 1. Outline the bones of upper limb. 2. Describe the main features of clavicle, scapula & humerus. 3. Describe the features of ulna & radius. 4. Outline the general features and name of carpal bones. 5. Describe the features of metacarpal bones and phalanges. 	<ul style="list-style-type: none"> • MCQ Exams • Online Quizzes
---------------	--	--	--	---

(D1, D5 & E2)		Appendicular Skeleton II: Bones of Lower Limb	<ol style="list-style-type: none"> 1. Outline the bones of lower limb. 2. Describe the main features of bones of hip: ilium, ischium, & pubis. 3. Describe the main features of femur & patella. 4. Describe the features of tibia & fibula. 5. Outline bones of foot and arches of foot. 	<ul style="list-style-type: none"> • MCQ Exams • Online Quizzes
(D1, D5 & E2)		Muscular System	<ol style="list-style-type: none"> 1. Outline the types of skeletal muscle. 2. Outline the nomenclature of skeletal muscles. 3. Outline the type of actions of skeletal muscles. 	<ul style="list-style-type: none"> • MCQ Exams • Online Quizzes
(D1, D5 & E2)		Muscles of the head & Neck	<ol style="list-style-type: none"> 1. Outline the muscles of scalp & face. 2. Outline the muscles of mastication. 3. Outline the main muscles of neck. 4. outline ms of the pharynx 	<ul style="list-style-type: none"> • MCQ Exams • Online Quizzes
(D1, D5 & E2)		Muscles of Thoracic, abdominal & Pelvic Walls	<ol style="list-style-type: none"> 1. Outline the muscles of thoracic wall. 2. Outline the diaphragm. 3. Outline the muscles of anterior & posterior abdominal wall. 	<ul style="list-style-type: none"> • MCQ Exams • Online Quizzes
(D1, D5 & E2)		Muscles of upper Limb	<ol style="list-style-type: none"> 1. Outline the main muscles of pectoral, shoulder, and scapular region. 2. Outline the muscles of arm, forearm, & hand. 	<ul style="list-style-type: none"> • MCQ Exams • Online Quizzes
(D1, D5 & E2)		Muscles of lower Limb	<ol style="list-style-type: none"> 1. Outline the muscles of the gluteal region & back of thigh. 2. Outline the muscles of anterior & lateral compartment of thigh. 3. Outline the muscles of leg. 4. Describe the popliteal fossa. 5. Outline the muscles of foot. 	<ul style="list-style-type: none"> • MCQ Exams • Online Quizzes
(D1, D5 & E2)		Body Joints	<ol style="list-style-type: none"> 1. Outline the type of body joints. 2. Outline the structure and types of synovial joints. 3. Identify the joints of upper limb and their types (shoulder, elbow, radio-ulnar, wrist, and joints of hand). 4. Outline the shoulder joint 5. Identify the joints of lower limb (hip, knee, ankle, and joints of foot). 6. Outline the knee joint. 	<ul style="list-style-type: none"> • MCQ Exams • Online Quizzes

(D1, D5 & E2)		Respiratory System I	<ol style="list-style-type: none"> 1. Outline the parts of respiratory system. 2. Outline the structure of nasal cavity, nasopharynx, paranasal sinuses. 3. Outline the larynx. 	<ul style="list-style-type: none"> • MCQ Exams • Online Quizzes
(D1, D5 & E2)		Respiratory System II	<ol style="list-style-type: none"> 1. Outline the anatomical features of the trachea & bronchi. 2. Outline the mediastinum. 3. Describe briefly the lungs & pleura. 	<ul style="list-style-type: none"> • MCQ Exams • Online Quizzes
(D1, D5 & E2)		Circulatory System I	<ol style="list-style-type: none"> 1. Outline the parts of circulatory system. 2. Briefly describe the heart & Pericardium (location, chambers, valves, blood supply). 3. Differentiate between systemic & Pulmonary circulations. 	<ul style="list-style-type: none"> • MCQ Exams • Online Quizzes
(D1, D5 & E2)		Circulatory System II	<ol style="list-style-type: none"> 1. Outline the great vessels of heart. 2. Outline the branches of aorta. 3. Outline the main blood vessels of head & neck. 4. Outline the main blood vessels of upper & lower limbs. 	<ul style="list-style-type: none"> • MCQ Exams • Online Quizzes
(D1, D5 & E2)		Digestive System I	<ol style="list-style-type: none"> 1. Identify the region of the abdomen. 2. Outline the parts of digestive system. 3. Describe briefly the mouth & oesophagus. 3. Outline the location, parts, openings, and borders of stomach. 4. Identify the general features of the peritoneum. 5. Introduce parts & functions of small bowel. 	<ul style="list-style-type: none"> • Exams • Online Quizzes
(D1, D5 & E2)		Digestive System II	<ol style="list-style-type: none"> 1. Outline the parts, location and function of large intestine. 2. Outline the associated digestive organs (salivary glands, pancreas, liver & gall bladder and their functions). 	<ul style="list-style-type: none"> • MCQ Exams • Online Quizzes
(D1, D5 & E2)		Urinary System	<ol style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> • MCQ Exams • Online Quizzes

(D1, D5 & E2)		Female Genital System	<ol style="list-style-type: none"> 1. Outline the parts & functions of female genital system. 2. Identify general features of the perineum 	<ul style="list-style-type: none"> • MCQ Exams • Online Quizzes
(D1, D5 & E2)		Male Genital System	Outline the parts & functions of male genital system.	<ul style="list-style-type: none"> • MCQ Exams • Online Quizzes

(D1, D5 & E2)		Nervous System I, II	<ol style="list-style-type: none"> 1. Outline the anatomical and functional parts of NS. 2. Outline the parts of CNS (brain & spinal cord). Outline the meninges & ventricles of brain. 4. Outline the lobes, the sulci, gyri & important functional areas. 5. Outline the other part of brain (thalamus, hypothalamus, midbrain, pons, medulla oblongata & cerebellum). 6. Outline the general features of the spinal cord & spinal nerves. 7. Outline its meninges. 8. Discuss the CSF and outline its function. 9. Outline the morphology of the medulla oblongata. 10. Outline the morphology of the pons. 11. Outline the morphology of the midbrain 12. identify cranial nerves. 13. Describe autonomic nervous system 	<ul style="list-style-type: none"> • MCQ Exams • Online Quizzes
(D1, D5 & E2)		General Embryology I	<ol style="list-style-type: none"> 1. Define embryology and understand the differences between developmental periods. 2. Define fertilization and know its results. 3. Understand the main developmental changes that occur during the first week of development including: cleavage of the zygote, formation of the blastocyst, and the beginning of implantation. 4. Understand the main 	<ul style="list-style-type: none"> • MCQ Exams • Online Quizzes

			developmental changes that occur during the second week of development including: the completion of implantation, formation of the bilaminar disc, and the development of the chorionic sac.	
(D1, D5 & E2)		General Embryology II	<ul style="list-style-type: none"> • Understand the main developmental changes that occur during the third week of development including: • Formation of the primitive streak, notochord, mesoderm, somites, and blood vessels. • Process of neurulation. • Formation of the allantois. • Formation of the intraembryonic coelom. • Development of the chorionic villi 	<ul style="list-style-type: none"> • MCQ Exams • Online Quizzes
(D1, D5 & E2)		General Embryology III	<ul style="list-style-type: none"> • Outline the main developmental changes that occur during the 4th – 8th weeks of development. • Understand the process of folding of the embryo. • Enumerate the main derivative of the embryonic layers. • Outline the main developmental changes that occur during the fetal period of development. • Enumerate some methods for the estimation of the age of the embryo/fetus. • Enumerate some of the methods used to assess the status of the embryo/fetus. 	<ul style="list-style-type: none"> • MCQ Exams • Online Quizzes
Anatomy practical Labs				
Program Learning Outcomes (MD Program learning outcomes)	Course topics	Course outcomes	Assessment methods	

(D1, D5 & E2)	Anatomy lab 1 Skull	<ul style="list-style-type: none"> ● Outline the general features of Norma verticalis ● Understand the general features of Norma frontalis ● Identify the general features of Norma occipitalis ● Outline the general features of Norma lateralis ● Understand the general features of Norma basalis externa ● Discuss the general features of cranial cavity 	<ul style="list-style-type: none"> ● MCQ ● Exams ● Online Quizzes
(D1, D5 & E2)	Anatomy lab 2 Mandible Thoracic cage Vertebral Column	<ul style="list-style-type: none"> ● Outline the general bony features of mandible ● Understand the general features of cervical vertebrae ● Outline the general features of thoracic vertebrae ● Identify the general features of lumber vertebrae ● Understand the the general features of sacrum ● Identify the general features of sternum ● Understand the general features of typical rib 	<ul style="list-style-type: none"> ● MCQ ● Exams ● Online Quizzes
(D1, D5 & E2)	Anatomy lab 3 Bones of the upper limb	<ul style="list-style-type: none"> ● Identify the shoulder girdle ● Outline the general bony features of clavicle ● Understand the general features of scapula ● Outline the general features of humerus ● Identify the general features of ulna ● Understand the general features of radius ● Identify the general features of hand bones ● Understand the arrangement of hand bones (carpal, metacarpal & phalanges). 	<ul style="list-style-type: none"> ● MCQ ● Exams ● Online Quizzes
(D1, D5 & E2)	Anatomy lab 4 Bones of the lower limb	<ul style="list-style-type: none"> ● Identify the pelvic girdle ● Outline the general bony features of hip bone ● Understand the general features of femur & patella ● Outline the general features of tibia ● Identify the general features of fibula ● Identify the general features of foot bones ● Understand the arrangement of foot bones 	<ul style="list-style-type: none"> ● MCQ ● Exams ● Online Quizzes

		(tarsal, metatarsal & phalanges).	
(D1, D5 & E2)	Anatomy lab 5 Muscles of the upper limb	<ul style="list-style-type: none"> Identify muscles of the pectoral region Outline muscles of the scapular region & back muscles Understand the arm muscles (front & back) Outline the forearm & hand muscles (front & back) 	<ul style="list-style-type: none"> MCQ Exams Online Quizzes
(D1, D5 & E2)	Anatomy lab 6 Muscles of the lower limb	<ul style="list-style-type: none"> Identify muscles of the front of the thigh Outline muscles of the medial side of the thigh Understand muscles of the posterior compartment of the thigh Outline muscles of the leg (front, & lateral & posterior compartments) 	<ul style="list-style-type: none"> MCQ Exams Online Quizzes
(D1, D5 & E2)	Anatomy lab 7 Muscles of Head, Neck & Trunk	<ul style="list-style-type: none"> Identify muscles of the head Outline muscles of anterior & posterior triangle of the neck Understand muscles of thorax wall Outline the anterior abdominal wall muscles Understand the posterior abdominal wall muscles Identify back muscles 	<ul style="list-style-type: none"> MCQ Exams Online Quizzes
(D1, D5 & E2)	Anatomy lab 8 Respiratory system	<ul style="list-style-type: none"> Understand the nose & paranasal sinuses Identify parts of the pharynx Identify the cartilaginous construction of the larynx Discuss the general features of the trachea & pleura Discuss the general features of the lung & pleura 	<ul style="list-style-type: none"> MCQ Exams Online Quizzes

(D1, D5 & E2)	Anatomy lab 9 Cardiovascular system	<ul style="list-style-type: none"> • Outline the chambers the heart • Identify the surfaces of the heart • Understand the borders of the heart • Discuss the internal features of the heart • Outline the blood supply of the heart 	<ul style="list-style-type: none"> • MCQ Exams • Online Quizzes
(D1, D5 & E2)	Anatomy lab 10 GIT Urinary System Genital Systems	<ul style="list-style-type: none"> • Identify the different parts of the gastrointestinal tract • Outline different parts of the stomach • Identify parts of small intestine • Outline parts of large intestine • Discuss the general features of the liver & biliary system • Identify different parts of the urinary system • Discuss the general features of the kidney • Identify the internal structure of the kidney • Outline different parts of male pelvis • Outline different parts of female pelvis 	<ul style="list-style-type: none"> • MCQ Exams • Online Quizzes
(D1, D5 & E2)	Anatomy lab 11 Nervous system	<ul style="list-style-type: none"> • Outline different parts of the brain • Identify sulci & gyri of each surface of the brain • Identify parts of the brain stem 	<ul style="list-style-type: none"> • MCQ Exams • Online Quizzes

ACADEMIC SUPPORT

It is The Hashemite University policy to provide educational opportunities that ensure fair, appropriate and reasonable accommodation to students who have disabilities that may affect their ability to participate in course activities or meet course requirements. Students with disabilities are encouraged to contact their Instructor to ensure that their individual needs are met. The University through its Special Need section will exert all efforts to accommodate for individual's needs.

Special Needs Section: Student Services and Care Unit

Tel: 053903333 ext. 4132 / 4583 / 5023

Location: Deanship of Students Affairs

Email: stydent@hu.edu.jo

Participation

Class participation and attendance are important elements of every student's learning experience at The Hashemite University, and the student is expected to attend all classes. A student should not miss more than 15% of the classes during a semester. *Those exceeding this limit of 15% will receive a failing grade regardless of their performance.* It is a student's responsibility to monitor the frequency of their own absences. Attendance record begins on the first day of class irrespective of the period allotted to drop/add and late registration. It is a student's responsibility to sign-in; failure to do so will result in a non-attendance being recorded.

In exceptional cases, the student, with the instructor's prior permission, could be exempted from attending a class provided that the number of such occasions does not exceed the limit allowed by the University. The instructor will determine the acceptability of an absence for being absent. A student who misses more than 25% of classes and has a valid excuse for being absent will be allowed to withdraw from the course.

Plagiarism

Plagiarism is considered a serious academic offence and can result in your work losing marks or being failed. HU expects its students to adopt and abide by the highest standards of conduct in their interaction with their professors, peers, and the wider University community. As such, a student is expected not to engage in behaviours that compromise his/her own integrity as well as that of the Hashemite University.

Plagiarism includes the following examples and it applies to all student assignments or submitted work:

- Use of the work, ideas, images or words of someone else without his/her permission or reference to them.
- Use of someone else's wording, name, phrase, sentence, paragraph or essay without using quotation marks.
- Misrepresentation of the sources that were used.

The instructor has the right to fail the coursework or deduct marks where plagiarism is detected

Late or Missed Assignments

In all cases of assessment, students who fails to attend an exam, class project or deliver a presentation on the scheduled date without prior permission, and/or are unable to provide a medical note, will automatically receive a fail grade for this part of the assessment.

- Submitting a term paper on time is a key part of the assessment process. Students who fail to submit their work by the deadline specified will automatically receive a 10% penalty. Assignments handed in more than 24 hours late will receive a further 10% penalty. Each subsequent 24 hours will result in a further 10% penalty.
- In cases where a student misses an assessment on account of a medical reason or with prior permission; in line with University regulations an incomplete grade for the specific assessment will be awarded and an alternative assessment or extension can be arranged.

Student Complaints Policy

Students at The Hashemite University have the right to pursue complaints related to faculty, staff, and other students. The nature of the complaints may be either academic or non-academic. For more information about the policy and processes related to this policy, you may refer to the students' handbook.

COURSE ASSESSMENT

Course Calendar and Assessment

Students will be graded through the following means of assessment and their final grade will be calculated from the forms of assessment as listed below with their grade weighting taken into account. The criteria for grading are listed at the end of the syllabus

Assessment	Grade Weighting	Deadline Assessment
Exam 1	30%	TBD
Exam 2	30%	TBD
Final Exam	40%	TBD

Description of Exams

Test questions will predominately come from material presented in the lectures. Semester exams will be conducted during the regularly scheduled lecture period. Exam will consist of multiple choice questions for the regular exams and short essay questions for makeup exams (for students with accepted excuses, Only documented absences will be considered as per HU guidelines).

Grades are not negotiable and are awarded to the MD program according to the following criteria*:

Grades are not negotiable and are awarded according to the following criteria*:

Letter grade	Description	Grade Points
A+	Excellent	4.00
A		3.75
A-		3.50
B+	Very Good	3.25
B		3.00
B-		2.75
C+	Good	2.50
C		2.25
C-		2.00
D+	Pass	1.75
D	Pass	1.50
F	Fail	0.00
I	Incomplete	-

WEEKLY LECTURE SCHEDULE AND CONTENT DISTRIBUTION

TBD