

Course Syllabus

1	Course title	Pathology	
2	Course number	0308213	
3	Credit hours	3 hrs	
	Contact hours (theory, practical)	3 theory	
4	Prerequisites/co-requisites	Histology (0308211)	
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 nd Year	
11	Year of study and semester (s)	Fall 2023/ 2024	
12	Other department (s) involved in teaching the course		
13	Main teaching language	English	
14	Delivery method	<input type="checkbox"/> Face to face learning <input checked="" type="checkbox"/> Blended <input type="checkbox"/> Fully online	
15	Online platforms(s)	<input checked="" type="checkbox"/> Moodle <input checked="" type="checkbox"/> Microsoft Teams <input type="checkbox"/> Skype <input type="checkbox"/> Zoom <input type="checkbox"/> Others.....	
16	Issuing/Revision Date	2/2024	

17 Course Coordinator:

Name: Dr. Ahmed Abu siniyeh Office number: Biology Building 202 Email: a.siniyeh@ju.edu.jo	Contact hours: Sunday & Tuesday 11:30 – 14:00 pm Phone number: 22224
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18 Other instructors:

Name: Office number: Phone number: Email: Contact hours:
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19 Course Description:

Pathology is the study of diseases. The course will cover topics related to General Pathology which deals with the basic concept of various disease processes in the body, like the causes and mechanisms of disease and the associated alterations in the structure and function. Under the heading of General Pathology, we will study the following pathological processes: 1) Cellular Injury, Adaptation and Death; 2) Acute and Chronic Inflammation; 3) Tissue Repair: Cell Regeneration and Fibrosis; 4) Hemodynamic Disorders; 5) Nutritional Pathology; 6) Neoplasia; 10) Environmental Pathology.



20 Course aims and outcomes:

A- Aims:

The pathology course aims to provide students with a thorough understanding of diseases, focusing on General Pathology. This involves exploring fundamental concepts related to disease processes, including causes, mechanisms, and structural and functional alterations in the body. Specific topics covered range from Cellular Injury and Inflammation to Tissue Repair, Hemodynamic Disorders, Nutritional Pathology, Neoplasia, and Environmental Pathology. The goal is to equip students with a comprehensive knowledge of these areas, enabling them to analyze and comprehend the underlying pathological mechanisms associated with various health conditions.

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					SLO (1)	SLO (3)	SLO (4)	SLO (5)	SLO (8)
		Course SLOs									
Knowledge	A1	Understand the fundamental concepts of various disease processes, including causes, mechanisms, and structural/functional alterations.					X				
	A2	Identify and explain specific pathological processes such as cellular injury, inflammation, tissue repair, hemodynamic disorders, nutritional pathology, neoplasia, and environmental pathology.						X			
Skills	B1	Analyze and differentiate between cellular responses like injury, adaptation, and death in the context of disease pathology.							X		
	B2	Recognize and distinguish between acute and chronic inflammation, comprehend tissue repair mechanisms, assess hemodynamic disorders, evaluate nutritional pathology, identify characteristics of neoplasia, and interpret environmental pathology.									X
Competence	C1	Apply knowledge to diagnose and explain diseases in a clinical context, demonstrating competence in pathology.						X			
	C2	Demonstrate critical thinking skills to analyze complex pathological scenarios and effectively communicate concepts to diverse audiences.								X	

21. Topic Outline and Schedule:

Week	Lecture	Topic	Student Learning Outcome	Learning Methods (Face to Face/Blended/ Fully Online)	Platform	Synchronous / Asynchronous Lecturing	Evaluation Methods	Reference
1	1.1	Introduction to pathology	A1	Face to Face	On campus	Synchronous	Exams and quizzes	Ch 1 Robbins and Cotran pathologic basis of disease.
	1.2	Basic definitions and familiarizing with the terms used in pathology	A1	Blended	Moodle	Asynchronous	Exams and quizzes	Ch 1 BRS Pathology
2	2.1	Cellular Responses to Stress and Toxic Insults: Adaptation, Injury, and Death	A2, B1	Face to Face	On campus	Synchronous	Exams and quizzes	Ch 2 Robbins and Cotran pathologic basis of disease.

3	3.1	Cellular Responses to Stress and Toxic Insults: Adaptation, Injury, and Death	A2, B1	Blended	Moodle	Asynchronous	Exams and quizzes	Ch 2 Robbins and Cotran pathologic basis of disease.
4	4.1	Inflammation and Repair	A2, B2	Face to Face	On campus	Synchronous	Exams and quizzes	Ch 3 Robbins and Cotran pathologic basis of disease.
5	5.1	Inflammation and Repair	A2, B2	Blended	Moodle	Asynchronous	Exams and quizzes	Ch 3 Robbins and Cotran pathologic basis of disease.
6	6.1	Infection	B2	Face to Face	On campus	Synchronous	Exams and quizzes	Ch 5 Pathophysiology: A Clinical Approach
7	7.1	Hemodynamic Disorders, Thromboembolic Disease, and Shock	A2, B2	Blended	Moodle	Asynchronous	Exams and quizzes	Ch 4 Robbins and Cotran pathologic basis of disease.
8	8.1	Hemodynamic Disorders, Thromboembolic Disease, and Shock	A2, B2	Face to Face	On campus	Synchronous	Exams and quizzes	Ch 4 Robbins and Cotran pathologic basis of disease.
9	9.1	Genetics & Developmental Disorders	A1, B2, C1	Blended	Moodle	Asynchronous	Exams and quizzes	Ch 6 Pathophysiology: A Clinical Approach
10	10.1	Genetics & Developmental Disorders	A1, B2, C1	Face to Face	On campus	Synchronous	Exams and quizzes	Ch 6 Pathophysiology: A Clinical Approach
11	11.1	Neoplasia	A1, B2, C1	Blended	Moodle	Asynchronous	Exams and quizzes	Ch 7 Robbins and Cotran Pathologic basis of disease
12	12.1	Neoplasia	A1, B2, C1	Face to Face	On campus	Synchronous	Exams and quizzes	Ch 7 Robbins and Cotran Pathologic basis of disease
13	13.1	Altered Hormonal and Metabolic Regulation	A1, C2	Blended	Moodle	Asynchronous	Exams and quizzes	Ch 11 Pathophysiology: A Clinical Approach



14	14.1	Environmental Pathology	A2, B2	Face to Face	On campus	Synchronous	Exams and quizzes	Robbins and Cotran pathologic basis of disease.
15	15.1	Altered Nutrition	A2, B2, C2	Blended	Moodle	Asynchronous	Exams and quizzes	Ch 15 Pathophysiology: A Clinical Approach

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	30		All SLOs	Every week	On campus
Lab Reports					
First Exam					
Second Exam or (Mid Exam)	30	Cell adaptation, Inflammation, Infection	A1,A2,B1, B2	Week 8	On campus
Final Exam	40	All required chapters	All SLOs		On campus

23 Course Requirements

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

1. Power point lectures
2. Videos
3. Audios
4. Journal articles
5. Clinical Cases
6. E-learning (Moodle)



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:

- 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.
- 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:

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	30%	
Midterm Exam	30%	Will be announced in due time.
Final Exam	40%	Will be announced in due time.

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

- The University Computer Lab.
- The University Main Library.
- The University e-library.



25 References:

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

- Robbins and Cotran pathologic basis of disease Kumar, V., Abbas, A. K., Fausto, N., Robbins, S. L., & Cotran, R. S. (2015). Philadelphia: Elsevier Saunders.
- Pathophysiology: A Clinical Approach, Second Edition Carie A. Braun, PhD, RN; Cindy M. Anderson, PhD, RN, WHNP-BC, FAAN ISBN: 978-1-60547-304-8

B- Recommended books, materials, and media:

- BRS Pathology (Board Review Series) Fifth, North American Edition by Arthur S. Schneider MD (Author), Philip A. Szanto MD (Author)

26 Additional information:

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