



DEPARTMENT OF PHARMACY

Course: Bachelor of Pharmacy

LESSON PLAN

Faculty Name: Dr. Kapil

Subject Name: Pathophysiology

Class: B. Pharmacy – 2nd Sem

Subject Code: BP204T

Scope of the Subject: Pathophysiology is the study of causes of diseases and reactions of the body to such disease producing causes. This course is designed to impart a thorough knowledge of the relevant aspects of pathology of various conditions with reference to its pharmacological applications and understanding of basic patho-physiological mechanisms. Hence it will not only help to study the syllabus of pathology, but also to get baseline knowledge required to practice medicine safely, confidently, rationally and effectively.

Course outcome: Upon completion of this course the student should be able to:

- Describe the etiology and pathogenesis of the selected disease states
- Name the signs and symptoms of the diseases and
- Mention the complications of the diseases

Number of Lectures: 45

Each lecture: 01 hour

Lecture No.	Particular	Remark/Date
Module 1: Basic principles of Cell injury and Adaptation		
1.	Introduction of the topic	
2.	Definitions, Homeostasis	
3.	Components and Types of Feedback systems, Causes of cellular injury	
4.	Pathogenesis (Cell membrane damage, Mitochondrial damage)	
5.	Pathogenesis (Ribosome damage, Nuclear damage)	
6.	Morphology of cell injury – Adaptive changes (Atrophy, Hypertrophy, hyperplasia)	
7.	Morphology of cell injury – Adaptive changes (Metaplasia, Dysplasia)	
8.	Cell swelling, Intra cellular accumulation, Calcification	
9.	Enzyme leakage and Cell Death Acidosis & Alkalosis, Electrolyte imbalance	
Basic mechanism involved in the process of inflammation and repair		
10.	Introduction to inflammation , Clinical signs of inflammation	
11.	Different types of Inflammation	
12.	Mechanism of Inflammation – Alteration in vascular permeability and blood flow	
13.	Mechanism of Inflammation – Migration of WBC's, Mediators of inflammation	

14.	Basic principles of wound healing in the skin	
15.	Pathophysiology of Atherosclerosis	
Module 2:		
16.	Cardiovascular System: Hypertension, Congestive heart failure	
17.	Ischemic heart disease (angina, myocardial infarction)	
18.	Ischemic heart disease (atherosclerosis and arteriosclerosis)	
19.	Respiratory system: Asthma, Chronic obstructive airways diseases	
20.	Renal system: Acute and Chronic renal failure	
Module 3:		
21.	Haematological Diseases: Iron deficiency, megaloblastic anemia (Vit B12 and folic acid), sickle cell anemia	
22.	Haematological Diseases: Sickle cell anemia, thalasemia	
23.	Haematological Diseases: Hereditary acquired anemia, hemophilia	
24.	Endocrine system: Diabetes, thyroid diseases, disorders of sex hormones	
25.	Nervous system: Epilepsy, Parkinson's disease, stroke	
26.	Nervous system: Psychiatric disorders: depression	
27.	Nervous system: Schizophrenia and Alzheimer's disease	
28.	Gastrointestinal system: Peptic Ulcer	
Module 4:		
29.	Inflammatory bowel diseases, Jaundice	
30.	Hepatitis (A, B,C,D,E,F) alcoholic liver disease	
31.	Disease of bones and joints: Rheumatoid arthritis, osteoporosis and gout	
32.	Principles of cancer: classification, etiology and pathogenesis of cancer	
Module 5: Infectious diseases:		
33.	Infectious diseases: Meningitis, Typhoid	
34.	Infectious diseases: Leprosy, Tuberculosis	
35.	Urinary tract infection	
Sexually transmitted diseases:		
36.	AIDS, Syphilis, Gonorrhoea	
Revision		
37.	Revision of previous question papers	
38.	Revision of previous question papers	
39.	Revision of previous question papers	
40.	Revision of previous question papers	
41.	Revision of previous question papers	

Teacher in-charge

HOD

Principal