

# **Course Syllabus**

1	Course title	Histology			
2	Course number	0308211			
3	Credit hours	3 (2 theory, 1 practical )			
5	<b>Contact hours (theory, practical)</b>	2 theory, 3 practical / week			
4	Prerequisites/co-requisites	General Biology 1 (0304101)			
5	Program title	Clinical Laboratory Sciences			
6	Program code	0308			
7	Awarding institution	University of Jordan			
8	School	Science			
9	Department	Department of Clinical Laboratory Sciences			
10	Course level	2 <sup>nd</sup> Year			
11	Year of study and semester (s)	Fall 2023/ 2024			
12	Other department (s) involved in				
12	teaching the course				
13	Main teaching language	English			
14	Delivery method	$\Box$ Face to face learning $\Box$ Blended $\Box$ Fully online			
15	$\mathbf{O}$ - $\mathbf{I}$ - $\mathbf{n}$ - $\mathbf$	□ Moodle □ Microsoft Teams □Skype □Zoom			
15	Online platforms(s)	□Others			
16	Issuing/Revision Date	2/2024			

**17 Course Coordinator:** 

Name: Dr. Ahmed Abu siniyeh	Contact hours: Sunday & Tuesday 11;30 – 14:00 pm
<b>Office number:</b> Biology Building 202	Phone number:
Email: a.siniyeh@ju.edu.jo	

# 18 Other instructors:



# **19 Course Description:**

This course immerses students in the foundational aspects of human histology, emphasizing basic concepts and their medical implications. Participants will develop proficiency in recognizing and comparing the histology of diverse tissues in healthy and patient contexts. The course underscores the intricate relationship between structure and function in human tissues, fostering a comprehensive understanding of microscopic components and their roles. Students will be equipped with essential skills for future studies and careers in medical and biological sciences.

20 Course aims and outcomes:

#### وضمان الجودة محملت الجودة A- Aims:

مركز الاعتماد

This course aims to introduce undergraduate student to basic concepts of Human Histology, in addition to acquainting them with histological implications in medicine. The theoretical part of course will cover the epithelial, connective muscular and nervous tissues, and the histology of various systems with emphasis on their structure and function. The practical part of this course aimsto allow students identify components of different tissues with concentration on how structures are adapted to perform the specific function.

# **B- Students Learning Outcomes (SLOs):**

For purposes of mapping the course SLOs to the Clinical Laboratory Sciences program SLOs, at the successful completion of the program, graduates are expected to be able to:

**SLO(1).** Understand and apply the theoretical foundations of medical laboratory sciences to accurately calibrate and operate advanced laboratory equipment.

**SLO(2).** Demonstrate knowledge of safety protocols, Ministry of Health regulations, and environmental preservation practices when handling samples of pathogens and chemical/biological risks.

**SOL(3).** Acquire in-depth technical knowledge to stay abreast of scientific advancements and actively participate in local and global applied research in the field.

**SOL(4).** Perform diverse analyses and effectively interpret results for various clinical samples across laboratory disciplines such as hematology, clinical chemistry, microbiology, urine analysis, body fluids, molecular diagnostics, and immunology.

**SOL(5).** Apply practical training to solve complex problems, troubleshoot issues, and interpret results, ensuring a connection between data and specific medical conditions for precise diagnosis.

**SOL(6).** Show effective communication skills to convey information accurately and appropriately in a laboratory setting.

**SOL(7).** Demonstrate a commitment to lifelong learning and innovation by applying modern techniques, critically analyzing information, and contributing to the creation and application of new knowledge in medical laboratory sciences which fulfil the requirements of national and international CBD.

**SOL(8).** Uphold professional behavior, ensuring the confidentiality of client information, and respecting client privacy throughout all aspects of laboratory work.

**SOL(9).** Apply managerial skills that align with quality assurance, accreditation, quality improvement, laboratory education, and resource management, showcasing competence in the effective administration of laboratory practices.



Descriptors	ILO/ID	Program SLOs Course SLOs	SLO (1)	SLO (3)	SLO (4)	SLO (5)
	A1	Recall and define the basic concepts of human histology.		X		
Knowledge	A2	Demonstrate an understanding of the histology of epithelial, connective, muscular, and nervous tissues.	Х			
Strille	B1	Apply knowledge of histological concepts to recognize and differentiate the histology of tissues.			Х	
SKIIIS	B2	Analyze how tissue structures are adapted to perform specific functions.				Х
Competence	C1 Assess the importance of understanding tissue structure and function for medical practitioners.		Х			
Competence	C2	Integrate knowledge of histology to propose potential diagnostic or therapeutic applications in medicine.		Х		

# 21. Topic Outline and Schedule:

Week	Lecture	Торіс	Student Learning Outcome	Learning Methods (Face to Face/Blended/ Fully Online)	Platform	Synchronous / Asynchronous Lecturing	Evaluation Methods	Resources
	1.1	Introduction to Histology	A1	Face to Face	Lecture Room	Synchronous	Quiz, Exam	Junqueira's Basic Histology
1	1.2	Epithelial Tissues	A2, B1,B2	Blended	Moodle	Asynchronous	Quiz, Exam	Ch 4 Junqueira's Basic Histology
2	2.1	Connective Tissues	A2, B1,B2	Face to Face	Lecture Room	Synchronous	Quiz, Exam	Ch 5 Junqueira's Basic Histology
2	3.1	Adipose Tissue	A2, B1,B2	Blended	Moodle	Asynchronous	Quiz, Exam	Ch 6 Junqueira's Basic Histology
3	3.2	Cartilage	A2, B1,B2	Face to Face	Lecture Room	Synchronous	Quiz, Exam	Ch 7 Junqueira's Basic Histology
4	4.1	Bone	A2, B1,B2	Blended	Moodle	Asynchronous	Quiz, Exam	Ch 8 Junqueira's Basic Histology
5	5.1	Muscle Tissues	A2, B1,B2	Face to Face	Lecture Room	Synchronous	Quiz, Exam	Ch 10 Junqueira's Basic Histology
6	6.1	Nervous Tissue	A2, B1,B2	Blended	Moodle	Asynchronous	Quiz, Exam	Ch 9 Junqueira's Basic Histology



								Ch 9
7	7.1	Nervous Tissue	A2, B1,B2	Face to Face	Lecture Room	Synchronous	Quiz, Exam	Junqueira's Basic Histology
8	8.1	The Circulatory system	C1, C2	Blended	Moodle	Asynchronous	Quiz, Exam	Ch 11 Junqueira's Basic Histology
9	9.1	The Circulatory system	C1, C2	Face to Face	Lecture Room	Synchronous	Quiz, Exam	Ch 11 Junqueira's Basic Histology
	10.1	The Digestive system	A2, B1,B2	Blended	Moodle	Asynchronous	Quiz, Exam	Ch 15 Junqueira's Basic Histology
10	10.2	Glands Associated with Digestive tract	A2, B1,B2	Face to Face	Lecture Room	Synchronous	Quiz, Exam	Ch 16 Junqueira's Basic Histology
11	11.1	The respiratory system	A2, B1,B2	Blended	Moodle	Asynchronous	Quiz, Exam	Ch 17 Junqueira's Basic Histology
11	11.2	Integumentary system	A2, B1,B2	Face to Face	Lecture Room	Synchronous	Quiz, Exam	Ch 18 Junqueira's Basic Histology
12	12.1	The Urinary system	C1, C2	Blended	Moodle	Asynchronous	Quiz, Exam	Ch 19 Junqueira's Basic Histology
10	13.1	Endocrine System	C1, C2	Face to Face	Lecture Room	Synchronous	Quiz, Exam	Ch 20 Junqueira's Basic Histology
13	13.2	Endocrine System	C1, C2	Blended	Moodle	Asynchronous	Quiz, Exam	Ch 20 Junqueira's Basic Histology
14	14.1	Male Reproductive System	A2, B1,B2	Face to Face	Lecture Room	Synchronous	Quiz, Exam	Ch 21 Junqueira's Basic Histology
15	15.1	Female Reproductive System	A2, B1,B2	Blended	Moodle	Asynchronous	Quiz, Exam	Ch 22 Junqueira's Basic Histology
Practical Sessions								
1	1	Introduction to Tissue preparation and Microscopic Examination.	A1	Face to Face	On campus	Synchronous	Reports, Exam & Quizzes	Ch 1 Junqueira' s Basic Histology
2	2	Epithelial Tissues & Glandular epithelia	A2, B1,B2	Face to Face	On campus	Synchronous	Reports, Exam & Quizzes	Ch 2 DiFiore's Atlas of Histology



3	3	Connective Tissues	A2, B1,B2	Face to Face	On campus	Synchronous	Reports, Exam & Quizzes	Ch 3 DiFiore's Atlas of Histology
4	4	Cartilage & Bone	A2, B1,B2	Face to Face	On campus	Synchronous	Reports, Exam & Quizzes	Ch 4 DiFiore's Atlas of Histology
5	5	Muscle Tissue	A2, B1,B2	Face to Face	On campus	Synchronous	Reports, Exam & Quizzes	Ch 6 DiFiore's Atlas of Histology
6	6	Nervous Tissue	A2, B1,B2	Face to Face	On campus	Synchronous	Reports, Exam & Quizzes	Ch 7 DiFiore's Atlas of Histology
7	7	Heart, blood vessels and lymphatic organs	C1, C2	Face to Face	On campus	Synchronous	Reports, Exam & Quizzes	Ch 8 DiFiore's Atlas of Histology
8	8	Digestive Tract	A2, B1,B2	Face to Face	On campus	Synchronous	Reports, Exam & Quizzes	Ch 11,12,13 DiFiore's Atlas of Histology
9	9	Organs Associated with theDigestive Tract	A2, B1,B2	Face to Face	On campus	Synchronous	Reports, Exam & Quizzes	Ch 14 DiFiore's Atlas of Histology
10	10	The Respiratory System	C1, C2	Face to Face	On campus	Synchronous	Reports, Exam & Quizzes	Ch 15 DiFiore's Atlas of Histology
11	11	Skin & The Urinary System	C1, C2	Face to Face	On campus	Synchronous	Reports, Exam & Quizzes	Ch 16 DiFiore's Atlas of Histology
12	12	Male reproductive System	A2, B1,B2	Face to Face	On campus	Synchronous	Reports, Exam & Quizzes	Ch 18 DiFiore's Atlas of Histology
13	13	Female Reproductive System	A2, B1,B2	Face to Face	On campus	Synchronous	Reports, Exam & Quizzes	Ch 19 DiFiore's Atlas of Histology



### 22 Evaluation Methods:

Opportunities to demonstrate achievement of the SLOs are provided through the following assessment methods and requirements:

Evaluation Activity	Mark	Topic(s)	SLOs	Period (Week)	Platform
Assignments					
Quizzes	20			Every week	On campus
Lab Reports	10			Every week	
First Exam					
Second Exam or (Mid Exam)	30	Epithelial, Connective, Adipose, Bone, Cartilage and Muscle	A1, A2, B1, B2	Week 8	On campus
Final Exam	40	All required chapters	All SLOs	Week 16	On campus

#### **23 Course Requirements**

Students are directed and encouraged to use all possible resources:

a) use the internet as a learning source.

b) a series of short movies is promoted

c) students are encouraged to learn a suitable software package as a learning tool.

# 24 Course Policies:

#### A- Attendance policies:

• Attend and participate in all classes: attendance will be taken. Class time will be used to discuss, elaborate, expand, etc., on the written modules. This may include formal/informal lectures, audio visual presentations, demonstrations, labs, etc.

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

- 1. A student who has been absent for 15% or more of the total hours of any course, including absences for medical or compassionate reasons, may be required to withdraw from that particular course.
- 2. Students who miss quizzes or examinations will automatically be assigned a mark of zero unless the respective instructor, or the Program Head, has been notified of the reason for absence *PRIOR* to the commencement of the exam. Acceptable reasons will be evaluated at the time (e.g., illness medical certificate may be required, serious illness or death in the family, etc.). Supplemental examinations may be allowed in legitimate cases.

#### C- Health and safety procedures:

#### مـركـز الاعـتماد وضمان الجودة

All students need to be immunized against hepatitis B, immunization certificate must be forwarded to the coordinator of the hospital training. Pregnancy affects immunization and it is the responsibility of the student to notify the health person as soon as possible of her pregnancy. If there are fees related to immunization, it is the responsibility of the student.

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

# **E- Grading policy:**

Evaluation	Point %	Date
Assignments or Quizzes	20%	
Midterm Exam	30%	Will be announced in due time.
Lab. Reports	10%	
Final Exam including the laboratory (15%)	50%	Will be announced in due time.

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

- 1. Histology Lab.
- 2. The University Computer Lab.
- 3. The University Main Library.
- 4. The University e-library.

# 25 References:

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

 Mescher A., L.2013 Junqueira's Basic Histology Text &Atlas 13<sup>th</sup> Edition. McG Hill LANGE. International Edition, New York etc.

### B- Recommended books, materials, and media:

• Eroschenko V., P.2013 DiFiore's Atlas of Histology with Functional Correlations. 12<sup>th</sup> Edition.Wolters Kluwer. Lippincott Williams & Wilkins.

# 26 Additional information:

Name of Course Coordinator: Dr. Ahmed Abu siniyeh	Signature: Ahmed Abu siniyeh Date: 2-2024
Head of Curriculum Committee/Department: Dr. Suzan Matar	Signature: Suzan Matar
Head of Department: Dr. Ahmed Abu siniyeh	Signature: Ahmed Abu siniyeh
Head of Curriculum Committee/Faculty: Dr. Mu'ayyad Al Hseinat	Signature: Mu'ayyad Al Hseinat
Dean: Prof. Mahmoud Jaghoub	Signature: Mahmoud Jaghoub