



<b>Program</b>	Bachelor of Pharmacy (BPharm)	<b>Semester - 3</b>
<b>Type of Course</b>	-	
<b>Prerequisite</b>		
<b>Course Objective</b>	-	
<b>Effective From A.Y.</b>	2023-24	

Teaching Scheme (Contact Hours)				Examination Scheme				
Lecture	Tutorial	Lab	Credit	Theory Marks		Practical Marks		Total Marks
				External Marks (T)	Internal Marks (T)	External Marks (P)	Internal Marks (P)	
3	1	0	4	75	25	0	0	100

SEE - Semester End Examination, CIA - Continuous Internal Assessment (It consists of Assignments/Seminars/Presentations/MCQ Tests, etc.)

Course Content		T - Teaching Hours   W - Weightage	
Sr.	Topics	T	W
1	<b>Unit I</b>  <b>1. Basic principles of Cell injury and Adaptation:</b> Introduction, definitions, Homeostasis, Components and Types of Feedback systems, Causes of cellular injury, Pathogenesis (Cell membrane damage, Mitochondrial damage, Ribosome damage, Nuclear damage), Morphology of cell injury – Adaptive changes (Atrophy, Hypertrophy, hyperplasia, Metaplasia, Dysplasia), Cell swelling, Intra cellular accumulation, Calcification, Enzyme leakage and Cell Death Acidosis & Alkalosis, Electrolyte imbalance  <b>2. Basic mechanism involved in the process of inflammation and repair:</b> Introduction, Clinical signs of inflammation, Different types of Inflammation, Mechanism of Inflammation – Alteration in vascular permeability and blood flow, migration of WBC's, Mediators of inflammation, Basic principles of wound healing in the skin, Pathophysiology of Atherosclerosis	10	22
2	<b>Unit II</b>  <b>3. Cardiovascular System:</b> Hypertension, congestive heart failure, ischemic heart disease (angina, myocardial infarction, atherosclerosis and arteriosclerosis) <b>4. Respiratory system:</b> Asthma, Chronic obstructive airways diseases. <b>5. Renal system:</b> Acute and chronic renal failure.	10	22
3	<b>Unit III</b>  <b>6. Haematological Diseases:</b> Iron deficiency, megaloblastic anemia (Vit B12 and folic acid), sickle cell anemia, thalasemia, hereditary acquired anemia, hemophilia <b>7. Endocrine system:</b> Diabetes, thyroid diseases, disorders of sex hormones <b>8. Nervous system:</b> Epilepsy, Parkinson's disease, stroke, psychiatric disorders: depression, schizophrenia and Alzheimer's disease. <b>9. Gastrointestinal system:</b> Peptic Ulcer	10	22
4	<b>Unit IV</b>  <b>10. Inflammatory bowel diseases,</b> jaundice, hepatitis (A,B,C,D,E,F) alcoholic liver disease. <b>11. Disease of bones and joints:</b> Rheumatoid arthritis, osteoporosis and gout <b>12. Principles of cancer:</b> classification, etiology and pathogenesis of cancer	8	18



Course Content		T - Teaching Hours   W - Weightage	
Sr.	Topics	T	W
5	<b>Unit V</b> <b>13. Infectious diseases:</b> Meningitis, Typhoid, Leprosy, Tuberculosis Urinary tract infections <b>14. Sexually transmitted diseases:</b> AIDS, Syphilis, Gonorrhoea	7	16
<b>Total</b>		<b>45</b>	<b>100</b>

**Suggested Distribution Of Theory Marks Using Bloom's Taxonomy**

Level	Remembrance	Understanding	Application
<b>Weightage</b>	35	35	30

*NOTE : This specification table shall be treated as a general guideline for the students and the teachers. The actual distribution of marks in the question paper may vary slightly from above table.*

**Course Outcomes**

**At the end of this course, students will be able to:**

C01	Knowledge and understanding of basic concept of cell injury including its pathogenesis and types of cellular adaptations and cell death.
C02	Knowledge and understanding of basic concept and types of inflammation with its mechanism including chemical mediators involved in it and basic principles of wound healing in skin.
C03	Knowledge and understanding of pathophysiology including pathogenesis, etiology, sign and symptoms, diagnosis and complications of various diseases of cardiovascular, respiratory and renal system,
C04	Knowledge and understanding of pathophysiology including pathogenesis, etiology, sign and symptoms, diagnosis and complications of various haematological disease, disease of Nervous, endocrine and gastrointestinal system
C05	Knowledge and understanding of pathophysiology including pathogenesis, etiology, sign and symptoms, diagnosis and complications of various bones and joints disease, infectious and sexually transmitted disease and the principles of cancer



**Reference Books**

1.	<b>Robbins &amp; Cotran Pathologic Basis of Disease (TextBook)</b> By Vinay Kumar, Abul K. Abas, Jon C. Aster   Elsevier   South Asia edition; India, Pub. Year 2014
2.	<b>Text book of Pathophysiology (TextBook)</b> By Harsh Mohan   Jaypee   6, Pub. Year 2010
3.	<b>Goodman Gilman's The Pharmacological Basis of Therapeutics (TextBook)</b> By Laurence B, Bruce C, Bjorn K   McGraw-Hill   12, Pub. Year 2011
4.	<b>Best and Taylor's Physiological basis of medical practice (TextBook)</b> By Best, Charles Herbert 1899-1978; Taylor, Norman Burke   12, Pub. Year 1972
5.	<b>Baltimore (TextBook)</b> By Williamand Wilkins, Pub. Year 1991
6.	<b>Davidson's Principles and Practice of Medicine (TextBook)</b> By Nicki R. Colledge, Brian R. Walker, Stuart H. Ralston   21, Pub. Year 2010
7.	<b>Textbook of Medical Physiology (TextBook)</b> By Guyton A, John. E Hal   WB Saunders Company   12, Pub. Year 2010
8.	<b>Pharmacotherapy: A Pathophysiological Approach (TextBook)</b> By Joseph DiPiro, Robert L. Talbert, Gary Yee, Barbara Wells, L. Michael Posey   McGraw-Hill Medical   9, Pub. Year 2014
9.	<b>Basic Pathology</b> By Vinay Kumar, Ramzi Cotran, Stanley Robins   Saunders Heircourt India Pvt. Ltd.   6, Pub. Year 2001
10.	<b>Clinical Pharmacy and Therapeutics (TextBook)</b> By Roger Walker, Clive Edwards   London; Churchill Livingstone publication   3, Pub. Year 2004
11.	<b>Pathophysiology (TextBook)</b> By Dr. Prakash S. gandhi   Career Publication   2, Pub. Year 2009
12.	<b>General and Systemic Pathology</b> By J.C.E. Underwood   Churchill Livingstone   4, Pub. Year 2004
13.	<b>Pathophysiology (TextBook)</b> By Dr. SL Bodhankar & Dr. N. S. Vywhare   Nirali   6, Pub. Year 2008

**List of Tutorial**

1.	TUTORIAL 1
2.	TUTORIAL-2
3.	TUTORIAL-3
4.	TUTORIAL-4
5.	TUTORIAL-5
6.	TUTORIAL-6
7.	TUTORIAL-7
8.	TUTORIAL-8
9.	TUTORIAL-9
10.	TUTORIAL-10
11.	TUTORIAL-11
12.	TUTORIAL-12
13.	TUTORIAL-13
14.	TUTORIAL-14
15.	TUTORIAL-15