

Jehad aur qudrati aafaat main muaalej ki zimmadari: Jihaad ka mafhoom, Aag mein jalane sey mumaaneat, Mashla ki mumaaneat, Qatal-e-aseer ki mumaaneat.

Chapter – 12:

Muaalej ki zimma darian: Akhlaaq wa kirdar, sarkari shuubah main ghair qanooni wa hair akhlaaqi practice, Sarkaari haspatal main mulazemat, auqat-e-kaar ki pabandi, Ihsaas-e-zimmadari, mareez aur inkay lawaheqeen kay saath bartau, thashkhees wa ilaaj main laaparwahi na karna, Najayez tareeqey se tashheer, Aalaat wa adwiyat ki khareedari, Certificate ka ijra, Najji haspatal, Commission (Unlawful earning), Mehangi adwiyat tajweez karna. Ishtiharbaazi.

Chapter – 13:

Muaalej aur Muashira: Ammar bil maroof aur nahe anil-munkar.

SECOND YEAR BDS SUBJECTS

1. General Pathology
2. General Pharmacology
3. Pre-Clinical Dentistry
4. Oral Pathology
5. Science of Dental Materials
6. Behavioral Science

CONTACT HOURS ALLOCATION

SECOND PROFESSIONAL BDS

<u>SUBJECTS</u>	<u>LECTURES HOURS</u>	<u>PRACTICAL OURS</u>
General Pathology	40	150
General Pharmacology	40	150
Preclinical Dentistry		360
Oral Pathology	40	200
Science of Dental Materilas	40	190
Behavioral Sciencs	40	
Grand Total	200	1050

SYLLABII AND COURSE DETAILS FOR:

GENERAL PATHOLOGY:

Introduction:

The branch of medicine dealing with the essential nature of disease, especially changes in body tissues and organs that cause a disease or caused by a disease. It explores the structural and functional manifestations of diseases.

Course Description & Objectives:	Suggested Lecture Hours
Cell Injury: a. Terms necrosis, ischemia, hypoxia, infarction and gangrene. b. Sequence of the ultrastructural and biochemical changes which occur in the cell in response to the following: <ul style="list-style-type: none">• Ischemia• Immunological injury-eg. Asthma / SLE / Anaphylactic reaction• Physical agents: eg. Radiation• Genetic defects- eg. Thalassemia / haemophilia• Nutritional deficiency• Infectious agents• Viruses: eg. Hepatitis / Aids / HIV infections• Fungi: eg. Staphylococcus• Parasites: eg. Malaria c. Irreversible and reversible injury. d. Apoptosis and its significance. e. Necrosis and its types. f. Exogenous and endogenous pigment deposition g. Dystrophic and metastatic calcification along with clinical significance. h. Metabolic disorders <ul style="list-style-type: none">• Lipid• Protein• Carbohydrate	5
INFLAMMATION AND MEDIATORS OF INFLAMMATION a) Describe the role of inflammation in the defense mechanisms of the body.	5

<ol style="list-style-type: none"> a) Describe the vascular changes of acute inflammation and relate these to the morphological and tissue effects. b) Describe the process of chemotaxis, opsonization and phagocytosis. c) Describe the role of cellular components in inflammatory exudate. d) Differentiate between exudate and transudate. e) List the important chemical mediators of inflammation f) Describe the pathway of Arachidonic Acid metabolism. g) Discuss the role of products of Arachidonic acid metabolism in inflammation. h) Describe the mechanism for development of fever, with reference to exogenous and endogenous pyrogens. i) Describe chronic inflammation including granulomas. j) Describe granuloma, its type and causes. k) Describe the systemic effects of acute and chronic inflammation and their possible outcomes. l) Describe the significance of ESR. m) Give two examples of induced hypothermia in medicine. n) Describe the pathogenesis, clinical features and lab. Diagnosis of Gout. o) Describe the management of acute and chronic Gout. 	
<p>WOUND HEALING</p> <ul style="list-style-type: none"> • Describe the differences between repair and regeneration . • Describe wound healing by first and second intention. • Discuss the factors that influence the inflammatory reparative response. • Compare wound contraction with cicatrization. • Describe the formation of granulation tissue. 	3

<ul style="list-style-type: none"> Describe the complications of wound healing. 	
<p>DISORDERS OF CIRCULATION</p> <p>a) THROMBO-EMBOLIC DISORDERS AND THEIR MODALITIES:</p> <ol style="list-style-type: none"> 1. Explain the pathogenesis of 2. Describe the possible consequences of thrombosis. <p>b) DISORDERS OF THE CIRCULATION AND SHOCK</p> <ol style="list-style-type: none"> 1. Define edema, ascites, hydrothorax and anasarca. 2. Describe the pathophysiology of edema with special emphasis on CHF. 3. Describe the pathogenesis of four major types of shock (Hypovolemic, cardiogenic, vasovagal and septic) and list their causes. 4. Describe the compensatory mechanisms involved in shock. 	8
<p>MICROBIOLOGY</p> <ol style="list-style-type: none"> 1. Describe the defense mechanisms of the body. 2. Describe the microbial mechanisms of invasion and virulence. 3. Differentiate between sterilization and disinfection. 4. Describe methods of disinfection and sterilization. 5. Describe the principles of aseptic techniques. 6. Describe universal precautions for infection control. 7. Describe the general principles of the following serological tests: <ul style="list-style-type: none"> • ELISA – Hepatitis (A,B,C,D,E,G) Rubella, CMV and HIV • Haemagglutination – TPHA • Western blot – HIV 	8

<ul style="list-style-type: none"> • ICT – Malaria <ol style="list-style-type: none"> 8. Interpret: a) Culture reports, b) Serological reports and c) microscopic reports of gram stain and AFB stain. 9. Describe the principles of proper collection and submission of specimens for laboratory investigations with due precautions. 10. Describe the general characteristics and taxonomy of Bacteria, Viruses and Fungi. 11. Define communicable endemic, epidemic and pandemic diseases, carriers, pathogens, opportunists, commensals and colonizers. 12. List the microorganisms responsible for infection of the body with especial reference to oral cavity. 13. Describe pathogenesis, treatment, epidemiology, prevention and control of the following organisms. <ul style="list-style-type: none"> • Bacteria, Viruses, Fungus, Protozoa, Helminths: 14. Describe principles of anti microbial action 	
<p>GENETICS</p> <ol style="list-style-type: none"> 1. Agenesis, Dysgencsis, Aplasia, Hypoplasia, Hyperplasia, Metaplasia, Dysplasia, Neoplasia, Anaplasia, Atrophy and Hypertrophy. 2. Cell cycle and list cell types (stable, labile , permanent) 3. Mechanisms controlling cell growth. 4. Classification systems of tumors. 5. Characteristics of benign and malignant tumors. 6. Grading and staging system of tumors. 7. Biology of tumor growth. 8. Process of carcinogenesis. 9. Host defense against tumors. 10. Mechanism of local and distant spread. 11. Local and systemic effects of tumors. 12. Tumor markers used in the diagnosis and management of cancers. 13. Chemical, Physical agents and Viruses related to human cancer. 14. Epidemiology of common cancers in Pakistan. 	3

<p>IMMUNOLOGY</p> <p>Antigen, antibody, epitope, hapten and adhesion molecules. Innate and acquired immunity. Type I, type II, type III, and type IV hypersensitivity reactions. Classification of the immunodeficiency disorders. Autoimmunity.</p>	<p>8</p>
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SYLLABII AND COURSE DETAILS FOR:

GENERAL PHARMACOLOGY:

Introduction:

It is the science that deals with the origin, nature, chemistry, effects, and uses of drugs. it includes pharmacognosy, pharmacokinetics, pharmacodynamics, pharmacotherapeutics and toxicology.

Course Description & Objectives:	Suggested Lecture Hours
<p>Introduction to Concepts & Principles of General Pharmacology:</p> <p>Definition of drug and drug nomenclature. Branches / Divisions of Pharmacology Sources of drugs Active principles of drug and Pharmacology Dosage forms and doses of drugs. Drug administration. Absorption of drugs and processes involved in drug absorption Factors modifying absorption of drugs. Transport of drugs across cell-membrane Bioavailability, its clinical significance and factors affecting bioavailability Drugs reservoirs, distribution and redistribution of drugs, plasma protein binding Pro-drug, Biotransformation of drugs, enzyme induction, enzyme inhibition and entero-hepatic circulation Plasma half-life of drugs, steady state concentration, its clinical importance and factors affecting it. Excretion of drugs. Mechanism of drug action. Dose response curves, structure-activity relationship. Factors modifying action and doses of drugs. Pharmacokinetics, pharmacodynamics and</p>	<p>3</p>