

1. SYLLABUS

I. GENERAL INSTRUCTION:

1. The Lectures Stated below shall cover knowledge about applied aspects of basic & allied sciences, practical approaches in the management of patients in the outdoor & indoor setting as well as their management in the community. Special emphasis shall be placed on preventive aspects, National Health Programs & dietetics and nutrition.)
2. During practical teaching & training in wards, OPD & fields works proper emphasis should be given to common health problems in addition to other diseases. Emphasis should be given to learning of tacit knowledge & skills in diagnosis & interpretation of finding and Lab. Data.

DEPARTMENT OF MEDICINE

CS-(04)

UG LECTURES AND TUTORIALS LESSON PLAN

S. N.	4 th Semester Lecture
	Topic:- Introduction & Symptomatology
1	History of Medicine Concept & Objective of Diagnosis <ul style="list-style-type: none">• History of medicine from Hippocrates to present day developments• Diagnosis clinical, laboratory & its correlation
2	Medical Ethics <ul style="list-style-type: none">• Principles of medical ethics• Doctor patients relationship• Communication skills• End of life care• Disclosure of diagnosis
3	History taking Differential Diagnosis <ul style="list-style-type: none">• Detailed history taking form personal data chief complains history of presenting illness past/family history- significant of each• Differential diagnosis & approach to case
4	Cardio-vascular system (CVS Symptomatology) <ul style="list-style-type: none">• Signs & symptoms of CVS & approach to case of CVS
5	Respiratory system (RS) Symptomatology <ul style="list-style-type: none">• Signs & symptoms of respiratory system & approach to case of RS

6	Nervous system CNS Symptomatology <ul style="list-style-type: none"> • Signs & symptoms of NS • Definition of different symptoms & approach to a NS case
7	Gastro intestinal tract (GIT) Symptomatology <ul style="list-style-type: none"> • Signs & symptoms of GIT diseases • Approach to case of GIT diseases
8	Hepatobiliary Symptomatology <ul style="list-style-type: none"> • Anatomy, signs, symptoms, approach to a case of hepatobiliary disease
9	Patient with fever & Edema – approach <ul style="list-style-type: none"> • Definition / types of fever/ approach to case of fever/PUO

4th Semester Lecture	
S. N.	Topic:- Introduction & Symptomatology
10	Patient with Anaemia & Jaundice – Approach <ul style="list-style-type: none"> • Definition of anaemia / classification / signs / symptoms / diagnosis / treatment / approach to case of anemia
11	Revision
12	Patient with Lymphadenopathy – Approach <ul style="list-style-type: none"> • Definition / generalized lymphadenopathy / localized lymphadenopathy differential diagnosis
13	Investigation -I (Non Invasive) X-Ray USG CT MRIPBS <ul style="list-style-type: none"> • Importance of each investigations / technical details / indications / contra indications / recent advances
14	Investigation -II (Invasive) FNAC, LP, BM, LN, Liver biopsy <ul style="list-style-type: none"> • Indication / contra indications / methods of each surgical procedures
15	Review of common Diseases in India <ul style="list-style-type: none"> • Malaria/ TB / enteric fever etc short review
16	Approach to oedema <ul style="list-style-type: none"> • Definition of edema / causes / pathophysiology / approach to case of edema
17	Approach to jaundice <ul style="list-style-type: none"> • Definition of jaundice / clinical features / causes / complications / diagnosis / treatment / approach / differential diagnosis
18	<ul style="list-style-type: none"> • Revision

Sr. No.	5 th Semester Lectures - I
	Topic:- Infection Diseases
1	<p>Staphylococcus, infections</p> <ul style="list-style-type: none"> • Skin infections, wound infections, cannula related infections, MRSA • Staph toxic shock syndrome and management <p>Streptococcal infections</p> <ul style="list-style-type: none"> • Skin infections, scarlet fever, toxic shock syndrome, related infections, management

Sr. No.	5 th Semester Lectures - I
	Topic:- Infection Diseases
2	<p>Typhoid Fever- <i>Flipped Classroom Teaching</i></p> <ul style="list-style-type: none"> • Causative agents • Epidemiology • Pathogenesis • Clinical features • Complication • Investigations • Management
3	<p>Gastroenteritis & Cholera</p> <ul style="list-style-type: none"> • Causative agents • Epidemiology • Clinical features • Complications • Investigations • Prevention
4	<p>Tetanus / Leptospirosis</p> <ul style="list-style-type: none"> • Epidemiology • Pathogenesis • Clinical features • Complications • Prevention
5	<p>Anthrax, brucellosis, plague.</p> <ul style="list-style-type: none"> • Causative agents microbiology • Epidemiology • Pathogenesis • Clinical features • Complications • Treatment • Prevention

6	<p>Leprosy- <i>Flipped Classroom Teaching</i></p> <ul style="list-style-type: none"> • Types • Definition • Investigation • Complication • Management
7	<p>Syphilis -</p> <ul style="list-style-type: none"> • Causative agent • Epidemiology

Sr. No.	5 th Semester Lectures - I
	Topic:- Infection Diseases
	<ul style="list-style-type: none"> • Pathogenesis • Stages of syphilis • Clinical features of each stage. • Complications • Treatment • Prevention
8	<p>Malaria- <i>Flipped Classroom Teaching</i></p> <ul style="list-style-type: none"> • Causative agents • Epidemiology • Pathogenesis • Clinical features Complications. • Investigation • Management Prevention.
9	<p>Amoebiasis & Amoebic Liver Abscess & Kala Azar</p> <ul style="list-style-type: none"> • Causative agents microbiology • Epidemiology, Pathogenesis • Clinical features and Complications • Treatment • Prevention
10	<p>Filariasis /worm infestations</p> <ul style="list-style-type: none"> • Causative agents • Epidemiology • Pathogenesis • Clinical features • Complications • Investigations • Management

11	Measles, mumps, chicken pox, herpes simplex, herpes zoster. <ul style="list-style-type: none"> • Causative agents • Epidemiology • Pathogenesis • Clinical features • Complications • Investigations • Management
12	Dengue, Chikungunya, Yellow fever <ul style="list-style-type: none"> • Causative agents

Sr. No.	5 th Semester Lectures - I
	Topic:- Infection Diseases
	<ul style="list-style-type: none"> • Epidemiology • Pathogenesis • Clinical features • Investigations • Complications and Management
13	HIV-I <ul style="list-style-type: none"> • Clinical examination, • Epidemiology and biology(Modes of transmission), • Natural history, • Classification, • Post exposure prophylaxis. • Management
14	HIV-II <ul style="list-style-type: none"> • Clinical examination, • Epidemiology and biology(Modes of transmission), • Natural history, • Classification, • Post exposure prophylaxis. • Management
15	Polio, rabies, japanese encephalitis <ul style="list-style-type: none"> • Causative agent • Epidemiology • Pathogenesis, Complication • Investigations • Management

6	Rickketsial infection <ul style="list-style-type: none"> • Causative agent • Epidemiology • Pathogenesis, Complication • Investigations • Management
17	New emerging infections- H1N1, SARS ,Bird flu <ul style="list-style-type: none"> • Clinical features • Investigations • Management • Prevention

Sr. No.	5 th Semester Lectures - I
	Topic:- Infection Diseases
18	Antibiotic resistance <ul style="list-style-type: none"> • Mechanisms • Causes • Types
19	Fever of unknown origin <ul style="list-style-type: none"> • Clinical assessment • Etiology • Investigations
20	Febrile neutropenia, fever in immunocompromised <ul style="list-style-type: none"> • Definition • Investigations • treatment
21	<ul style="list-style-type: none"> • Revision

Lecture number 2 (Typhoid Fever), 6 (Leprosy) and 8(Malaria) in will beconducted by using Flip Classroom Method.

Sr. No	5 th Semester Lectures - II
	Topic:- Cardiovascular System (CVS)
1	Introduction – (CVS) <ul style="list-style-type: none"> • clinical examination • Anatomy physiology of CVS
2	CVS - Method of Evaluation - Non invasive CVS <ul style="list-style-type: none"> • ECG • 2DECHO • X ray chest • Stress test • CAG

3	Arrhythmias <ul style="list-style-type: none"> • Tachyarrhythmias • Bradyarrhythmias
4	Congestive Cardiac Failure, LVF <ul style="list-style-type: none"> • Clinical features • Investigation • Treatment • Complications of Treatment
5	Cong Heart Diseases Aetiology, Classification CHD in Adults

Sr. No	5 th Semester Lectures - II
	Topic:- Cardiovascular System (CVS)
	<ul style="list-style-type: none"> • Foetal heart circulation • Cyanotic heart disease • Acyanotic heart disease
6	Rheumatic Fever <ul style="list-style-type: none"> • Clinical features • Investigations • Treatment & Prophylaxis. • Complications
7	Valvular heart diseases (MS,MR,TR)- Part- I <ul style="list-style-type: none"> • Haemodynamics- clinical features • Investigation • Complications • Treatment
8	Valvular heart diseases (AS,AI) - Part- II <ul style="list-style-type: none"> • Haemodynamics- clinical features • Investigation • Complications • Treatment
9	Infective Endocarditis <ul style="list-style-type: none"> • Etiology • Clinical features • Investigation • Treatment • Complications
10	Coronary Artery Disease <ul style="list-style-type: none"> • Definition etiology, Pathophysiology, clinical features, investigations, diagnosis & management

11	Myocardial Infarction, Angina pectoris. <ul style="list-style-type: none"> • Definition, etiology, Pathophysiology, clinical features, investigations, diagnosis & management, Complications
12	Cardiomyopathy <ul style="list-style-type: none"> • Definition, etiology, types, pathophysiology, clinical features, investigations, diagnosis, management
3	Pericardial Disease <ul style="list-style-type: none"> • Definition, etiology, pathophysiology,

Sr . N o	5th Semester Lectures - II
	Topic:- Cardiovascular System (CVS)
	clinical features, investigations, diagnosis, management, differential diagnosis & complication
14	Hypertension - I <ul style="list-style-type: none"> • Definition , JNC classification, causes, secondary causes investigation
15	Hypertension - II <ul style="list-style-type: none"> • Management, treatment individual drugs with doses & contra indication, Treatment of complications, prevention of complications
16	Disorders of aorta and peripheral blood vessels <ul style="list-style-type: none"> • Aortic aneurysm, aortic dissection(etiology, types, clinical features, treatment, management) • Atherosclerosis. • Acute & Chronic upper & lower limb ischaemia.
17	<ul style="list-style-type: none"> • Revision

Sr. No	6th Semester Lectures
	Topic:- GIT / Liver
1	Diseases of oral cavity, aphthous ulcer <ul style="list-style-type: none"> • Aphthous ulcer differential diagnosis, etiology, management • Haematemesis causes & management • Malena causes & management

2	Oesophagus Anatomy & physiology of deglutition dysphasia, GERD, Achlasia cardiac Reflux oesphagitis <ul style="list-style-type: none"> • Oesophagus Anatomy • Reflux oesphagitis- etiology, types management • Achlasia cardiac GERD etiology, presentation, management
3	Heametmesis & Maleana <ul style="list-style-type: none"> • D/D • Management

Sr. No	6 th Semester Lectures
	Topic:- GIT / Liver
4	Disease of Stomach <ul style="list-style-type: none"> • Peptic Ulcer, Acute & Chronic Gastritis, malignancies • Peptic ulcer- types, etiology, symptoms, investigation & Management
5	Diseases of Small Intestine <ul style="list-style-type: none"> • Anatomy Secretions, Functions ,Malabsorption Syndrome
6	Blood Supply of bowel & ischaemic disease of bowel <ul style="list-style-type: none"> • Blood Supply of bowel • Etiology, clinical features and management of ischaemic bowel disease
7	IBS <ul style="list-style-type: none"> • Definition, presentation etiology & management
8	Ulcerative Collitis Crohn's Disease; other disease of large intestine. <ul style="list-style-type: none"> • Crohn's Disease; other disease of large intestine.
9	Tuberculosis abdomen <ul style="list-style-type: none"> • Types • Management
10	Jaundice <ul style="list-style-type: none"> • D/D, • Bilirubin metabolism & LFT
11	Hepatitis-Acute & Chronic Hepatitis –I <ul style="list-style-type: none"> • Etiology • Pathology • Clinical features • Complication • Management

12	Hepatitis-Acute & Chronic Hepatitis –II <ul style="list-style-type: none"> • Etiology • Pathology • Clinical features • Complication • Management
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Sr. No	6 th Semester Lectures
	Topic:- GIT / Liver
13	Cirrhosis of Liver – I <ul style="list-style-type: none"> • Aetiopathogenesis, clinical Features &Diagnosis
14	Cirrhosis of Liver - II <ul style="list-style-type: none"> • Management • Complications including portalhypertension.
15	Acute pancreatitis <ul style="list-style-type: none"> • Etiology • Pathology • Clinical features • Complication • Management
16	Chronic pancreatitis <ul style="list-style-type: none"> • Etiology • Pathology • Clinical features • Complication • Management
17	Disease of gall bladder <ul style="list-style-type: none"> • Etiology • Clinical Features • Management
18	<ul style="list-style-type: none"> • Revision

Sr. No	6 th Semester Lectures
	Topic:-Respiratory System
1	Approach to haemoptysis <ul style="list-style-type: none"> • Definition • Causes • Management

2	<p>Bronchial asthma</p> <ul style="list-style-type: none"> • Epidemiology • Etiology • Pathology • Clinical features • investigations
4	<p>Tropical Eosinophilia</p> <ul style="list-style-type: none"> • Definition • Etiology • types • Treatment
5	<p>Occupational lung diseases</p> <ul style="list-style-type: none"> • Occupational airway disease • Pneumoconioses • Asbestosis related lung and pleural disease • Lung diseases due to organic dust • Occupational lung cancer • Occupational pneumonia
6	<p>Pulmonary thromboembolism</p> <ul style="list-style-type: none"> • clinical features • risk factors • diagnosis • management
7	<p>Revision</p>
8	<p>Sleep disordered breathing</p> <ul style="list-style-type: none"> • etiology • clinical features • investigations • management
9	<p>Mediastinal syndrome</p> <ul style="list-style-type: none"> • clinical features • investigations
10	<p>Carcinoma lung</p> <ul style="list-style-type: none"> • risk factors • pathology • clinical features • investigations

Sr · No	6 th Semester Lectures
	Topic:-Respiratory System
	<ul style="list-style-type: none"> • management
11	Pleural effusion <ul style="list-style-type: none"> • Types • Causes • Clinical features • investigations • Management.
12	Pneumothorax <ul style="list-style-type: none"> • types • causes • treatment
13	Interstitial lung diseases <ul style="list-style-type: none"> • diffuse parenchymal lung disease • systemic inflammatory disease • pulmonary eosinophilia & vasculitides • Lung diseases due to irradiation drugs. • Rare ILD
14	<ul style="list-style-type: none"> • Revision

Sr · No	6 th Semester Tutorial
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2	Obesity <ul style="list-style-type: none"> • Problems of obesity with changed lifestyle • Various causes of obesity • Anthropometric measurements • Complication of obesity, • treatment optionsMetabolic syndrome • definition • management
3	Protein - Energy Malnutrition, anorexia nervosa <ul style="list-style-type: none"> • PEM in adults • Methods to diagnose of PEM

Sr · No	6 th Semester
	Tutorial
	<ul style="list-style-type: none"> • Treatment of PEM Vitamin Deficiency States Beri - Beri, Pellagra, Scurvy, Vitamin A Deficiency, Thiamine Deficiency <ul style="list-style-type: none"> • Vitamin deficiency in adults • Signs, symptoms and treatment
4	Acid base imbalance <ul style="list-style-type: none"> • Metabolic acidosis & alkalosis. • Respiratory acidosis & alkosis. • Mixed acid base disorders. • Anionic gap disorders.
5	Hyponatremia & hypernatremia <ul style="list-style-type: none"> • Definition • Approach • Types • Management
6	Hypokalemia & hyperkalemia <ul style="list-style-type: none"> • Approach • Causes • ECG changes • Management
7	Hypertensive emergencies <ul style="list-style-type: none"> • Etiology • Types • Investigation • Management
8	Approach to dyspnoea <ul style="list-style-type: none"> • d/d • acute dyspnoea • chronic dyspnoea
9	Approach to polyarthritis <ul style="list-style-type: none"> • causes • clinical features • investigations • management
10	Revision

11	Fever with Rash <ul style="list-style-type: none"> • macular
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Sr · No	6 th Semester
	Tutorial
	<ul style="list-style-type: none"> • maculopapular • vesicular, purpural, petechial. • erythema multiforme • erythema nodosum • diffuse erythema • migrating erythema
12	Pulmonary function tests. <ul style="list-style-type: none"> • Methods • Measurements • Lung volumes • Transfer factor • Arterial blood gas analysis • Exercise test
13	Complementary medicine <ul style="list-style-type: none"> • Safety • Regulation • Integrated health care
14	Acute severe asthma <ul style="list-style-type: none"> • Clinical features • Investigations • Management
15	<ul style="list-style-type: none"> • Revision

Sr · No	7 th - Semester Lectures
	Topic :- Hematology and Rheumatology
1	Approach & Investigations to a Patients with Joint Disease <ul style="list-style-type: none"> • Clinical approach Physical examination, investigations, management
2	Rheumatoid Arthritis <ul style="list-style-type: none"> • Etiology, • Genetic background, • Pathogenesis, criteria for diagnosis, radiological features, clinical features, extra articular manifestation, • Investigations & management DMARD's, newer drugs

Sr · N o	7 th - Semester Lectures
	Topic :- Hematology and Rheumatology
3	Seronegative Spondyloarthropathies <ul style="list-style-type: none"> • Classification • Types • Investigations • Clinical approach • Management
4	Collagen vascular diseases – I <ul style="list-style-type: none"> • SLE • Ssystemic sclerosis • MCTD • Sjogrens syndrome • Polymyositis, • Dermatomyositis, inclusion bodymyositis.
5	Collagen vascular diseases – II <ul style="list-style-type: none"> • Takayasu • Kawasaki • Polyarteritis nodosa • Giant cell arteritis • ANCA associated vasculitis • Churg strauss syndrome, henochschonlein purpura • Cryoglobulinemic vasculitis, behcetsand relapsing.
6	Gout & Pseudogout <ul style="list-style-type: none"> • Etiology • Clinical features • Treatment Osteoarthritis <ul style="list-style-type: none"> • Etiology • Clinical features • Treatment
7	Classification of Anemia & Approach to Investigation <ul style="list-style-type: none"> • Types of anemia physiology clinical approach

8	Iron Deficiency Anemia & Hypochromic Microcytic Anaemias <ul style="list-style-type: none"> • Causes of IDA
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Sr · No	7 th - Semester Lectures
	Topic :- Hematology and Rheumatology
	<ul style="list-style-type: none"> • Clinical features • Lab diagnosis • Treatment of IDA • Parental & oral preparation
9	Megaloblastic Anaemia <ul style="list-style-type: none"> • Classification & causes of megaloblastic anaemia lab diagnosis bone marrow findings, pernicious anaemia management
10	Haemolytic Anaemia <ul style="list-style-type: none"> • Classification of hemolytic anaemia • G6PD deficiency hereditary spherocytes • Sickle cell syndrome- clinical features, complications management
11	Haemoglobinopathies <ul style="list-style-type: none"> • Thalassemia alpha & beta clinical features & management • PNH hereditary & acquired
12	Acute Leukemia's <ul style="list-style-type: none"> • ALL- FAB classification physical examination • Clinical features- complications prognosis index • Management of ALL & ANL
13	Chronic Leukemia's <ul style="list-style-type: none"> • CML genetics- diagnosis, clinical features • Prognosis management • Recent advances
14	Lymphomas- Hodgkins and Non Hodgkin's Disease <ul style="list-style-type: none"> • Classification- pathology, clinical approach bone marrow finding • Investigation & management

15	Bleeding Disorders <ul style="list-style-type: none"> • Physiology of coagulation • Clinical approach • Lab investigations • Diagnosis
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Sr . N o	7th - Semester Lectures
	Topic :- Hematology and Rheumatology
	<ul style="list-style-type: none"> • Complications, DIC, management • Blood component therapy
16	Coagulation disorders <ul style="list-style-type: none"> • Physiology of coagulation • Clinical approach • Lab investigation • Diagnosis
17	Myeloproliferative and myelodysplastic syndromes <ul style="list-style-type: none"> • Classification • Management
18	<ul style="list-style-type: none"> • Revision

Sr. No.	7th - Semester Lectures
	Topic :- Nervous System
1	Introduction, applied Anatomy & Physiology of Brain & Spinal Cord <ul style="list-style-type: none"> • Basic Anatomy & Physiology. • Localising lesions .
2	History taking in Neurology & Investigation <ul style="list-style-type: none"> • How to take CNS History • Neuroimaging CSF & other Investigations • Neurophysiological testing
3	Coma, Causes & Investigations <ul style="list-style-type: none"> • Definition • History taken and examination in a patient with coma • Diagnosis and Management
4	CVA -1 <ul style="list-style-type: none"> • Blood supply to brain • Circle of Wills • Clinical presentation

5	<p>CVA-2</p> <ul style="list-style-type: none"> • Concepts Types & Differential predisposing factors Diagnosis & Management • Types of cerebrovascular disorders • Risk factors • Diagnosis
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Sr. No.	7 th - Semester Lectures
	Topic :- Nervous System
6	<p>Space Occupying Lesions, Brain abscess & tumour</p> <ul style="list-style-type: none"> • Etiology • Clinical features • Investigation & Management
7	<p>Encephalitis</p> <ul style="list-style-type: none"> • Etiology of encephalitis • Clinical features • Investigation • Management
8	<p>Meningitis</p> <ul style="list-style-type: none"> • Etiology of meningitis • Clinical features • Management
9	<p>Epilepsy</p> <ul style="list-style-type: none"> • Classifications • Different types • Investigations • Management- (neptpal status epilepticus)
10	<p>Parkinsonism</p> <ul style="list-style-type: none"> • Etiology • Clinical features • Management
11	<p>Cerebellar Syndrome</p> <ul style="list-style-type: none"> • Etiology • Clinical features • Management
12	<p>Demyelinating Disorders, Multiple Sclerosis, Heridofamilial disorders & Motor Neuron Disease</p> <ul style="list-style-type: none"> • Causes of demyelination disorders • Common Heridofamilial disorders • Etiology, clinical features and management of Multiple Sclerosis & Motor Neuron Disease

3	Extrapyramidal disorders <ul style="list-style-type: none"> • Types • Clinical features
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Sr. No.	7 th - Semester Lectures
	Topic :- Nervous System
	<ul style="list-style-type: none"> • Different types of Involuntary Movements • Etiology, management
14	Toxic & Nutritional disorders of CNS <ul style="list-style-type: none"> • Etiology • Clinical features • Management
15	Spinal Cord Disorders & Paraplegia & Quadriplegia <ul style="list-style-type: none"> • Compressive myelopathy-etiology ,Clinical features& Management
16	Peripheral Neuropathy <ul style="list-style-type: none"> • Etiology of peripheral Neuropathy • Clinical features • Investigation & Management • Etiology clinical features & management
17	Muscle Disorders in Brief <ul style="list-style-type: none"> • Types of myopathies including congenital, Metabolic inflammatory & other • Clinical features& Management • Etiology ,clinical features& management
18	<ul style="list-style-type: none"> • Revision

Sr. No.	8 th Semester Lectures - I
	Topic:- Nephrology / General
1	Genetic Disorders – introduction, common genetic disorders & prevention <ul style="list-style-type: none"> • Importance of genetics • Structure of chromosome & gene • Identification of genetic disease • Methods to prevention.
2	Immunology, anatomy, & physiology of immune system. <i>Stem cells in clinical Medicine.</i> <ul style="list-style-type: none"> • Innate immunity • Adaptive • <i>Use of Stem cells in clinical Medicine</i>

3	Immune deficiency, SIRS <ul style="list-style-type: none"> • Presenting problems • Recurrent infections
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Sr · No	8 th Semester Lectures - I Topic:- Nephrology / General
	<ul style="list-style-type: none"> • Primary phagocyte deficiency • Complement pathway deficiency • Primary deficiencies of adaptive immune system • Secondary immune deficiency.
4	Cancer & chemotherapy <ul style="list-style-type: none"> • Hallmarks • Environmental and genetic determinants • Investigations • Presenting problems • Complications of cancer • Therapeutics in oncology
5	Human genome & Genetic Engineering and <i>Gene Therapy</i> <ul style="list-style-type: none"> • Human genome project • Lab methods utilized in genetics • Concept of genetic engineering • Present & future of genetic engineering • <i>Gene Therapy</i>
6	Protein - Energy Malnutrition, anorexia nervosa <ul style="list-style-type: none"> • PEM in adults • Methods to diagnose of PEM • Treatment of PEM
7	Vitamin Deficiency States Beri - Beri, Pellagra, Scurvy, Vitamin A Deficiency, Thiamine Deficiency <ul style="list-style-type: none"> • Vitamin deficiency in adults • Common vit deficiencies in adults • Signs, symptoms & treatment
8	Obesity <ul style="list-style-type: none"> • Problems of obesity with changed lifestyle • Various causes of obesity • Anthropometric measurements • Complication of obesity • Treatment options
9	Balanced Diet & Diet in Various Disorders <ul style="list-style-type: none"> • Concept of balanced diet • Diets recommended in various medical disorders

Sr · N o	8 th Semester Lectures - I
	Topic:- Nephrology / General
10	Fluid & electrolyte disorders <ul style="list-style-type: none"> • Water & electrolyte distribution • Investigation of water & electrolyte disorders • Disorders of sodium balance • Disorders of water balance • Disorders of potassium balance
11	Applied Anatomy, Physiology of Urinary System and Renal function Tests <ul style="list-style-type: none"> • In brief anatomy & physiology of renal system • Laboratory investigation • Radiological investigations in renal system
12	Proteinuria, Haematuria, Renal Colics : Approach <ul style="list-style-type: none"> • Proteinuria- etiology, investigation, management • Hematuria- etiology, investigation, management
13	Acute Glomerulonephritis <ul style="list-style-type: none"> • Etiology, • Pathogenesis • Investigation • Management
14	Nephrotic Syndrome <ul style="list-style-type: none"> • Clinical features, • Differential diagnosis • Management
15	Acute kidney injury <ul style="list-style-type: none"> • Causes • Complication • Treatment of renal failure
16	Chronic kidney disease <ul style="list-style-type: none"> • Clinical presentation • Complication of CRF • Treatment & prevention

17	Dialysis & Renal Transplant <ul style="list-style-type: none"> • Hemodialysis • Peritoneal dialysis
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Sr · N o	8th Semester Lectures - I
	Topic:- Nephrology / General
	<ul style="list-style-type: none"> • Renal transplantation
18	Infections of the Urinary System <ul style="list-style-type: none"> • Upper & lower UTI • Evaluation • Treatment
19	Tubulo- interstitial diseases <ul style="list-style-type: none"> • Etiology • Clinical features • Management
20	<ul style="list-style-type: none"> • Revision

Sr · N o	8th Semester Lectures - II
	Topic:- Endocrinology
1	Approach to patient with Endocrine Disorders <ul style="list-style-type: none"> • Anatomy of various glands • physiology of glands • Action of Hormones • Common symptoms
2	Applied Anatomy of Pituitary and Disorders of Pituitary – I <ul style="list-style-type: none"> • Anatomy of pituitary gland • Physiology of hormones secreted by anterior pituitary gland • Prolactinoma • Microadenoma • Macroadenoma • Acromegaly
3	Applied Anatomy of Pituitary and Disorders of Pituitary – II <ul style="list-style-type: none"> • Anatomy • Physiology of posterior pituitary gland • SIADH • Diabetes insipidus • Treatment

4	Thyroid Disorders – I <ul style="list-style-type: none"> • Anatomy of thyroid gland • Physiology of thyroid gland with common signs and symptoms of hypothyroidism,
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Sr . N o	8th Semester Lectures - II
	Topic:- Endocrinology
	lab diagnosis <ul style="list-style-type: none"> • Treatment of hypothyroidism • Autoimmune thyroiditis
5	Thyroid Disorders – II <ul style="list-style-type: none"> • Hyperthyroidism & thyroid malignancies & treatment • Subclinical hypothyroidism and hyperthyroidism
6	Disorders of Adrenal gland – I <ul style="list-style-type: none"> • Adrenal gland anatomy • Physiology & action of adrenal gland hormones • Cushing disease • Treatment
7	Disorders of Adrenal gland – II <ul style="list-style-type: none"> • Addison's disease • Pheochromocytoma • Treatment • Adrenal crisis
8	<ul style="list-style-type: none"> • Revision
9	Vitamin D Metabolism Parathyroid Disorders with calcium metabolism-I <ul style="list-style-type: none"> • Vit D metabolism • Hyperparathyroidism • Hypoparathyroidism • Osteoporosis
10	Vitamin D Metabolism Parathyroid Disorders with calcium metabolism –II <ul style="list-style-type: none"> • Hypercalcemia • Hypocalcemia • Familial hypocalciuric hypercalcemia
11	Osteomalacia, Osteopetrosis & Rickets <ul style="list-style-type: none"> • Causes, Clinical Features & treatment osteomalacia, rickets • Causes, types, Pathophysiology, osteoporosis & Treatment

12	FSH, Estrogen, Progesterone & their Disorders <ul style="list-style-type: none"> • Physiology of FSH, Estrogen, Progesterone secretion
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Sr . N o	8th Semester Lectures - II
	Topic:- Endocrinology
	<ul style="list-style-type: none"> • Disorders due to hypo and hyper secretion of FSH, Estrogen, Progesterone
13	Gynaecomastia , hirsutism <ul style="list-style-type: none"> • Causes • Factors associated • Management Turner's syndrome, klinefelters syndrome. <ul style="list-style-type: none"> • Genetics • Features.
14	Testicular disorders & male hypogonadism <ul style="list-style-type: none"> • Clinical features • Investigations • Infertility • Androgen replacement therapy and management
15	Neuroendocrine tumours and MEN <ul style="list-style-type: none"> • Multiple endocrine neoplasia type 1 (werners) and type 2 (sipples) • Autoimmune polyendocrine syndromes.
16	Diabetics Mellitus-I <ul style="list-style-type: none"> • Etiology, theories • Genetic inheritance • Management of type- I D M • DKA
17	Diabetics Mellitus-II <ul style="list-style-type: none"> • Insulin resistance, syndrome x • OHA / insulin • Complications
18	<ul style="list-style-type: none"> • Revision

Sr . N o	8th Semester
	Topic:- Tutorial & Seminar Programme
1	Poisoning –I <ul style="list-style-type: none"> • Different types of poisoning • Classification of Poisonous agents

2	Poisoning -II <ul style="list-style-type: none"> • First Aid measures • Decontamination removal of poisons
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Sr . N o	8 th Semester
	Topic:- Tutorial & Seminar Programme
	<ul style="list-style-type: none"> • Organophosphorus poisons, opium, alcohol, etc
3	Animal bites <ul style="list-style-type: none"> • Classification of poisons snakes • Clinical features • Management • Complications • Scorpion bite clinical features, management.
4	ECG – I <ul style="list-style-type: none"> • Simplest, cheapest, easily available, noninvasive, investigation, physiology of myocardial contraction, action potential, conducting system of heart, lead systems, intervals, rhythm & heart rate
5	ECG – II <ul style="list-style-type: none"> • Acute coronary syndrome • Stable CAD, TMT
6	ECG – III <ul style="list-style-type: none"> • Arrhythmias • AV blocks • AF, SVT etc
7	X-Ray Chest <ul style="list-style-type: none"> • Normal chest x ray PA view , AP view, lateral view, decubitus view Pneumonia • Lung abscess • Pleural effusion • Cavitory lesion
8	Other X-Rays & imaging procedures – USG <ul style="list-style-type: none"> • CT Scan • MRI

9	Pleural Tap ICD, Pleural Fluid & PFT <ul style="list-style-type: none"> • Indications • Procedures & precautions • Complications • PFT- obstructive and restrictive lungdisease
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Sr . N o	8 th Semester Topic:- Tutorial & Seminar Programme
10	<ul style="list-style-type: none"> • Revision
11	Liver biopsy, LFT, Jaundice evaluation & Ascitic fluid Interpretation, anaphylaxis <ul style="list-style-type: none"> • Indications • Procedures • Contraindications • LFT- Different tests, • Ascitic fluid tapping- Indications & Procedure
12	Haematology reports - analysis, Bone marrow report <ul style="list-style-type: none"> • Types of anemia • Acute lymphoblastic leukemia • Acute myeloblastic leukemia • Chronic myeloid leukemia • Chronic lymphocytic leukemia • Multiple myeloma
13	Shock <ul style="list-style-type: none"> • Definitions • Types of shock • Etiology • Management
14	IV Fluids, ABG CVP <ul style="list-style-type: none"> • Types of IV fluids and indications • ABG- metabolic/ respiratory, acidosis, metabolic/ respiratory alkalosis • CVP- indication, procedures, contraindication
15	CSF - Anatomy & Physiology, interpretation <ul style="list-style-type: none"> • Indication & contra indications of LP • Meningitis's Pyogenic, TB, Viral & SAH

16	Urinalysis, RFT, Kidney biopsy <ul style="list-style-type: none"> • Albuninurea, glycosuria • Puscells, RBC, culture • Kidney biopsy
17	Electrical injury hyperpyrexia, heat exhaustion & hyperthermia

Sr · N o	8 th Semester
	Topic:- Tutorial & Seminar Programme
	<ul style="list-style-type: none"> • Temperatures regulation • Hyperthermia • Heart stroke- heat exhaustion • Electrical injury
18	<ul style="list-style-type: none"> • Revision

Sr · N o	9 th Semester
	Seminars
1	Malaria & Kalazar <ul style="list-style-type: none"> • Life cycle of malaria parasite & leishmaniasis • Clinical features of vivax, falcifarum malaria, kalazar • Complication of falciparaum malaria, & kalazar • Management of malaria & kalazar
2	HIV – I <ul style="list-style-type: none"> • Biology of HIV virus, Prevalance of HIV, acute HIV syndrome • Early & late magnification of HIV disease • Diagnosis of HIV & follow up
3	HIV – II <ul style="list-style-type: none"> • Opportunistic infections in HIV • Malignancy in HIV • Antiretroviral drugs, treatment strategy • Postexposure prophylaxis

4	Dengue, Chikungunya <ul style="list-style-type: none"> • Causative agents • Epidemiology • Pathogenesis • Clinical features • Complications • Investigations • Management
5	Leptospirosis ,plague <ul style="list-style-type: none"> • Causative agents • Epidemiology • Pathogenesis

Sr · N o	9 th Semester
	Seminars
	<ul style="list-style-type: none"> • Clinical features • Complications • Investigations • Management
6	Extrapulmonary tuberculosis <ul style="list-style-type: none"> • Clinical presentations • Investigations • Management
7	PUO <ul style="list-style-type: none"> • Definition • Classification • Cause of PUO • Investigation
8	Diabetes Mellitus – I <ul style="list-style-type: none"> • Etiology, theories • Genetic inheritance • Management of type I DM • Diabetic keto acidosis
9	Diabetes Mellitus – II <ul style="list-style-type: none"> • Insulin resistance, syndrome x • OHA/ insulin • Complications
10	Acute coronary syndromes <ul style="list-style-type: none"> • Clinical features • Investigations • Management

11	Respiratory Failure <ul style="list-style-type: none"> • Definition • Types of respiratory failure • Causes of respiratory failure • Management
12	Valvular Heart Disease –I <ul style="list-style-type: none"> • Etiology of valvular heart disease • Clinical features of MS MR Investigations • Complications
13	Valvular Heart Disease II <ul style="list-style-type: none"> • Etiology of valvular heart disease • Clinical features of AS AR TR

Sr . N o	9th Semester
	Seminars
	<ul style="list-style-type: none"> • Investigations • Complications
14	CCF <ul style="list-style-type: none"> • Definition of CCF • Type of failure • Clinical features • Management of CCF
15	Hypertension <ul style="list-style-type: none"> • Definition , • JNC classification, • causes, • secondary causes • investigation • Management
16	<ul style="list-style-type: none"> • Revision

Sr. No.	9th – Semester Lecture Programme
	Topic:- Ethics / Geriatrics Medicine, LifeSupport Ventilation
1	Sudden death, issues in organ transplant <ul style="list-style-type: none"> • Sudden death; causes cardiac/noncardiac,use of defibrillators • Organ transplant; bioethical issues, typesof transplant

	<p>Ethics in Medicine</p> <ul style="list-style-type: none"> • Consent • Medical negligence • Medical- consumer protection act • Ethics in medicine; definition, values inethics, consent, confidentiality, medical research
3	<p>Medicolegal aspects, consumer protection act, medical insurance</p> <ul style="list-style-type: none"> • consumer protection act, medical insurance
4	<p>Medical documentation, Death certificate & other certifications</p> <ul style="list-style-type: none"> • Doctors records. Electronic database • Death certificate; nature & medical importance

Sr. No.	9th – Semester Lecture Programme
	Topic:- Ethics / Geriatrics Medicine, Life Support Ventilation
5	<p>Geriatrics Medicine 1</p> <ul style="list-style-type: none"> • Introduction to Geriatric Medicine • Changing population structure • Changes in body due to aging • Assessment of Geriatric patient
6	<p>Geriatrics Medicine 2</p> <ul style="list-style-type: none"> • Uncommon presentation of illness in geriatric age • Common Geriatric disorders • Causes of falls in elderly • Dementia, delirium, osteoporosis, osteomalacia • Incontinence of urine in elderly
7	<p>Palliative care</p> <ul style="list-style-type: none"> • Concept of palliative care • Assessment of Pain & visual analogue scale • Psychological aspects of terminally ill • Management of Common Problems.
8	<p>Alcohol related disorders</p> <ul style="list-style-type: none"> • Alcohol; signs & symptoms, medical problems , social problems, genetic factors, prevention & management
9	<p>Jaundice</p> <ul style="list-style-type: none"> • Types of jaundice • Bilirubin metabolism • Investigations in a case of jaundice dice

10	Portal hypertension <ul style="list-style-type: none"> • Defination • Causes & classification • Clinical features • Management
11	Upper GI Bleed <ul style="list-style-type: none"> • Etiology, approach to diagnosis • General management • Management with special reference to peptic ulcer & variceal bleed

Sr. No.	9th – Semester Lecture Programme
	Topic:- Ethics / Geriatrics Medicine, Life Support Ventilation
12	Biosafety precautions <ul style="list-style-type: none"> • importance of biosafety precautions • Methods • Post exposure prophylaxis
13	<i>Principles of Critical care Basic & advance lifesupport</i> <ul style="list-style-type: none"> • Principals of Critical care • BLS; emergency medical services, training in basic CPR & ABC of life support • ALS; out of hospital/ in hospital; components ALS algorithms
14	Mechanical ventilation <ul style="list-style-type: none"> • Indication types / modes / monitoring • Types of Ventilators • Weaning from ventilator
15	Fluid and electrolyte balance <ul style="list-style-type: none"> • Hyponatramia & hypernatramia • Hypokalamia & hyperkalamia • SIADH
16	Dialysis (Peritoneal Hemodialysis) <ul style="list-style-type: none"> • Indications • Methods • Complications
17	High Altitude medicine <ul style="list-style-type: none"> • Problems Related to High Altitude Approach & Management.
18	<ul style="list-style-type: none"> • Revision

Sr. No.	9th – Semester
	Lecture Cum Demonstration
1	Alcohol related diseases <ul style="list-style-type: none"> • Acute intoxication, alcohol abuse, misuse, dependence • Alcohol withdrawal • Medical consequences (neurological, hepatic, gastrointestinal, respiratory, cardiac etc) • Psychiatry and cerebral consequences

Sr. No.	9th – Semester
	Lecture Cum Demonstration
2	Approach to anaphylaxis <ul style="list-style-type: none"> • Clinical assesment • Causes • Differential diagnosis • Investigations • Management • Prescription of self injectable adrenaline
3	Status epilepticus <ul style="list-style-type: none"> • Definition • Diagnosis • Management • Investigations
4	Vertigo ,dizziness, giddiness <ul style="list-style-type: none"> • Definitions • Causes • History, examination. • BPPV, acute prolonged vertigo • Treatment
5	Approach to headache <ul style="list-style-type: none"> • General principles • Anatomy and physiology of headache • Clinical evaluation • Types • Causes • Management

6	<p>Approach to diarrhea</p> <ul style="list-style-type: none"> • Definition • Acute diarrhea- causes, pathological organisms, investigations, management • Chronic diarrhea- causes, pathological organisms, investigations, management • Clinical evaluation • Management
7	<p>Approach to chest pain</p> <ul style="list-style-type: none"> • Clinical evaluation • Causes (cardiac, respiratory, gastrointestinal, musculoskeletal etc) • Investigations

Sr. No.	9 th – Semester
	Lecture Cum Demonstration
	<ul style="list-style-type: none"> • Management
8	<p>Disaster management –I</p> <ul style="list-style-type: none"> • Types (natural, environmental, complex, pandemic) • Disaster prevention • Disaster preparedness
9	<p>Disaster management-II</p> <ul style="list-style-type: none"> • Disaster relief. • Disaster recovery. • Use of resources • Triage
10	<p>Approach to dementia</p> <ul style="list-style-type: none"> • Aetiology (vascular, degenerative, neoplastic, inflammatory, traumatic, toxic, inflammatory) • Clinical features • Investigations • Management • Alzheimers disease, lewy body dementia
11	<p>Sudden death syndromes</p> <ul style="list-style-type: none"> • causes cardiac/noncardiac • Prevention , early detection
12	<p>Medical diseases in pregnancy</p> <ul style="list-style-type: none"> • Hypertension • Diabetes mellitus in pregnancy • Pre eclampsia • Hyperthyroidism in pregnancy • Deep vein thrombosis.

13	<p>Travel medicine</p> <ul style="list-style-type: none"> • International travel and health • Disease information • Vaccines • Travel health risks • General precautions
14	<p>Adult immunization</p> <ul style="list-style-type: none"> • Mumps measles and rubella • Pneumococcal vaccines • Influenza
Sr. No.	9th – Semester
	Lecture Cum Demonstration
	<ul style="list-style-type: none"> • Tetanus and others. • Recent advances and newer vaccines.
15	<p>Skin manifestation in systemic diseases</p> <ul style="list-style-type: none"> • Various skin manifestations in infections and malignancies. • Skin problems in general medicine (vasculitis, tuberous sclerosis, neurofibromatosis etc) • Skin problems associated with (CVS, RS, CNS, Hepatic & GIT Diseases)
16	<p>Paraneoplastic syndromes</p> <ul style="list-style-type: none"> • Peripheral; neuropathy • Encephalomyelitis • Cerebellar degeneration • Lambert eaton syndrome
17	<p>Brain death</p> <ul style="list-style-type: none"> • Criteria for brain death • Tests for confirming brain death • Clinical evaluation
18	<p><i>Concept of Nano Medicine</i></p> <ul style="list-style-type: none"> • <i>Introduction to nano technology</i> • <i>Use of nano technology in medicine</i>
19	<ul style="list-style-type: none"> • Revision

**MAPPING OF PROGRAMME OUTCOMES [POs] AND
COURSEOUTCOMES [COs] OF MBBS
PROGRAMMES**

Course Code	Course Title
01010402	General Medicine & Allied
01010401	General Surgery & Allied
01010403	Obstetrics & Gynaecology
01010404	Paediatrics

General Medicine & allied: (01010402)		
CO No.	At the end of the course, the learners should be able to:	Mapped Programme Outcomes
CO 1	At the end of the course the student shall have adequate knowledge to diagnose common clinical conditions with special reference to infectious diseases, nutritional disorder, metabolic disorders and environmental disorders.	PO1,PO2,PO3,PO4, PO5,PO6,PO7,PO8,PO9
CO 2	Propose diagnostic and investigative procedures and ability to interpret them	PO1,PO2,PO3,PO4, PO5,PO6,PO7,PO9
CO 3	Outline various modes of management including drug therapy especially doses, side effects, toxicity, indications, contraindications and interaction	PO1,PO2,PO3,PO4, PO5,PO6,PO7,PO8,PO9
CO 4	Provide first level management of acute emergencies promptly and efficiently and decide on the timing and level of referral if required	PO1,PO2,PO3,PO4, PO5,PO6,PO7,PO8,PO9
CO 5	Recognize geriatric disorders and their management	PO1,PO2,PO3,PO4, PO5,PO6,PO7,PO8,PO9
CO 6	Apply clinical skills of history taking, clinical examination to diagnose common medical disorders and medical emergencies	PO1,PO2,PO3,PO4, PO5,PO6,PO7,PO8
CO 7	Perform simple routine investigations like haemogram, stool, urine, sputum and other biological fluids	PO1,PO2,PO3,PO4, PO5,PO6,PO7,PO8,PO9
CO 8	To interpret simple X-Ray, ECG, CT scan and laboratory report findings	PO1,PO2,PO4,PO5,PO6,PO7,PO9
CO 9	Assist common bedside medical procedures like pleural tap, lumbar puncture, bone marrow aspiration, catheterization, insertion of Ryle's tube etc.	PO1,PO2,PO3,PO4, PO5,PO6,PO7,PO8,PO9
CO 1	sympathetic and compassionate attitude towards patient and their	PO1,PO2,PO3,PO5,PO7

	relatives	
CO 11	A curiosity to learn about medical research	PO1,PO2,PO4, PO5,PO6,PO7,PO8,

General Medicine & allied: (MB401)		
CO No.	At the end of the course, the learners should be able to:	Mapped Programme Outcomes
		PO9
CO 12	To correctly record case files, medical certificates	PO1,PO2,PO3,PO5,PO7,PO9
CO 13	Diagnose and manage common respiratory illness	PO1,PO2,PO4,PO6,PO7,PO8,PO9
CO 14	Should be able to diagnose provisionally Psychiatric disorders	PO1,PO2,PO3,PO5,PO6,PO7,PO8,PO9
CO 15	Should be able to diagnose and manage common dermatology problems as physician of first contact	PO1,PO2,PO4,PO6,PO7,PO8,PO9