



مركز الاعتماد  
وإضمان الجودة  
ACCREDITATION & QUALITY ASSURANCE CENTER



**The University of Jordan**

**Accreditation & Quality Assurance Center**

## **COURSE Syllabus**

### **Course Name**

Pathology for rehabilitation sciences

1	Course title	Pathology for rehabilitation sciences
2	Course number	0504207
3	Credit hours (theory,practical)	1 theory
	Contact hours (theoretical practical)	1
4	Prerequisites/corequisites	0532201, anatomy and histology for pharmacy
5	Program title	Undergraduate, rehabilitation
6	Program code	
7	Awarding institution	Jordan University
8	Faculty	medicine
9	Department	Histopathology, microbiology and forensic medicine.
10	Level of course	Undergraduate
11	Year of study and semester (s)	First semester 2016/2017
12	Final Qualification	Bachelor degree in rehabilitation sciences
13	Other department (s) involved in teaching the course	None
14	Language of Instruction	English
15	Date of production/revision	Nov.2016

#### 16. Course Coordinator:

Dr Khairat Battah, MD  
Office hours : Monday and Wednesday 10-12  
Email: k.battah@ju.edu.jo

#### 17. Other instructors:

Dr Manar Hajeer, MD.  
Office hours: Monday and Wednesday 10-12  
Email: m.hajeer@ju.edu.jo

#### 18. Course Description:

This one credit hour course is mandatory for rehabilitation sciences students. The course is designed to introduce rehabilitation sciences students to pathology via covering the basic pathology including cell injury, inflammation, neoplasia, and circulatory disorders, in addition to diseases of the cardiovascular, respiratory, gastrointestinal, renal, female genital, musculoskeletal, endocrine and hematology systems.

**19. Course aims and outcomes:****A- Aims:**

The overall objective is to:

- 1) Learn the pathophysiology of cell injury, inflammation, neoplasia and circulatory disorders.
- 2) know the causes of cell injury, inflammation (acute and chronic) along with knowing the genetic basis and environmental causes of neoplasms.
- 3) To know the morphological changes of necrotic and apoptotic cells, acute and chronic inflammation and how to differentiate morphologically between benign and malignant neoplasms.
- 4) To link the pathophysiology of hemodynamic disorders with the clinical manifestations.
- 5) To know some important cardiovascular, respiratory, hematological, renal, female genital, endocrine, musculoskeletal and gastrointestinal disorders.

**B- Intended Learning Outcomes (ILOs):** Upon successful completion of this course students will be able to ...

A. Knowledge and Understanding: Student is expected to

- A1- List causes of adaptations, reversible cell injury, necrosis, and apoptosis
- A2- To know the pathophysiology of reversible and irreversible cell injury in the form necrosis and apoptosis
- A3- To differentiate between causes and morphology of necrosis and apoptosis
- A4- To know the causes of inflammation
- A5- To know the pathophysiology of inflammation(acute and chronic)
- A6- To know the morphologic patterns of acute inflammation
- A7- To know outcomes and clinical manifestations of inflammation
- A8- To know the cells that are implicated in the pathogenesis of acute and chronic inflammation
- A9- Know the definition of edema, hyperemia and congestion, thrombosis, and emboli
- A10- To know the causes and clinical manifestations of edema, and thrombosis
- A11- To know the types of emboli (thromboemboli, fat emboli and air emboli) and their clinical manifestations
- A12- To differentiate benign from malignant tumors.
- A13 - To understand epidemiology of cancer.
- A14- To understand the basics of carcinogenesis.
- A15 - To know the main etiologic agents that cause cancer
- A16- To understand host defense mechanisms against cancer
- A17- To know the pathogenesis , complications and clinical manifestations of atherosclerosis
- A18- To know the causes of secondary hypertension
- A19- To know the types of aneurysms and dissection and their clinical manifestations
- A20- To know the pathogenesis of ischemic heart diseases
- A21- To know the definition of angina and its types
- A22- To know the pathogenesis of myocardial infarction and its clinical manifestation
- A27- To know types of hemolytic anemia.
- A28- To know types of blood loss anemia.
- A29- To know the definition of different types of respiratory diseases, pathogenesis and clinical manifestations including atelectasis, obstructive lung disease such as emphysema, chronic bronchitis, bronchiectasis and asthma.
- A30- To know the pathogenesis, causes and clinical manifestations of pneumonia.
- A31- To know about different forms of esophagitis (reflux, chemical and infectious esophagitis)
- A32- To know in brief about oesophageal cancer.
- A33- To know different types of acute and chronic gastritis.
- A34- To know about H pylori associated gastritis and autoimmune gastritis.
- A35- To know some points about gastric cancer.
- A36- To know how to differentiate between chronic inflammatory bowel disease (ulcerative colitis and crohn's disease).

- A37- To know in brief about benign and malignant tumors of the colon.
- A38- To know the main manifestations of nephritic and nephritic syndrome
- A39- To know the main causes of nephritic and nephritic syndromes.
- A40- To know the causes of acute renal failure.
- A41- To know the causes and manifestations of pyelonephritis.
- A42- To know the main types of renal cell carcinoma.
- A43- To know about diseases of the vagina.
- A44- To know about diseases of the cervix and relation to HPV.
- A45- To know about endometritis, endometrial hyperplasia and carcinoma.
- A46- To know about ovarian cysts and ovarian tumors.
- A47- To be able to differentiate between osteoarthritis and rheumatoid arthritis.
- A48- To know about gout and pseudogout.
- A49- To know in brief about joint tumors.
- A50- To know about osteoporosis and osteomalacia.
- A51- To know about types of osteomyelitis.
- A52- To know about bone tumours.

**B. Intellectual Analytical and Cognitive Skills: Student is expected to**

- B1- Ability to understand pathophysiology of diseases
- B2- Ability to make approach to disease from clinical signs and symptoms
- B3- Ability to differentiate diseases from each other
- A23- To know the changes in the heart due to myocardial infarction
- A24- To know the causes and manifestations of left and right sided heart failure.
- A25- To know different types and morphology of anemia.
- A26- To know the types of anemia of decreased production including iron deficiency anemia, vit B12 deficiency.

**20. Topic Outline and Schedule:**

1.					
Topic	Week	Instructor	Achieved ILOs	Evaluation Methods	Reference
2. Cell damage	3. 1	4. Dr K Battah	5. A1-A3,	6. exam	7. Robbins basic pathology
8. Inflammation	9. 2	10. Dr M Hajeer	11. A4-A8,	12. exam	13. Robbins basic pathology
14. neoplasia	15. 3	16. Dr K Battah	17. A12-A16	18. exam	19. Robbins basic pathology
20. Circulatory system	21. 4	22. Dr K Battah	23. A9-A11	24. exam	25. Robbins basic pathology
26. Blood vessels	27. 5	28. Dr M Hajeer	29. A17-A19	30. exam	31. Robbins basic pathology
32. Heart	33. 5	34. Dr M Hajeer	35. A20-A24	36. exam	37. Robbins basic pathology
38. Hematology	49. 6	61. Dr M Hajeer	74. A25-A28	86. Exam	100. Robbins basic pathology
39.	50.		75.	87.	
40. Respiratory	51. 7	62.	76. A29-A30	88. Exam	101. Robbins basic pathology
41.	52.	63. Dr K Battah	77.	89.	
42. Gastrointestinal	53. 8	64.	78. A31-A37	90. Exam	101. Robbins basic pathology
43.	54.	65. Dr M Hajeer	79.	91.	
44. Renal	55. 9	66.	80. A38-A42	92. Exam	102. Robbins basic pathology
45.	56.	67. Dr K Battah	81.	93.	
46. Female genital system	57. 10	68.	82. A43-A46	94. Exam	103. Robbins basic pathology
47.	58.	69. Dr M Hajeer	83.	95.	
48. Musculoskeletal system	59.	70.	84.	96.	104. Robbins basic pathology
	60. 11	71.	85. A47-A52	97. Exam	105. Robbins basic pathology
		72. Dr K Battah		98.	
		73.		99.	
			107.		
			108.		

**21. Teaching Methods and Assignments:**

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

Lectures.  
Exams

**22. Evaluation Methods and Course Requirements:**

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

Three exams : midterm(30%) , quiz(20%) and final(50%)  
All MCQ style

**23. Course Policies:**

A- Attendance policies:

According to the faculty and university regulations.

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

According to the faculty and university regulations

C- Health and safety procedures:

No issues related t safety

D- Honesty policy regarding cheating, plagiarism, misbehavior:

According to the faculty and university regulations

E- Grading policy:

According to the faculty and university regulations

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

**24. Required equipment:**

none

**2°. References:**

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

Robbins Basic Pathology: 9th edition. Vinay Kumar, Abul k Abbas. Jon C Aster

**2٦. Additional information:**

--

Name of Course Coordinator: -Dr Khairat Battah-----Signature: ----- Date: 28/10/2015

Head of curriculum committee/Department: ----- Signature: -----

Head of Department: ----- Signature: -----

Head of curriculum committee/Faculty: ----- Signature: -----

Dean: ----- -Signature: -----

Copy to:

Head of Department  
Assistant Dean for Quality Assurance  
Course File