

**University of Baghdad  
College of Nursing  
Bachelor of Science in Nursing  
(BSN)  
Program**

*Course Syllabus*  
**Pathophysiology**

**2022/2023  
2<sup>st</sup> Semester**

**This syllabus is subject to change. Changes will be announced to students.  
It is the responsibility of the student to comply with any changes.**

**Created: 2017 by ©Dr. Ala'a Hassan Mirza Hussain  
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## General Information & Policies

Course Number and Title: (PAT 207) Pathophysiology  
علم فسلجة الأمراض

Number of Credit Hours: 2

Times & Places: Wensday @ 8:30 AM-10:30 AM , 2nd Hall (beside the Library).

Prerequisites: Anatomy, Physiology, and Biochemistry

Course Description: This course is designed to provide the nursing students with a comprehensive knowledge with the principle and basic concepts in pathology and evolution of physiological alteration associated with altered health and diseases, including cell injury, adaptation, abnormality in genome, neoplasia, infectious processes, inflammation and immunity Also the course focuses on disorders in WBC, and RBC, alteration in blood flow and cardiac function, respiratory disorders, in addition to physiological changes associated with different pathological conditions such as disorder in GIT and skeleton diseases.

Teaching Methods: Lectures, handouts, discussions, & assignments. Google Classroom shall be used for online discussion

Evaluation Methods: Unit exam(s), Quiz, & Activity.

Faculty, Contact Information, & Office Hours:

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Office hours ► See my weekly schedule!

Required Textbook(s) and Other Materials:

- Porth Pathophysiology of Altered Health 2009.
- Kumar, Abbas and Aster: Robbins Basic Pathology 10th ed 2018
- Porth's Essential of Pathology (Tommy L. Norris, 5th edition, 2020, published by Wolters Kluwer).

Academic Dishonesty: Academic honesty is required in all aspects of a student's relationship with the university. **Students are advised that cheating and plagiarism are not tolerated.** If that happens, the student shall earn zero and be under the legal circumstances.

## Course Objectives

**By the completion of this course the student will be able to:**

At the end of the course the student will be able to:

1. Enabling students to obtain knowledge and understanding of the causes of diseases, the way they occur, and the changes associated with them at the level of the cell, tissue, organ, and body, in addition to structure and function.
2. He will develop a skill that enables him to differentiate between different diseases in terms of their effects on the body.
3. Enable the student to analyze the effect of the disease on the body and its complications.
4. Enabling the student to distinguish the necessary examination for pathological conditions, which are laboratory, radiological, and other examinations.
5. Formation of a basic idea about treatment and the reason for choosing one treatment over another.
6. Enabling the student to understand the complications associated with pathological conditions.

### Course Requirements

To complete the course successfully, the student must:

1. Have two examinations.
2. Have activity
3. Have quiz.

### Evaluation & Grading

Distribution of Points:

Requirements	Possible Points
Quiz and activities	5%
1 <sup>st</sup> Examination	12.5%
2 <sup>nd</sup> Examination	12.5%
<b>The total of 30% before the final exam.</b>	
The Final exam	70%
<b>Total</b>	<b>100%</b>

### Course Schedule and activities

Week	Date of Class	Unit to be Covered and/or Other Activity	Assigned Readings to be Completed Before Class
W1	22 <sup>st</sup> - Feb-2023	*Overview of the course and review of the syllabus *1. Introduction: Definition, health, diseases, Etiology, pathogenesis, clinical manifestations, diagnostic methods and	1. Kumar, Abbas and Aster: Robbins Basic Pathology 10th ed 2018

		<p>treatment.</p> <p>*Changes at cellular level</p> <p>Cell, Cellular adaptation, injury, reversible and irreversible cell injury, cell death, types of cell death, necrosis (types causes and sequel of necrosis).</p>	<p>2. Porth's Essential of Pathology</p>
W2	1 <sup>st</sup> -Mar-2023	<p>*Genes and Genetic Disorders</p> <p>* Component and function of gene, mutation, chromosome, genetic and chromosomal disorders (single gene disorders and alteration in autosomal and sex chromosomes), causes, diagnosis.</p>	<p>1. Kumar, Abbas and Aster: Robbins Basic Pathology 10th ed 2018</p> <p>2. Porth's Essential of Pathology</p>
W3	7 <sup>th</sup> - Mar-2023	<p>Neoplasia = Tumor</p> <p>Definition, types, nomenclature, characteristics of each type, carcinogenesis and causes of cancer, diagnosis and treatment.</p>	<p>1. Kumar, Abbas and Aster: Robbins Basic Pathology 10th ed 2018</p> <p>2. Porth's Essential of Pathology</p>
W4	14 <sup>th</sup> -Mar-2023	<ul style="list-style-type: none"> <li>• Inflammation</li> </ul> <p>Definition, causes, acute inflammation, signs, hematological and cellular responses, beneficial and harmful effects and outcome of acute inflammation, chronic inflammation, characteristic features. Repair and tissue healing</p>	<p>1. Kumar, Abbas and Aster: Robbins Basic Pathology 10th ed 2018</p> <p>Porth's Essential of Pathology</p>
W5	21 <sup>st</sup> - Mar-2022	<p>*Infectious Diseases</p> <p>Concepts, Agents, mechanism of infection (epidemiology, Transmission modes, source, clinical manifestation, disease course, site of infection, virulence factors, Dx and Rx. Bioterrorism.</p>	<p>1. Kumar, Abbas and Aster: Robbins Basic Pathology 10th ed 2018</p> <p>Porth's Essential of Pathology</p>
W6	29 <sup>th</sup> – Mar.-2023	<p>1<sup>st</sup> Examination</p>	
W 7	5 <sup>th</sup> – Apr.-2023	<p>*Hypersensitivity and autoimmunity</p> <p>Defense mechanisms in the body, component of immune system, immune responses, hypersensitivity, types of hypersensitivity, (mechanism of development of each type), transplantation immunopathology. Autoimmune diseases,</p>	<p>1. Kumar, Abbas and Aster: Robbins Basic Pathology 10th ed 2018</p> <p>Porth's Essential of Pathology</p>
W8	12 <sup>th</sup> – Apr.-2022	<p>immunodeficiency diseases,</p> <p>AIDS. etiology, mode of infection, replication, clinical stages and manifestations, Rx.</p>	<p><b>Kumar, Abbas and Aster: Robbins Basic Pathology 10th ed 2018</b></p> <p><b>Porth's Essential of Pa</b></p>

<b>W9</b>	<b>19<sup>th</sup> – Apr.- 2023</b>	* Disorders in white blood cells and lymphoid tissue Origin of blood cells, neutropnea, infectious mononucleosis, leukemia, Hodgkin's lymphoma(HL), NHL, Burkitt's lymphoma, and multiple myeloma	1. Kumar, Abbas and Aster: Robbins Basic Pathology 10th ed 2018
<b>W10</b>	<b>26<sup>th</sup> – Apr.- 2023</b>	Alterations in RBC and oxygen transport Red cell metabolism, hemoglobin oxidation, anemia, causes, haemolytic anemia classification, hereditary Spherocytosis, thalassemia, glucose-6-phosphate Dehydrogenase deficiency (G6PD), other types of anemia megaloplastic anemia, Plicythemia	<b>1. Kumar, Abbas and Aster: Robbins Basic Pathology 10th ed 2018</b>
<b>W11</b>	<b>3<sup>rd</sup> - May- 2023</b>	2 <sup>nd</sup> Examination	
<b>W12</b>	<b>10<sup>th</sup> - May- 2023</b>	Disturbances in blood flow Structure of blood vessels, alteration in arterial blood flow; atherosclerosis, mechanism of atherosclerosis development, aneurysm, dissecting aneurysm, hypertension, orthostatic hypotension, assessment of arterial flow. Alteration in venous flow; varicose, venous thrombosis.	1. Kumar, Abbas and Aster: Robbins Basic Pathology 10th ed 2018
<b>W13</b>	<b>17<sup>th</sup> - May- 2023</b>	Alteration in cardiac function Disorder in the epicardium, coronary heart disease, ischemic heart disease (angina). Myocardial infarction, myocardial disease, infective myocarditis, rheumatic heart disease, mitral valve disorders, stenosis, congenital heart defects, heart failure and circulatory shock.	1. Kumar, Abbas and Aster: Robbins Basic Pathology 10th ed 2018
<b>W14</b>	<b>24<sup>th</sup> - May- 2023</b>	Alteration in kidney Congenital anomalies, polycystic kidney, nephritis, acute proliferative glomerulonephritis, nephrosis, diabetic nephropathy, hypertensive glomerular disease, tubular disorders, pyelonephritis, renal failure	Kumar, Abbas and Aster: Robbins Basic Pathology 10th ed 2018
<b>W15</b>	<b>31<sup>th</sup> – May 2023</b>	<u>Disorders in the Accessory organs of the GIT Disorders in the salivary glands, liver and pancreas</u>	Kumar, Abbas and Aster: Robbins Basic Pathology 10th ed 2018

### Appendix A. Grading Rubric for Assignments

	Points Possible	Points Earned
Asking a question during the lecture and evaluating the students on the basis of the method of answering it, is it scientific, and the accuracy.	2	
Questioning indicate thoughtful consideration of questions posed including examples from student's own experiences (when appropriate)	3	
Points	5	
Total Points	5	

### Appendix B. Grading Rubric for the Examination

Grading Criteria	Possible Points
Definition; understandable, clearly mention the main thinks in the subject	5
Multiple choose; choose all correct answer(s) in the item(s)	5
Numerate	2.5
<b>Points for each examination</b>	<b>12.5</b>
<b>Total</b>	<b>25</b>