



UNIVERSITY MEDICAL  
& DENTAL COLLEGE



# STUDY GUIDE

## MEDICINE

## FINAL YEAR

## MBBS





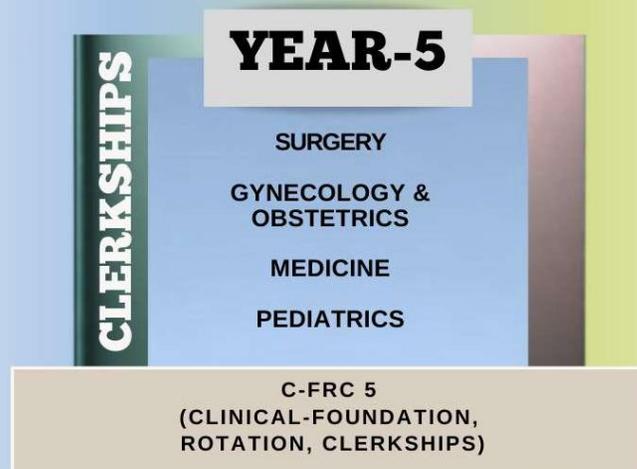
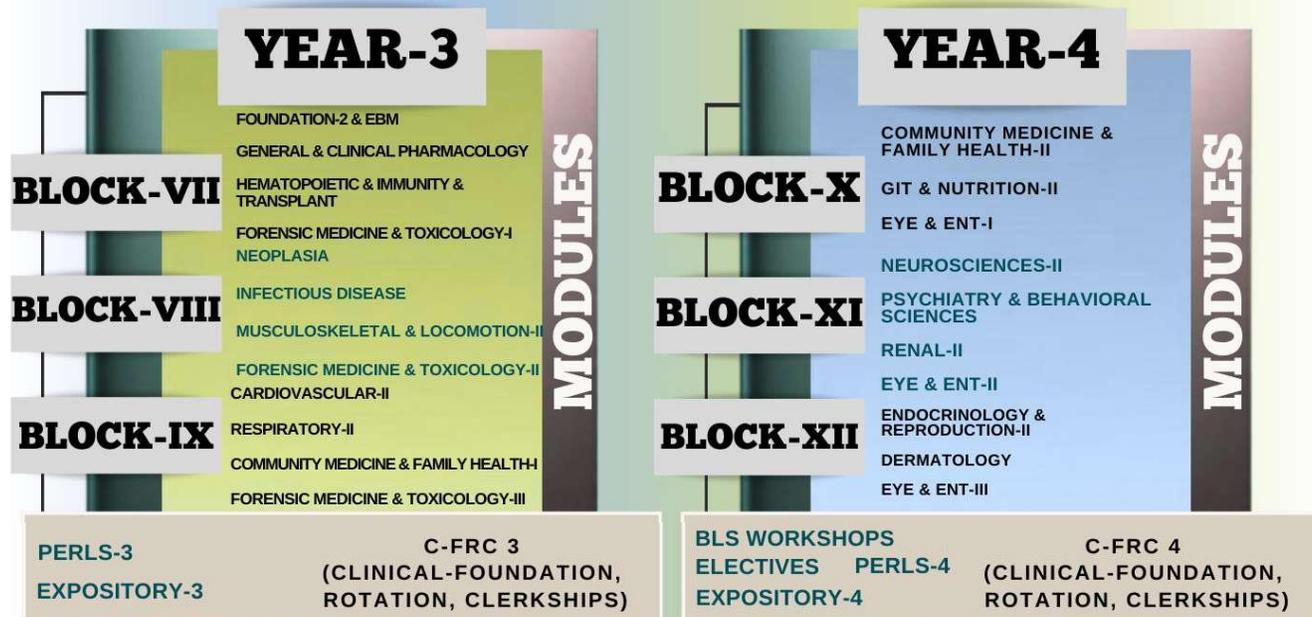
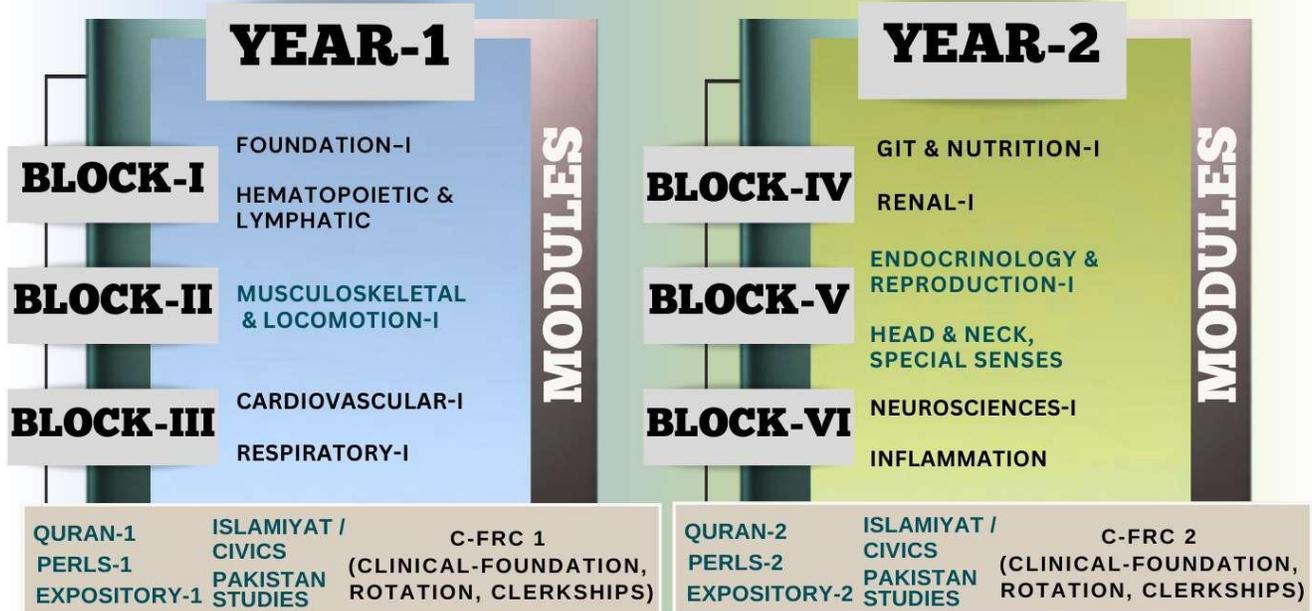
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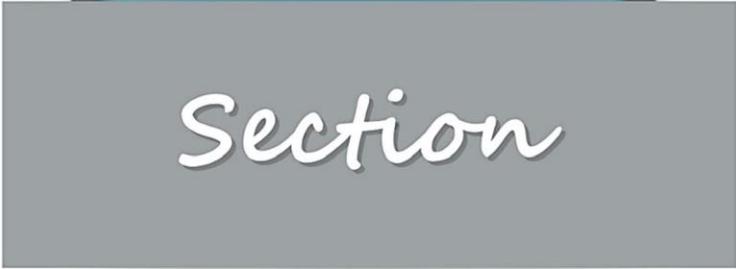
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# Modular Integrated Curriculum 2K23 Framework





02



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# Final Year MBBS Clerkship

## Framework

<b>BLOCK A (16 weeks)</b>		<b>BLOCK B (16 weeks)</b>	
<b>Classroom teaching (16 weeks)</b>	Medicine Clinical Rotation (6 weeks)	<b>Classroom teaching (16 weeks)</b>	Surgery Clinical Rotation (6 weeks)
	<b>End Clinical Rotation Exam (Medicine)</b>		<b>End Clinical Rotation Exam (Surgery)</b>
	Subspecialties Rotations <i>*(Any three of sub-specialties: Neurology, Endocrinology, Rheumatology, Geriatrics, Pediatric Cardiology)</i> (4 weeks)		Subspecialties Rotations <i>*(Any three of the sub-specialties: Urology, Neurosurgery, Thoracic Surgery, Pediatric Surgery, Plastic Surgery, Vascular Surgery)</i> (4 weeks)
	<b>End Clinical Rotation Exam (Subspecialties Rotations)</b>		<b>End Clinical Rotation Exam (Subspecialties Rotations)</b>
	Pediatrics Clinical Rotation (6 weeks)		Gynecology & Obstetrics Clinical Rotation (6 weeks)
	<b>End Clinical Rotation Exam (Pediatrics)</b>		<b>End Clinical Rotation Exam (Gynecology &amp; Obstetrics)</b>
	<b>Block A Exam Theory</b>		<b>Block B Exam Theory</b>

- *Each student is required to undertake at least three full-day rotations per week ( from 8 AM to 8 PM) in the relevant clinical department.*
- *It is mandatory for every student to bring a complete, duly signed , and stamped clinical logbook, with end-rotation clinical examination results properly attached to the annual examination of the relevant speciality.*
- *The internal block theory and clinical examinations will be conducted in accordance with the format specified in the Annual Examination Table of Specifications (TOS)*

## BLOCK A

### MEDICINE & ALLIED

Subject	Weeks
<b>GENERAL MEDICINE</b> <ul style="list-style-type: none"><li>• Infectious diseases</li><li>• Liver and pancreatic diseases</li><li>• Hematologic diseases</li><li>• Water, electrolyte, acid base balance</li><li>• Psychiatry</li><li>• Emergency Medicine</li><li>• Dermatology</li><li>• Cardiology</li><li>• Pulmonology</li><li>• Nephrology</li><li>• Gastroenterology</li><li>• Oncology</li><li>• Neurology</li><li>• Endocrinology</li><li>• Rheumatology</li></ul>	10 Weeks
<b>PEADIATRICS</b>	06 Weeks

## BLOCK B

### SURGERY & ALLIED

Subject	Weeks
<b>GENERAL SURGERY</b> <ul style="list-style-type: none"><li>• Metabolic response to injury</li><li>• Wound healing</li><li>• Surgical infections</li><li>• Pre and post-operative investigations &amp; assessment</li><li>• Post-operative care</li><li>• Vascular surgery</li><li>• Acid base balance</li><li>• Laparoscopic and robotic surgery principles</li><li>• Head, face, and neck</li><li>• Breast surgery</li><li>• Thoracic surgery</li><li>• Abdominal surgery</li><li>• Surgical ethics</li><li>• Anesthesia</li><li>• Orthopedics and trauma</li><li>• Urology</li><li>• Paediatric surgery</li><li>• Plastic surgery</li></ul>	10 Weeks
<b>GYNAECOLOGY &amp; OBSTETRICS</b>	06 Weeks

03

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## MEDICINE CLERKSHIP

### Learning Outcomes

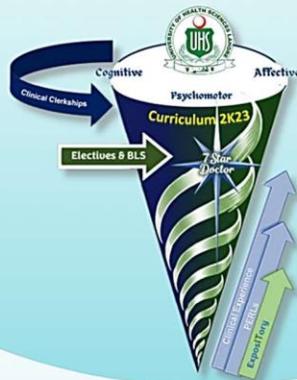
By the end of the Medicine clerkship, a student will be able to:

- Identify characteristic signs, symptoms, and clinical patterns, and formulate accurate differential diagnoses of common medical diseases.  
Take a comprehensive and focused medical history from adult patients and caregivers.
- Perform a system based and clinically relevant physical examination for major medical presentations.  
Interpret essential laboratory and imaging investigations to support diagnostic decision-making.  
Develop and outline management plans for acute and chronic medical conditions.
- Communicate effectively and empathetically with patients, families, and the healthcare team.



**Modular Integrated  
Curriculum 2K23**  
*Final Version*

# MEDICINE-I



## HISTORY TAKING AND GENERAL PHYSICAL EXAMINATION

### Clinical Skills

Sr.No.	Topic	Clinical Methods/Skills
M1-001	History taking skills	<p><b>Demonstrate</b> history-taking skills covering:</p> <ul style="list-style-type: none"> <li>• patient biodata, rapport building, identity confirmation, and consent.</li> <li>• presenting complaint including onset, duration, severity, and associated factors.</li> <li>• structured history of the present illness with relevant characteristics and contextual details.</li> <li>• brief review of systems using focused screening questions</li> <li>• past medical and surgical history including previous illnesses, hospitalizations, and procedures.</li> <li>• drug history including prescribed medications, herbal supplements, allergies.</li> <li>• family history.</li> <li>• social history including occupation, lifestyle habits, exposure risks, socioeconomic history, and psychosocial factors.</li> </ul>

M1-002	General physical examination	<p><b>Perform</b> general physical examination:</p> <ul style="list-style-type: none"><li>• Preparation of the patient, maintaining privacy, comfort, proper exposure, and hand hygiene</li><li>• Assess for build, nourishment, level of consciousness, posture, distress, facies, body movements, and hygiene</li><li>• Measurement of vital signs</li><li>• Pulse for rate, rhythm, volume, character, radio-radial delay, and radio-femoral delay</li><li>• Head and face for pallor, icterus, cyanosis, xanthelasma, corneal arcus, rash, and facial symmetry</li></ul>
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		<ul style="list-style-type: none"><li>• Eye for conjunctival pallor, scleral icterus, pupillary responses, and ocular movements</li><li>• Oral cavity for mucosal color, hydration, tongue changes, and dental hygiene</li><li>• Neck examination including thyroid inspection, tracheal position, and assessment of jugular venous pressure</li><li>• Lymph node examination of cervical, axillary, epitrochlear, and inguinal regions for size, tenderness, mobility, consistency, and fixation</li><li>• Skin for color changes, pallor, cyanosis, jaundice, pigmentation, rashes, scars, edema, and dehydration signs</li><li>• Nails for clubbing, koilonychia, leukonychia, and capillary refill time</li><li>• Hands for tremors, palmar erythema, asterixis, warmth, and peripheral perfusion</li><li>• Assessment of the chest for shape, symmetry, deformities, tracheal alignment, respiratory rate, breathing pattern, and use of accessory muscles</li><li>• Cardiovascular screening for peripheral pulses, peripheral perfusion, and peripheral edema.</li><li>• Respiratory screening through observation of chest expansion and symmetry</li><li>• Abdominal screening including inspection and light palpation for tenderness, organomegaly, or masses.</li><li>• Basic neurological screening including mental status, orientation, gait, muscle bulk, and gross motor function.</li><li>• Leg examination including edema.</li><li>• Appropriate documentation and communication of findings while maintaining patient dignity and comfort throughout the examination</li></ul>
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## CENTRAL NERVOUS SYSTEM DISEASES

### Theory

Sr.No.	Topic	Specific Learning Objective
M1-003	Headache	<ul style="list-style-type: none"> <li>• Classify types of headache.</li> <li>• Identify red-flag signs requiring urgent evaluation.</li> <li>• Formulate an initial management plan, including acute treatment and preventive strategies.</li> </ul>
M1-004	Stroke and Transient Ischemic Attack (TIA)	<ul style="list-style-type: none"> <li>• Explain the pathophysiology, risk factors, and mechanisms of ischemic and hemorrhagic stroke.</li> <li>• Identify key clinical features.</li> <li>• Enlist investigations, including imaging and laboratory workup.</li> <li>• Outline acute management plan with secondary prevention strategies.</li> </ul>
M1-005	Epilepsy and Seizure Disorders	<ul style="list-style-type: none"> <li>• Define seizure, Pseudo seizures, and epilepsy.</li> <li>• Classify seizures based on clinical features.</li> <li>• Identify causes and precipitating factors.</li> <li>• Enlist investigation reports.</li> <li>• Develop treatment plans including counseling on driving.</li> <li>• Describe medico legal considerations regarding signing a driving license certificate for epileptic patient (<i>integrate with forensic medicine</i>).</li> </ul>
M1-006	Neuropathy and Myopathy	<ul style="list-style-type: none"> <li>• Identify clinical patterns suggestive of peripheral neuropathies and myopathies.</li> <li>• Enlist initial investigations.</li> <li>• Plan workup and treatment options.</li> </ul>
M1-007	Meningitis and Encephalitis	<ul style="list-style-type: none"> <li>• Describe common infectious and non-infectious etiologies.</li> <li>• Diagnose based on clinical presentation and investigation findings.</li> <li>• Outline management plan.</li> </ul>

		<ul style="list-style-type: none"> <li>Describe prognosis.</li> </ul>
M1-008	Parkinsonism and Movement Disorders	<ul style="list-style-type: none"> <li>Distinguish Parkinson's disease from other causes of Parkinsonism and movement disorders.</li> <li>Outline principles of management, including pharmacologic therapy and multidisciplinary care.</li> </ul>
M1-009	Demyelinating Disorders	<ul style="list-style-type: none"> <li>Explain common clinical presentations and patterns of demyelinating disease.</li> <li>Interpret fundamental investigations.</li> <li>Outline management principles for acute relapses, disease-modifying therapy, and symptom control.</li> </ul>
M1-010	Neurological Emergencies	<p><i>(Status epilepticus, raised intracranial pressure, Guillain-Barré syndrome, myasthenic crisis)</i></p> <ul style="list-style-type: none"> <li>Identify life-threatening neurological emergencies.</li> <li>Outline steps of immediate management and referral to critical care.</li> </ul>
M1-011	Localizing lesions in the central nervous system	<ul style="list-style-type: none"> <li>Explain the clinical features that differentiate upper motor neuron lesions from lower motor neuron lesions.</li> <li>Integrate clinical history and neurological examination to localize lesions.</li> <li>Suggest appropriate investigations based on suspected lesion site.</li> </ul>
M1-012	Neurodegenerative disorders	<ul style="list-style-type: none"> <li>Classify common neurodegenerative diseases.</li> <li>Describe the key clinical features of major neurodegenerative disorders.</li> <li>Enlist investigations used in the evaluation of neurodegenerative disorders.</li> <li>Outline the principles of management, including pharmacological and supportive care.</li> </ul>
M1-013	Cerebellar disorders	<ul style="list-style-type: none"> <li>Classify cerebellar diseases (e.g., degenerative, vascular, neoplastic, infective, toxic, congenital).</li> <li>Describe the key clinical features of cerebellar dysfunction.</li> <li>Enlist investigations used in the evaluation of cerebellar</li> </ul>

		<p>disorders.</p> <ul style="list-style-type: none"> <li>Outline the principles of management of cerebellar diseases, including cause-specific and supportive care.</li> </ul>
M1-014	Neuromuscular disorders	<ul style="list-style-type: none"> <li>Classify neuromuscular disorders.</li> <li>Describe the key clinical features of muscular dystrophy, myasthenia gravis, and Lambert-Eaton myasthenic syndrome.</li> <li>Differentiate between myasthenia gravis and Lambert-Eaton myasthenic syndrome based on clinical presentation.</li> <li>Enlist investigations used in the evaluation of these neuromuscular disorders.</li> <li>Outline management plan for muscular dystrophy, myasthenia gravis, and Lambert-Eaton myasthenic syndrome</li> </ul>
M1-015	Brain death	<ul style="list-style-type: none"> <li>Discuss diagnostic criteria of brain death.</li> <li>Discuss breaking bad news.</li> </ul>
M1-016	Spinal Cord Lesions	<ul style="list-style-type: none"> <li>Enlist types of spinal cord lesions.</li> <li>Describe clinical presentation.</li> <li>Enlist diagnostic modalities.</li> <li>Differentiate between spastic and flaccid paralysis.</li> <li>Discuss management plan.</li> </ul>
M1-017	Space Occupying Lesion (Brain Abscess & tumors)	<ul style="list-style-type: none"> <li>Enlist causes of brain abscess and SOL.</li> <li>Enlist causes of ring enhancing lesions on CT brain.</li> <li>Discuss investigations and management plan.</li> </ul>

### Clinical Skills

Sr.No.	Topic	Clinical Methods/Skills
M1-018	History taking	<b>Take</b> a comprehensive neurological history, including onset, progression, associated symptoms, risk factors, and functional impact.
M1-019	Clinical examination	<b>Perform</b> clinical examination of I-XII cranial nerves, motor

		<p>and sensory systems, cerebellar tests, higher mental functions, meningeal irritation signs, and raised intracranial pressure.</p> <p><b>Demonstrate</b> approach to assessing and stabilizing an acute stroke patient.</p> <p><b>Interpret</b> common lab investigations (CBC, electrolytes, renal and liver function tests, coagulation profile, CSF analysis and CNS imaging (CT, MRI), correlating findings with clinical presentation to support diagnosis and management.</p>
M1-020	Counselling	<b>Counsel</b> patients and families with professionalism, empathy, and cultural sensitivity.

## CARDIOVASCULAR DISEASES

### Theory

Sr.No.	Topic	Specific Learning Objective
M1-021	Hypertension	<ul style="list-style-type: none"> <li>Classify hypertension.</li> <li>Identify clinical features.</li> <li>Enlist the risk factors.</li> <li>List appropriate investigations.</li> <li>Outline management plans.</li> <li>Assess prognosis, complications, and preventive measures.</li> </ul>
M1-022	Coronary Artery Disease (CAD)	<ul style="list-style-type: none"> <li>Describe clinical features of angina, myocardial infarction, and acute coronary syndromes.</li> <li>Enlist risk factors and preventive strategies.</li> <li>Formulate differential diagnoses for ischemic chest pain.</li> <li>Enlist important investigations for diagnosis and severity assessment</li> <li>Outline the management plans including medical therapy, PCI, and CABG</li> <li>Anticipate prognosis and long-term follow-up.</li> </ul>

M1-023	Heart Failure	<ul style="list-style-type: none"> <li>• Classify types of heart failure.</li> <li>• Identify clinical features of heart failure..</li> <li>• Explain underlying etiology, predisposing factors, and pathophysiology.</li> <li>• Formulate differential diagnoses for dyspnea, edema, and exercise intolerance.</li> <li>• Enlist relevant investigations to confirm diagnosis.</li> <li>• Outline management plan.</li> <li>• Discuss prognosis, complications, and long-term monitoring.</li> </ul>
M1-024	Cardiac Arrhythmias	<ul style="list-style-type: none"> <li>• Classify arrhythmias</li> <li>• Explain pathophysiology and clinical features of tachy- and brady-arrhythmia.</li> <li>• Formulate differential diagnoses.</li> <li>• Enlist investigations for diagnosis and monitoring.</li> <li>• Develop a management plan.</li> <li>• Assess prognosis and potential complications.</li> </ul>
M1-025	Cardiac arrest	<ul style="list-style-type: none"> <li>• Describe pathophysiology.</li> <li>• Identify immediate assessment priorities.</li> <li>• Enlist potential underlying causes.</li> <li>• Assess prognosis and outcome determinants.</li> </ul>
M1-026	Diseases of Heart Valves	<ul style="list-style-type: none"> <li>• Identify clinical features of mitral, aortic, tricuspid, and pulmonary valve diseases.</li> <li>• Explain pathophysiology and potential complications.</li> <li>• Outline management plan.</li> </ul>
M1-027	Infective endocarditis	<ul style="list-style-type: none"> <li>• Describe clinical features.</li> <li>• Describe diagnostic criteria.</li> <li>• Outline investigations and management plan.</li> </ul>
M1-028	Rheumatic Fever and Rheumatic Heart Disease	<ul style="list-style-type: none"> <li>• Identify clinical features of rheumatic fever and. heart disease.</li> <li>• Explain the pathophysiology and progression</li> <li>• Diagnostic criteria for RF</li> <li>• Identify the complications.</li> </ul>

		<ul style="list-style-type: none"> <li>• Formulate differential diagnoses for suspected cases.</li> <li>• Enlist appropriate investigations to confirm diagnosis and assess severity.</li> <li>• Outline medical and surgical management strategies.</li> <li>• Discuss prognosis and long-term follow-up considerations</li> </ul>
M1-029	Diseases of Myocardium	<ul style="list-style-type: none"> <li>• Identify clinical features of myocarditis, cardiomyopathy, and cardiac tumors.</li> <li>• Differentiate dilated from hypertrophic cardiomyopathy.</li> <li>• Formulate differential diagnoses.</li> <li>• Enlist investigations to confirm diagnosis.</li> <li>• Outline management plans.</li> <li>• Assess prognosis and follow-up.</li> </ul>
M1-030	Diseases of Pericardium	<ul style="list-style-type: none"> <li>• Identify clinical features of acute pericarditis, constrictive pericarditis, and cardiac tamponade.</li> <li>• Explain etiology and pathophysiology.</li> <li>• Enlist investigations for diagnosis.</li> <li>• Outline management plans.</li> <li>• Assess complications and prognosis</li> </ul>
M1-031	Diseases of Aorta	<ul style="list-style-type: none"> <li>• Identify clinical features of aortic aneurysm, dissection, coarctation, and Marfan syndrome.</li> <li>• Explain risk factors and underlying etiology.</li> <li>• Formulate differential diagnoses.</li> <li>• Enlist investigations for diagnosis and risk stratification.</li> <li>• Develop management plans including medical, interventional, and surgical approaches.</li> <li>• Describe complications and prognosis</li> </ul>
M1-032	Congenital Heart Disease (CHD)	<ul style="list-style-type: none"> <li>• Identify clinical features of cyanotic and acyanotic CHD.</li> <li>• Explain pathophysiology.</li> <li>• List investigations.</li> <li>• Plan management strategies.</li> <li>• Assess long-term outcomes and prognosis</li> </ul>

M1-033	Peripheral Vascular Disease	<ul style="list-style-type: none"> <li>• Describe clinical features of peripheral vascular disease.</li> <li>• List risk factors.</li> <li>• Formulate differential diagnoses for limb pain, swelling, or ulceration.</li> <li>• Outline investigations and management plans with prognosis and follow-up.</li> </ul>
M1-034	Cardiogenic Shock	<ul style="list-style-type: none"> <li>• Identify clinical features and hemodynamic changes.</li> <li>• Describe the underlying pathophysiology.</li> <li>• Formulate differential diagnoses for hypotension and shock state.</li> <li>• Enlist important investigations.</li> <li>• Plan emergency management.</li> <li>• Assess prognosis and factors affecting outcomes</li> </ul>
<b>Clinical Skills</b>		
Sr.No.	Topic	Clinical Methods/Skills
M1-035	History taking	<p><b>Take</b> a focused history of chest pain, dyspnea, palpitations, syncope, edema, and functional limitations.</p> <p>Record past medical, surgical, drug, allergy, personal, and social history relevant to cardiovascular conditions.</p>
M1-036	Clinical examination	<p><b>Assess</b> general appearance, hands (color, temperature, clubbing, splinter hemorrhages, Janeway lesions, Osler's nodes, and tendon xanthomas).</p> <p><b>Measure and interpret</b> pulse, blood pressure, and JVP</p> <p><b>Inspect</b> the precordium for scars, pacemaker sites, and visible pulsations.</p> <p><b>Palpate</b> apex beat, parasternal heave, and thrills.</p> <p><b>Auscultate</b> heart sounds and murmurs, pericardial rub, lungs for fine crackles or pleural effusion at bases.</p> <p><b>Palpate</b> abdomen for hepatosplenomegaly or pulsatile liver and check for ascites, ankle, and sacral edema.</p> <p><b>Auscultate</b> for bruits over the abdomen and femoral arteries.</p>

		<p><b>Inspect</b> lower limbs for temperature, color, capillary refill, ulceration, varicosities, and scars.</p> <p><b>Perform</b> ECG with correct lead placement and <b>interpret</b> the findings.</p> <p><b>Observe and assist</b> in echocardiography and <b>interpret</b> the report.</p> <p><b>Interpret</b> laboratory investigations, including cardiac enzymes, lipid profile, coagulation profile, electrolytes, renal function tests, thyroid function tests, and inflammatory markers, in relation to common CVS conditions.</p>
M1-037	Counselling	<b>Counsel</b> patients and families with professionalism, empathy, and cultural sensitivity.

## RESPIRATORY DISEASES

### Theory

Sr.No.	Topic	Specific Learning Objective
M1-038	Common respiratory symptoms	<ul style="list-style-type: none"> <li>Explain the pathophysiological basis of cough, sputum, dyspnea, hemoptysis, and chest pain.</li> <li>Describe their clinical significance.</li> </ul>
M1-039	Pneumonia	<ul style="list-style-type: none"> <li>Describe etiology and risk factors of community- and hospital-acquired pneumonia.</li> <li>Diagnose based on characteristic clinical features.</li> <li>Enlist potential complications.</li> <li>Outline essential investigations and their diagnostic value.</li> <li>Plan management and indications for hospitalization.</li> <li>Discuss preventive measures.</li> </ul>
M1-040	Tuberculosis	<ul style="list-style-type: none"> <li>Identify typical and atypical clinical presentations.</li> <li>Explain diagnostic criteria.</li> <li>Outline standard treatment regimens and principles of drug-resistant TB management.</li> </ul>

		Discuss major preventive strategies.
M1-041	Bronchial Asthma	<ul style="list-style-type: none"> <li>• Explain pathophysiology, triggers, and classification.</li> <li>• Identify features of stable disease and acute exacerbation.</li> <li>• Outline acute and chronic management plan using step-wise therapy.</li> <li>• Discuss preventive approaches and patient education.</li> </ul>
M1-042	Chronic Obstructive Pulmonary Disease (COPD)	<ul style="list-style-type: none"> <li>• Identify risk factors.</li> <li>• Explain underlying pathophysiology.</li> <li>• Describe common clinical features and complications.</li> <li>• Outline diagnostic evaluation.</li> <li>• Plan management of stable COPD and acute exacerbations including preventive care.</li> </ul>
M1-043	Pleural Effusion	<ul style="list-style-type: none"> <li>• Enlist causes of transudative and exudative effusions.</li> <li>• Describe characteristic clinical features and radiographic findings.</li> <li>• Outline diagnostic work-up including thoracentesis.</li> <li>• Plan management according to underlying cause.</li> </ul>
M1-044	Pneumothorax	<ul style="list-style-type: none"> <li>• Describe types and mechanisms of pneumothorax.</li> <li>• Identify hallmark clinical findings and life-threatening features.</li> <li>• Outline emergency and definitive management, including indications for chest tube insertion.</li> </ul>
M1-045	Lung Cancer	<ul style="list-style-type: none"> <li>• Identify major risk factors.</li> <li>• Describe typical clinical presentations.</li> <li>• Summarize the diagnostic approach.</li> <li>• Outline general management principles for major tumor types.</li> <li>• Discuss preventive strategies including screening.</li> </ul>
M1-046	Occupational Lung Diseases	<ul style="list-style-type: none"> <li>• Identify common occupational exposures and associated lung disorders.</li> <li>• Interstitial lung disease</li> </ul>

		<ul style="list-style-type: none"> <li>• Recognize early symptoms and diagnostic features.</li> <li>• Describe preventive strategies and workplace safety measures.</li> </ul>
M1-047	Pulmonary Embolism	<ul style="list-style-type: none"> <li>• Enlist major risk factors.</li> <li>• Describe clinical presentations.</li> <li>• Outline diagnostic evaluation.</li> <li>• Summarize initial stabilization, treatment principles, and prevention.</li> </ul>
M1-048	Respiratory failure and ARDS	<ul style="list-style-type: none"> <li>• Define respiratory failure and acute respiratory distress syndrome (ARDS).</li> <li>• Describe the key clinical features of respiratory failure and ARDS.</li> <li>• Enlist investigations used in the evaluation of respiratory failure and ARDS.</li> <li>• Outline the principles of management of respiratory failure and ARDS.</li> </ul>
M1-049	Bronchiectasis Lung abscess	<ul style="list-style-type: none"> <li>• Describe the key clinical features of bronchiectasis.</li> <li>• Enlist investigations used in the evaluation of bronchiectasis.</li> <li>• Outline the principles of management of bronchiectasis.</li> <li>• Identify potential complications.</li> <li>• Enlist the causes of lung abscess.</li> <li>• Diagnose based on clinical presentations and investigations.</li> <li>• Outline the management plan.</li> </ul>
M1-050	Pulmonary Hypertension And cor pulmonale	<ul style="list-style-type: none"> <li>• Define and differentiate pulmonary hypertension and cor pulmonale.</li> <li>• Explain the pathophysiological relationship between pulmonary hypertension and the development of cor pulmonale.</li> <li>• Describe the key clinical features of pulmonary</li> </ul>

		<p>hypertension and cor pulmonale.</p> <ul style="list-style-type: none"> <li>• Enlist investigations used in the evaluation of pulmonary hypertension and cor pulmonale.</li> <li>• Outline the principles of management of pulmonary hypertension and cor pulmonale.</li> </ul>
Clinical Skills		
Sr.No.	Topic	Clinical Methods/Skills
M1-051	History taking	<b>Obtain</b> focused respiratory history (symptom analysis: cough, sputum, dyspnea, chest pain, hemoptysis).
M1-052	Clinical examination	<p><b>Perform</b> inspection, palpation, percussion, and auscultation of chest.</p> <p><b>Identify and interpret</b> abnormal breath sounds (rhonchi, crackles, bronchial breathing).</p> <p><b>Interpret</b> examination findings in pleural effusion, consolidation, pneumothorax, COPD, asthma.</p> <p><b>Demonstrate</b> correct use of a peak flow meter and incentive spirometer.</p> <p><b>Interpret</b> spirometry graphs (normal, obstructive, restrictive patterns).</p> <p><b>Interpret</b> basic chest X-rays (effusion, consolidation, collapse, pneumothorax).</p> <p><b>Demonstrate</b> steps of oxygen therapy administration and nebulization.</p> <p><b>Demonstrate</b> use of inhalers and spacers to patients.</p> <p><b>Observe/assist</b> in initial management of respiratory emergencies (asthma attack, pneumothorax).</p>
M1-053	Counselling	<b>Counsel</b> patients on smoking cessation and lifestyle modifications.

## RHEUMATIC DISEASES

### Theory

Sr.No.	Topic	Specific Learning Objective
M1-054	Introduction to autoimmune diseases	<ul style="list-style-type: none"> <li>• Classify major rheumatologic disorders.</li> <li>• Describe key immune mechanisms involved in autoimmune and inflammatory joint diseases.</li> </ul>
M1-055	Rheumatoid Arthritis	<ul style="list-style-type: none"> <li>• Describe etiology and immunopathogenesis.</li> <li>• Identify characteristic clinical features and extra-articular manifestations.</li> <li>• Outline essential investigations and core management principles.</li> </ul>
M1-056	Systemic Lupus Erythematosus (SLE)	<ul style="list-style-type: none"> <li>• Describe diagnostic criteria and major organ system involvement.</li> <li>• Outline principles of management, including monitoring and prevention of flares.</li> </ul>
M1-057	Osteoarthritis	<ul style="list-style-type: none"> <li>• Explain the pathophysiology of degenerative joint disease.</li> <li>• Identify major risk factors and characteristic clinical presentation.</li> <li>• Discuss treatment options for symptom relief and functional improvement.</li> </ul>
M1-058	Crystal arthropathies	<ul style="list-style-type: none"> <li>• Discuss pathophysiology of hyperuricemia and crystal-induced inflammation.</li> <li>• Describe diagnostic features of gout.</li> <li>• Differentiate gout from pseudogout.</li> <li>• Outline management of acute attacks and long-term urate-lowering therapy.</li> </ul>
M1-059	Progressive systemic sclerosis	<ul style="list-style-type: none"> <li>• Identify key clinical manifestations.</li> <li>• Enlist and interpret essential investigations.</li> <li>• Outline management plan.</li> </ul>

M1-060	Polymyositis and Dermatomyositis	<ul style="list-style-type: none"> <li>Describe clinical features of inflammatory myopathies.</li> <li>Interpret diagnostic tests.</li> <li>Outline management plan.</li> </ul>
M1-061	Mixed connective tissue disorders	<ul style="list-style-type: none"> <li>Define and classify mixed connective tissue disorders.</li> <li>Describe the key clinical features.</li> <li>Enlist appropriate investigations.</li> <li>Outline the principles of management.</li> </ul>
M1-062	Seronegative Spondyloarthropathies	<ul style="list-style-type: none"> <li>Classify Seronegative Spondyloarthropathies</li> <li>Identify hallmark clinical features and characteristic radiologic findings of Ankylosing spondylitis.</li> <li>Outline management strategies.</li> </ul>
M1-063	Vasculitis Syndromes	<ul style="list-style-type: none"> <li>Classify vasculitides.</li> <li>Describe the diagnostic approach including clinical, laboratory, and imaging components.</li> <li>Summarize general management principles.</li> </ul>
M1-064	Juvenile Idiopathic Arthritis	<ul style="list-style-type: none"> <li>Describe major clinical variants and typical presentations in children.</li> <li>Outline management principles.</li> </ul>
M1-065	Drugs in Rheumatology	<ul style="list-style-type: none"> <li>Explain mechanisms of action of DMARDs, corticosteroids, and biologic agents.</li> <li>Describe their indications and major adverse effects.</li> </ul>

### Clinical Skills

Sr.No.	Topic	Clinical Methods/Skills
M1-066	History Taking	<b>Take</b> a detailed history of joint pain, stiffness, swelling, and systemic symptoms
M1-067	Clinical examination	<p><b>Perform</b> general examination with focus on musculoskeletal system.</p> <p><b>Conduct</b> systematic examination of small and large joints for tenderness, swelling, and deformity.</p> <p><b>Assess</b> range of motion and functional status of joints.</p> <p><b>Identify</b> clinical signs of rheumatoid arthritis, SLE, gout, and</p>

		osteoarthritis. <b>Interpret</b> basic rheumatologic investigations such as ESR, CRP, ANA, RF, anti-CCP.
M1-068	Counselling	<b>Counsel</b> patients empathetically and professionally on following points: <ul style="list-style-type: none"> <li>• chronic and relapsing nature of rheumatic diseases in layman language to patients.</li> <li>• importance of medication adherence, expected benefits, and potential side effects.</li> <li>• lifestyle modifications.</li> <li>• impact of disease on daily activities, work, and mental health, offering appropriate support and referrals.</li> <li>• need for periodic follow-up, laboratory monitoring, and screening for drug toxicity.</li> </ul>

## RENAL DISEASES

### Theory

Sr.No.	Topic	Specific Learning Objective
M1-069	Glomerular diseases	<ul style="list-style-type: none"> <li>• Discuss etiology and pathophysiology.</li> <li>• Identify clinical presentations.</li> <li>• Outline relevant investigations.</li> <li>• Summarize management plan.</li> </ul>
M1-070	Nephrotic Syndrome	<ul style="list-style-type: none"> <li>• Identify key clinical features.</li> <li>• Enlist complications.</li> <li>• Outline relevant investigations to confirm diagnosis.</li> <li>• Describe treatment strategies.</li> </ul>
M1-071	Acute Kidney Injury (AKI)	<ul style="list-style-type: none"> <li>• Define AKI and classify types.</li> <li>• Identify causes of AKI.</li> <li>• Enlist relevant investigations.</li> <li>• Outline management plan.</li> </ul>
M1-072	Chronic Kidney	<ul style="list-style-type: none"> <li>• Classify CKD.</li> </ul>

	Disease (CKD)	<ul style="list-style-type: none"> <li>Describe disease progression and complications.</li> <li>Outline relevant investigations.</li> <li>Explain management principles including indications for dialysis.</li> </ul>
M1-073	Renal Tubular Disorders	<ul style="list-style-type: none"> <li>Explain major tubular disorders such as renal tubular acidosis (RTA) and Fanconi syndrome.</li> <li>Diagnose based on key clinical features and laboratory findings.</li> <li>Outline relevant investigations.</li> </ul>
M1-074	Hypertension and Kidney	<ul style="list-style-type: none"> <li>Discuss secondary hypertension due to renal causes.</li> <li>Outline relevant investigations.</li> <li>Summarize plan of management.</li> </ul>
M1-075	Urinary Tract Infections (UTI)	<ul style="list-style-type: none"> <li>Describe clinical presentations of lower and upper UTIs.</li> <li>Outline relevant investigations.</li> <li>Describe management strategies.</li> </ul>
M1-076	Renal Replacement Therapy	<ul style="list-style-type: none"> <li>Outline principles of hemodialysis, peritoneal dialysis, and transplantation.</li> <li>Identify indications.</li> <li>Outline relevant investigations for initiation and monitoring.</li> </ul>

### Clinical Skills

Sr.No.	Topic	Clinical Methods/Skills
M1-077	History Taking	<b>Take</b> a structured renal history, focusing on urinary output changes, hematuria, edema, flank pain, dysuria, and relevant systemic or constitutional symptoms.
M1-078	Clinical examination	<p><b>Perform</b> a general physical examination with emphasis on assessing volume status, pallor, and edema.</p> <p><b>Examine</b> the abdomen for renal masses, tenderness, and bladder distension.</p> <p><b>Identify</b> clinical signs of chronic kidney disease such as</p>

		<p>pallor, scratch marks, and edema.</p> <p><b>Interpret</b> urinalysis results, renal function tests (RFTs), and electrolyte profiles, and renal imaging studies, including ultrasound of kidneys, ureters, and bladder (KUB).</p> <p><b>Observe/assist</b> in dialysis procedures and indications for initiation.</p>
M1-079	Counselling	<p><b>Counsel</b> patients and caregivers on following points:</p> <ul style="list-style-type: none"> <li>• chronic nature of renal diseases.</li> <li>• importance of medication adherence, diet, fluid management, and lifestyle modifications.</li> <li>• need for regular follow-up, laboratory monitoring, and timely reporting of warning signs.</li> <li>• understanding dialysis or transplantation options, including indications and expectations.</li> </ul>
<b>DERMATOLOGY</b>		
Sr. No	Topic	Learning objectives
M1-080	Skin lesions	<p>Describe the morphological features of following skin lesions: Macule, Papule, Nodule, Plaque, Wheal, Vesicles and bullae, Pustule, Cyst, Scale, Crust, Fissuring, Erosion, Ulceration, Excoriation, Lichenification, Annular lesions, Discoid lesions, Atrophy, scar, and keloid.</p> <p>Describe and differentiate dermatological features including desquamation, burrow, comedone, telangiectasia, reticulate, petechiae, purpura, and ecchymosis.</p>
M1-081	Scabies	<p>Describe the etiology and mode of transmission of <i>Sarcoptes scabiei</i>.</p> <p>Identify clinical presentation of scabies</p> <p>Differentiate scabies from other pruritic dermatoses.</p> <p>Outline the treatment of scabies including preventive measures.</p>
M1-082	Pediculosis	<p>Explain the etiology and types of lice infestation.</p> <p>Describe clinical presentation.</p>

		<p>Differentiate pediculosis from dandruff, scabies, and seborrheic dermatitis.</p> <p>Outline treatment strategies with preventive measures.</p>
M1-083	Eczema/dermatitis	<p>Classify dermatitis.</p> <p>Enlist the common forms of endogenous and exogenous eczema.</p>
M1-084	Atopic Dermatitis	<p>Describe the etiology and predisposing factors of atopic dermatitis.</p> <p>Identify the clinical features.</p> <p>Differentiate atopic dermatitis from seborrheic dermatitis, scabies, and contact dermatitis on basis of clinical features.</p> <p>Outline treatment and preventive strategies.</p>
M1-085	Seborrheic dermatitis	<p>Explain the etiology and role of Malassezia, sebum, immune factors.</p> <p>Identify clinical features of seborrheic dermatitis.</p> <p>Differentiate seborrheic dermatitis from psoriasis, atopic dermatitis, and pediculosis.</p> <p>Outline treatment and preventive strategies for relapse control.</p>
M1-086	Contact dermatitis	<p>Differentiate between irritant and allergic contact dermatitis in terms of etiopathogenesis, and clinical features.</p> <p>Identify the clinical features of contact dermatitis.</p> <p>Differentiate contact dermatitis from atopic dermatitis, urticaria, and scabies.</p> <p>Outline treatment plan and preventive measures.</p>
M1-087	Urticaria	<p>Describe the etiology and pathophysiology of urticaria.</p> <p>Identify clinical features.</p> <p>Differentiate urticaria from contact dermatitis, scabies, and drug reactions on basis of sign and symptoms.</p> <p>Outline emergency management for angioedema/anaphylaxis.</p>
M1-088	Bullous disorders	<p>Define bullous disorders.</p> <p>Classify immune-mediated bullous disorders.</p> <p>Explain the pathogenesis of:</p>

		<ul style="list-style-type: none"> <li>i. Pemphigus vulgaris</li> <li>ii. Bullous pemphigoid</li> <li>iii. Dermatitis herpetiformis</li> </ul> <p>Describe the clinical presentation and lesion morphology of each disorder.</p> <p>Differentiate between these disorders on the basis of site, blister type, and mucosal involvement.</p> <p>Enlist appropriate diagnostic tests.</p> <p>Outline management plan.</p> <p>Enlist potential complications and their preventive measures.</p>
		<p>Define epidermolysis bullosa.</p> <p>Explain the underlying molecular and genetic mechanisms leading to skin fragility in EB.</p> <p>Describe the clinical features and complications associated with EB.</p> <p>Outline the diagnostic approaches and principles of management.</p>
M1-089	Acne vulgaris	<p>Explain the etiopathogenesis of acne vulgaris.</p> <p>Identify the clinical features and types of acne lesions.</p> <p>Differentiate acne vulgaris from other acneiform eruptions.</p> <p>Outline the treatment plan including preventive and long-term management strategies.</p> <p>Explain mechanism of action and adverse effects of drugs used in acne.</p>
M1-090	Psoriasis	<p>Describe the etiopathogenesis of psoriasis.</p> <p>Identify the clinical features and common variants.</p> <p>Outline treatment modalities with preventive and lifestyle strategies.</p>
M1-091	Lichen Planus	<p>Describe the etiopathogenesis of lichen planus.</p> <p>Identify the classical clinical features.</p> <p>Enlist the differential diagnosis of lichen planus.</p> <p>Outline the treatment plan.</p> <p>Discuss preventive and long-term considerations, including</p>

		malignant transformation risk.
M1-092	Erythema Multiforme and erythema nodosum	Differentiate erythema multiforme and erythema nodosum in terms of etiology, clinical features, morphology, distribution, associated conditions, and principles of management.
M1-093	Acute bacterial skin infections	Describe the role of Staphylococcus aureus as a causative organism in skin infections. Describe the clinical patterns including impetigo, bullous impetigo, boils (abscesses), bacterial folliculitis, and infected eczema. Outline the diagnostic considerations, complications, and management principles. Identify acute bacterial skin infections caused by Streptococcus pyogenes. Describe their clinical patterns including non-bullous impetigo, ecthyma, and erysipelas. Identify the role of group A $\beta$ -hemolytic streptococci (and occasionally groups B, C, G) as causative organisms. Outline the clinical course, complications, and management including systemic antibiotics.
M1-094	Chronic bacterial skin infections	Describe the etiological agent and routes of infection of cutaneous tuberculosis. Identify the major clinical forms of cutaneous tuberculosis. Outline the diagnostic approach and treatment. Describe the causative organism, transmission, and pathogenesis of leprosy. Identify the clinical spectrum of leprosy and cardinal signs of diagnosis. Explain the complications and deformities resulting from nerve involvement in leprosy. Outline the diagnostic approach and management principles
M1-095	Viral skin infections	Describe the etiology and types of warts. Identify the clinical presentation of warts. Enlist the differential diagnosis.

		<p>Outline the management options with preventive measures.</p> <p>Explain the etiology and mode of transmission of molluscum contagiosum virus.</p> <p>Identify the clinical features and distribution of molluscum contagiosum lesions.</p> <p>Differentiate molluscum contagiosum from warts, milia, and basal cell carcinoma on basis of clinical features.</p> <p>Discuss treatment options and prevention strategies.</p> <p>Explain the etiopathogenesis of herpes zoster (Shingles) including reactivation of varicella-zoster virus.</p> <p>Describe the clinical features, dermatomal distribution, and prodromal symptoms.</p> <p>Differentiate herpes zoster from HSV, contact dermatitis, and impetigo on basis of clinical features.</p> <p>Outline management and prevention strategies.</p> <p>Identify the etiology and types of herpes simplex.</p> <p>Discuss the clinical presentation of primary and recurrent HSV infections.</p> <p>Discuss differential diagnosis of herpes simplex.</p> <p>Outline the management plan.</p>
M1-096	Fungal skin infection	<p>Describe the etiology of tinea.</p> <p>Discuss the clinical features of different types of tinea.</p> <p>Differentiate tinea from eczema, psoriasis, seborrheic dermatitis, and candidiasis.</p> <p>Outline the diagnostic approach, treatment options, and preventive measures.</p> <p>Explain the etiology of Pityriasis Versicolor and predisposing factors.</p> <p>Describe the clinical presentation.</p> <p>Differentiate pityriasis versicolor from vitiligo.</p> <p>Outline diagnostic tests and management plan.</p>
M1-097	Protozoal skin infection	<p>Classify the types of leishmaniasis.</p> <p>Describe the clinical features of cutaneous, mucocutaneous,</p>

		<p>and visceral leishmaniasis.</p> <p>Enlist its complications.</p> <p>Outline the diagnostic methods, treatment options and preventive measures.</p>
M1-098	Pigmentation Disorders	<p>Define vitiligo and describe its epidemiology.</p> <p>Explain the underlying pathogenetic mechanisms.</p> <p>Describe its clinical features.</p> <p>Make differential diagnosis of hypopigmented skin lesions.</p> <p>Discuss the management options.</p> <p>Outline the psychosocial impact of vitiligo.</p> <p>Define melasma and describe its etiology and epidemiology.</p> <p>Describe the clinical features with its treatment options.</p> <p>Describe adverse effects of de-melanizing agents.</p> <p>Define albinism and explain its genetic basis.</p> <p>Describe the clinical features.</p> <p>Outline management plan.</p>
M1-099	Role of sunscreen	<p>Describe the role of sunscreen in protecting skin.</p> <p>Explain the importance of Sun Protection Factor (SPF) and choosing an appropriate SPF for daily use.</p> <p>Describe the correct method of applying sunscreen, including quantity, timing, and reapplication.</p>
M1-100	Nail disorders	<p>Describe the clinical features of onychomycosis and paronychia.</p> <p>Describe nail changes in psoriasis and lichen planus.</p> <p>Identify common traumatic nail changes.</p> <p>Describe systemic associations of nail changes.</p> <p>Describe the importance of emollients and early antifungal treatment in nail care.</p>
M1-101	Hair disorders	<p>Define alopecia areata.</p> <p>Explain the etiological and immunological basis of alopecia areata.</p> <p>Describe the clinical features and patterns of presentation.</p> <p>Outline the differential diagnosis.</p>

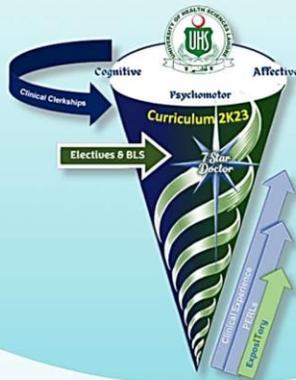
		<p>Discuss the management options for alopecia areata.</p> <p>Define and classify androgenic alopecia.</p> <p>Explain the hormonal and genetic factors contributing to androgenic alopecia.</p> <p>Describe the clinical features and diagnostic criteria.</p> <p>Outline the management plan.</p> <p>Define hirsutism and differentiate it from hypertrichosis.</p> <p>Identify the common causes of hirsutism.</p> <p>Outline the diagnostic workup for hirsutism.</p> <p>Discuss medical, cosmetic, and lifestyle-based management strategies.</p>
<b>Clinical skills</b>		
M1-102	History taking	<b>Take history</b> of the patients with acne vulgaris, eczema, psoriasis, fungal infections, bacterial infections, scabies, urticaria, warts, vitiligo, herpes zoster, or pediculosis.
M1-103	Identification of skin lesions	<b>Identify and differentiate</b> skin lesions in patients.
M1-104	Use of Magnification in Dermatological Examination	<b>Demonstrate</b> the use of magnifying glass in examination of a patient with dermatological disease.
M1-105	Use of Wood's lamp in Dermatological Examination	<b>Demonstrate</b> the use of Wood's lamp in examination of a patient with dermatological diseases.
M1-106	Skin biopsy	<b>Observe</b> the steps of performing a skin biopsy.
M1-107	Microscopic Examination for Fungal Infections	<b>Demonstrate</b> the preparation and microscopic examination of skin/nail scrapings for fungal infection.
M1-108	Skin Scraping for Scabies	<b>Perform</b> the preparation and microscopic examination of skin scrapings for scabies mite.
M1-109	Skin Therapeutic procedures	<b>Observe and describe</b> the steps of common therapeutic procedures including electrosurgery, cryosurgery,

		phototherapy, and intralesional injections.
M1-110	Phototherapy	<b>Assist</b> in the preparation and patient counseling for phototherapy.
M1-111	Use of topical medication	<b>Counsel</b> patients regarding proper use of topical medication, particularly topical anti-scabies medication and topical steroids.
M1-112	Safe Use of Topical Skin Products	Counsel patients regarding hazards of whitening creams and topical self-medication.
M1-113	Counseling	<b>Demonstrate</b> the ability to counsel patients with stigmatizing skin conditions with empathy, focusing on disease understanding, treatment adherence, and psychosocial support.



**Modular Integrated  
Curriculum 2K23**  
*Final Version*

# MEDICINE-II



## ENDOCRINE DISORDERS

### Theory

Sr.No.	Topic	Specific Learning Objective
M2-001	Diabetes Mellitus and Hypoglycemia	<ul style="list-style-type: none"> <li>• Classify diabetes mellitus into Type 1 diabetes, Type 2 diabetes, MODY, and secondary diabetes.</li> <li>• Explain the pathophysiology of insulin resistance.</li> <li>• Describe the diagnostic criteria and approach for diagnosing a case of diabetes mellitus.</li> <li>• Describe the acute and chronic complications of diabetes mellitus.</li> <li>• Outline the management plan.</li> </ul>
M2-002	Thyroid Disorders	<ul style="list-style-type: none"> <li>• Describe the clinical features of hypothyroidism and hyperthyroidism.</li> <li>• Explain the different forms of thyroiditis and their clinical significance.</li> <li>• Classify goiter with causes and clinical implications.</li> <li>• Describe the types, clinical features, and prognosis of thyroid cancers.</li> <li>• Outline the investigations for thyroid disorders.</li> <li>• Discuss disease-specific management approaches, including medical, surgical, and radioactive iodine therapy.</li> </ul>
M2-003	Pituitary and Hypothalamic Disorders	<ul style="list-style-type: none"> <li>• Describe the causes, clinical features, and consequences of hypopituitarism and pituitary adenomas.</li> <li>• Explain the clinical features, causes, and complications of acromegaly, gigantism, and prolactinoma.</li> <li>• Describe the types, causes, and clinical presentation of diabetes insipidus.</li> <li>• Explain the pathophysiology, causes, and clinical</li> </ul>

		<p>features of SIADH.</p> <ul style="list-style-type: none"> <li>• Discuss hypothalamic syndrome, including its causes, clinical manifestations, and implications.</li> </ul>
M2-004	Adrenal Disorders	<ul style="list-style-type: none"> <li>• Describe the causes, clinical features, and investigations for Addison's disease and adrenal crisis.</li> <li>• Describe the etiology, clinical features, and investigations for Cushing's syndrome and Cushing's disease.</li> <li>• Explain the clinical features, diagnosis, and management of pheochromocytoma.</li> <li>• Describe primary hyperaldosteronism (Conn's syndrome), including its causes and clinical manifestations.</li> </ul>
M2-005	Disorders of Calcium and Bone Metabolism	<ul style="list-style-type: none"> <li>• Describe the causes and clinical features of hyperparathyroidism and hypoparathyroidism.</li> <li>• Explain the causes, and clinical manifestations of vitamin D disorders, including osteomalacia and rickets.</li> <li>• Describe osteoporosis, including its risk factors, diagnosis, prevention, and management.</li> <li>• Explain the etiology, clinical features, and complications of Paget's disease of bone.</li> </ul>
M2-006	Reproductive Endocrinology	<ul style="list-style-type: none"> <li>• Describe the causes and clinical features of precocious and delayed puberty.</li> <li>• Explain the etiology, clinical features, and complications of polycystic ovary syndrome (PCOS).</li> <li>• Describe hypogonadism in males and females, including its causes and clinical manifestations.</li> <li>• Explain the causes and clinical features of gynecomastia.</li> <li>• Discuss the endocrine causes of infertility and their role in reproductive dysfunction.</li> </ul>

M2-007	Multiple endocrine neoplasia	<ul style="list-style-type: none"> <li>Describe the types, clinical features, and genetic basis of multiple endocrine neoplasia (MEN 1 and MEN 2).</li> </ul>
M2-008	Paraneoplastic endocrine syndromes	<ul style="list-style-type: none"> <li>Describe paraneoplastic endocrine syndromes, including their causes and clinical manifestations.</li> </ul>
M2-009	Endocrine hypertension	<ul style="list-style-type: none"> <li>Explain the causes, pathophysiology, and clinical features of endocrine hypertension.</li> </ul>
M2-010	Endocrine emergencies	<ul style="list-style-type: none"> <li>Describe the clinical features, precipitating factors, and initial management of thyroid storm.</li> <li>Explain the presentation, causes, and management of myxedema coma.</li> <li>Describe adrenal crisis, including its causes, clinical features, and emergency management.</li> <li>Explain the acute management of diabetic emergencies, including Diabetic ketoacidosis and severe hypoglycemia.</li> </ul>

### Clinical Skills

Sr.No.	Topic	Clinical Methods/Skills
M2-011	History Taking	<p><b>Take</b> a focused endocrine history for Diabetes mellitus, Hypothyroidism, Hyperthyroidism, Thyroid nodules, Pituitary adenomas, Cushing's syndrome, Adrenal insufficiency, and Hypogonadism.</p>
M2-012	Clinical examination	<p><b>Perform</b> general physical examination.</p> <p><b>Examine:</b></p> <ul style="list-style-type: none"> <li>Neck for goiter, nodules, or thyroid enlargement (Thyroid disorders).</li> <li>Skin for pigmentation changes, stretch marks, hirsutism, edema (Adrenal disorders, Cushing's syndrome, Polycystic Ovary Syndrome).</li> <li>Musculoskeletal system for bone deformities, muscle weakness, or skeletal abnormalities (Vitamin D disorders, Osteoporosis, Paget's disease of bone).</li> </ul>

		<ul style="list-style-type: none"> <li>• Genitalia and secondary sexual characteristics (Hypogonadism, Disorders of puberty).</li> </ul> <p><b>Observe/assist</b> in management of acute endocrine emergencies including diabetic ketoacidosis and severe hypoglycemia.</p> <p><b>Interpret</b> thyroid function tests, thyroid antibodies, and relevant imaging, blood glucose, electrolytes, renal function, and ketones for acute diabetic complications, adrenal function tests, cortisol, and imaging studies, reproductive endocrine investigations, bone metabolism markers, calcium, phosphate, vitamin D, and imaging studies.</p>
M2-013	Counselling	<b>Demonstrate</b> effective patient counselling skills, including explaining the diagnosis, treatment options, lifestyle modifications, medication adherence, and follow-up plans for patients with endocrine disorders.

## GASTROINTESTINAL DISEASES

### Theory

Sr.No.	Topic	Specific Learning Objective
M2-014	Diseases of Oral Cavity	<ul style="list-style-type: none"> <li>• Describe the etiology of oral cavity diseases including infective, traumatic, autoimmune, neoplastic, and nutritional causes.</li> <li>• Explain the pathophysiology of local tissue damage and immune response in oral diseases.</li> <li>• Identify the clinical features of oral cavity disorders.</li> <li>• Outline the investigations.</li> </ul>
M2-015	Acute Gastroenteritis	<ul style="list-style-type: none"> <li>• Explain the pathophysiology acute gastroenteritis.</li> <li>• Identify the clinical features and complications.</li> <li>• Outline the investigations and management plan.</li> </ul>
M2-016	Chronic Diarrhea	<ul style="list-style-type: none"> <li>• Describe the common causes of chronic diarrhea.</li> <li>• Explain the pathophysiology.</li> <li>• Identify the clinical features and complications.</li> </ul>

		Outline the investigations and management plan.
M2-017	Dysphagia	<ul style="list-style-type: none"> <li>• Describe the etiology of dysphagia including structural and functional causes.</li> <li>• Explain the pathophysiology of dysphagia.</li> <li>• Identify the clinical features.</li> <li>• Outline the investigations to reach the diagnosis.</li> </ul>
M2-018	Gastroesophageal Reflux Disease (GERD)	<ul style="list-style-type: none"> <li>• Describe the etiology of GERD.</li> <li>• Explain the pathophysiology.</li> <li>• Identify the clinical features of GERD.</li> <li>• Outline the investigations and management plan.</li> </ul>
M2-019	Peptic Ulcer Disease & Dyspepsia	<ul style="list-style-type: none"> <li>• Describe the etiology of peptic ulcer disease.</li> <li>• Explain the pathophysiology.</li> <li>• Identify the clinical features and potential complications.</li> <li>• Outline the management plan.</li> </ul>
M2-020	Irritable Bowel Syndrome (IBS)	<ul style="list-style-type: none"> <li>• Describe the etiology of IBS.</li> <li>• Explain the pathophysiology.</li> <li>• Identify the clinical features.</li> <li>• Outline the investigations and management plan.</li> </ul>
M2-021	Malabsorption Syndromes	<ul style="list-style-type: none"> <li>• Describe the etiology of malabsorption syndromes.</li> <li>• Explain the pathophysiology.</li> <li>• Identify the clinical features and complications.</li> <li>• Outline the investigations and management plan.</li> </ul>
M2-022	Inflammatory Bowel Disease (IBD)	<ul style="list-style-type: none"> <li>• Define inflammatory bowel disease.</li> <li>• Describe the etiology and pathophysiological mechanisms.</li> <li>• Differentiate between ulcerative colitis and Crohn's disease.</li> <li>• Identify clinical manifestations of IBD and complications.</li> <li>• Formulate differential diagnosis.</li> <li>• Interpret relevant investigations used in the diagnosis.</li> </ul>

		<ul style="list-style-type: none"> <li>• Outline management plan.</li> </ul>
M2-023	Gastrointestinal Tuberculosis	<ul style="list-style-type: none"> <li>• Explain the pathophysiology.</li> <li>• Identify the clinical features and complications.</li> <li>• Outline the investigations and management plan.</li> </ul>
M2-024	Gastrointestinal Malignancies	<ul style="list-style-type: none"> <li>• Enlist common gastrointestinal cancers.</li> <li>• Identify key risk factors and alarm symptoms.</li> <li>• Outline the investigations, basic principles of management, and prognosis of gastrointestinal cancers.</li> </ul>
<b>Clinical Skills</b>		
Sr.No.	Topic	Clinical Methods/Skills
M2-025	History taking	<b>Take</b> focused gastrointestinal history, including pain, diarrhea, dyspepsia, reflux, dysphagia, bleeding, weight loss, chronic illness, and red-flag symptoms.
M2-026	Clinical examination	<p><b>Examine</b> oral cavity.</p> <p><b>Assess</b> hydration status using capillary refill time, skin turgor, pulse, and blood pressure, particularly in acute gastroenteritis and chronic diarrhea.</p> <p><b>Perform</b> a complete abdominal examination (inspection, palpation, percussion, and auscultation).</p> <p><b>Demonstrate</b> per rectal examination where indicated, including assessment for bleeding, masses, and tenderness.</p> <p><b>Identify</b> clinical signs of anemia, malnutrition, and vitamin deficiencies during general and gastrointestinal examination.</p> <p><b>Interpret</b> diagnostic investigations relevant to gastrointestinal diseases, including CBC, stool examination, occult blood testing, and relevant biochemical tests, ultrasound abdomen, and X-ray abdomen.</p>
M2-027	Counselling	<b>Counsel</b> patients regarding disease nature, lifestyle modification, dietary advice, medication adherence, red-flag symptoms, and follow-up care.

## HEPATOBIILIARY DISEASES

### Theory

Sr.No.	Topic	Specific Learning Objective
M2-028	Approach to a Patient with Jaundice	<ul style="list-style-type: none"> <li>Classify jaundice based on pathophysiology.</li> <li>Identify key clinical features associated with jaundice.</li> <li>Formulate differential diagnosis.</li> <li>Interpret investigations of a patient with jaundice.</li> <li>Outline general principles of management.</li> </ul>
M2-029	Acute Liver Failure	<ul style="list-style-type: none"> <li>Identify common causes of acute liver failure.</li> <li>Explain the pathophysiological basis of acute liver failure.</li> <li>Identify clinical presentation and potential complications.</li> <li>Interpret laboratory investigations used in assessment.</li> <li>Outline initial and definitive management plan.</li> <li>Describe Paracetamol poisoning</li> </ul>
M2-030	Chronic Liver Disease	<ul style="list-style-type: none"> <li>Enlist etiology leading to chronic liver disease.</li> <li>Describe the progression from chronic liver injury to cirrhosis.</li> <li>Describe clinical features and complications of chronic liver disease.</li> <li>Interpret investigations used in diagnosis and staging.</li> <li>Plan strategies for management and complication prevention.</li> </ul>
M2-031	Hepatitis B and C	<ul style="list-style-type: none"> <li>Describe the clinical presentation of Hepatitis B and Hepatitis C.</li> <li>Enlist and interpret laboratory investigations for Hepatitis B and C.</li> <li>Outline the treatment plan for Hepatitis B and Hepatitis C.</li> </ul>

		<ul style="list-style-type: none"> <li>• Enlist potential complications of Hepatitis B and Hepatitis C.</li> </ul>
M2-032	Portal Hypertension	<ul style="list-style-type: none"> <li>• Explain the pathophysiology of portal hypertension.</li> <li>• Identify causes and clinical manifestations of portal hypertension.</li> <li>• Interpret relevant diagnostic investigations.</li> <li>• Outline medical and interventional management plan.</li> </ul>
M2-033	Variceal Bleeding	<ul style="list-style-type: none"> <li>• Describe clinical presentation of variceal bleeding.</li> <li>• Explain the underlying mechanism leading to variceal rupture.</li> <li>• Enlist the diagnostic procedures.</li> <li>• Outline emergency and preventive management plan.</li> </ul>
M2-034	Ascites	<ul style="list-style-type: none"> <li>• Identify common causes of ascites.</li> <li>• Explain the pathophysiological mechanisms involved in ascites formation.</li> <li>• Enlist investigations with interpretation.</li> <li>• Plan the management.</li> </ul>
M2-035	Hepatic Encephalopathy	<ul style="list-style-type: none"> <li>• Explain the pathophysiology of hepatic encephalopathy.</li> <li>• Identify clinical features and grading of encephalopathy.</li> <li>• Enlist the precipitating factors.</li> <li>• Discuss the principles of management and prevention.</li> </ul>
M2-036	Hepatocellular Carcinoma	<ul style="list-style-type: none"> <li>• Identify risk factors for hepatocellular carcinoma.</li> <li>• Describe clinical features suggestive of HCC.</li> <li>• Enlist and interpret screening and diagnostic investigations.</li> <li>• Outline management options with prognosis.</li> </ul>
M2-037	Pancreatitis (Acute & Chronic)	<ul style="list-style-type: none"> <li>• Identify etiological factors of pancreatitis.</li> <li>• Explain the underlying pathophysiology.</li> <li>• Describe characteristic clinical features and complications.</li> </ul>

		<ul style="list-style-type: none"> <li>• Interpret relevant laboratory and imaging investigations.</li> <li>• Outline management plan.</li> </ul>
M2-038	Obstructive and cholestatic jaundice	<ul style="list-style-type: none"> <li>• Identify risk factors.</li> <li>• Outline differential diagnosis of obstructive jaundice.</li> <li>• Describe signs and symptoms.</li> <li>• Enlist appropriate diagnostic investigations.</li> </ul>
M2-039	Metabolic Dysfunction-Associated Steatotic Liver Disease (MASLD)	<ul style="list-style-type: none"> <li>• Explain the pathophysiological basis and clinical features of MASLD .</li> <li>• Interpret investigations used for diagnosis and staging.</li> <li>• Plan the management.</li> </ul>
M2-040	Alcoholic Liver Disease	<ul style="list-style-type: none"> <li>• Describe the spectrum of alcoholic liver disease.</li> <li>• Identify clinical features.</li> <li>• Interpret relevant investigations.</li> <li>• Outline principles of management.</li> </ul>
M2-041	Autoimmune Hepatitis	<ul style="list-style-type: none"> <li>• Identify clinical features of autoimmune hepatitis.</li> <li>• Enlist diagnostic investigations with interpretation.</li> <li>• Outline principles of management.</li> </ul>
M2-042	Wilson's Disease	<ul style="list-style-type: none"> <li>• Describe the pathophysiology.</li> <li>• Describe clinical presentation.</li> <li>• Outline diagnostic tests with interpretation.</li> <li>• Plan management strategies.</li> </ul>
M2-043	Hemochromatosis	<ul style="list-style-type: none"> <li>• Explain the mechanism of iron overload.</li> <li>• Describe clinical presentation.</li> <li>• Interpret diagnostic investigations.</li> <li>• Outline management principles.</li> </ul>
M2-044	Alpha-1 Antitrypsin Deficiency	<ul style="list-style-type: none"> <li>• Explain the genetic basis of the disease.</li> <li>• Describe clinical presentation.</li> <li>• Describe diagnostic investigations with management plan.</li> </ul>
M2-045	Congenital	<ul style="list-style-type: none"> <li>• Explain the pathophysiology.</li> </ul>

	hyperbilirubinemia	<ul style="list-style-type: none"> <li>• Describe characteristic clinical presentation.</li> <li>• Interpret laboratory findings.</li> <li>• Outline plan of patient management.</li> </ul>
M2-046	Liver Disease in Pregnancy	<ul style="list-style-type: none"> <li>• Identify liver disorders specific to pregnancy.</li> <li>• Describe clinical features requiring urgent evaluation.</li> <li>• Enlist and interpret appropriate investigations.</li> <li>• Outline management plan.</li> </ul>
M2-047	Parasitic Infections of the Liver	<ul style="list-style-type: none"> <li>• Identify common parasitic liver diseases.</li> <li>• Liver abscess</li> <li>• Describe clinical presentation.</li> <li>• Select relevant diagnostic investigations.</li> <li>• Outline principles of treatment.</li> </ul>

### Clinical Skills

Sr.No.	Topic	Clinical Methods/Skills
M2-048	History taking	<p><b>Take</b> a focused hepatobiliary history, including jaundice, abdominal pain, pruritus, nausea, vomiting, dyspepsia, weight loss, bleeding tendencies, risk factors, chronic liver disease symptoms, and red-flag features.</p>
M2-049	Clinical examination	<p><b>Perform</b> abdominal examination including inspection, palpation, percussion, auscultation and document the findings.</p> <p><b>Interpret</b> relevant tests including LFTs, INR/PT, viral markers, ceruloplasmin, serum ferritin, ultrasound abdomen, Doppler, CT/MRI, MRCP, and liver biopsy where indicated.</p> <p><b>Communicate</b> disease nature, treatment plan, lifestyle advice, and follow-up requirements to patients and caregivers.</p>

INFECTIOUS DISEASES		
Theory		
Sr.No.	Topic	Specific Learning Objective
M2-050	Approach to a Patient with Fever	<ul style="list-style-type: none"> <li>• Define fever and describe its common patterns.</li> <li>• Explain the pathophysiology of fever.</li> <li>• Differentiate between acute, subacute, and chronic fever.</li> <li>• Describe the concept and causes of pyrexia of unknown origin (PUO).</li> <li>• Identify common infectious and non-infectious causes of fever.</li> <li>• Outline diagnostic approach and management of a patient with fever.</li> </ul>
M2-051	Malaria	<ul style="list-style-type: none"> <li>• Describe the epidemiology and modes of transmission of malaria.</li> <li>• Differentiate between uncomplicated and severe malaria.</li> <li>• Describe diagnostic methods for malaria.</li> <li>• Outline principles of treatment and prevention of malaria.</li> <li>• Identify complications of malaria.</li> </ul>
M2-052	Dengue Fever	<ul style="list-style-type: none"> <li>• Describe the epidemiology and transmission of dengue fever.</li> <li>• Differentiate between dengue fever, dengue hemorrhagic fever, and dengue shock syndrome.</li> <li>• Identify warning signs and complications of dengue.</li> <li>• Outline principles of management of dengue fever.</li> </ul>
M2-053	Enteric Fever (Typhoid Fever)	<ul style="list-style-type: none"> <li>• Describe the etiology and transmission of enteric fever.</li> <li>• Describe the clinical features and stages of enteric fever.</li> </ul>

		<ul style="list-style-type: none"> <li>• Outline the diagnostic approach to enteric fever and principles of antibiotic therapy in enteric fever.</li> <li>• Identify complications and preventive strategies.</li> </ul>
M2-054	Amebiasis	<ul style="list-style-type: none"> <li>• Describe the etiology.</li> <li>• Differentiate between intestinal and extra-intestinal manifestations.</li> <li>• Explain the pathogenesis and complications of amebiasis.</li> <li>• Describe diagnostic modalities and treatment of amebiasis.</li> </ul>
M2-055	Covid-19	<ul style="list-style-type: none"> <li>• Describe the modes of transmission of COVID-19.</li> <li>• Explain the pathophysiology and clinical spectrum of COVID-19.</li> <li>• Outline diagnostic investigations and management.</li> <li>• Describe infection prevention and control measures.</li> </ul>
M2-056	HIV / AIDS	<ul style="list-style-type: none"> <li>• Describe modes of transmission.</li> <li>• Identify common opportunistic infections associated with HIV.</li> <li>• Describe diagnostic tests for HIV infection.</li> <li>• Outline principles of antiretroviral therapy.</li> </ul>
M2-057	Rabies	<ul style="list-style-type: none"> <li>• Describe the modes of transmission of rabies.</li> <li>• Describe the clinical stages of rabies.</li> <li>• Outline principles of post-exposure prophylaxis and preventive strategies for rabies.</li> </ul>
M2-058	Tetanus	<ul style="list-style-type: none"> <li>• Describe the clinical presentation of tetanus.</li> <li>• Enlist and interpret laboratory and diagnostic investigations.</li> <li>• Outline the treatment plan.</li> <li>• Enlist potential complications.</li> </ul>

Clinical Skills		
Sr.No.	Topic	Clinical Methods/Skills
M2-059	History taking	<b>Take</b> history in patients with suspected infectious diseases (fever, malaria, dengue fever, enteric fever, amebiasis, COVID-19, HIV/AIDS, rabies).
M2-060	Clinical Examination and Investigations Counseling	<p><b>Perform</b> a thorough general physical examination and system-focused examination relevant to infectious diseases, including assessment of vital signs, hydration status, respiratory distress, abdominal findings, neurological status, and identification of red-flag signs (severe malaria, dengue warning signs, septic features). <b>Interpret</b> relevant laboratory and diagnostic investigations such as complete blood count, peripheral smear and rapid tests for malaria, platelet trends, liver function tests, blood cultures, stool examination, oxygen saturation, imaging, and HIV diagnostic tests, and monitor disease severity and response to treatment.</p> <p><b>Counsel</b> patients and attendants empathetically and professionally on the following points:</p> <ul style="list-style-type: none"> <li>• nature and expected course of infectious diseases in simple language.</li> <li>• importance of treatment adherence, completion of prescribed therapy, and potential adverse effects.</li> <li>• preventive measures including hygiene, sanitation, vector control, vaccination, and infection control practices.</li> <li>• indications for urgent review, follow-up planning, and referral when required.</li> </ul>

## HEMATOLOGIC DISORDERS

### Theory

Sr.No.	Topic	Specific Learning Objective
M2-061	Iron Deficiency Anemia	<ul style="list-style-type: none"> <li>Describe the etiology and risk factors of iron deficiency anemia</li> <li>Identify the clinical features.</li> <li>Outline the diagnostic criteria and principles of treatment including prevention of iron deficiency anemia.</li> </ul>
M2-062	Megaloblastic Anemia	<ul style="list-style-type: none"> <li>Enlist the causes of megaloblastic anemia.</li> <li>Identify the clinical features of megaloblastic anemia.</li> <li>Outline the diagnostic approach to megaloblastic anemia</li> <li>Describe principles of management of megaloblastic anemia</li> </ul>
M2-063	Hemolytic Anemia	<ul style="list-style-type: none"> <li>Classify hemolytic anemias</li> <li>Explain the pathophysiology of hemolytic anemia.</li> <li>Identify the clinical features.</li> <li>Outline diagnostic investigations and principles of management of hemolytic anemia.</li> </ul>
M2-064	Aplastic Anemia	<ul style="list-style-type: none"> <li>Describe the etiology and pathogenesis of aplastic anemia</li> <li>Identify the clinical features and diagnostic criteria for aplastic anemia.</li> <li>Outline management plan of aplastic anemia.</li> </ul>
M2-065	Leukemias	<ul style="list-style-type: none"> <li>Classify leukemias</li> <li>Identify the clinical features.</li> <li>Outline the diagnostic approach to leukemias</li> </ul>

		<ul style="list-style-type: none"> <li>• Discuss principles of management of leukemias.</li> </ul>
M2-066	Hodgkin Lymphoma	<ul style="list-style-type: none"> <li>• Identify the clinical features of Hodgkin lymphoma.</li> <li>• Describe staging of Hodgkin lymphoma.</li> <li>• Outline the diagnostic approach to Hodgkin lymphoma.</li> <li>• Describe principles of management of Hodgkin lymphoma.</li> </ul>
M2-067	Non-Hodgkin Lymphoma	<ul style="list-style-type: none"> <li>• Identify the clinical features of non-Hodgkin lymphoma.</li> <li>• Outline the diagnostic evaluation of non-Hodgkin lymphoma.</li> <li>• Describe principles of management of non-Hodgkin lymphoma.</li> </ul>
M2-068	Bleeding Disorders	<ul style="list-style-type: none"> <li>• Classify bleeding disorders</li> <li>• Identify the clinical features.</li> <li>• Outline the diagnostic approach to bleeding disorders.</li> <li>• Describe principles of management of bleeding disorders.</li> </ul>
M2-069	Platelet Disorders	<ul style="list-style-type: none"> <li>• Describe causes of thrombocytopenia</li> <li>• Explain the pathophysiology of platelet disorders</li> <li>• Identify clinical manifestations of platelet disorders.</li> <li>• Outline the diagnostic approach and management of platelet disorders.</li> </ul>
M2-070	Plasma Cell Disorders	<ul style="list-style-type: none"> <li>• Classify plasma cell disorders.</li> <li>• Identify the clinical features of plasma cell disorders</li> <li>• Outline diagnostic criteria and management plan of plasma cell disorders.</li> </ul>
<b>Clinical Skills</b>		
Sr.No.	Topic	Clinical Methods/Skills
M2-071	History taking	<b>Take</b> history of patients with suspected hematological

		disorders (iron deficiency anemia, megaloblastic anemia, hemolytic anemia, aplastic anemia, leukemias, Hodgkin lymphoma, non-Hodgkin lymphoma, bleeding disorders, platelet disorders, plasma cell disorders).
M2-072	Clinical examination and Investigations Counselling	<p><b>Perform</b> general physical and system-focused examination, including assessment of pallor, jaundice, lymphadenopathy, hepatosplenomegaly, bone tenderness, petechiae, purpura, and signs of infection or bleeding.</p> <p><b>Interpret</b> hematological investigations such as complete blood count, peripheral blood smear, reticulocyte count, iron studies, vitamin B12 and folate levels, hemolysis profile, coagulation tests, bone marrow examination, and relevant imaging, to assess disease severity and guide management.</p> <p><b>Counsel</b> patients empathetically and professionally on the following points:</p> <ul style="list-style-type: none"> <li>• nature, chronicity, and prognosis of hematological disorders in simple, lay language.</li> <li>• importance of medication adherence, transfusion safety, and monitoring for treatment-related adverse effects.</li> <li>• dietary advice, infection prevention, bleeding precautions, and lifestyle modifications where relevant.</li> <li>• need for regular follow-up, laboratory monitoring, and timely referral to hematology services when indicated.</li> </ul>
<b>POISONING</b>		
<b>Theory</b>		
Sr.No.	Topic	Specific Learning Objective
M2-073	General Principles of Poisoning Management	<ul style="list-style-type: none"> <li>• Define poisoning and classify its common types.</li> <li>• Describe routes of exposure and mechanisms of toxicity</li> </ul>

		<ul style="list-style-type: none"> <li>• Outline a clinical approach to a poisoned patient.</li> <li>• Explain risk assessment and triage in poisoning.</li> <li>• Describe decontamination methods and their indications.</li> <li>• Explain the role and limitations of antidotes.</li> <li>• Describe principles of supportive and symptomatic management</li> <li>• Outline medico-legal aspects related to poisoning.</li> </ul>
M2-074	Wheat Pills (Aluminum Phosphide) Poisoning	<ul style="list-style-type: none"> <li>• Describe the sources of aluminum phosphide</li> <li>• Explain the mechanism of toxicity.</li> <li>• Identify clinical features and progression.</li> <li>• Outline diagnostic considerations and principles of management.</li> <li>• Describe prognosis and preventive strategies.</li> </ul>
M2-075	Organophosphate Poisoning	<ul style="list-style-type: none"> <li>• Explain the mechanism of action and cholinergic toxidrome.</li> <li>• Identify clinical features and complications.</li> <li>• Outline diagnostic criteria and principles of antidotal therapy.</li> <li>• Describe preventive measures for organophosphate exposure.</li> </ul>
M2-076	Opioid Poisoning	<ul style="list-style-type: none"> <li>• Identify routes of exposure.</li> <li>• Explain the mechanism of toxicity of opioids.</li> <li>• Identify clinical features and complications of opioid poisoning</li> <li>• Outline the diagnostic approach and principles of management and use of reversal agents.</li> </ul>
<b>Clinical Skills</b>		
Sr.No.	Topic	Clinical Methods/Skills
M2-077	History taking	<b>Take</b> history in patients with suspected poisoning (general poisoning, aluminum phosphide, organophosphate, opioid

		poisoning).
M2-078	Clinical examination Counselling	<p><b>Perform</b> a rapid survey and physical examination, including assessment of airway, breathing, circulation, level of consciousness, pupil size, secretions, vital signs, and identification of characteristic toxidromes.</p> <p><b>Interpret</b> relevant investigations such as arterial blood gases, serum electrolytes, ECG, cholinesterase levels, toxicology screens, and other baseline tests to assess severity, guide antidotal therapy, and monitor response to treatment.</p> <p><b>Counsel</b> patients and attendants empathetically and professionally.</p>
M2-079	Medico legal aspect of poisoning ( <i>integrate with Forensic Medicine</i> )	<p><b>Identify</b> routes of poison administration.</p> <p><b>Examine</b> teeth for the effects of poisoning.</p> <p><b>Examine</b> body orifices for sample collection for traces of poison.</p> <p><b>Apply</b> law relevant to poisoning.</p>
<b>PSYCHIATRY</b>		
Sr. No	Topic	Learning objectives
M2-080	Introduction to Key Psychiatric Terms	<p>Describe mood and affect.</p> <p>Describe and classify hallucination.</p> <p>Describe and classify delusion.</p> <p>Describe the abnormalities of speech in psychiatric disorders.</p> <p>Describe obsession and compulsion.</p>
M2-081	Anxiety Disorder	<p>Define Generalized anxiety disorder (GAD) and describe common risk factors.</p> <p>Identify typical mental state examination findings of GAD.</p> <p>Differentiate GAD from eustress.</p> <p>Outline pharmacological and psychotherapeutic treatment of GAD.</p> <p>Identify hallmark symptoms of panic disorder based on Mental Status Examination.</p> <p>Differentiate panic attacks from angina, myocardial infarction,</p>

		<p>and asthma.</p> <p>Describe strategies for supporting patients with panic disorder.</p> <p>Define and classify phobias.</p> <p>Outline treatment approaches for phobias, including psychological therapies and pharmacological options.</p>
M2-082	Depressive disorders	<p>Classify depressive disorders.</p> <p>Describe risk factors of depressive disorders.</p> <p>Diagnose moderate depressive disorder on the basis of mental state examination findings.</p> <p>Outline management plan including pharmacological options and psychotherapy.</p> <p>Describe suicide and deliberate self-harm, including associated factors.</p> <p>Describe management of suicide and deliberate self-harm.</p> <p>Differentiate postpartum depression from postpartum blues.</p> <p>Formulate a management plan for postpartum blues and postpartum depression.</p>
M2-083	Bipolar affective disorder	<p>Describe Bipolar I and Bipolar II disorders according to standard diagnostic criteria.</p> <p>Differentiate the clinical features of mania and hypomania.</p> <p>Differentiate bipolar disorders from schizophrenia and substance-induced mania on the basis of clinical presentation and course.</p> <p>Interpret mental state examination (MSE) findings in mania.</p> <p>Formulate a basic management plan for bipolar disorder.</p>
M2-084	Obsessive-Compulsive and Related Disorders	<p>Describe the etiology, risk factors, and underlying neurobiological, psychological, and social factors contributing to Obsessive-Compulsive Disorder (OCD).</p> <p>Enumerate the diagnostic criteria of OCD according to ICD-11/DSM-5 TR.</p> <p>Identify the common clinical features and course of illness.</p> <p>Interpret the characteristic findings on mental state</p>

		<p>examination in OCD.</p> <p>Discuss the impact of OCD on daily functioning and quality of life.</p> <p>Outline the treatment options including pharmacological and psychological approaches.</p> <p>Define Body Dysmorphic Disorder (BDD)</p> <p>Differentiate from BDD from eating disorders</p> <p>Explain the clinical findings of a case of BDD based on mental state examination.</p> <p>Outline the management plan to treat BDD.</p>
M2-085	Dissociative and somatoform disorders (conversion disorder)	<p>Define and classify dissociative disorders</p> <p>Identify key clinical features of dissociative disorders</p> <p>Describe principles of management of dissociative disorders</p> <p>Define and classify somatoform disorders with emphasis on conversion disorder</p> <p>Identify key clinical features of conversion disorder</p> <p>Describe principles of management of conversion disorder</p>
M2-086	Trauma- and Stressor-Related Disorders	<p>Explain the characteristic mental state examination (MSE) findings in PTSD.</p> <p>Differentiate PTSD from acute stress disorder.</p> <p>Outline the management plan for PTSD.</p> <p>Define adjustment disorder.</p> <p>Identify the emotional and behavioral symptoms that occur within three months of an identifiable stressor.</p>
M2-087	Schizophrenia and Psychotic Disorders	<p>Define schizophrenia.</p> <p>Describe the positive and negative symptoms of schizophrenia.</p> <p>Outline the differential diagnosis of schizophrenia.</p> <p>Explain the characteristic mental state examination (MSE) findings in schizophrenia.</p> <p>Outline the management plan to treat a patient of schizophrenia.</p>
M2-088	Personality Disorders	<p>Define paranoid, schizoid, and schizotypal personality</p>

		<p>disorders.</p> <p>Describe the characteristic symptoms and behavioral patterns of each disorder.</p> <p>Interpret relevant findings on the mental state examination in these disorders.</p> <p>Differentiate Cluster A disorders from schizophrenia and delusional disorders.</p> <p>Outline the principles of management, including psychotherapy and pharmacotherapy where appropriate.</p> <p>Define antisocial, borderline, histrionic, and narcissistic, anxious avoidant, dependent, and obsessive compulsive personality disorders.</p> <p>Explain the clinical features and psychopathology of each disorder.</p> <p>Identify mental state examination findings typical of Cluster B and C personality disorders.</p> <p>Differentiate these disorders from mood disorders, substance use, and other psychiatric conditions.</p> <p>Summarize management strategies, including risk assessment, crisis intervention, and psychotherapy.</p>
M2-089	Substance related disorders	<p>Classify commonly abused substances (e.g., alcohol, opioids, cannabis, stimulants, sedatives, caffeine, nicotine).</p> <p>Describe the clinical features and diagnostic criteria of substance-related disorders.</p> <p>Identify signs and symptoms of intoxication and withdrawal for common substances.</p> <p>Explain the psychological, social, and medical complications associated with substance use.</p> <p>Outline the approach to assessment, including history, examination, and mental state examination.</p> <p>Explain the principles of management for substance use disorders.</p> <p>Discuss preventive strategies and the role of</p>

		<p>psychoeducation in reducing substance use.</p> <p>Manage the patients of acute and chronic alcoholism.</p>
M2-090	Eating disorders	<p>Describe the characteristic clinical features of anorexia nervosa.</p> <p>Differentiate anorexia nervosa from hyperthyroidism and depression.</p> <p>Explain the typical mental state examination findings.</p> <p>Outline the management plan to treat a patient diagnosed with anorexia nervosa.</p> <p>Diagnose bulimia nervosa on the basis of signs and symptoms and mental state examination findings.</p> <p>Describe the binge-purge cycle.</p> <p>Outline management strategies, including pharmacotherapy and psychotherapy.</p>
M2-091	Psychosexual disorders	<p>Define and classify psychosexual disorders</p> <p>Identify key clinical features of psychosexual disorders</p> <p>Describe principles of management of psychosexual disorders</p>
M2-092	Neurodevelopmental disorders	<p>Describe the clinical signs and symptoms in children and adolescents with Attention Deficit Hyperactivity Disorder (ADHD).</p> <p>Analyze mental state examination (MSE) findings in individuals with ADHD.</p> <p>Explain the etiological factors contributing to the development of ADHD.</p> <p>Differentiate ADHD from normal childhood behavior.</p> <p>Formulate a management plan to treat individuals with ADHD.</p> <p>Describe the clinical presentation of Autism Spectrum Disorder (ASD) in children.</p> <p>Identify early signs of ASD.</p> <p>Interpret behavioral observations relevant to diagnosis during assessment.</p> <p>Develop a basic management plan for children with Autism Spectrum Disorder incorporating early intervention and</p>

		multidisciplinary care.
<b>Clinical skills</b>		
M2-093	History taking	<p><b>Take</b> a detailed psychiatric history from patients with common psychiatric disorders. (Depressive disorder, bipolar affective disorder, schizophrenia, generalized anxiety disorder, panic disorder, obsessive-compulsive disorder (OCD), alcoholism, ADHD, autism, personality disorders, acute suicidal ideation/attempt, acute aggression or violent behavior)</p> <p><b>Apply</b> the non-pharmacological interventions in clinical settings (information care, breaking bad news, crisis intervention, disaster management, conflict resolution, progressive muscle relaxation &amp; breathing exercises, and informed consent).</p> <p><b>Provide</b> differential diagnosis based on history, MSE, and relevant investigations.</p> <p><b>Formulate</b> a preliminary diagnosis and outline management plan.</p>
M2-094	Mental state examination	<p><b>Perform</b> mental state examination (MSE), assessing appearance, behavior, speech, mood, thought, perception, cognition, insight, and judgment.</p> <p>Interpret findings of MSE in common psychiatric conditions.</p>
M2-095	Suicide risk assessment	<p><b>Conduct</b> suicide risk assessment.</p> <p><b>Propose</b> immediate management steps.</p>
M2-096	Aggression/violence risk assessment	<p><b>Identify and assess</b> risk of aggression or violence in psychiatric patients.</p> <p><b>Propose</b> immediate management steps.</p>
M2-097	Rapport building	<p><b>Establish</b> rapport with patients and their families in a respectful, non-judgmental manner.</p> <p><b>Demonstrate</b> empathetic listening and supportive communication in sensitive situations.</p> <p><b>Demonstrate</b> respect for patient autonomy and confidentiality</p>

		<p>in psychiatric practice.</p> <p><b>Apply</b> ethical principles in managing patients with impaired capacity or in involuntary treatment settings.</p>
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## INTERNAL ASSESSMENT

It shall constitute 20% of the total assessment at the end of the academic year.

	Scoring Parameter	Weightage (percentage)
<b>Theory 10 %</b>	Attendance	75% attendance -1 % >85% attendance -2 %
	Block Exam	5 %
	Continuous assessment	3 %
<b>Practical 10 %</b>	Attendance	75% attendance -1 % >85% attendance -2 %
	Block Exam	5 %
	Clinical logbooks	3 %

## FINAL YEAR MBBS TOS

MEDICINE CLERKSHIP						
Theory			Clinical skills			Total Marks
Paper 1 MCQs	100 Marks	200 Marks	OSCE	10 stations x 5 marks= 50 marks	200 Marks	<b>400 Marks</b>
			OSVE	02 Stations x 10 marks= 20 marks		
Paper 2 MCQs	100 Marks		Short case	02 Short case x 30 marks = 60 marks		
			Long case	01 Long case x 70 marks = 70 marks		
Internal assessment (10%) Theory		50 marks	Internal assessment (10%) Practical		50 marks	<b>100 Marks</b>
<b>Total=500 Marks</b>						
<p><b>Theory Examination</b> Paper 1 time duration will be 1hr 45mins. Paper 2 time duration will be 1hr 45mins.</p> <p><b>Clinical Examination</b> Time duration for each OSCE/OSVE station will be 06 minutes, short case will be 15 minutes and long case will be 30minutes.</p>						
SURGERY CLERKSHIP						
Theory			Clinical skills			Total Marks
Paper 1 MCQs	100 Marks	200 Marks	OSCE	10 stations x 5 marks= 50 marks	200 Marks	<b>400 Marks</b>
			OSVE	02 Stations x 10 marks= 20 marks		
Paper 2 MCQs	100 Marks		Short case	02 Short case x 30 marks = 60 marks		
			Long case	1 Long case x 70 marks = 70 marks		
Internal assessment (10%) Theory		50 marks	Internal assessment (10%) Practical		50 marks	<b>100 Marks</b>
<b>Total=500 Marks</b>						
<p><b>Theory Examination</b> Paper 1 time duration will be 1hr 45mins. Paper 2 time duration will be 1hr 45mins.</p> <p><b>Clinical Examination</b> Time duration for each OSCE/OSVE station will be 06 minutes, short case will be 15 minutes and long case will be 30minutes.</p>						

OBSTETRIC & GYNAECOLOGY CLERKSHIP						
Theory			Clinical skills			Total Marks
Obstetrics MCQs	60 Marks	120 Marks	OSCE	08 stations x 5 marks= 40 marks	120 Marks	<b>240 Marks</b>
			OSVE	02 Stations x 10 marks= 20 marks		
Gynaecology MCQs	60 Marks		Short case	2 Short case x 15 marks = 30 marks		
			Long case	1 Long case x 30 marks = 30 marks		
Internal assessment (10%) Theory		30 marks	Internal assessment (10%) Practical		30 marks	<b>60 Marks</b>
<b>Total=300 Marks</b>						
<p><b>Theory Examination</b> Obstetrics paper time duration will be 1hr 5min. Gynaecology paper time duration will be 1hr 5mins.</p> <p><b>Clinical Examination</b> Time duration for each OSCE/OSVE station will be 06 minutes, short case will be 15 minutes and long case will be 30minutes.</p>						
PAEDIATRICS CLERKSHIP						
Theory			Clinical skills			Total Marks
MCQs (80)	80 Marks		OSCE	08 stations x 5 marks= 40 marks	80 Marks	<b>160 Marks</b>
			OSVE	02 Stations x 5 marks= 10 marks		
			Short case	1 Short case x 10 marks = 10 marks		
			Long case	1 Long case x 20 marks = 20 marks		
Internal assessment (10%) Theory	20 Marks		Internal assessment (10%) Practical		20 Marks	<b>40 Marks</b>
<b>Total=200 Marks</b>						
<p><b>Theory Examination</b> Paper time duration will be 1hr 25min.</p> <p><b>Clinical Examination</b> Time duration for each OSCE/OSVE station will be 06 minutes, short case will be 10 minutes and long case will be 20minutes.</p>						
<b>GRAND TOTAL=1500 Marks</b>						