Study Guide

FINAL PROFESSIONAL MBBS

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STUDY GUIDE

MEDICINE

FINAL PROFESSIONAL MBBS

Pak Red Crescent Medical & Dental College

48-KM Multan Road, Lahore-Pakistan.

TITLE	**CARDIOVASCULAR SYSTEM**
INTRODUCTION	Medicine curriculum is designed to expose students to a combination of formal instruction and patient care experience. This will enable them to develop the knowledge, skills and attitude necessary to learn essential clinical competencies, which are cornerstone in becoming a competent and complete physician. MEDICAL KNOWLEDGE demonstrates knowledge of the principle of various diseases in Internal Medicine. The diseases will be covered with regards to their underlying causes, both medically and socially, along with diagnostic and treatment options available to physicians in different clinical settings.
TARGET STUDENTS	Final Year Students
DURATION	**8 weeks**
OUT COMES	**Clinical Skills** 1. Taking a comprehensive history 2. Perform complete physical exam 3. Formulate differential diagnosis and Management plan 4. Document clearly and proficiently 5. Demonstrate the best practices in communication with patients, families in a professional and competent manner. **Broad course outcome** Demonstrate knowledge, clinical and decision-making capabilities pertinent to the management of patients with medical problems
OBJECTIVES	The Final year student is required to attain sufficient knowledge as follows: **HYPERTENSION** At the end of learning period a student should be able to : 1. Correctly measure blood pressure 2. Define the stages of hypertension 3. Classify, and describe the causes of hypertension 4. List names and indications of antihypertensive medications 5. Manage hypertensive emergencies **CHEST PAIN, ANGINA, MYOCARDIAL INFARCTION** At the end of learning period a student should be able to : 1. Define Angina and Myocardial Infarction 2. Describe the characteristic features of ischemic pain 3. Describe the differential diagnosis of chest pain 4. Diagnose acute myocardial infarction on ECG 5. Describe the treatment of angina and MI **6.** Describe and Manage the complications of MI **CONGESTIVE CARDIAC FAILURE** At the end of learning period a student should be able to : 1. Discuss the pathophysiology and etiology of cardiac failure 2. Recognize signs and symptoms of cardiac failure 3. Identify cardiomegaly and pulmonary edema on x-ray 4. Discuss drugs in the treatment of cardiac failure. **CONGENITAL HEART DISEASES** At the end of learning period a student should be able to :

	1. Classify congenital heart diseases 2. Identify important clinical features 3. Describe the management of congenital heart diseases. **VALVULAR HEART DISEASE** At the end of learning period a student should be able to : 1. Classify Valvular Heart diseases 2. Discuss etiology of various valvular diseases 3. Identify and interpret common systolic and diastolic murmurs 4. Describe the management of valvular heart diseases. **INFECTIVE ENDOCARDITIS** At the end of learning period a student should be able to : 1. Describe the etiology of Infective endocarditis 2. Enumerate important clinical features of infective endocarditis 3. Discuss the treatment of Infective endocarditis 4. Prescribe drugs for prophylaxis from endocarditis **RHEUMATIC FEVER** At the end of learning period a student should be able to : 1. Define Rheumatic fever 2. Enumerate the features of Jones Criteria 3. Describe important clinical features 4. Describe management of rheumatic fever **CARDIAC ARRHYTHMIAS** At the end of learning period a student should be able to : 1. Identify important cardiac arrhythmias 2. Discuss the emergency treatment of important cardiac arrhythmias including CPR **CARDIOMYOPATHIES** At the end of learning period a student should be able to : 1. Discuss the pathophysiology and etiology of cardiomyopathies 2. Enumerate major types of cardiomyopathies 3. Explain signs and symptoms of cardiomyopathies 4. Discuss drugs in the treatment of cardiomyopathies **PERIPHERAL VASCULAR DISEASEs** At the end of learning period a student should be able to: 1. Define peripheral vascular disease 2. Identify clinical features of Peripheral Vascular Disease 3. Enumerate important diagnostic investigations 4. Describe the management of peripheral vascular diseases
ASSESSMENT TOOLS	Assessment of knowledge of Clinical Medicine is done through professional exams, MCQs, Short questions and OSCE. Viva also gives option for examiners to assess knowledge and competencies.

TITLE	**RESPIRATORY SYSTEM**
TARGET STUDENTS	Final Year Students
DURATION	**8 weeks**

OUT COMES	**Clinical Skills** 1. Taking a comprehensive history 2. Perform complete physical exam 3. Formulate differential diagnosis and Management plan 4. Document clearly and proficiently 5. Demonstrate the best practices in communication with patients, families in a professional and competent manner. **Broad course outcome** Demonstrate knowledge, clinical and decision-making capabilities pertinent to the management of patients with medical problems
OBJECTIVES	The Final year student is required to attain sufficient knowledge as follows: **PNEUMONIA, RESPIRATORY TRACT INFECTIONS** At the end of learning period a student should be able to : 1. Describe the etiology of respiratory tract infections and Pneumonia 2. Classify Pneumonias 3. Describe the clinical signs and symptoms 4. Discuss diagnostic investigations relevant to pneumonia 5. Discuss the management of pneumonia 6. Describe complications of Pneumonia **BRONCHIAL ASTHMA AND COPD** At the end of learning period a student should be able to : 1. Discuss etiology and pathophysiology of Asthma and COPD 2. List the signs and symptoms of Asthma and COPD 3. Discuss the investigations for bronchial asthma and COPD 4. Identify the complications of bronchial asthma and COPD 5. Discuss drugs used to treat asthma and COPD 6. Describe detailed management of COPD and Asthma 7. Discuss the emergency treatment of acute Asthma and COPD **PULMONARY AND EXTRA PULMONARY TUBERCULOSIS.** At the end of learning period a student should be able to : 1. Describe pathology and symptoms of tuberculosis 2. Identify radiological findings and other lab investigations 3. Describe treatment of tuberculosis 4. Describe important side effects of the drugs used in TB 5. Discuss drug resistant TB and its management 6. List the sites of common extra pulmonary tuberculosis **PLEURAL EFFUSION** At the end of learning period a student should be able to : 1. Discuss the causes of Pleural effusion 2. Describe the signs and symptoms of Pleural effusion 3. Describe important diagnostic investigations relevant to Pleural effusion 4. Differentiate exudative and transudative pleural effusion 5. Describe management of pleural effusion **BRONCHIECTASIS** At the end of learning period a student should be able to : 1. Discuss etiology and pathophysiology of Bronchiectasis 2. List the signs and symptoms of Bronchiectasis

	3. Discuss management of Bronchiectasis **PNEUMOTHORAX** At the end of learning period a student should be able to : 1. Describe etiology of Pneumothorax 2. Classify Pneumothorax 3. Identify signs and symptoms of pneumothorax 4. Discuss lab investigations relevant to pneumothorax 5. Describe acute management of Pneumothorax **INTERSTITIAL LUNG DISEASE** At the end of learning period a student should be able to : 1. Discuss etiology and pathophysiology of ILD 2. List the signs and symptoms of ILD 3. Discuss lab investigations relevant to ILD 4. Discuss drugs used to treat ILD **OCCUPATIONAL LUNG DISEASES** At the end of learning period a student should be able to : 1. Discuss etiology and pathophysiology 2. Describe clinical features 3. Describe important diagnostic investigations 4. Discuss management of Occupational Lung Diseases **RESPIRATORY FAILURE** At the end of learning period a student should be able to : 1. Enumerate the causes of acute and chronic respiratory failure 2. Describe the signs and symptoms 3. Describe important diagnostic investigations relevant to respiratory failure. 4. Discuss and interpret arterial blood gases 5. Describe management and ventilator support **PULMONARY THROMBOEMBOLISM** At the end of learning period a student should be able to : 1. Describe etiology and predisposing factors for pulmonary thromboembolism. 2. Identify important clinical features of pulmonary thromboembolism. 3. Enumerate lab investigations relevant to pulmonary thromboembolism 4. Describe management of Pulmonary thromboembolism **BROCHOGENIC CARCINOMA** At the end of learning period a student should be able to : 1. Describe common causes and risk factors for bronchogenic carcinoma. 2. Identify important clinical features of bronchogenic carcinoma. 3. Enumerate lab investigations relevant to bronchogenic carcinoma 4. Describe management of Bronchogenic Carcinoma
ASSESSMENT TOOLS	Assessment of knowledge of Clinical Medicine is done through professional exams, MCQs, Short questions and OSCE. Viva also gives option for examiners to assess knowledge and competencies.

TITLE	**ENDOCRINE SYSTEM**
TARGET STUDENTS	Final Year Students

DURATION	**8 weeks**
OUT COMES	**Clinical Skills** 1. Taking a comprehensive history 2. Perform complete physical exam 3. Formulate differential diagnosis and Management plan 4. Document clearly and proficiently 5. Demonstrate the best practices in communication with patients, families in a professional and competent manner. **Broad course outcome** Demonstrate knowledge, clinical and decision-making capabilities pertinent to the management of patients with medical problems
OBJECTIVES	The Final year student is required to attain sufficient knowledge as follows: **ANTERIOR PITUITARY DISORDERS** At the end of learning period a student should be able to : 1. Define acromegaly 2. Describe etiology and pathophysiology of acromegaly 3. Describe the signs and symptoms of acromegaly 4. Describe important diagnostic investigations relevant to acromegaly. 5. Describe management of acromegaly. **DISORDERS OF HYPOTHALMUS AND POSTERIOR PITUITARY** At the end of learning period a student should be able to: 1. Describe empty sella syndrome, diabetes insipidus and SIADH 2. Describe their common causes 3. Identify their important clinical features 4. Enumerate and interpret their lab investigations 5. Differentiate between diabetes mellitus and diabetes insipidus 6. Describe their management **THYROID DISORDERS** At the end of learning period a student should be able to : 1. Describe etiology and pathophysiology of hypo and hyperthyroidism 2. Classify hypo and hyperthyroidism 3. Identify signs and symptoms of hypo and hyperthyroidism 4. Enumerate diagnostic investigations 5. Describe management of hypo and hyperthyroidism **6.** Identify and manage complications of hypo and hyperthyroidism **PARATHYROID DISORDERS** At the end of learning period a student should be able to : 1. Describe etiology and pathophysiology of hypo and hyperparathyroidism 2. Identify signs and symptoms of hypo and hyperparathyroidism 3. Enumerate diagnostic investigations 4. Describe management of hypo and hyperparathyroidism **ADRENAL CORTEX DISORDERS** At the end of learning period a student should be able to : 1. Describe etiology and pathophysiology of Addison disease and Cushing syndrome 2. Identify signs and symptoms of Addison and Cushing syndrome

	3. Enumerate diagnostic investigations 4. Describe management of Addison and Cushing syndrome 5. Identify and manageAcute adrenal crisis **ALDOSTERONISM** At the end of learning period a student should be able to : 1. Classify aldosteronism. 2. Describe etiology of aldosteronism. 3. Discuss the differential diagnosis of aldosteronism. 4. Recognize signs and symptoms of hyperaldosteronism. 5. List diagnostic investigations relevant to hyperaldosteronism. 6. Describe management of aldosteronism. **PHEOCHRMOCYTOMA** At the end of learning period a student should be able to : 1. Describe etiology of Pheochromocytoma. 2. Discuss the differential diagnosis of Pheochromocytoma. 3. Recognize signs and symptoms of Pheochromocytoma. 4. Enumerate diagnostic investigations relevant to Pheochromocytoma. 5. Describe management of Pheochromocytoma. **TESTICULAR DISORDERS** At the end of learning period a student should be able to : 1. Define precocious puberty and testicular tumors 2. Describe their pathophysiology 3. Identify their common signs and symptoms 4. Describe relevant investigations 5. Describe common differential diagnosis 6. Describe their respective management **DIABETES: DIAGNOSIS AND MANAGEMENT** At the end of learning period a student should be able to : 1. Define and Classify Diabetes Mellitus 2. Identify signs and symptoms of Diabetes Mellitus 3. Describe diagnostic investigations 4. Classify the oral drugs used for the treatment of DM with their side effects 5. Describe the commonly used Insulin types 6. Describe management of diabetes mellitus **DIABETES: COMPLICATIONS** At the end of learning period a student should be able to : 1. Describe and identify the short term metabolic complications of DM 2. Describe and identify the long term microvascular and macrovascular complications of DM 3. Enumerate relevant investigations 4. Manage the complications
ASSESSMENT TOOLS	Assessment of knowledge of Clinical Medicine is done through professional exams, MCQs, Short questions and OSCE. Viva also gives option for examiners to assess knowledge and competencies.

TITLE	**INFECTIOUS DISEASES**

TARGET STUDENTS	Final Year Students
DURATION	**8 weeks**
OUT COMES	**Clinical Skills** 1. Taking a comprehensive history 2. Perform complete physical exam 3. Formulate differential diagnosis and Management plan 4. Document clearly and proficiently 5. Demonstrate the best practices in communication with patients, families in a professional and competent manner. **Broad course outcome** Demonstrate knowledge, clinical and decision-making capabilities pertinent to the management of patients with medical problems
OBJECTIVES	**ACUTE INFECTIOUS DIARRHOEA** At the end of learning period a student should be able to : 1. Describe various bacterial and viral causes of acute diarrhea. 2. Define the clinical presentation of diarrhea. 3. Make treatment plan including investigations. 4. Enumerate various complications of untreated diarrhea. **5.** List names and indications of drug therapy used in diarrhea. **MALARIA** At the end of learning period a student should be able to : 1. Define etiology and pathophysiology of malaria. 2. Describe the clinical signs and symptoms of malaria. 3. Describe the differential diagnosis of acute febrile illness. Diagnose malaria with the help of relevant examination and investigation. 4. Describe the drug therapy used in the treatment and prophylaxis of malaria. 5. Describe and manage the complications of malaria. **TYPHOID FEVER** At the end of learning period a student should be able to 1. Discuss the etiology and pathophysiology of typhoid/enteric fever. 2. Recognize signs and symptoms of typhoid fever. 3. Identify physical findings and make investigation plan. 4. Discuss various drugs in the treatment of typhoid fever. 5. Describe and manage various complication of typhoid fever. **PULMONARY TUBERCULOSIS** At the end of learning period a student should be able to : 1. Discuss the etiology and pathophysiology of pulmonary tuberculosis. 2. Recognize signs and symptoms of pulmonary tuberculosis. 3. Can pick up physical findings and relevant chest examination findings. 4. State investigation plan including chest X-ray and sputum analysis. 5. Discuss various drugs along with duration of treatment therapy with major side effects. 6. Describe and manage various complications of the disease. **RABIES** At the end of learning period a student should be able to : 1. Describe etiology and pathophysiology of rabies. 2. Enumerate important clinical features of this disease.

	3. Describe the pre and post exposure prophylaxis. 4. Discuss management of this disease. **TETNUS** At the end of learning period a student should be able to 1. Describe etiology and pathophysiology of tetanus. 2. Discuss differential diagnosis. 3. Enumerate important clinical features of this disease. 4. Describe the pre and post exposure prophylaxis. 5. Discuss management of this disease. **INFECTIOUS MONONUCLEOSIS** At the end of learning period a student should be able to : 1. Discuss the various causes of fever with rash. 2. Recognize signs and symptoms of infectious mononucleosis. 3. Discuss investigation and management plan **AIDS** At the end of learning period a student should be able to : 1. Define criteria of AIDS. 2. Describe the sign and symptoms of AIDS. 3. Diagnose with the help of relevant examination and investigation 4. Describe the groups of drugs used in the treatment. 5. Describe the various complications of AIDS. **LEPROSY** At the end of learning period a student should be able to : 1. Define etiology and pathophysiology and types of leprosy. 2. Describe the sign and symptoms of disease. 3. Diagnose with the help of relevant examination and investigation 4. Describe various drugs used in the treatment. **SYPHILIS/STDs** At the end of learning period a student should be able to : 1. Describe sexually transmitted diseases. 2. Enumerate various causes of sexually transmitted diseases. 3. Describe the sign and symptoms of disease. 4. Define different stages of syphilis 5. Diagnose syphilis and other STDs with the help of relevant examination and investigation 6. Describe various drugs used in the treatment and role of prevention. **SEPTIC SHOCK** At the end of learning period a student should be able to : 1. Define septicemia and septic shock. 2. Describe etiology and pathophysiology of sepsis. 3. Describe the clinical feature of disease. 4. Devise management plan including relevant investigation and treatment. **DENGUE FEVER** At the end of learning period a student should be able to :

	1. Define etiology and pathophysiology of dengue fever and dengue hemorrhagic shock syndrome. 2. Describe the clinical sign and symptoms of dengue fever. 3. Describe the differential diagnosis of acute febrile illness. 4. Diagnose dengue fever with the help of relevant examination and investigation. 5. Describe management plan.
ASSESSMENT TOOLS	Assessment of knowledge of Clinical Medicine is done through professional exams, MCQs, Short questions and OSCE. Viva also gives option for examiners to assess knowledge and competencies.

TITLE	**HEMATOLOGY**
TARGET STUDENTS	Final Year Students
DURATION	**8 weeks**
OUT COMES	**Clinical Skills** 1. Taking a comprehensive history 2. Perform complete physical exam 3. Formulate differential diagnosis and Management plan 4. Document clearly and proficiently 5. Demonstrate the best practices in communication with patients, families in a professional and competent manner. **Broad course outcome** Demonstrate knowledge, clinical and decision-making capabilities pertinent to the management of patients with medical problems
OBJECTIVES	**ANEMIAS** At the end of learning period a student should be able to : 1. Define anemia. 2. Classify different types of anemia. 3. Describe clinical signs and symptoms of anemia. 4. Interpret CBC and other relevant investigations to differentiate the type of anemia. 5. Describe treatment plan of individual type of anemia. **MYELOPROLIFERATIVE DISORDERS** At the end of learning period a student should be able to c: 1. Define myeloproliferative disorders. 2. Classify different types of myeloproliferative disorders. 3. Describe clinical signs and symptoms of myeloproliferative disorders. 4. List important investigations to diagnose and differentiate. 5. Describe different treatment option including role of bone marrow transplantation. **LYMPHOPROLIFERATIVE DISORDERS** At the end of learning period a student should be able to : 1. Define lymphoproliferative disorders. 2. Classify different types of lymphoproliferative disorders. 3. Describe clinical signs and symptoms of lymphoproliferative disorders. 4. List important investigations to diagnose and differentiate. 5. Describe different treatment option **DISORDERS OF HEMOSTASIS AND COAGULATION**

	At the end of learning period a student should be able to : 1. Define hemostasis and its component. 2. Differentiate between different types of hemostasis disorders. 3. Describe clinical signs and symptoms of individual disorder. 4. Formulate investigation and treatment plan of individual disorder. 5. Describe the role of anticoagulant and antithrombotic agents.
ASSESSMENT TOOLS	Assessment of knowledge of Clinical Medicine is done through professional exams, MCQs, Short questions and OSCE. Viva also gives option for examiners to assess knowledge and competencies.

TITLE	**CENTRAL NERVOUS SYSTEM**
TARGET STUDENTS	Final Year Students
DURATION	**8 weeks**
OUT COMES	**Clinical Skills** 1.Taking a comprehensive history 2.Perform complete physical exam 3. Formulate differential diagnosis and Management plan 4.Document clearly and proficiently 5.Demonstrate the best practices in communication with patients, families in a professional and competent manner. **Broad course outcome** Demonstrate knowledge, clinical and decision-making capabilities pertinent to the management of patients with medical problems
OBJECTIVES	The Final year student is required to attain sufficient knowledge as follows: **MENINGITIS** At the end of learning period a student should be able to : 1. Define meningitis. 2. List causes of meningitis. 3. Enumerate symptoms and signs of meningitis. 4. Make differential diagnosis of meningitis. 5. Diagnose and manage meningitis. **ENCAPHALITIS** At the end of learning period a student should be able to : 1.Define encephalitis. 2.List causes of encephalitis. 3.Enumerate symptoms and signs of encephalitis. 4.Make differential diagnosis of encephalitis. 5.Diagnose encephalitis. 6.Manage a case of encephalitis. **EPILEPSY AND OTHER CONVULSIVE DISORDERS** At the end of learning period a student should be able to : 1. Define epilepsy. 2. Classify epilepsy and other convulsive disorders. 3. Enumerate symptoms and signs of epilepsy. 4. Make differential diagnosis of epilepsy. 5. Diagnose epilepsy. 6. Manage epilepsy and status epilepticus. **ISCHEMIC STROKE**

At the end of learning period a student should be able to :

1. Define stroke.
2. Classify different types of stroke.
3. Identify clinical symptoms and signs of stroke.
4. Localize the site of lesion.
5. Diagnose and manage ischemic stroke and its complications.

HEMORRHAGIC STROKE.

At the end of learning period a student should be able to :

1. Define stroke.
2. Classify different types of stroke.
3. Identify clinical symptoms and signs of stroke.
4. Localize the site of lesion.
5. Diagnose and manage ischemic stroke and its complications.

DEMENTIA AND ALZHEIMER'S DISEASE

At the end of learning period a student should be able to :

1. Enumerate clinical symptoms and signs of dementia and Alzheimer's disease.
2. Diagnose a patient of dementia and Alzheimer's disease.
3. Manage dementia and Alzheimer's disease.
4. Describe prognosis and future therapies.

MOTOR NEURON DISEASE

At the end of learning period a student should be able to :

1. Discuss the pathophysiology and etiology of motor neuron disease.
2. Enumerate major types of motor neuron disease.
3. Recognize signs and symptoms of motor neuron disease.
4. Manage the patient of motor neuron disease.

MULTIPLE SCLEROSIS

At the end of learning period a student should be able to :

1. Define multiple sclerosis.
2. Enumerate symptoms and signs of encephalitis.
3. **Enlist**differential diagnosis of multiple sclerosis.
4. Diagnose multiple sclerosis.
5. Manage a case of multiple sclerosis.

SYRINGOMYELIA AND SACD

At the end of learning period a student should be able to :

1. Enumerate symptoms and signs of syringomyelia and SACD.
2. Enlist differential diagnosis of syringomyelia and SACD.
3. Diagnose and manage a case of syringomyelia and SACD.

SPINAL CORD COMPRESSION AND PARAPLEGIA

At the end of learning period a student should be able to :

1. List the causes of spinal cord compression and paraplegia.
2. Enumerate symptoms and signs of spinal cord compression and paraplegia.
3. Enlist differential diagnosis of encephalitis.
4. Diagnose and manage spinal cord compression and paraplegia.
5. Manage its complications.

	HEADACHE At the end of learning period a student should be able to : **1.** Define headache. **2.** Classify different types of headache. **3.** Enumerate symptoms and signs of different types of headache. **4.** Diagnose headache type. **5.** Manage a case of headache. **GUILLAIN BARRE SYNDROME** At the end of learning period a student can: 1. Identify symptoms and signs of GuillainBarre Syndrome. 2. Make differential diagnosis of GuillainBarre Syndrome 3. Diagnose GuillainBarre Syndrome. 4. Manage GuillainBarre Syndrome. **BRAIN ABSCESS/SPACE OCCUPYING LESIONS** At the end of learning period a student can: 1. Classify different types of space occupying lesions of brain. 2. Identify clinical symptoms and signs of stroke. 3. Differentiate the different types of brain abscess and space occupying lesions. 4. Manage brain abscess and other space occupying lesions. **BRAIN TUMOR** At the end of learning period a student should be able to : 1. Classify different types of brain tumors. 2. Identify clinical symptoms and signs of stroke. 3. Differentiate the different types of brain tumors. 4. Treat of different types of brain tumors and explain their prognosis. **MYESTHENIA GRAVIS** At the end of learning period a student should be able to : 1. Define myasthenia gravis. 2. Enumerate symptoms and signs of myasthenia gravis. 3. Enlistdifferential diagnosis of myasthenia gravis. 4. List investigations which are required to diagnose myasthenia gravis. 5. Manage a case of encephalitis.
ASSESSMENT TOOLS	Assessment of knowledge of Clinical Medicine is done through professional exams, MCQs, Short questions and OSCE. Viva also gives option for examiners to assess knowledge and competencies.

TITLE	**GASTROINTESTINAL SYESTEM**
TARGET STUDENTS	Final Year Students
DURATION	**8 weeks**
OUT COMES	**Clinical Skills** 1. Taking a comprehensive history 2. Perform complete physical exam 3. Formulate differential diagnosis and Management plan 4. Document clearly and proficiently 5. Demonstrate the best practices in communication with patients, families in a professional and competent manner.

	Broad course outcome Demonstrate knowledge, clinical and decision-making capabilities pertinent to the management of patients with medical problems
OBJECTIVES	**GASTROESOPHAGEAL REFLUX DISEASE** At the end of learning period a student should be able to : 1. Describe etiology of gastroesophageal reflux disease. 2. Diagnose a case of gastroesophageal reflux disease. 3. Manage patients with gastroesophageal reflux disease. 4. Enlist complications of long standing gastroesophageal reflux disease. **PEPTIC ULCER DISEASE** At the end of learning period a student should be able to : 1. Discuss etiology and pathophysiology of peptic ulcer. 2. List the signs and symptoms of peptic ulcer. 3. Discuss drugs used to treat peptic ulcer. 4. Describe detailed management of peptic ulcer. 5. Discuss the complications of peptic ulcer disease. **ACUTE GASTROENTERITIS** At the end of learning period a student should be able to : 1. Define acute gastroenteritis. 2. Describe etiology of acute gastroeneteritis. 3. Enlist investigations for acute gastroeneteritis. 4. Manage the patient with acute gastroeneteritis. **CHRONIC DIARRHEA DIFFERENTIAL DIAGNOSIS** At the end of learning period a student should be able to : 1. Define chronic diarrhea. 2. Differentiate and classify chronic diarrhea **CELIAC DISESASE** At the end of learning period a student should be able to : 1. Define celiac disease. 2. Discuss etiology and pathophysiology of celiac disease. 3. Describe the signs and symptoms of celiac disease. 4. Investigate and diagnose celiac disease. 5. Manage the case of celiac disease. **INFLAMMATORY BOWEL DISEASE** At the end of learning period a student should be able to : 1. Define inflammatory bowel disease. 2. Differentiate between ulcerative colitis and chrohns' disease. 3. Identify signs and symptoms of pneumothorax 4. Describe management of Pneumothorax **I** **RRITABLE BOWEL SYNDROME** At the end of learning period a student should be able to 1. Define irritable bowel syndrome 2. Discuss etiology and pathophysiology of IBS 3. List the signs and symptoms of IBS 4. Diagnose patient with IBS.

	5. Treat IBS. **GASTROINTESTINAL BLEEDING** At the end of this lecture a student should be able to : 1. Define gastrointestinal bleeding. 2. Enlist etiology of gastrointestinal bleeding 3. Describe signs and symptoms of gastrointestinal bleeding. 4. Differentiate between upper and lower gastrointestinal bleeding. 5. Investigate a patient with gastrointestinal bleeding. 6. Treat patients with gastrointestinal bleeding.
ASSESSMENT TOOLS	Monthly tests: SEQs and MCQs Clinical Rotation: Short case, Long case and OSPE. Midterm test: SEQs and MCQs Sent up Examination: Written and clinical examination.

TITLE	**HEPATOLOGY**
TARGET STUDENTS	Final Year Students
DURATION	**8 weeks**
OUT COMES	**Clinical Skills** 1. Taking a comprehensive history 2. Perform complete physical exam 3. Formulate differential diagnosis and Management plan 4. Document clearly and proficiently 5. Demonstrate the best practices in communication with patients, families in a professional and competent manner. **Broad course outcome** Demonstrate knowledge, clinical and decision-making capabilities pertinent to the management of patients with medical problems
OBJECTIVES	The Final year student is required to attain sufficient knowledge as follows: **LFTs INTERPRETATION** At the end of learning period a student should be able to : 1. Interpret liver function tests. 2. Enlist causes of abnormal LFTs. **APPROACH TO JAUNDICE** At the end of learning period a student should be able to : 1. Define jaundice. 2. Enlist the causes of jaundice. 3. Identify signs and symptoms of a patient with jaundice. 4. Manage a patient with jaundice. **ACUTE HEPATITIS** At the end of learning period a student should be able to : 1. Define hepatitis and acute hepatitis. 2. Enlist causes of acute hepatitis. 3. Identify signs and symptoms of acute hepatitis. 4. Investigate a patient of acute hepatitis. 5. Manage Acute hepatitis. **CHRONIC HEPATITIS B**

	At the end of learning period a student should be able to : 1. Define chronic hepatitis. 2. Identify the risk factors for chronic hepatitis B. 3. Identify signs and symptoms of chronic hepatitis B. 4. Manage a case of chronic hepatitis B. 5. Describe complications of chronic hepatitis B. **CHRONIC HEPATITIS B** At the end of learning period a student should be able to : 1. Define chronic hepatitis. 2. Identify the risk factors for chronic hepatitis C. 3. Discuss signs and symptoms of chronic hepatitis C. 4. Manage a case of chronic hepatitis C. 5. Describe complications of chronic hepatitis C **CIRRHOSIS OF LIVER** At the end of learning period a student should be able to : 1. Describe etiology of liver cirrhosis. 2. Identify signs and symptoms of liver cirrhosis 3. Investigate a patient of liver cirrhosis. 4. Diagnose and manage different complications of liver cirrhosis. **ASCITES** At the end of learning period a student should be able to : 1. Define and Classify ascites. 2. Identify signs and symptoms of ascites. 3. Investigate the patient of ascites. 4. Manage ascites. 5. Diagnose and manage spontaneous bacterial peritonitis. **HEPATIC ENCAPHALOPATHY** At the end of learning period a student should be able to : 1. Define hepatic encephalopathy. 2. Describe the pathophysiology of hepatic encephalopathy. 3. Enlist the signs and symptoms of hepatic encephalopathy. 4. Diagnose the case of hepatic encephalopathy. 5. Treat a patient of hepatic encephalopathy. **CARCINOMA LIVER AND LIVER TRANSPLANT** At the end of learning period a student should be able to : 1. Diagnose a case of hepatocellular carcinoma. 2. Describe staging of hepatocellular carcinoma. 3. Manage the patient of hepatocellular carcinoma. 4. Enlist the indications for liver transplant. **ACUTE AND CHRONIC PANCREATITIS** At the end of this learning period a student should be able to : 1. Define acute and chronic pancreatitis. 2. Describe the etiology of acute and chronic pancreatitis. 3. Identify the signs and symptoms of acute and chronic pancreatitis. 4. Investigate a patient of acute and chronic pancreatitis.

	5. Manage the case of acute and chronic pancreatitis and its complications. **LIVER ABSCESS** At the end of learning period a student should be able to : 1. Describe the pathophysiology of liver abscess. 2. Enlist the signs and symptoms of liver abscess. 3. Diagnose the case of liver abscess. 4. Treat a patient of liver abscess.
ASSESSMENT TOOLS	Monthly tests: SEQs and MCQs Clinical Rotation: Short case, Long case and OSPE. Midterm test: SEQs and MCQs Sent up Examination: Written and clinical examination.

TITLE	**METABOLISM**
TARGET STUDENTS	Final Year Students
DURATION	**8 weeks**
OUT COMES	**Clinical Skills** 1. Taking a comprehensive history 2. Perform complete physical exam 3. Formulate differential diagnosis and Management plan 4. Document clearly and proficiently 5. Demonstrate the best practices in communication with patients, families in a professional and competent manner. **Broad course outcome** Demonstrate knowledge, clinical and decision-making capabilities pertinent to the management of patients with medical problems
OBJECTIVES	**HEMOCHROMATOSIS** At the end of learning period a student should be able to : 1. Describe the pathophysiology of hemochromatosis. 2. Identify signs and symptoms of hemochromatosis. 3. Investigate the patient of hemochromatosis. 4. Manage a case of hemochromatosis. **WILSON'S DISEASE** At the end of learning period a student should be able to : 1. Describe the pathophysiology of Wilson's disease. 2. Identify signs and symptoms of Wilson's disease. 3. Investigate the patient of Wilson's disease. 4. Manage a case of hemochromatosis. **5.** Enlist the complications of Wilson's disease. **GOUT** At the end of learning period a student should be able to : 1. Define gout. 2. Describe the pathophysiology of gout. 3. Identify signs and symptoms of gout. 4. Investigate the patient of gout. 5. Manage a case of gout.
ASSESSMENT TOOLS	Monthly tests: SEQs and MCQs Clinical Rotation: Short case, Long case and OSPE. Midterm test: SEQs and MCQs

	Sent up Examination: Written and clinical examination.

TITLE	**RHEUMATOLOGY**
TARGET STUDENTS	Final Year Students
DURATION	**8 weeks**
OUT COMES	**Clinical Skills** 1. Taking a comprehensive history 2. Perform complete physical exam 3. Formulate differential diagnosis and Management plan 4. Document clearly and proficiently 5. Demonstrate the best practices in communication with patients, families in a professional and competent manner. **Broad course outcome** Demonstrate knowledge, clinical and decision-making capabilities pertinent to the management of patients with medical problems
OBJECTIVES	**RHEUMATOID ARTHRITIS** At the end of the learning period a student should be able to : 1. Describe the diagnostic criteria. 2. Discuss the basic etiology. 3. Describe the main clinical features & differential diagnosis 4. Outline the deformities. 5. Enlist the main investigations required for the confirmation of diagnosis. 6. Outline the treatment goals and describe the various group of drugs. **ANKYLOSING SPONDYLITIS** At the end of the learning period a student should be able to : 1. Classify sero-negative Arthro-pathies 2. Describe the clinical features of ankylosing spondylitis 3. Enlist the investigations required for the confirmation. 4. Outline the treatment plan. **SYSTEMIC LUPUS ERYTHEMATOSUS** At the end of learning period a student should be able to : 1. Describe the etiology of SLE 2. Discuss the diagnostic criteria of SLE 3. Describe the main clinical features of SLE & differential diagnosis 4. Enlist the investigations required to confirm the diagnosis. 5. Describe the treatment options which can be offered **SCLERODERMA** At the end of the learning period a student should be able to : 1. Understand the Raynaud's phenomenon 2. Classify the disease 3. Describe the clinical features of both subtypes 4. Enlist the main investigations required. 5. Outline the management 6. Discuss the complications. **MCTDs/ SJOGRENS SYNDROME/ BEHCHET'S** At the end of learning period student should be able to : 1. Describe the clinical features

	2. Describe the etiology 3. Enlist main investigations 4. Outline the treatment options 5. Enlist the complications. **VASCULITIS** At the end of learning period a student should be able to : 1. Classify the varieties of vasculitis& enlist the underlying etiologies 2. Describe the clinical features of different varieties 3. Enlist the investigations 4. Describe the complications 5. Outline the management **MYESTHENIA GRAVIS** At the end of learning period a student should be able to : 1. Describe the Etiology 2. Outline the clinical features & Differential diagnosis 3. Enlist the complications 4. Enlist the investigations 5. Devise the management plan **SARCOIDOSIS** At the end of learning period a student should be able to : 1. Describe the clinical features 2. Enlist the investigations for confirmation 3. Describe the complications 4. Outline the treatment plan **DERMATOMYOSITIS & POLY MYOSITIS** At the end of learning period a student should be able to : 1. Describe the etiology & clinical features 2. Enlistdifferential diagnosis 3. Enumerate the investigations 4. Describe the complications Outline the management
ASSESSMENT TOOLS	Assessment of knowledge of Clinical Medicine is done through professional exams, MCQs, Short questions and OSCE. Viva also gives option for examiners to assess knowledge and competencies.

TITLE	**KIDNEY/ ELECTROLYTE/ ACID BASE DISORDERS**
TARGET STUDENTS	Final Year Students
DURATION	**8 weeks**
OUT COMES	**Clinical Skills** 1. Taking a comprehensive history 2. Perform complete physical exam 3. Formulate differential diagnosis and Management plan 4. Document clearly and proficiently 5. Demonstrate the best practices in communication with patients, families in a professional and competent manner. **Broad course outcome** Demonstrate knowledge, clinical and decision-making capabilities pertinent to the

	management of patients with medical problems
OBJECTIVES	**ACUTE RENAL FAILURE** At the end of learning period a student should be able to : 1. Define the acute kidney injury 2. Discuss the classification 3. Describe the main pathophysiology of classification 4. Describe the clinical features 5. Enlist the primary investigations 6. Outline the initial management and referral indications. **CHRONIC RENAL FAILURE** At the end of learning period a student should be able to : 1. Define chronic renal failure 2. Discuss the etiology 3. Describe the main clinical features of the disease and complications 4. Enlist the main investigations required for the diagnosis of the disease and its systemic complications. 5. Describe the medical management. **RENAL REPLACEMENT THERAPY** At the end of the learning period a student should be able to : 1. Describe the indications 2. Discuss the various types of RRT 3. Describe briefly main mechanism of dialysis **NEPHROTIC SYNDROME** At the end of learning period a student should be able to : 1. Describe the features of Nephrotic Syndrome 2. Classify the varieties of Nephrotic Syndrome 3. Enlist the important investigations required for the diagnosis 4. Discuss the complications of Nephrotic Syndrome 5. Outline the management plan **NEPHRITIC SYNDROME/ IgA NEPHROPATHY/ ANALGESIC NEPHROPATHY** At the end of learning period a student should be able to : 1. Describe the features of nephritic syndrome 2. Classify the Nephritic syndrome 3. Outline the sign and symptoms of different varieties (IgA Nephropathy/ Analgesic Nephropathy) 4. Enlist the investigations for different varieties 5. Outline the management plan **URINARY TRACT INFECTION** At the end of learning period a student should be able to : 1. Describe the etiology 2. Describe the clinical features of upper and lower tract infection 3. Differentiate between complicated and uncomplicated UTI 4. Enlist the investigations 5. Outline the empirical treatment **INTERSTITIAL NEPHRITIS**

	At the end of learning period a student should be able to : 1. Discuss the etiology 2. Describe the clinical features 3. Enlist the important investigations 4. Outline the management **POLYCYSTIC KIDNEY** At the end of the learning period a student should be able to : 1. Describe the etiology 2. Describe the clinical features and criteria for diagnosis 3. Discuss the complications 4. Enlist the investigations for the diagnosis and confirmation of complications 5. Outline the treatment. **RENAL ARTERY STENOSIS** At the end of learning process a student should be able to : 1. Enlist the causes of RAS 2. Describe the clinical findings 3. Enlist the investigations 4. Discuss the medical and surgical management. **HEMOLYTIC UREMIC SYNDROME/THROMBOTIC THROMBOCYTOPENIC PURPURA** At the end of learning period a student should be able to : 1. Describe the etiology of both angiopathies 2. Enumerate the clinical features 3. Enlist the investigations for confirmation 4. Outline the treatment plan **HYPONATREMIA/ SIADH** At the end of learning period a student should be able to : 1. Describe the Varieties of Hyponatremia 2. Outline the causes of Syndrome of Inappropriate ADH (SIADH) 3. Enumerate the signs and symptoms of hyponatremia 4. Enlist the investigations 5. Outline the Treatment **HYPERNATREMIA** At the end of learning period a student should be able to : 1. Discuss the etiology 2. Enumerate the signs and symptoms of hypernatremia 3. Enlist the investigations 4. Outline the Treatment **HYPOKALEMIA** At the end of learning period a student should be able to : 1. Describe the causes of hypokalemia 2. Enumerate the signs and symptoms 3. Discuss the complications 4. Enlist the investigations for confirmation of diagnosis 5. Outline the treatment

	HYPERKALEMIA At the end of learning period a student should be able to : 1. Enlist the causes of hyperkalemia 2. Enumerate the signs and symptoms 3. Discuss the complications 4. Enlist the investigations for confirmation of diagnosis 5. Outline the treatment **METABOLIC ACIDOSIS/ALKALOSIS** At the end of learning period a student should be able to : 1. Classify the metabolic acidosis 2. Classify the metabolic alkalosis 3. Outline the underlying etiology of metabolic acidosis / metabolic alkalosis 4. Enumerate the signs and symptoms 5. Enlist the important investigations & recognize ABGs 6. Outline the treatment **RESPIRATORY ACIDOSIS/ALKALOSIS** At the end of learning period a student should be able to : 1. Describe the causes of respiratory acidosis and alkalosis 2. Enumerate the signs and symptoms of both varieties 3. Enlist the important investigations 4. Outline the treatment
ASSESSMENT TOOLS	Assessment of knowledge of Clinical Medicine is done through professional exams, MCQs, Short questions and OSCE. Viva also gives option for examiners to assess knowledge and competencies.

TITLE	**PSYCHIATRY**
Introduction	It is now realized that training of psychiatry to undergraduate medical students is very vital. Knowledge of psychiatry, mental health, and behavioral sciences equips the students to deal with various difficult and complex situations during medical practice. This will in turn help them to develop proper communication skills and to empathize with their patients and their suffering. It instils humanistic values in them, further empowering them to establish and maintain fruitful professional relationships with their patients. Moreover, since psychiatric problems are common among patients seen in general practice (about 25%) and specialty clinics (about 15%), a proper training in psychiatry during the course makes the student a better doctor.
TARGET STUDENTS	4th Year & Final Year Students
DURATION	**8 weeks**
OUT COMES	Psychiatric disorders are even more frequent among patients attending general practice. Therefore, all future doctors must know about these psychiatric problems, not only because they are common but also because their management involves much medical time and resources and gives rise to many serious incidents. This course will enable a medical graduate to identify and treat common psychiatric disorders therefore decreasing the burden of disease not only from patient but also from community, by providing comprehensive care to the patient with psychiatric illness as well as psychological problems co-morbid with general medical conditions.

OBJECTIVES	A medical student on graduation should be able to deliver mental health services at primary care level and listed the following main objectives. 1. Able to identify signs and symptoms of common psychiatric illnesses 2. Able to identify developmental delays including cognitive delays 3. Able to understand the nature and development of normal human behavior 4. Able to appreciate the interplay between psychological and physical factors in medical presentations 5. Aware of common psychopharmacological interventions in clinical practice of psychiatry 6. Able to apply basic counselling skills and comfort in discussing common psychiatric issues with the patient or the relative 7. Aware of statutory and educational provisions with regard to psychiatric illnesses and disability 8. Able to develop helpful and humane attitude toward psychological, psychiatric, and behavioral difficulties 9. Able to deliver mental health services at primary care level
COURSE CONTENT	Common psychiatric disorders • Mood disorders • Anxiety disorders • Somatoform disorders • Schizophrenia and other psychotic disorders • Stress and related disorders • Substance use disorders • Neurodevelopmental disorders • Neurocognitive disorders • Personality disorders • Sexual dysfunction, gender dysphoria and paraphilic disorder.

COURSE OUTLINE	**ANXIETY DISORDERS**
	• Generalized anxiety disorders
	• Phobic anxiety disorders
	• Panic disorders
	• Agoraphobia
	• Separation anxiety disorder
	• Mixed anxiety and depressive disorders
	• Obsessive compulsive disorders
	
	STRESS RELATED DISORDERS
	• Dissociative disorders
	• Adjustment disorders
	• Acute and chronic stress disorder
	• Acute stress reaction
	• Grief reaction
	• Factitious disorder
	
	MOOD DISORDERS
	• Bipolar affective disorders
	  • Bipolar 1 disorder (mania)
	  • Bipolar 2 disorder (hypomania)
	  • Cyclothymic disorder

	• Depression
	  ◦ Major depressive disorder
	  ◦ Dysthymia
	  ◦ Premenstrual dysphoric disorder
	• Persistent mood disorder
	
	SCHIZOPHRENIA SPECTRUM AND OTHER PSYCHOTIC DISORDERS
	• Schizophrenia
	• Schizophreniform disorder
	• Brief psychotic disorder
	• Delusional disorder
	• Schizoaffective disorder
	• Catatonia
	
	SUBSTANCE ABUSE AND RELATED DISORDERS
	• Alcohol related disorders
	• Opioids
	• Anxiolytics and hypnotics
	• Cannabis
	• Stimulants, solvents, inhalant
	
	NEURODEVELOPMENTAL & NEUROCOGNITIVE DISORDERS
	• Intellectual disability
	• Delirium
	• Dementia
	▪ Alzheimers dementia
	▪ Vascular dementia
	▪ Lewy body dementia
	▪ Dementia due to Parkinsons disease, HIV, prion disease, Huntingtons disease
	
	PERSONALITY DISORDERS
	• Cluster A personality disorders
	  ▪ Paranoid
	  ▪ Schizoid
	  ▪ Schizotypal
	• Cluster B personality disorders
	  ▪ Antisocial
	  ▪ Borderline
	  ▪ Histrionic
	  ▪ Narcissistic
	• Cluster C personality disorders
	  ▪ Avoidant
	  ▪ Dependant
	  ▪ Obsessive compulsive

CLINICAL SKILLS	1. Communication skills 2. Counselling 3. Informational care (IC) 4. Handling difficult patients and their families 5. Breaking bad news 6. Crisis intervention

	7. Conflict resolution 8. Empathy 9. Sleep hygiene 10. OPD assessment of dementia, depression, mania, anxiety disorders, obsessive compulsive disorder etc.
ASSESSMENT TOOLS	Monthly tests: SEQs and MCQs Clinical Rotation: Short case, Long case and OSPE. Midterm test: SEQs and MCQs Sent up Examination: Written and clinical examination.

TITLE	**Dermatology**
Introduction	Dermatology curriculum is designed to expose students to a combination of formal instruction and patient care experience. This will enable them to develop the knowledge, skills and attitude necessary to learn essential clinical competencies, which are cornerstone in becoming a competent and complete physician.
TARGET STUDENTS	Final year students
DURATION	**8 weeks**
OUT COMES	• Taking a comprehensive history • Perform cutaneous and relevant physical examination • Formulate differential diagnosis and management plan • Document clearly and proficiently • Demonstrate the best practices in communication with patients, families in a professional and competent manner.
OBJECTIVES	The final year student is required to attain sufficient knowledge for diagnosis and treatment of following skin diseases **Anatomy and physiology of skin** Know about functions of skin and types of cells etc. **Psoriasis** Should know definition • Know about all types • Pathophysiology, clinical presentation of every type and treatment. **Lichen planus** Should know definition, • Know about all types, • Its pathophysiology, clinical presentation of all types and treatment. **Infestations like scabies** Know about types, • Clinical presentations and treatment. **Vitiligo** Must know definition, • All its types, • Its pathophysiology, • Clinical presentation and treatment.

	Eczema Know about definition, • All types of eczemas, • Pathophysiology, • Their clinical presentations and treatment. **Sexually Transmitted Diseases** Should know about definition, • All types of stds, • Pathophysiology, • Their clinical presentations and treatment. **Collagen vascular diseases like SLE, dermatomyositis, systemic sclerosis etc**. Should know about its types, • Clinical presentation of every disease included under this heading and treatment accordingly. **Inherited disorders of keratinization like ichthyosis** Know about definition, • Types and pathophysiology, • Their clinical presentations and treatment. **Genetic blistering disorders like epidermolysisbullosa** Should know about types, • Pathophysiology and clinical presentation • Proper management. **Immunobullous disorders like pemphigus and pemphigoid** Should know about types, • Their pathophysiology, • Clinical presentations and treatment. **Disorders of hair and nails** Know about types, • Their clinical presentations and treatment. **Skin Infections including bacterial, fungal and viral** Should know about types, • Clinical presentations and treatment accordingly. **Urticaria** Should know definition, • Types of urticaria, • Its pathophysiology, • Clinical presentation and treatment. **Cutaneous vasculitis** Know about types, • Their pathophysiology, • Clinical presentation and treatment.

	Cutaneous manifestations of diabetes, chronic liver and renal diseases Should know about • Pathophysiology • Clinical presentation and treatment.

Learning Resource **Medicine**	• **Practice of Medicine by Davidson.** • **Clinical Medicine by Parveen J Kumar &Michaell, Clark** • **Hutchison's Clinical Methods by Michael Swash. 21st edition** • **Basic psychiatry by MyreSim, e. B. Gordon** • **Oxford Text Book of Psychiatry** • **ABC of Dermatology. Latest Edition.** • **Smith's General Urology by Emil A. Tanagho and Jack W. McAninch 15th edition. 2007** • **Online Journals and Reading Materials through HEC Digital Library Facility**

STUDY GUIDE

SURGERY

FINAL PROFESSIONAL MBBS

Pak Red Crescent Medical & Dental College

48-KM Multan Road, Lahore-Pakistan.

TITLE	Surgery
INTRODUCTION	Surgery curriculum is designed to expose students to a combination of formal instruction and patient care experience. This will enable them to develop the knowledge, skills and attitude necessary to learn essential clinical competencies, which are cornerstone in becoming a competent and complete clinician. SURGICAL KNOWLEDGE: Demonstrate knowledge of the principle of Various diseases in Surgery. The diseases will be covered with regards to their underlying causes, both medically and socially, along with diagnostic and treatment options available to clinicians in different clinical settings.
TARGET STUDENTS	Final year MBBS
OUT COMES	**Clinical Skills** 1. Taking a comprehensive history 2. Perform complete physical exam 3. Formulate differential diagnosis and Management plan 4. Document clearly and proficiently 5. Demonstrate the best practices in communication with patients, families in a professional and competent manner. **Broad course outcome** Demonstrate knowledge, clinical and decision-making capabilities pertinent to the management of patients with surgical problems
ASSESSMENT TOOLS	Knowledge of students is assessed by MCQS, SEQs , VIVA and OCSE

TITLE	**Metabolic Response to injury**
TARGET STUDENTS	Final year MBBS
DURATION	3 Lectures
OBJECTIVES	The Final year student is required to attain sufficient knowledge as follows: **To understand:** 1. Classical concepts of homeostasis 2. Mediators of the metabolic response to injury 3. Physiological and biochemical changes that occur during injury and recovery

	4. Changes in body composition that accompany surgical injury 5. Avoidable factors that compound the metabolic response to injury 6. Concepts behind optimal perioperative care
ASSESSMENT TOOLS	Knowledge of students is assessed by MCQS, SEQs , VIVA and OCSE

TITLE	**Shock & Blood transfusion**
INTRODUCTION	Final year MBBS
TARGET STUDENTS	Final year MBBS
DURATION	4 Lectures
OBJECTIVES	1. The pathophysiology of shock and ischemia- reperfusion injury 2. The different patterns of shock and the principles and priorities of resuscitation 3. Appropriate monitoring and end points of resuscitation 4. Use of blood and blood products, the benefits and risks of blood transfusion

TITLE	**Wounds, Tissue Repair and Scars**
TARGET STUDENTS	Final year MBBS
DURATION	5 Lectures
OBJECTIVES	Normal healing and how it can be adversely affected How to manage wounds of different types, of different structures and at different Sites Aspects of disordered healing that lead to chronic wounds The variety of scars and their treatment
ASSESSMENT TOOLS	Knowledge of students is assessed by MCQS, SEQs , VIVA and OCSE

TITLE	**Basic Surgical Skills and anastomoses**
TARGET STUDENTS	Final year MBBS
DURATION	2 weeks
OBJECTIVES	**To understand** 1. The principles of skin and abdominal incisions 2. The principles of wound closure 3. The principles in performing Bowel anastomoses 4. The principles in performing Vascular anastomoses 5. The principles of drain usage 6. The principles of diathermy, ligasure and harmonic scalpel
ASSESSMENT TOOLS	Knowledge of students is assessed by MCQS, SEQs , VIVA and OCSE

TITLE	**Surgical Infections**
TARGET STUDENTS	Final year MBBS
DURATION	1 Lecture
OBJECTIVES	**To know and understand:** 1. The defination's of infection, particularly at surgical sites 2. The factors that determine whether a wound will become infected 3. The classification of sources of infection and their severity 4. The indications for and choice of prophylactic antibiotics 5. The characteristics of the common surgical pathogens and their sensitivities 6. The spectrum of commonly used antibiotics in surgery and the principles of therapy 7. The misuse of antibiotic therapy with the risk of resistance (such as methicillin—resistant Staphylococcus aureus (MRSA)) and emergence (such as Clostridium difficile enteritis 8. KOCh'S postulates & The management of abscesses 9. The importance of aseptic and antiseptic techniques and delayed primary or secondary closure in contaminated wounds 10. The causes of reduced resistance to infection (host response) 11. Basic precautions to take to avoid surgically relevant health care-associated infections
ASSESSMENT TOOLS	Knowledge of students is assessed by MCQS, SEQs , VIVA and OCSE

TITLE	**Surgery in the Tropics**
TARGET STUDENTS	Final Year MBBS
DURATION	2 weeks
OBJECTIVES	**To understand:** 1. The common surgical conditions that occur in the tropics 2. appreciate That many patients do not seek medical help until late in the course of the disease 3. The emergency presentations of the various conditions as patients in developing countries do not seek treatment until they are very ill 4. Diagnose and treat these conditions, particularly as emergencies, because of the ease of global travel, visitors from the tropics would mostly present as an emergency in Western hospitals
ASSSESSMENT TOOLS	Knowledge of students is assessed by MCQS, SEQs , VIVA and OCSE

TITLE	**Principles of laparoscopic and Robotic Surgery**

TARGET STUDENTS	Final year MBBS
DURATION	5 Lectures
OBJECTIVES	1. The principles of laparoscopic and robotic surgery 2 The advantages and disadvantages of such surgery 3 The safety issues and indications for laparoscopic and robotic surgery 4 Postoperative care
ASSESSMENT TOOLS	Knowledge of students is assessed by MCQS, SEQs , VIVA and OCSE

TITLE	**Principles of Paediatric Surgery**
TARGET STUDENTS	Final year MBBS
DURATION	5 Lectures
OBJECTIVES	**To understand:** 1. The important differences between adults and children which have clinical implications 2. The principles of trauma management in children 3. How to safely prescribe perioperative fluids in children 4. How to avoid the pitfalls that lead to a missed or delayed diagnosis for common emergency conditions 5. A collection of congenital malformations managed by neonatal surgeons that may present later to general surgeons 6. The common safeguarding issues in children and know how to proceed if abuse is suspected
ASSESSMENT TOOLS	Knowledge of students is assessed by MCQS, SEQs , VIVA and OCSE

TITLE	**Principles of Oncology**
TARGET STUDENTS	Final year MBBS
DURATION	2 Lectures
OBJECTIVES	**To understand:** 1. The biological nature of cancer 2. The principles of cancer prevention and early detection 3. The principles of cancer etiology and the major known causative factors 4. The likely shape of future developments in cancer management 5. The multidisciplinary management of cancer 6. Palliative care

ASSESSMENT TOOLS	Knowledge of students is assessed by MCQS, SEQs , VIVA and OCSE

TITLE	**Surgical Audit and Clinical Research**
TARGET STUDENTS	Final year MBBS
DURATION	4 Lectures
OBJECTIVES	**To understand:** 1. The planning and conduct of audit and research 2. How to write up a project 3. How to review a journal article and determine its value
ASSESSMENT TOOLS	Knowledge of students is assessed by MCQS, SEQs , VIVA and OCSE

TITLE	**Surgical Ethics and Law**
TARGET STUDENTS	Final year MBBS
DURATION	6 Lectures
OBJECTIVES	**To understand:** 1. The importance of autonomy in good surgical practice 2. The moral and legal boundaries and practical difficulties of informed consent 3. Good practice in making decisions about the withdrawal of life-sustaining treatment 4. The importance and boundaries of confidentiality in surgical practice 5. The importance of appropriate regulation in surgical research 6. The importance of rigorous training and maintenance of good practice standards
ASSESSMENT TOOLS	Knowledge of students is assessed by MCQS, SEQs , VIVA and OCSE

TITLE	**Patient Safety**
TARGET STUDENTS	Final year MBBS
DURATION	5 Lectures
OBJECTIVES	**To understand:** 1. The importance of patient safety and the scale of the problem 2. Medical errors, their range and definition 3. Models for understanding how adverse events and near misses occur

	4. Patient safety strategies and solutions 5. Applying the science of patient safety to practice 6. Patient safety principles that are specific to the surgeon 7. Dealing with the 'second victim' of a medical error
ASSESSMENT TOOLS	Knowledge of students is assessed by MCQS, SEQs , VIVA and OCSE

TITLE	**Diagnostic Imaging**
Target Students	Final year MBBS
Course Title	**Urinary symptoms and investigations**
Duration	2 Lectures
Specific Objectives	**To recognise and understand:** • The advantages of good working relationships and close collaboration with the imaging department in planning appropriate investigations • The basic principles of radiation protection and know the law in relation to the use of ionizing radiation • The principles of different imaging techniques and their advantages and disadvantages in different clinical scenarios

TITLE	**Tissue Diagnosis**
Target Students	Final year MBBS
Course Title	**The kidneys and ureters**
Duration	3 Lectures
Specific Objectives	**To recognise and understand:** 1 The value and limitations of tissue diagnosis 2 How tissue samples are processed 3 The role of histology, cytology and the autopsy 4 The role of additional techniques used in clinical practice, including special stains, immunohistochemistry and molecular methods 5 The principles of microscopic diagnosis, particularly of neoplasia 6 The importance of clinic pathological correlation 7 Relevant management issues

TITLE	**Gastrointestinal Endoscopy**
Target Students	Final year MBBS

Course Title	**The urinary bladder**
Duration	4 Lectures
Specific Objectives	**To understand:** • The role of endoscopy as a diagnostic and therapeutic tool • The basic organization of an endoscopy unit and its equipment • Consent and safe sedation • the key points in managing endoscopy in high-risk patients • The indications for diagnostic and therapeutic endoscopic procedures including endoscopic ultrasound • The recognition and management of complications • Novel techniques for endoscoping the small bowel • Advances in diagnostic ability

TITLE	**Preoperative Preparation**
Target Students	Final year MBBS
Course Title	**The prostate and seminal vesicles**
Duration	3 Lectures
Specific Objectives	**To understand:** • To organize preoperative care and the operating list • Surgical, medical and anesthetic aspects of assessment • How to optimize the patient's condition • How to take consent • How to organize an operating list

TITLE	**Anaesthesia and Pain Relief**
Target Students	Final year MBBS
Course Title	**Testis and scrotum**
Duration	5 Lectures
Specific Objectives	**To recognise and understand:** • Techniques of anesthesia and airway maintenance • Methods of providing pain relief • Local and regional anesthesia techniques • The management of chronic pain and pain from malignant disease

TITLE	**Care in Operating Room**
Target Students	Final year MBBS
Course Title	**Urethra and penis**
Duration	3 Lectures
Specific Objectives	**To recognise and understand:** • How to prepare a patient for theatre • The importance of the World Health Organisation checklist and its components • How to reduce intraoperative risks of positioning, venous thromboembolism, infection and Hypothermia, by using appropriate monitoring and equipment. • The operating theatre environment and how to behave in it, including scrubbing up, the role of the assistant and how to write an operation note

TITLE	**High Risk Surgical Patient**
Target Students	Final year MBBS
Course Title	**Elective neurosurgery**
Duration	2 Lectures
Specific Objectives	• Factors that place patients at a high risk of complications • Importance of identifying the high-risk patient • Role of preoptimisation in minimizing risk • Importance of critical care in management

TITLE	**Nutrition and Fluid Therapy**
Target Students	Final year MBBS
Course Title	**Cleft lip and palate: developmental abnormalities of the face, mouth and jaws**
Duration	2 Lectures
Specific Objectives	**To understand:** • The causes and consequences of malnutrition in the surgical patient • Fluid and electrolyte requirements in the pre- and postoperative patient • The nutritional requirements of surgical patients and the nutritional consequences of intestinal resection • The different methods of providing nutritional support and their

	complications •

TITLE	**Post-Operative Care**
Target Students	Final year MBBS
Duration	5 Lectures
Specific Objectives	• To understand the system of postoperative care • How to recognize and treat postoperative complications • The principles of enhanced recovery • The system for discharging patients

TITLE	**Day Case Surgery**
Target Students	Final year MBBS
Duration	2 Lectures
Specific Objectives	The concept of the day-case surgery pathway The importance of patient selection and preoperative assessment Basic principles of anesthesia for day surgery The spectrum of surgical procedures suitable for day Surgery Postoperative management and discharge arrangements

TITLE	**Introduction to Trauma**
Target Students	Final year MBBS
Duration	4 Lectures
Specific Objectives	The importance of time in trauma management How to assess a trauma problem How to respond to a trauma problem The value of planning

TITLE	**Early assessment and management**
Target Students	Final year MBBS
Duration	1 Lecture

Specific Objectives	The sequence of priorities in the early assessment of the injured patient The principle of triage in immediate management of the injured patient The concepts of injury recognition prediction based on the mechanism and energy of injury The principles of primary and secondary surveys in the assessment and management of trauma Techniques for the initial resuscitative and definitive care aspects of trauma The necessary protocols to allow early stabilization of the patient leading on to definitive care To recognize patients whose management should differ from the normal

TITLE	**Emergency Neurosurgery**
Target Students	Final year MBBS
Duration	6 Lectures
Specific Objectives	**To understand:** The physiology of cerebral blood flow and the pathophysiology of raised intracranial pressure The management of head injury and prevention of secondary brain injury The diagnosis and management of spontaneous intracranial bleeding including subarachnoid hemorrha

TITLE	**Neck and Spine**
Target Students	4th Year MBBS
Duration	2 Lectures
Specific Objectives	**To understand:** • The accurate assessment of spinal trauma • The pathophysiology and types of spinal cord injury • The basic management of spinal trauma and the major pitfalls • The prognosis of spinal cord Injury, factors affecting functional outcome, and common associated complications

TITLE	**Maxillofacial trauma**
Target Students	4th Year MBBS
Duration	1 Lecture

Specific Objectives	**To understand:** To be able to Recognize the life-threatening nature of facial injuries through compromise of the airway and associated head andspinal injuries To have: A methodology for examining facial injuries The classification of facial fractures The diagnosis and management of fractures of the middle third of the facial skeleton and the mandible The importance of careful cleaning and accurate suturing of facial lacerations

TITLE	surgery
Target Students	4th Year MBBS
Course Title	**Torso and Abdomen**
Duration	2 Lectures
Specific Objectives	**To understand:** To understand: That the management of trauma is based on physiology, as well as anatomy (as in general surgery) The gross and surgical anatomy of the chest and Abdomen The pathophysiology of torso injury The strength and weaknesses of clinical assessment in the injured patient The use of special investigations and their Limitations The operative approaches to the thoracic cavity The special features of an emergency department thoracotomy for hemorrhage control The indications for and techniques of the trauma laparotomy The philosophy of damage control surgery

TITLE	Surgery
Target Students	4th Year MBBS
Course Title	**Extremity Trauma**
Duration	1 Lecture
Specific	**To understand:**

Objectives	• How to identify whether an injury exists • The important injuries not to miss • The principles of the description and classification of fractures • The range of available treatments • How to select an appropriate treatment

TITLE	Surgery
Target Students	4th Year MBBS
Course Title	**Burns**
Duration	1 Lecture
Specific Objectives	**To understand:** • To assess the area and depth of burn • Methods for calculating the rate and quantity of fluids to be given • Techniques for treating burns and the patient • The pathophysiology of electrical and chemical burns

TITLE	Surgery
Target Students	4th Year MBBS
Course Title	**Plastic and reconstructive surgery**
Duration	3 Lectures
Specific Objectives	**To know and understand:** The spectrum of plastic surgical techniques used torestore bodily form and function The relevant anatomy and physiology of tissues used in reconstruction The various skin grafts and how to use them appropriately The principles and use of flaps How to use plastic surgery to manage difficult and complex tissue loss

TITLE	Surgery
Target Students	4th Year MBBS
Course Title	**Disaster Surgery**
Duration	7 Lectures
Specific Objectives	**To recognise and understand:** • To recognize and understand the common features of various disasters

	• The principles behind the organization of the relief effort and of triage in treatment and evacuafion The role and limitations of field hospitals The features of conditions peculiar to disaster situations and their treatment

TITLE	Surgery
Target Students	4th Year MBBS
Course Title	**Sports Medicine and Injuries**
Duration	1 Lecture
Specific Objectives	**To gain an understanding of:** • The important issues behind a patient's sporting injury in the context of taking a history • To know the common sports injuries The appropriate ways of imaging to confirm or refute a diagnosis To assess: The patient and offer treatment and rehabilitation plans

TITLE	Surgery
Target Students	4th Year MBBS
Course Title	**Upper Limb**
Duration	2 Lectures
Specific Objectives	**To identify:** • Anatomy and physiology relevant to upper limb pathology • To be able to explain: The diagnosis and treatment of common upper limb conditions

TITLE	Surgery
Target Students	4th Year MBBS
Course Title	**Hip and Knee**
Duration	3 Lectures
Specific Objectives	**To understand:**

	The anatomy and biomechanics of the hip and knee and its clinical implications The clinical presentation, etiology and management of common hip and knee pathologies The principles of joint replacement including guidelines about deep vein thrombosis prevention The advances in surgical practice in this field

TITLE	Surgery
Target Students	4th Year MBBS
Course Title	**Foot and Ankle**
Duration	1 Lecture
Specific Objectives	**To be familiar with:** • The basic anatomy and biomechanics of the foot and ankle • The common problems affecting the foot and ankle in each age group • The principles behind the treatment of each condition, be it conservative or surgical • The significance of progressive neurological diseases

TITLE	Surgery
Target Students	4th Year MBBS
Course Title	**Musculoskeletal Tumours**
Duration	4 Lectures
Specific Objectives	**To understand:** • List the symptoms and signs which suggest the presence of a benign or malignant musculoskeletal tumor • Recognize that a suspicious lesion should be referred ‘ to a center of excellence for staging, biopsy and multidisciplinary assessment Understand why staging should be completed before biopsy Explain why a Musculoskeletal tumors diagnosis is required before Treatment Understand the principles of taking a biopsy Describe the principles of surgical treatment of musculoskeletal tumors List the aims of surgical treatment in metastatic disease How to manage a pathological fracture or impending fracture

	Recognize when a lesion is at risk of pathological fracture

TITLE	Surgery
Target Students	4th Year MBBS
Course Title	**Infections of bones and joints**
Duration	3 Lectures
Specific Objectives	**To assess:** • Characteristic features in the history and examination of infection of bone and joint • Treatment of infection of bone and joint

TITLE	Surgery
Target Students	4th Year MBBS
Course Title	**Skin/Soft Tissue**
Duration	2 Lectures
Specific Objectives	**To understand:** • The structure and functional properties of skin • The classification of vascular skin lesions • To be aware of the cutaneous manifestations of generalised disease as related to surgery • The classification of benign skin tumours • The management of malignant skin tumours

TITLE	Surgery
Target Students	4th Year MBBS
Course Title	**Elective Neurosurgery**
Duration	1 Lecture
Specific Objectives	**To recognise and understand:** To review the pathophysiology of raised intracranial pressure (ICP) and to incorporate an understanding of hydrocephalus To recognize common presentations of intracranial infection, and know the principles of management To appreciate the spectrum of common brain tumors, their presentation, investigation and treatment

	To be familiar with common developmental and other pathologies encountered in, pediatric neurosurgical practice To understand the indications and approaches available for the management of epilepsy, pain syndromes and movement disorders To be aware of other pathology which may be addressed by neurosurgeons, including occlusive vascular disease and peripheral neuropathies To note key practical and ethical issues affecting the practice of neurosurgery, including risks of craniotomy, complication rates, Creutzfeldt—Jakob disease(CJD) infection and diagnosis of brainstem death

TITLE	Surgery
Course Title	**The Eye and Orbit**
Duration	1 Lecture
Specific Objectives	**To understand:** The common ocular disorders and recognize ophthalmic symptoms and specific signs The value of special investigations When specialist referral is appropriate

TITLE	Surgery
Course Title	**Cleft lip and Palate**
Duration	4 Lectures
Specific Objectives	**To understand:** • The etiology and classification of cleft lip and palate • The principles of reconstruction of cleft lip and palate • The key features of the perioperative care of the child with cleft lip and palate • The associated complications of cleft lip and palate and their management

TITLE	Surgery
Course Title	**The Nose and Sinuses**
Duration	3 Lectures

Specific Objectives	**To understand:** • The basic anatomy of the nose and paranasal sinuses • The principles of managing post-traumatic nasal and septal deformity • The causes and management of epistaxis • The diagnosis and management of nasal polyposis • The clinical features of sinus infection and its treatment and potential complications • The common sinonasal tumors, their presentation, investigation and principles of treatment

TITLE	Surgery
Course Title	**The Ear**
Duration	1 Lecture
Specific Objectives	**To understand:** • The anatomy of the ear • The conditions of the outer, middle and inner ear • The examination of the ear including hearing tests • To understand that The outer layer of the tympanic membrane migrates outwards To understand that The facial nerve can be damaged by trauma and ear disease To understand that Chronic ear disease can lead to intracranial sepsis To understand that There are two types of hearing loss: conductive and sensorineural

TITLE	Surgery
Course Title	**Pharynx, larynx and neck**
Duration	1 Lecture
Specific Objectives	**To understand:** • The relevant anatomy, physiology, disease processes and investigations of the pharyngolarynx and neck • The diagnosis and emergency treatment of airway obstruction • The etiology, natural history, management and prevention of squamous carcinoma of the upper aero digestive tract

TITLE	**Surgery**
Course Title	**Oropharyngeal cancer**

Duration	1 Lecture
Specific Objectives	**To be aware of:** The relationship between oral cancers and the use of alcohol and tobacco. The cardinal features of oropharyngeal cancer The investigation and treatment of patients with oropharyngeal cancer

TITLE	**Surgery**
Course Title	**Disorders of Salivary Glands**
Duration	1 Lecture
Specific Objectives	**To understand:** • The surgical anatomy of the salivary glands • The presentation, pathology and investigation of salivary gland disease • The medical and surgical treatment of stones, infections and tumors that affect salivary glands

TITLE	**Surgery**
Course Title	**Thyroid and Parathyroid Glands**
Duration	1 Lecture
Specific Objectives	**To recognize and learn:** • To understand the development and anatomy of the thyroid and parathyroid glands • To know the physiology and investigation of thyroid and parathyroid function • To be able to select appropriate investigations for thyroid swellings To know how to treat thyrotoxicosis and thyroid failure To know when to operate on a thyroid swelling To describe thyroid Iobectomy To describe the investigation and management of Hyperparathyroidism To know the risks and complications of thyroid and parathyroid surgery

TITLE	**Surgery**
Course Title	**The adrenal glands and other abdominal endocrine disorders**

Duration	1 Lecture
Specific Objectives	**To understand:** • The anatomy and function of the adrenal and other abdominal endocrine glands • The diagnosis and management of these endocrine disorders • The role of surgery in the management of these endocrine disorders
TITLE	**Surgery**
Course Title	**The Breast**
Duration	1 Lecture
Specific Objectives	**To understand:** • Appropriate investigation of breast disease Breast anomalies and the complexity of benign breast Disease The in-depth modern management of breast cancer

TITLE	**Surgery**
Course Title	**Cardiac Surgery**
Duration	1 Lecture
Specific Objectives	**To learn** • The important role of surgery in cardiac disease • The role of investigation in planning surgery • The management of coronary heart disease • The role of surgery in valvular heart disease • The role of surgery in valvular heart disease • The management of aortic vascular and pericardial disease

TITLE	**Surgery**
Target Students	Final year MBBS
Course Title	**Thorax**
Duration	2 Lectures
Specific Objectives	**To be able:** • The anatomy and physiology of the thorax • Investigation of chest pathology • The role of surgery in pleural disease • The assessment of patients requiring lung surgery

	• Surgical oncology as applied to chest surgery

TITLE	**Surgery**
Target Students	Final year MBBS
Course Title	**Arterial Disorders**
Duration	4 Lectures
Specific Objectives	**To gain and understanding of:** To understand the nature and associated features of occlusive arterial disease To understand the investigation and treatment options for occlusive arterial disease To understand The principles of management of the severely ischemic limb To understand the nature and presentation of aneurysmal disease particularly of the abdominal aorta To understand the investigation and treatment options for aneurysmal disease To understand the arteritis and vasospastic disorders

TITLE	**Anaesthesia**
Target Students	Final year MBBS
Course Title	**Venous Disorders**
Duration	1 Lecture
Specific Objectives	**To understand:** To understand Venous anatomy and the physiology of venous return**.** To understand the pathophysiology of venous disease To understand the clinical significance and management of varicose veins To understand deep venous thro To understand Venous insufficiency and venous ulceration

TITLE	**Anaesthesia**
Target Students	Final year MBBS
Course Title	**Lymphatic Disorders**
Duration	1 Lecture
Specific Objectives	**To understand:** • **To understand the main functions of the lymphatic system** • **To understand the development of the lymphatic system** • **To understand the various causes of limb swelling** • **To understand the etiology, clinical features, investigations and treatment of lymphedema**

TITLE	**Anesthesia**
Target Students	Final year MBBS
Course Title	**Abdominal wall, hernia and umbilicus**
Duration	2 Lectures
Specific Objectives	**To understand:** • **To know and understand Basic anatomy of the abdominal wall and its weaknesses** • **To know and understand Causes of abdominal hernia** • **To know and understand Types of hernia and classifications** • **To know and understand Clinical history and examination findings in hernia** • **To know and understand Complications of abdominal hernia** • **To know and understand Non-surgical and surgical management of hernia - including mesh** • **To know and understand Complications of hernia surgery** • **To know and understand Other abdominal wall conditions**

TITLE	**Anaesthesia**
Target Students	Final year MBBS
Course Title	**To know and understand Other abdominal wall conditions**
Duration	2 Lectures
Specific Objectives	**The system of postoperative care** • **To know and understand The causes and complications of localized and generalized peritonitis** • To know and understand The clinical features of peritonitis and **intraperitoneal abscess** • **To know and understand The principles of surgical management in patients with peritonitis and intraperitoneal abscess** • **To know and understand The causes and pathophysiology of ascites** • **To know and understand The pathophysiology and complications of adhesion formation** • **To know and understand The spectrum of mesenteric and retroperitoneal conditions**

TITLE	**Anaesthesia**
Target Students	Final year MBBS
Course Title	**The Esophagus**

Duration	1 Lecture
Specific Objectives	**To understand:** To understand The anatomy and physiology of the esophagus and their relationship to disease To understand The clinical features, investigations and treatment of benign and malignant disease with particular reference to the**common adult disorders**

TITLE	**Orthopedic Surgery**
INTRODUCTION	Surgery curriculum is designed to expose students to a combination of formal instruction and patient care experience. This will enable them to develop the knowledge, skills and attitude necessary to learn essential clinical competencies, which are cornerstone in becoming a competent and complete clinician. SURGICAL KNOWLEDGE Demonstrate knowledge of the principle of Various diseases in Surgery. The diseases will be covered with regards to their underlying causes, both medically and socially, along with diagnostic and treatment options available to clinicians in different clinical settings.
Target Students	Final year MBBS
Out comes	**Clinical Skills** 1. Taking a comprehensive history 2. Perform complete physical exam 3. Formulate differential diagnosis and Management plan 4. Document clearly and proficiently 5. Demonstrate the best practices in communication with patients, families in a professional and competent manner. **Broad course outcome** Demonstrate knowledge, clinical and decision-making capabilities pertinent to the management of patients with surgical problems

Assessment	Knowledge of students is assessed by MCQS, SEQs , VIVA and OCSE

TITLE	Orthopedic Surgery
Target Students	Final Year MBBS
Course Title	**Stomach and Duodenum**
Duration	4 Lectures
Specific Objectives	**To gain an understanding of:** To understand the gross and microscopic anatomy andpathophysiology of the stomach in relation to disease To be able to decide on the most appropriate techniques to use in the investigation of patients withcomplaints relating to the stomach and duodenum To understand the critical importance of gastritisand Helicobacter pylori in upper gastrointestinal disease To be able to investigate and treat peptic ulcer disease and its complications To be able to recognize the presentation of gastric cancer and understand the principals involved in its treatment To know about the causes of duodenal obstruction and the presentation of duodenal tumors

TITLE	Orthopedic Surgery
Target Students	Final Year MBBS
Course Title	**Bariatric Surgery**
Duration	2 Lectures
Specific Objectives	**To understand how to:** • **To know and understand: What morbid obesity is** • **To know and understand: Who is eligible for bariatric surgery** • **To know and understand: What surgical procedures are currently available** • **To know and understand: Outcomes and complications** • **To know and understand: What the future holds for bariatric surgery**

TITLE	Orthopedic Surgery
Target Students	Final Year MBBS
Course Title	**The Liver**
Duration	1 Lecture
Specific Objectives	**To understand:** To understand: The anatomy ofthe liver To understand: The signs ofacute and chronic liver disease To understand: The investigation of liver disease To understand: The management of liver trauma, infections, cirrhosis and tumors

TITLE	Orthopedic Surgery
Target Students	Final Year MBBS
Course Title	**The Spleen**
Duration	3 Lectures
Specific Objectives	**To learn:** To understand: The function of**the spleen** To understand: The commonpathologies involving the spleen To understand: The principles and potential complications ofsplenectomy To understand: The potential advantages of Iaparoscopic splenectomy To understand: The benefits of splenic conservation To understand: The importanceof prophylaxis against infection following spIenectomy

TITLE	Orthopedic Surgery
Target Students	Final Year MBBS
Course Title	**Gall Bladder and Bile Ducts**
Duration	2 Lectures
Specific Objectives	**To understand:** • **To understand: the anatomy and physiology of the gall bladder and bile ducts** • **To be familiar with the pathophysiology and management of gallstones** • **To be aware of unusual disorders of the biliary tree** • **To be aware of malignant disease of the gall bladder and bile ducts**

TITLE	Orthopedic Surgery
Target Students	Final Year MBBS
Course Title	**The Pancreas**
Duration	4 Lectures
Specific Objectives	**To understand:** To understand: The anatomy**and physiology of the pancreas** To understand: Congenital abnormalities of the pancreas To understand: Assessment and management of pancreatitis To understand: Diagnosis and treatment of pancreatic cancer

TITLE	Orthopedic Surgery
Target Students	Final Year MBBS

Course Title	**The Small and Large Intestine**
Duration	4 Lectures
Specific Objectives	**To understand:** To appreciate: The basic anatomy and physiology of the **small and large intestines** To appreciate: The range of conditions that may affect the intestines To understand: The etiology andpathology of common intestinal conditions To understand: The principles ofinvestigation of intestinal symptoms To understand: The importanceof non-surgical management of intestinal problems To understand: The principles of intestinal surgery To understand: That complexintestinal problems are bestmanaged by a multidisciplinary Team To understand: The management of acute surgicalproblems of the intestines

TITLE	Orthopedic Surgery
Target Students	Final Year MBBS
Course Title	**Intestinal Obstruction**
Duration	2 Lectures
Specific Objectives	• **To understand: The pathophysiology of dynamic and a dynamic intestinal obstruction** • To understand: The cardinal **features on history and examination** • To understand: The causes of small and large bowel obstruction To understand: The indications for surgery and other treatmentoptions in bowel obstruction

TITLE	**Orthopedic Surgery**
Target Students	Final Year MBBS
Course Title	**The Vermiform Appendix**
Duration	2 Lectures
Specific Objectives	To understand: The etiology andsurgical anatomy of acute appendicitis To understand: The clinical signsand differential diagnoses of appendicitis To understand: Evolvingconcepts in management of acute appendicitis and Basic surgical techniques, both open and Iaparoscopic To understand: The management of postoperative problems

TITLE	**Orthopedic Surgery**
Target Students	Final Year MBBS
Course Title	**The Rectum**
Duration	2 Lectures

Specific Objectives	**To be familiar with:** To understand: The anatomy of **the rectum and its relationship to surgical disease and its treatment** To understand: The pathology, clinical presentation, investigation,differential diagnosis and treatment of diseases that affect the rectum To understand: Carcinoma of the rectum is common and its symptoms are similar to those of benign disease and, hence, patients with such symptoms must be carefull evaluated

STUDY GUIDE

PEDIATRIC

FINAL PROFESSIONAL MBBS

Pak Red Crescent Medical & Dental College

TITLE	**Pediatric Cardiology**
INTRODUCTION TO PEDIATRIC CARDIOLOGY	Pediatric cardiology is most important system which a medical graduate should be very much familiar as congenial heart defects are important cause of morbidity and mortality in children under 5 year of age. Acquired cardiac problems like rheumatic heart disease, cardiac failure due other systemic illnesses and arrhythmia are also common health related issue which a pediatrician needs to manage in emergency and indoor patient care. Cardiac disease can manifest immediately after birth or can be diagnosed incidentally during routine evaluation of child. Early diagnosis and prompt management of cardiac emergencies can save many lives.
Target Students	Fourth year and Final year MBBS
Course Title	**GROWTH**
Duration	3 week
Out comes	**Clinical Skills** 1. Taking a comprehensive history to know about onset of disease, clinical presentation, progression and complications of disease. Severe heart problems generally become evident during the first few months after birth. Some babies are blue or have very low blood pressure shortly after birth. Other defects cause breathing difficulties, feeding problems or poor weight gain later in life. 2. Physical examination especially for distress, cyanosis, edema and growth retardation should be assessed. Detailed cardiovascular examination will be helpful find out exact nature of heart defect. 3. Formulate differential diagnosis whether cyanotic or cyanotic congenital heart defect is based upon detailed history and through examination and management plan depending upon underlying heart defect. 4. Document clearly and proficiently 5. Demonstrate the best practices in communication with patient and family in a professional and competent manner. **Broad course outcome** Demonstrate knowledge, clinical and decision-making capabilities pertinent to the management of patients with congenital heart disease.
Specific Objectives	Define growth and describe its types? Illustration of growth charts and how to use it? Assessment of growth in children?

TITLE	**Pediatric Cardiology**
INTRODUCTION RHEUMATIC HEART DISEASE AND HEART FAILURE	Rheumatic heart disease is the most serious complication of rheumatic fever. Acute rheumatic fever follows 0.3% of cases of group A beta-hemolytic streptococcal pharyngitis in children. As many as 39% of patients with acute rheumatic fever may develop varying degrees of pancarditis with associated valve insufficiency, heart failure, pericarditis, and even death. With chronic rheumatic heart disease, patients develop mitral valve stenosis with varying degrees of regurgitation, atrial dilation, arrhythmias, and ventricular dysfunction. Heart failure in neonates and infants younger than age 2 months are related to structural heart disease. In older children rheumatic fever and established rheumatic disease are common etiologies of cardiac failure in 3rd world countries. Other causes may include left-sided obstructive disease (valvar or subvalvar aortic stenosis or coarctation), myocardial dysfunction (myocarditis or cardiomyopathy), hypertension, renal failure, more rarely, arrhythmias or myocardial ischemia.
Target Students	Fourth year and Final year MBBS
Course Title	**DEVELOPMENT**
Duration	1 week
Out comes	**Clinical Skills** 1. Taking a history to know about onset of disease, clinical presentation, progression and complications of disease. Preceding sore throat, joint swelling, rashes, dyspnoea at rest or on exertion should be asked in detail. Overcrowding, poor living conditions are important risk factors for rheumatic fever. 2. Physical examination especially for distress, cyanosis, oedema and arthritis, rash and involuntary body movement should be noted. Pulse rate, rhythm, volume, precordial bulge, thrill, muffled heart sound, murmur, crepitations on chest auscultation, hepatomegaly are important clue for diagnosis of heart failure and underlying etiology. 3. Formulate differential diagnosis whether congenital or acquired cause of heart failure is based upon detailed history and through examination and management plan depending upon underlying nature of disease cardiac dysfunction. 4. Document clearly and proficiently 5. Demonstrate the best practices in communication with patient and family in a professional and competent manner. **Broad course outcome** Demonstrate knowledge, clinical and decision-making capabilities pertinent to the

	management of patients with rheumatic heart disease and cardiac failure.
Specific Objectives	**Specific Objectives** Define development Explain milestones at different ages Assessment of developmental delay in children? (red flags in development)

TITLE	**Pediatric Neurology**
INTRODUCTION	Pediatric neurology is a highly specialized subspecialty of pediatrics. Its importance emerges from increasing incidence of neurological disorders including cerebral palsy, epilepsy, CNS infections. Childhood CNS infections are very fatal with high mortality and morbidity with long term sequel. Commonly they are caused by bacterial, viral and tuberculous infections in developing countries. The purpose of these guidelines is to enable the students to differentiate these CNS infections and manage them accordingly.
Target Students	Final year MBBS
Course Title	**IMMUNIZATION**
Duration	1 week
Out comes	**Clinical Skills** 1. Taking a comprehensive history of signs and symptoms of the disease like fever, fits, unconsciousness, headache, focal deficit, sings of meningeal irritation, dysphagia, and deviation of mouth, drooling and diplopia. 2. Perform complete physical examination including vitals, general physical examination, higher mental function, GCS, motor and sensory system examination and fundoscopy. 3. Formulate differential diagnosis of fever, fits and loss of conscious and then make definitive diagnosis. Management plan can be done according to underlying cause. 4. Document clearly and proficiently 5. Demonstrate the best practices in communication with patients, families in a professional and competent manner. **Broad course outcome**

	Demonstrate knowledge, clinical and decision-making capabilities pertinent to the management of patients with renal problems.
Specific Objectives	Define immunization and describe its types? Define vaccine and describe its types. Explanation of EPI and its components Describe EPI schedule. Explain dose, route, schedule and side effects of different vaccines Formulate vaccination schedule of an unvaccinated child up to 2 years of age Describe newer vaccines

TITLE	**Pediatric Neurology**
INTRODUCTION TO SEIZURE IN CHILDHOOD	A seizure occurs when one or more parts of the brain has a burst of abnormal electrical signals that interrupt normal brain signals. Anything that interrupts the normal connections between nerve cells in the brain can cause a seizure. This includes a high fever, high or low blood sugar, hypoxia, genetic causes, hypoxia + or a brain concussion. But when a child has 2 or more seizures with no known cause, this is diagnosed as epilepsy.
Target Students	Final year MBBS
Course Title	**PSYCHIATRIC DISORDER**
Duration	1 weeks
Out comes	**Clinical Skills** 1. Taking a comprehensive history mainly focusing on the identification of an underlying systemic disease or recent infection along with signs and symptoms of the disease like repetitive abnormal movements, Sudden falls, unusual clumsiness, repeated, unusual movements such as head nodding or rapid blinking 2. Perform complete physical examination including general physical and neurological examination. 3. Formulate differential diagnosis of above complaints and make definitive diagnosis. Management plan can be done according to underlying cause. 4. Document clearly and proficiently 5. Demonstrate the best practices in communication with patients, families in a

	professional and competent manner. **Broad course outcome** Demonstrate knowledge, clinical and decision-making capabilities pertinent to the management of patients with renal problems.
Specific Objectives	**PICA** What is PICA Describe its causes and side effects Explain treatment **Encopresis** What is encopresis? Describe its causes and pathophysiology Discuss assessment of a child with encopresis Explain investigations and treatment plan **Enuresis** What is enuresis? Describe its etiology and classification Discuss evaluation of a child with enuresis Explain investigations and treatment plan **Autism** What is autism? Describe its causes Explain clinical manifestation, diagnosis and differential diagnosis What is the treatment

	ADHD (attention deficit hyperactive diosorder) Define ADHD Describe etiology, clinical manifestation and differential diagnosis Explain treatment plan

TITLE	**Pediatric Neurology**
INTRODUCTION TO ACUTE FLACCID PARALYSIS	Acute flaccid paralysis is defined as sudden weakness in a child age less than 15 years of less than 2 weeks. The diseases included in this category are polio, Guillianbarresyndrome, transverse myelitis, traumatic neuritis, botulism, tic paralysis, diphtheria, hypokalemic paralysis.
Target Students	Final year MBBS
Course Title	**ACUTELY ILL CHILDS**
Duration	1 weeks
Out comes	**Clinical Skills** 1. Taking a comprehensive history mainly focus on onset, progression and pattern of weakness, respiratory symptoms, fever, immunization, bladder and bowel continence, tingling and numbness. 2. Perform complete physical examination including vital signs, neurological examination especially tone, power, reflexes and cranial nerves. 3. Formulate differential diagnosis of above complaints and make definitive diagnosis. Management plan can be done according to underlying cause. 4. Document clearly and proficiently 5. Demonstrate the best practices in communication with patients, families in a professional and competent manner. **Broad course outcome** Demonstrate knowledge, clinical and decision-making capabilities pertinent to the management of patients with renal problems.
Specific Objectives	**Anaphylaxis** Define anaphylaxis Describe its causes and pathogenesis

	Discuss clinical presentation and examination findings Explain differential diagnosis, treatment and prevention **Shock** What is shock? Describe causes and phases of shock Discuss assessment of a child with shock Explain investigations and treatment plan **Foreign body inhalation and chocking** What is it? Describe its risk factors and pathophysiology Discuss clinical features and examination findings Explain investigations and treatment plan **Drowning** What is drowning and near drowning Describe its risk factors and pathophysiology Discuss clinical features Explain treatment and prevention **Head trauma** Describe etiology and pathophysiology Discuss evaluation of a child with head trauma Explain investigations, differential diagnosis and treatment plan

TITLE	**Pediatric Renal system**

INTRODUCTION	Paediatric renal diseases are a major health problem. Kidney diseases can affect children in various ways, ranging from treatable disorders without long-term consequences to life-threatening conditions of the kidneys.Paediatric nephrology develops expertise in medical students in the management of infants and children with common problems like nephrotic syndrome. Childhood nephrotic syndrome is a chronic health condition. It is caused by renal diseases that increase the permeability of the glomerular filtration barrier. It is classically characterized by three clinical features comprising of body swellings, hypoalbuminemia and edema.
Target Students	Final year MBBS
Course Title	**NUTRITION**
Duration	1 weeks
Out comes	**Clinical Skills** 1. Taking a comprehensive history of signs and symptoms of the disease like body swellings, decreased urine output, hematuria, respiratory distress, change in color of urine, abdominal pain and past history of infections. 2. Perform complete physical examination including anthropometric measures, vitals including blood pressure, pallor, jaundice, signs of macro and micro nutrient deficiency, body swellings and respiratory distress due to gross swelling are essential components of patient evaluation. 3. Formulate differential diagnosis of body swellings, proteinuria and haematuria and then make definitive diagnosis. Management plan can be done according to underlying cause. 4. Document clearly and proficiently 5. Demonstrate the best practices in communication with patients, families in a professional and competent manner. **Broad course outcome** Demonstrate knowledge, clinical and decision-making capabilities pertinent to the management of patients with renal problems.
Specific Objectives	Why nutrition is important? What are macro and micronutrients and its classification? How caloric requirement in children are calculated? Nutritional assessment in a child

	Breast feeding and weaning Definition of breast feeding Composition of breast milk Explain advantages and contraindication of breast feeding Describe steps to encourage breast feeding in the hospital How to assess adequacy of breast feeding? Describe steps for good breast feeding Define weaning/ complementary feeding Discuss principles of weaning **Vitamins deficiency** Illustrate of symptoms and signs of vitamins deficiencies. Explain causes, investigations and treatment plan of vitamins deficiencies **Malnutrition** Define malnutrition and describe its types Explain etiology of malnutrition Discuss classification of malnutrition How to evaluate a malnourished child **Protein energy malnutrition** Describe protein energy malnutrition and its types Differentiate between marasmus and kwashiorkor Describe complications of malnutrition Explain management of malnutrition **Obesity** What is body mass index (BMI)? Differentiate obesity and overweight Explain features and complications of obesity

	How to evaluate, prevent and manage obesity

TITLE	**Pediatric Renal system**
INTRODUCTION	The kidneys play a critical role in the body: acting as the body's filtering system, help control water levels and eliminate wastes through urine. They also help regulate blood pressure, red blood cell production, and the levels of calcium and minerals.The aim of this guideline is to enable the medical students in developing the skills, knowledge and understanding of the renal diseases in children. Glomerulonephritis is an important cause of renal failure thought to be caused by autoimmune damage to the kidney. Numerous inflammatory and non-inflammatory diseases affect the glomerulus and lead to alteration in glomerular permeability, structure and function.
Target Students	Final year MBBS
Course Title	**INTEGRATED MANAGEMENT OF CHILDHOOD ILLNESS**
Duration	1 weeks
Out comes	**Clinical Skills** 1. Taking a comprehensive history mainly focusing on the identification of an underlying systemic disease or recent infection along with signs and symptoms of the disease like hematuria, decreased urine output, edema especially periorbital puffiness. 2. Perform complete physical examination including blood pressure, body swellings, pallor, rash, arthritis, altered sensorium. 3. Formulate differential diagnosis of above complaints and make definitive diagnosis. Management plan can be done according to underlying cause. 4. Document clearly and proficiently 5. Demonstrate the best practices in communication with patients, families in a professional and competent manner. **Broad course outcome** Demonstrate knowledge, clinical and decision-making capabilities pertinent to the management of patients with renal problems.
	Define IMCI Describe Assessment and classification of sick child age 2 months up to 5 years

	Explain treatment plan of sick child age 2 months up to 5 years Describe assessment, classification and treatment of sick young infant age less than 2 months

TITLE	**Pediatric Renal system**
INTRODUCTION	Urinary tract infection (UTI) is one of the most common pediatric infections. It distresses the child, concerns the parents, and may cause permanent kidney damage. Pediatric urinary tract infection is defined as a common bacterial infection involving the lower urinary tract (cystitis), the upper urinary tract (pyelonephritis), or both, causing illness in children. Nonspecific signs and symptoms may herald UTI, and practitioners should have a high index of suspicion in a febrile infant.
Target Students	Final year MBBS
Course Title	**GENETIC DISORDER**
Duration	1 weeks
Out comes	**Clinical Skills** 1. Taking a comprehensive history mainly focus on urinary symptoms like dysuria, urgency and frequency as well as fever, vomiting, abdominal pain, irritability, decreased oral intake and enuresis. 2. Perform complete physical examination including vital signs, abdominal tenderness and palpable bladder. 3. Formulate differential diagnosis of above complaints and make definitive diagnosis. Management plan can be done according to underlying cause. 4. Document clearly and proficiently 5. Demonstrate the best practices in communication with patients, families in a professional and competent manner. **Broad course outcome** Demonstrate knowledge, clinical and decision-making capabilities pertinent to the management of patients with renal problems.
	The Final year student is required to attain sufficient knowledge as follows: 1. Regards to background of this problem as recognizing and treating these infections promptly and accurately is important to prevent acute discomfort and

	kidney damage. 2. Extensive knowledge of various risk factors along with pathogens causing urinary tract infection. 3. Clinical features suggestive of specific disease manifesting with Jaundice, fever, failure to thrive, poor feeding, vomiting and irritability.These guidelines will enable them to manage the patient according to specific protocol for each differential diagnosis. 4. Complications of disease like pyelonephritis and renal scarring. 5. Students will be capable to plan investigations to reach a specific diagnosis and monitoring of disease with urine output, specific blood tests and clinical examination. 6. Long term management and preventive measures should be taken with parent's education to avoid risk factors of UTI.
	Explain pattern of inheritance with examples **Down syndrome** What is down syndrome? Describe its etiology and risk factors Discuss clinical features and diagnostic tests Describe associated features Explain management plan Describe antenatal screening tests **Turner syndrome** What is turner syndrome Describe its etiology Discuss clinical features and diagnostic tests Describe associated features Explain management plan

TITLE	**Pediatric Respiratory system**

INTRODUCTION	The aim of respiratory curriculum is to support the medical students in developing the skills, knowledge and understanding of the respiratory system in children. Respiratory tract infections are most common illness treated in Pediatric OPD. So they are skilled in providing holistic care to manage respiratory problems in infants, children and young people. Paediatric respiration is a very important subspecialty in paediatrics because respiratory problems are so common in children that all the paediatricians are expected to be specialists in their diagnosis and management of common respiratory diseases.
Target Students	Final year MBBS
Course Title	**RESPIRATORY DISORDER**
Duration	2 weeks
Out comes	**Clinical Skills** 1. Taking a comprehensive history of disease onset, progression and associated fever, distress, cyanosis, chocking, drooling of saliva, poor feeding, and complications like drowsiness, fits should asked. 2. Perform complete physical examination for toxic look, conscious level, respiratory distress, chest movement, air entry and added sound on auscultation are essential component of patient evaluation. 3. Formulate differential diagnosis among croup, acute epiglottis, bacterial tracheitis and foreign body inhalation are important ones and Management plan can be simple observation to medical emergency requiring respiratory support 4. Document clearly and proficiently 5. Demonstrate the best practices in communication with patients, families in a professional and competent manner. **Broad course outcome** Demonstrate knowledge, clinical and decision-making capabilities pertinent to the management of patients with upper airways medical problems
	ARI (acute respiratory infection)? Define ARI. Describe aim and strategies of National ARI programme Explain classification, etiology and risk factors of ARI Discuss clinical signs of ARI

	Describe causes of stridor in children **Acute epiglottitis** What is epiglottitis Describe epidemiology and etiology of epiglottitis Explain clinical manifestation, diagnosis and treatment of epiglottitis Illustrate differential diagnosis and prognosis **Croup** What is croup? Describe epidemiology and etiology Explain clinical manifestation, diagnosis and treatment Illustrate differential diagnosis, complication and prognosis **Bronchiolitis** Define bronchiolitis Describe etiology, clinical manifestation and differential diagnosis Plan Investigations and treatment Explain complications, prevention and prognosis **Pneumonia** Describe etiology, risk factors and clinical manifestation Plan investigations and treatment Explain complications, prevention and prognosis Pleural effusion Describe definition, types and etiology Explain clinical manifestation and investigations Plan treatment and prognosis **Asthma** What is prevalence, etiology and risk factors Describe types of asthma

	Explain clinical features Describe classification of asthma severity Explain differential diagnosis Describe diagnostic tests Plan treatment Explain management of acute exacerbation What is prognosis and prevention **Pneumothorax** What is pneumothorax? Describe classification, etiology Explain clinical features Plan diagnostic tests and treatment **Bronchiectasis** Define bronchiectasis Describe etiology and clinical features Plan Investigations and treatment **Cystic fibrosis** What is cystic fibrosis? Explain clinical features and differential diagnosis. Illustrate diagnostic tests. Plan treatment.

TITLE	**Pediatric Respiratory system**
INTRODUCTION TO BRONCHIAL ASTHMA	Asthma is the most common chronic disease in childhood, affecting an estimated 7 million children. It is chronic inflammatory condition with intermittent airflow obstruction, and bronchial hyper responsiveness. So medical students should be to diagnose this important medical problem. They should know the guidelines for emergency and long term management of bronchial asthma
Target Students	Final year MBBS

Course Title	**GASTROINTESTINAL AND LIVER DISORDERS**
Duration	2 weeks
Out comes	**Clinical Skills** 1. Taking a comprehensive history of disease onset, progression, recurrence, distress, chest tightness, cyanosis, unable to speak, deterioration in conscious level should be asked. Family history and environmental risk factors are important cause of recurrence. Adherence to medication if the child is on long term therapy should be assessed 2. Perform complete physical examination for conscious level, respiratory distress, cyanosis, chest movement, air entry, rhonchi or silent chest are essential component of patient evaluation. 3. Formulate differential diagnosis in only important in early life when child presents with recurrent wheezing. Management plan can be education of the patient and long term controller medication. Patient can present in status asthmaticus and need to be treated according to guidelines 4. Document clearly and proficiently 5. Demonstrate the best practices in communication with patients, families in a professional and competent manner. **Broad course outcome** Demonstrate knowledge, clinical and decision-making capabilities pertinent to the management of patients with bronchial asthma
Specific Obectives	**Acute diarrhea** What is diarrhea? Differentiate its types Describe epidemiology, risk factors and etiology Explain clinical types Discuss evaluation and treatment of a child with diarrhea Explain complications and prevention Explain assessment and treatment of dehydration **Dysentery** Define dysentery and describe causes Explain clinical features Plan investigation and treatment Persistent diarrhea Define persistent diarrhea Describe etiology and risk factors How to evaluate a child with persistent diarrhea Plan investigation and treatment

	Chronic diarrhea Define chronic diarrhea Describe pathophysiology and etiology How to evaluate a child with chronic diarrhea Plan investigations and treatment **Celiac disease** What is celiac disease? Explain pathogenesis and clinical features Describe differential diagnoses. Plan investigations and treatment Discuss its prognosis? Abdominal pain **Explain etiology** Describe evaluation of a child with abdominal pain Plan investigation and treatment **ntussusception** What is it? Explain etiology and pathophysiology Illustrate clinical features and prognosis Plan investigations and treatment **Vomiting** Differentiate vomiting and regurgitation Explain pathophysiology and causes Describe evaluation of a child with vomiting Plan investigation and treatment **Pyloric stenosis** Describe epidemiology and etiology Explain clinical features Explain differential diagnoses Discuss diagnostic tests Plan investigations and treatment **Constipation** Define constipation Describe pathophysiology and etiology Describe evaluation of a child with constipation Discuss investigations and treatment plan Inflammatory bowel disease (IBD) **Classify IBD** Describe epidemiology and pathogenesis Explain clinical manifestations Differentiate crohn's and ulcerative colitis Discuss investigations and complications Plan treatment **Acute hepatitis** Define acute hepatitis

	Describe pathophysiology, etiology and risk factors Explain clinical features Describe evaluation of a child with jaundice Discuss investigations and treatment plan **Chronic hepatitis** Define and classify chronic hepatitis Describe causes Describe evaluation of a child with chronic hepatitis Discuss investigations and complications Plan management **Portal hypertension** Define and describe etiology and pathophysiology Explain clinical manifestation and complications Discuss investigations and treatment plan **Hepatic encephalopathy** Define and describe pathophysiology Explain risk factors and prognosis Discuss diagnosis and treatment plan **Ascites** Define and describe etiology Explain clinical features and complications Discuss investigations and treatment plan

TITLE	**Pediatric Respiratory system**
INTRODUCTION TO PNEUMONIA	Pneumonia and other lower respiratory tract infections are the leading causes of death worldwide. Because pneumonia is common and is associated with significant morbidity and mortality, properly diagnosing pneumonia, correctly recognizing any complications or underlying conditions, and appropriately treating patients are important. Although in developed countries the diagnosis is usually made on the basis of radiographic findings, the WHO has defined pneumonia solely on the basis of clinical findings obtained by visual inspection and on timing of the respiratory rate. Pneumonia may originate in the lung or may be a focal complication of a contiguous or systemic inflammatory process. Abnormalities of airway patency as well as alveolar ventilation and perfusion occur frequently due to various mechanisms. These derangements often significantly alter gas exchange and dependent cellular metabolism in the many tissues and organs that determine survival and contribute to quality of life. Recognition, prevention, and treatment

	of these problems are major factors in the care of children with pneumonia.
Target Students	Fourth year and Final year MBBS
Course Title	**RENAL DISORDER**
Duration	1 week
Out comes	**Clinical Skills** 1. Taking a comprehensive history to know about start of symptoms, its progression, severity and complications of the illness. Adverse effect of the illness on feeding, sleep disturbance, and limitation of physical activity and general danger signs appearance. Treatment given and improvement in the condition. Nutritional and immunization history need to be asked in detail. 2. Perform complete physical examination especially conscious level, respiratory rate, distress, stridor and cyanosis. Detail respiratory system examination which will be helpful to classify the pneumonia. Other associated features like fever, pallor and nutritional status of the child 3. Formulate differential diagnosis based upon detailed history and through examination and management plan depending upon underlying etiology. 4. Document clearly and proficiently 5. Demonstrate the best practices in communication with parents, rapport building with patient in a professional and competent manner. **Broad course outcome** Demonstrate knowledge, clinical and decision-making capabilities pertinent to the management of patients with diarrhoea.
Specific Objectives	**What is hematuria?** Differentiate its types Describe pathophysiology and causes Explain common causes of gross hematuria Describe evaluation of a child with hematuria Discuss investigations and treatment plan **Post streptococcal glomerulonephritis** Describe pathophysiology Explain clinical presentation

	Discuss investigation and differential diagnosis
	Plan treatment **Proteinurea** Describe pathophysiology Explain causes Discuss differential diagnosis of persistent proteinurea Describe evaluation of a child with proteinurea Discuss investigation and treatment plan **Nephrotic syndrome** Define nephrotic syndrome Describe pathophysiology and etiology Explain clinical features Discuss differential diagnosis and prognosis Differentiate relapse and steroid resistant nephrotic syndrome Plan investigations and treatment Explain and discuss congenital nephrotic syndrome **Acute renal failure** Define acute renal failure Classify its types Explain mechanism Discuss clinical presentation Plan investigations and treatment.

	Discuss complications and its management Explain dialysis indication and types Describe prognosis and prevention **Chronic kidney disease (CKD)** Define CKD Describe pathophysiology and etiology Explain clinical presentation Discuss its complications and their management How to interpret laboratory tests? Plan management **Urinary tract infection (UTI)** Define UTI and its classification Describe pathophysiology, etiology and risk factors Explain clinical manifestations Discuss investigations and treatment plan Explain prevention of recurrent UTI **Renal stones** Describe epidemiology, pathogenesis and causes What are different types of stones? Explain clinical manifestations Illustrate diagnostic investigations Discuss treatment and complications **Fluid and electrolyte disorder** Define composition of body fluids and fluid compartments Describe fluid therapy

	Discuss dehydration and its types Explain fluid therapy in dehydrated child Define hyponatremia and describe its causes Explain clinical features and treatment plan of hyponatremia Define hypokalemia and describe its causes Explain clinical features and treatment plan of hypokalemia Define hyperkalemia and describe its causes Explain clinical features and treatment plan of hyperkalemia **Acid base disorders** Describe normal acid base balance mechanism of the body Define acidosis and describe its types and causes Explain clinical features and treatment plan of metabolic and respiratory acidosis Define alkalosis and describe its types and causes Explain clinical features and treatment plan of metabolic and respiratory alkalosis Explain with examples different types of acid base disorders

TITLE	**Pediatrics Hematology**
INTRODUCTION TO PEDIATRIC HEAMATOLOGY	Paediatric hematology is a rapidly expanding specialty that has evolved from developing microscopy for describing blood cell morphology to understanding blood disorders in children using genetics, immunology and molecular biology.it is necessary to understand hematopoiesis and normal values for children. Iron deficiency is the most common nutritional deficiency worldwide and an important public health problem especially in developing countries. In addition to being needed to make hemoglobin, iron is also important for muscle function. It is essential for normal brain development in children and for keeping the immune system working well enough to fight disease. Untreated iron deficiency can affect a child's growth and development.
Target Students	Final year MBBS
Course Title	**CARDIOVASCULAR DISORDERS**
Duration	1 week

Out comes	**Clinical Skills** 1. Taking a comprehensive history to know about onset of disease, clinical presentation, progression and complications of disease. Symptoms and signs of iron deficiency anemia in children include tiredness or weakness, shortness of breath, dizziness, headache, irritability andpale skin. 2. Physical examination especially pallor, bruises, petechiae, signs of macro and micro nutrient deficiency. Detailed systemic examination will be helpful to find out the underlying cause of iron deficiency. 3. Formulate differential diagnosis of iron deficiency based upon detailed history and thorough examination. Management plan can be done according to underlying cause. 4. Document clearly and proficiently. 5. Demonstrate the best practices in communication with patient and family in a professional and competent manner. **Broad course outcome** Demonstrate knowledge, clinical and decision-making capabilities pertinent to the management of patients with congenital heart disease.

Specific Objectives	**Fetal circulation** Describe characteristics of fetal circulatory dynamics Explain fetal shunts and changes occurring at birth **Congenital heart disease** Describe epidemiology, etiology and classification **Acyanotic heart disease** Define acyanotic heart disease and its types **Ventricular septal defect (VSD)** Describe incidence and pathophysiology Explain clinical manifestations and examination findings Discuss investigations, complications and prognosis Plan treatment **Patent ductusarteriosus** Describe incidence and pathophysiology Explain clinical manifestations and examination findings Discuss investigations, complications and prognosis Plan treatment **Atrial septal defect** Describe incidence and pathophysiology What are different types of atrial septal lesions Explain clinical features and examination findings Illustrate investigations and ECG findings Explain complications and prognosis Discuss treatment plan **Cyanotic heart disease** Define cyanotic heart disease and its classification **Tetralogy of fallot (TOF)**

	Describe components of TOF Explain clinical features and examination findings Plan investigations and illustrate ECG and X ray findings. Discuss complications and treatment plan Explain tet spell, its diagnosis and management **Transposition of great arteries (TGA)** Define TGA and describe its incidence, pathophysiology and causes Explain clinical features and examination findings Plan investigations and illustrate ECG and X ray findings. Discuss complications and treatment plan **Congestive cardiac failure (CCF)** Define CCF Describe mechanism of heart failure and compensatory changes occurring in body What are the different causes and classification of CCF? Explain clinical manifestations and examination findings
	Discuss investigations, precipitating factors and complications Plan treatment **Infective endocarditis** Define infective endocarditis Describe epidemiology, pathogenesis and predisposing factors What are different types? Explain clinical manifestations and examination findings What are Duke criteria? Illustrate diagnostic tests with findings Discuss treatment and complications

	Describe prevention and prophylaxis. **Cardiomyopathy** Define cardiomyopathy and describe its types and causes Explain clinical features and differential diagnosis Discuss investigations and treatment plan

TITLE	**Pediatric Hematology**
INTRODUCTION Thalassemia	Hematology is the branch of medicine concerned with the study of the cause, prognosis, treatment, and prevention of diseases related to blood. It involves treating diseases that affect the production of blood and its components, such as blood cells, hemoglobin, blood proteins, bone marrow, platelets, blood vessels, spleen, and the mechanism of coagulation. Thalassaemias are a heterogeneous group of the haemoglobin disorders in which the production of normal haemoglobin is partly or completely suppressed as a result of the defective synthesis of one or more globin chains. There are at least 200 different mutations, but 15 mutations cause the vast majority of symptoms in patients. It is important for medical students to think the possibility of thalassemia while considering the differential diagnosis of microcytic, hypochromic anemia.
Target Students	Fourth year and Final year MBBS
Course Title	**NEUROLOGICAL AND MUSKULOSKELETAL DISORSER**
Duration	1 week
Out comes	**Clinical Skills** 1. Taking a history to know about onset of disease, clinical presentation, progression and complications of disease. Specific symptoms like anemia, bleeding from any site, poor growth and bone pain should be asked in detail. 2. Physical examination especially for pallor, jaundice, thalassemicfacies due to extra medullary haematopoiesis, massive hepatospleenomegaly, growth retardation should be noted. 3. Formulate differential diagnosis based upon detailed history and through examination and management plan depending upon underlying nature of disease.

	4. Document clearly and proficiently 5. Demonstrate the best practices in communication with patient and family in a professional and competent manner. **Broad course outcome** Demonstrate knowledge, clinical and decision-making capabilities pertinent to the management of patients with Thalassemia.
Specific Objectives	**Meningitis and encephalitis** Define meningitis and encephalitis Describe incidence and transmission What are its different types? Describe causative organisms at different ages. Explain clinical presentation and examination findings Discuss differential diagnoses and diagnostic tests Plan treatment Illustrate complications, prevention and prognosis **Cerebral malaria** Define cerebral malaria Describe etiology and pathogenesis Explain clinical features and diagnostic tests Discuss management and complications **Tuberculous meningitis (TBM)** What is TBM? Describe its etiology and pathogenesis Explain clinical stages of TBM Discuss clinical manifestation and examination findings Describe differential diagnosis and diagnostic tests Plan treatment illustrate complications, prognosis and preventive measures

	Febrile seizures Define febrile seizures Describe incidence, etiology and risk factors Illustrate precipitating factors Explain different types of febrile seizures Evaluate a child presented with fits and fever Discuss diagnostic investigations Explain management plan Describe risk of recurrence, predisposing factors and its prevention **Raised intracranial pressure (ICP)** Define raised ICP Describe pathophysiology and causes Explain clinical manifestations and examination findings Discuss investigations and treatment **Epilepsy** Define seizure Describe seizures types and etiology Define epilepsy Describe and explain ILAE classification of epilepsy Describe assessment of a child with a febrile seizures Illustrate diagnosis and EEG findings Discuss treatment plan **Status epilepticus** Define status epilepticus Describe epidemiology and etiology Discuss steps of management **Cerebral palsy (CP)**

	Define CP Describe classification and its etiology Describe evaluation of a child with CP Discuss differential diagnoses Explain steps of management
	Mental retardation (MR) Define MR Describe epidemiology and causes Discuss evaluation and management plan Explain preventive measures and prognosis **Guillain-barre syndrome (GBS)** What is GBS? Describe epidemiology, pathogenesis and etiology Explain clinical presentation and examination findings Discuss differential diagnosis Illustrate diagnostic tests with findings Discuss treatment, prognosis and complications **Duchenne Muscular Dystrophy (DMD)** Define muscular dystrophy Describe etiology and its inheritance Explain clinical features and examination findings Discuss differential diagnosis, investigations and management plan What is its prognosis? **Floppy infant** What is floppy infant? Describe its causes.

	Explain clinical features, management and prognosis **Myasthenia Gravis (MG)** What is MG? Describe its pathophysiology and epidemiology Explain clinical features and examination findings Discuss differential diagnosis and investigations Plan treatment

TITLE	**PediatricHematology**
INTRODUCTION Bleeding Disorders	Childhood bleeding disorders are group of inherited diseases that mainly affect the normal homeostatic mechanism leading to prolonged and uncontrolled bleeding from any site of the body. Medical students must have knowledge of some important disorders like immune thrombocytopenic purpura (ITP), haemophilia and von wilibrand disease. Von Willebrand disease is the most common hereditary bleeding disorder caused by deficiency of von Willibrand factor.Hemarthrosis, the hallmark of severe hemophilia, is the major cause of serious bleeding events, disability and reduced quality of life in patients with factor VIII or factor IX deficiency. Immune thrombocytopenic purpura (ITP) is a clinical syndrome in which a decreased number of circulating platelets (thrombocytopenia) manifests as a bleeding tendency, easy bruising (purpura), or extravasation of blood from capillaries into skin and mucous membranes (petechiae).
Target Students	Fourth year and Final year MBBS

Course Title	**ENDOCRINE DISORDERS**
Duration	1 week
Out comes	**Clinical Skills** 1. Taking a history to know about onset of disease, clinical presentation, progression and complications of disease. Specific symptoms like epistaxis, prolonged bleeding after minor trauma, umbilical cord shedding and intramuscular injections should be asked in detail. 2. Physical examination especially for pallor, bruises, petechiae, mucosal bleeding should be noted. 3. Formulate differential diagnosis based upon detailed history and through examination and management plan depending upon underlying nature of disease. 4. Document clearly and proficiently 5. Demonstrate the best practices in communication with patient and family in a professional and competent manner. **Broad course outcome** Demonstrate knowledge, clinical and decision-making capabilities pertinent to the management of patients with Thalassemia.
Specific Objectives	**Hypothyroidism** Define hypothyroidism Describe its etiology. Explain clinical features and examination findings of congenital hypothyroidism Describe diagnostic tests and treatment plan What is hashimoto's thyroiditis? Explain clinical features, diagnostic tests and treatment **Hyperthyroidism** Define hyperthyroidism Describe its causes Explain clinical features and diagnostic tests Discuss management and complications

	Diabetes mellitus (DM)
	What is DM? Describe its epidemiology and classification Explain diagnostic criteria of DM Describe pathophysiology and etiology of type 1 DM Discuss clinical manifestation and examination findings Explain complications and its management Discuss management of DM **Diabetic ketoacidosis (DKA)** Define DKA Describe incidence, etiology and risk factors Explain clinical features and examination findings Illustrate diagnostic tests for DKA Explain management plan **Cushing's syndrome** Define Cushing syndrome Describe anatomy of adrenal glands and pathophysiology and etiology of Cushing's syndrome Explain clinical features and examination findings Discuss investigations, treatment and complications **Congenital adrenal hyperplasia (CAH)**

	Define CAH Explain clinical features and examination findings Discuss investigations, treatment plan and complications **Short stature** Define short stature How growth be assessed clinically? Describe etiology Describe assessment of a child with short stature Discuss investigations and steps of management **Rickets** Define rickets Describe its etiology Explain clinical manifestation and examination findings Discuss investigations and describe x ray findings of rickets Explain management plan, prognosis and prevention **Wilson disease** What is Wilson disease Describe pathophysiology and inheritance Discuss different clinical presentations with examination findings Explain diagnostic tests and management plan

TITLE	**Pediatric Oncology**

INTRODUCTION Thalassemia	Childhood cancer can occur anywhere in the body, including the blood and lymph node systems, brain and spinal cord (central nervous system; CNS), kidneys, and other organs and tissues.Cancer begins due to uncontrolled proliferation of cells. In most types of cancer, these cells form a mass called a tumor. In acute lymphoblastic leukemia (ALL), a lymphoid progenitor cell becomes genetically altered and subsequently undergoes dysregulated proliferation, with clonal expansion. In ALL, the transformed lymphoid cells reflect the altered expression of genes usually involved in the normal development of B cells and T cells.
Target Students	Fourth year and Final year MBBS
Course Title	**HEMATOLOGY AND ONCOLOGY**
Duration	1 week
Out comes	**Clinical Skills** 1. Taking a history to know about onset of disease, clinical presentation, progression and complications of disease. Specific symptoms like fatigue, pallor, petechiae, signs of bone marrow failure, including anemia, thrombocytopenia, and neutropenia should be asked in detail. 2. Physical examination especially for pallor, bruises, lymphadenopathy and hepatospleenomegaly should be noted. 3. Formulate differential diagnosis based upon detailed history and through examination and management plan depending upon underlying nature of disease. 4. Document clearly and proficiently 5. Demonstrate the best practices in communication with patient and family in a professional and competent manner. **Broad course outcome** Demonstrate knowledge, clinical and decision-making capabilities pertinent to the management of patients with Thalassemia.

Specific Objectives	**Anemia** Define anemia Describe its etiologies Classify anemia Differentiate microcytic and macrocytic anemia and what are their causes Explain assessment of a child with anemia Discuss laboratory tests and treatment plan **Iron deficiency anemia (IDA)** Define IDA Describe its causes and risk factors Explain clinical features and diagnostic tests Discuss management and prevention **Thalassemia** Define thalassemia and its types Describe its pathophysiology and inheritance Discuss clinical features and examination findings Illustrate differential diagnosis and investigations Explain complications and its management Discuss management of thalassemia

	Macrocytic anemia Define macrocytic anemia and its causes Describe pathophysiology and risk factors Explain clinical features and examination findings Illustrate diagnostic tests Explain management plan **Sickle cell anemia (SCA)** Define SCA Describe pathophysiology and inheritance Explain clinical features and examination findings Discuss investigations, treatment and complications **Aplastic anemia** Define aplastic anemia Describe causes and pathogenesis Explain clinical features and examination findings Discuss differential diagnosis, investigations and treatment plan **Hereditary spherocytosis and G6PD deficiency** Define them Describe their etiology and inheritance Explain clinical features Discuss diagnostic tests and steps of management **Bleeding disorder** Describe normal hemostasis Explain causes of bleeding and tests for hemostasis **Hemophilia** What is hemophilia? Describe etiology and inheritance

	Discuss different clinical presentations with examination findings Explain differential diagnosis, diagnostic tests and management plan **Von Willebrand disease (vWD)** What is vWD? Describe etiology and inheritance Discuss clinical presentations and examination findings Explain differential diagnosis and complications Discuss diagnostic tests and management plan **Thrombocytopenia** Define thrombocytopenia Describe causes and classification based on severity Explain clinical features and examination findings Discuss differential diagnosis, diagnostic tests and steps of management **Thrombasthenia (platelet dysfunction)** Define thrombasthenia Describe etiology and clinical features Discuss differential diagnosis, diagnostic tests and steps of management **Disseminated intravascular coagulation (DIC)** Define DIC

	Describe etiology and pathophysiology Explain clinical features and differential diagnosis Discuss laboratory tests and steps of management **Lymphadenopathy** Define lymphadenopathy Describe its causes Explain examination of lymph nodes Discuss causes of generalized and localized lymphadenopathy Describe assessment of a child with lymphadenopathy Explain diagnostic tests **Splenomegaly** What is splenomegaly? Explain its causes How to assess a child with splenomegaly? **Leukemia** What is leukemia? Describe its types, incidence and etiology What is acute lymphoblastic leukemia (ALL)? Explain clinical features and examination findings Discuss investigations with interpretation Explain treatment plan Describe its prognosis **Lymphoma** What is lymphoma? Describe its types, incidence and etiology Explain risk factors and clinical presentation Discuss investigations

	Describe treatment

TITLE	**Pediatric Medicine**
INTRODUCTION	Pediatrics is the specialty which involves the medical care of all individuals aged younger than 18 years. This specialty has diverse roles that may include prevention, screening, diagnosis and management of health conditions in young people. Along with acute and chronic illnesses medical student should have sufficient knowledge to deal with nutrition, growth and development related problems. As the bodies of children grow and develop into adulthood, they have certain needs, which are distinct from the needs of adults. Approach to young infant is altogether different from adolescent and adults, so medical students should have optimum knowledge about different age groups problems. They are trained to enable them to take proper history and perform clinical examination with pertinent focus on evaluation of neonate and young infants.These guidelines will cover the diseases with regards to their underlying causes, clinical manifestations, along with diagnostic and treatment options available to paediatrician in variable circumstances and available facilities. This will help the undergraduates to groom themselves to play a pivotal role on the medical care team to advocate for the best health decisions for all children.
Target Students	Fourth year and Final year MBBS
Course Title	**INFECTIOUS DISEASES**
Duration	2 weeks
Out comes	**Clinical Skills** 1. Taking a comprehensive history to know whether it is acute or chronic diarrhoea. The frequency, consistency and others symptoms which will help to classify diarrhoea and other complications of disease. Poverty and lack of immunization has adverse effect on outcome of diarrhoea 2. Perform complete physical examination especially conscious level, hydration and nutritional status of the child. Other physical signs which are leading to establish a cause of the diarrhoea. 3. Formulate differential diagnosis based upon detailed history and through examination and management plan depending upon underlying etiology. 4. Document clearly and proficiently 5. Demonstrate the best practices in communication with parents, rapport building with patients in a professional and competent manner.

	Broad course outcome Demonstrate knowledge, clinical and decision-making capabilities pertinent to the management of patients with diarrhoea.
Specific Objectives	Describe common infections of childhood What are different types of rashes? Explain with examples. **Measles** What is measles? Describe its etiology, incubation period and transmission Discuss clinical features and examination findings Illustrate differential diagnosis and complications Explain laboratory tests, preventive measures and treatment plan **Mumps** Define mumps Describe its etiology, pathogenesis and transmission Explain clinical features and differential diagnosis Discuss complications, management and prevention **Rubella** What is rubella? Describe its etiology, incubation period and transmission Discuss clinical presentation and examination findings Illustrate differential diagnosis and complications What is congenital rubella syndrome? Explain laboratory tests, preventive measures and treatment plan **Diphtheria** What is diphtheria? Describe its etiology, incubation period and transmission Discuss its types, clinical manifestations and examination findings

	Illustrate differential diagnosis and complications Explain laboratory tests, preventive measures and management **Pertussis**
	What is pertusis? Describe its etiology, incubation period and transmission Discuss its clinical stages and diagnosis Illustrate differential diagnosis and complications Explain laboratory tests, preventive measures and treatment **Tetanus** What is tetanus? Describe its etiology, incubation period and transmission Discuss clinical features and examination findings Illustrate differential diagnosis and complications Explain laboratory tests, preventive measures and management What is tetanus neonatorum? Explain its cause, clinical presentation, prevention and treatment **Poliomyelitis** What is poliomyelitis? Describe its epidemiology, incubation period, transmission and risk factors Explain different types of polio Discuss clinical features and examination findings Illustrate differential diagnosis and complications Explain acute flaccid paralysis and its causes Explain laboratory tests, preventive measures and treatment plan **Chickenpox** What is chickenpox? Describe its etiology, incubation period and transmission

	Discuss clinical features and examination findings Illustrate differential diagnosis and complications Explain laboratory tests, preventive measures and treatment plan **Malaria** What is malaria? Describe its etiology, incubation period and transmission Discuss its clinical manifestations and examination findings Illustrate differential diagnosis and complications Explain laboratory tests, prevention and management **Typhoid fever** What is typhoid fever? Describe its etiology, epidemiology, incubation period and transmission Discuss its stages, clinical manifestations and examination findings Illustrate differential diagnosis and complications Explain laboratory tests, preventive measures and treatment **Tuberculosis (TB)** Describe its etiology, epidemiology and transmission Explain its risk factors and types Discuss clinical manifestations and examination findings of pulmonary and extra-pulmonary TB Describe different types of pulmonary TB Illustrate differential diagnosis and complications
	Explain diagnostic tests, preventive measures and management Describe etiology and pathophysiology Explain clinical features and differential diagnosis Discuss laboratory tests and their interpretation Describe treatment plan

	Worm infestation Describe common worm infestations of childhood **Ascariasis** Describe its etiology, risk factors and mode of transmission Explain clinical presentation and diagnostic tests Illustrate complications and treatment **Pin worm infestation** Describe its etiology, risk factors and mode of transmission Explain clinical presentation and diagnostic tests Plan treatment **TORCH infection** What is TORCH infection? Describe its incidence and etiology Explain clinical features and examination findings Discuss differential diagnosis and diagnostic tests Explain treatment plan Describe its prognosis **Rheumatic fever** What is acute rheumatic fever? Describe its epidemiology and pathogenesis Discuss clinical features and examination findings Illustrate differential diagnosis and diagnostic tests Elaborate Jones Criteria. Discuss treatment plan and prevention and prophylaxis What is rheumatic heart disease? Describe clinical features of rheumatic heart disease

TITLE	INTRODUCTION TO GROWTH AND NUTRITION ASSESSMENT
INTRODUCTION TO GROWTH AND NUTRITION ASSESSMENT	In Pakistan and other developing countries stunted growth and malnutrition are more prevalent as compared to developed world. Therefore an essential component of pediatric preventative care is the accurate measurement of growth in this population. Pediatric growth patterns are influenced by multiple factors, such as genetics, overall health, and proper nutrition. The pediatrician must measure and follow these growth patterns over time to ensure the overall health and well-being of pediatric population Normal growth patterns are the criterion standard for clinicians to assess the general health of a child. An infant or child's deviation from a previously stable growth pattern is often the first sign of an underlying issue that requires close follow-up. Pediatricians need to be aware of risk factors for failure to thrive and obesity and the potential morbidity and mortality associated with these issues for the child. For these reasons, growth charts are a critical part of every pediatric health maintenance visit and play an important role in the nutritional assessment of the child
Target Students	Fourth year and Final year MBBS
Course Title	**NEONATOLOGY**
Duration	1 week
Out comes	**Clinical Skills** 1. Taking a comprehensive history starting from birth to pattern of linear growth, cognition and developmental milestones. Any chronic illness, genetic and inherited disorder, specific drug intake affecting the growth. Detailed nutritional history with calculation of caloric intake. 2. monitoring a child's longitudinal growth pattern with the use of age-appropriate and gender -appropriate growth charts one can comment on normal growth patterns for individual children and note deviations from these patterns that may signal an underlying medical condition. Complete physical examination for dysmorphism, signs of macronutrient and micronutrient deficiencies or excess, stigmata of chronic disease and pubertal status of the child need to be assessed. Detailed systemic examination for any clue which can be helpful to establish a underlying disease should be done 3. Formulate differential diagnosis based upon detailed history and through examination and management plan depending upon underlying etiology. 4. Document clearly and proficiently 5. Demonstrate the best practices in communication with patient, family or caregiver in a professional and competent manner.

	Broad course outcome Demonstrate knowledge, clinical and decision-making capabilities pertinent to the management of patients with growth and nutrition related problems.
Specific Objectives	**Essential newborn care (ENC)** Define ENC and describe major causes of neonatal moratality Explain care of the baby Discuss neonatal resuscitation steps **Thermoregulation in newborn** Describe mechanism of thermoregulation Explain mechanism of heat losses in newborn Define hypo and hyperthermia in newborn Discuss clinical features and management of hypo and hyperthermia in newborn **Birth asphyxia** Define birth asphyxia What is APGAR Score? Describe etiology and pathophysiology of birth asphyxia Discuss clinical features and examination findings Describe clinical classification of hypoxic ischemic encephalopathy Illustrate differential diagnosis and complications Explain laboratory tests and treatment plan **Prematurity** Define prematurity and describe its classification Describe its causes and complications

	Discuss assessment of preterm baby Explain steps of management and prognosis **Small for gestational age (SGA)** What is SGA? Describe its etiology Explain characteristic features of SGA **Respiratory distress in newborn** Describe causes of respiratory distress in newborn Explain clinical presentation **Respiratory distress syndrome (RDS)** What is RDS? Describe its etiology, pathophysiology and risk factors Discuss its clinical manifestations and examination findings Illustrate differential diagnosis and diagnostic tests Explain treatment, complications and prevention **Meconium aspiration syndrome (MAS)** What is MAS? Describe its etiology, pathophysiology and risk factors Discuss its clinical features and examination findings Illustrate differential diagnosis and diagnostic tests Explain treatment and complications **Pneumonia** Describe common organisms causing pneumonia in newborn Discuss its clinical manifestations and examination findings Illustrate differential diagnosis and diagnostic tests Explain management plan **Neonatal sepsis**

	Define neonatal sepsis Describe types and risk factors of neonatal sepsis What are causative organisms causing it? Discuss clinical features and examination findings Illustrate differential diagnosis and diagnostic tests Explain management, preventive measures and prognosis **Neonatal jaundice** What is neonatal jaundice? Describe physiological jaundice Describe causes of pathological jaundice in newborn Discuss evaluation of a newborn with jaundice Explain investigations and management plan **Kernicterus** What is kernicterus? Describe its etiology and stages Discuss its clinical manifestations and examination findings Illustrate differential diagnosis and complications Explain laboratory tests, prevention and management **Large for gestational age (LGA)**

	What is LGA? Describe its etiology **Infant of diabetic mother (IDM)** What is IDM? Describe its etiology and pathophysiology Discuss its clinical presentation and complications Illustrate differential diagnosis and investigations Explain management plan and prognosis **Neonatal seizures** Describe its etiology and pathophysiology Discuss evaluation of a newborn presented with seizures Explain investigations with interpretation Illustrate differential diagnosis and prognosis Describe management plan **Hemorrhagic disease of newborn (HDN)** What is HDN? Describe its classification, cause and risk factors Explain clinical presentation and diagnostic tests Illustrate prevention and treatment
Course Title	**RHEUMOTIC DISEASES**
Specific Objectives	Explain causes of acute and chronic arthritis **Septic arthritis** Describe its etiology and pathophysiology Discuss clinical findings, differential diagnosis and diagnostic tests Explain management plan and complications **Juvenile rheumatoid arthritis (JIA)**

	Define JIA Describe its etiology and pathophysiology Discuss clinical features and diagnostic tests Explain management plan and complications **SLE** What is SLE? Describe its pathophysiology Discuss clinical presentation and investigations Explain management plan **HenochSchonleinPurpura (HSP)** What is HSP? Describe its pathophysiology Discuss clinical features and diagnostic test Explain management plan **Osteomyelitis** Describe its etiology and pathophysiology Discuss clinical findings, differential diagnosis and diagnostic tests Explain management plan and complications **What is poisoning** Describe general principles of poisoning management **What is antidote?** Describe specific antidotes with examples Organophosphate poisoning Explain pathophysiology Discuss clinical features and examination findings What are specific antidotes for it? Explain its management **Salicylate poisoning** Explain pathophysiology Discuss clinical presentation and examination findings What is specific antidote for it

	Explain its management Acetaminophen poisoning Explain pathophysiology Discuss clinical presentation and examination findings What is specific antidote for it? Discuss its management Tricyclic antidepressants toxicity Explain pathophysiology Discuss clinical features and examination findings Explain its management **Iron poisoning** Explain pathophysiology Discuss clinical presentation and examination findings What is specific antidote for it? Explain its management **Lead poisoning** Explain pathophysiology Discuss clinical features and examination findings What is specific antidote for it? Explain its management **Caustic ingestion** Explain pathophysiology Discuss clinical presentation and examination findings What precautions will you take after ingestion

STUDY GUIDE

GYNAE/OBS

FINAL PROFESSIONAL MBBS

Pak Red Crescent Medical & Dental College

48-KM Multan Road, Lahore-Pakistan.

Gynae/OBS curriculum is designed to make students lifelong learners to a combination of formal instruction and patient care experience. the learner should be able to achieve LEARNING OBJECTIVES in a very smart way, focus will be what student should be able to do, (behavioral) and at the same time students are allowed to construct their own knowledge, based on their previous knowledge, and then used this knowledge, in decision making, problem-solving and judgment .

TITLE	GYNAE/OBS
Introduction	Taking a history and performing an obstetric examination are different compared with the history and examination in other specialties. The main difference is that the patient is normally a healthy woman undergoing a normal life event. History will often cover physiology, pathology, and psychology and must always be sought with care and sensitivity.
Target Students	Final year & 4th-year MBBS
Course Title	**Basic Clinical Skills**
Duration	8 weeks (ward rotation)→ final year 1→ lecture final year 2 weeks → 4th year (ward rotation) 1 Lecture-→ fourth year
OUTCOMES	The student should be able to understand and demonstrate knowledge, skill, and attitude in relation to Basic clinical skill. The learner should be able to
SPECIFIC OBJECTIVES	1) TO BE ABLE TO ELICIT, history in a sequential manner 2) To be able to understand the sign and symptoms of pathological disorders 3) To perform an abdominal examination of a pregnant lady 4) to be able to do a general physical examination of a pregnant lady 5) To be able to order and interpret investigation, CBC, ultrasound, complete urine examination
Books	Obstetrics By Ten Teachers 2oth Edition William's Obstetrics

Title	**GYNAE/OBS**

Introduction	As we know the birth rate of Pakistan in 2019 is very high. Many of these pregnancies are high-risk pregnancies and remain untreated, thus increasing maternal mortality rate. The aim of antenatal care is to optimize pregnancy outcomes for women and their babies to low-risk women and by stratifying care, allowing those at high risk of adverse pregnancy events to receive specialized care in a timely manner.
Target Students	Final year& 4th-year MBBS
Course To Be Studied In Final Year MBBS	• Basic clinical skills • Antenatal care • Labour • Puerperium • Maternal medicine • Fetal medicine • Antenatal obstetrical complications • Gynecological problem • Subfertility • Early pregnancy problems • Contraception • Benign and malignant conditions of female reproductive tract • Patient safety & infection control • Urogynecology and pelvic floor problems
Course Title	**Antenatal Care**
Duration	1 week (3 lectures) -→final year Ward rotation (8 weeks)--→final year 1 lecture →4th year Ward rotation (2 weeks)→4th year
Outcomes	It enables the students to provide basic health facilities to women to reduce the maternal mortality rate in our country. The Learner Should be able to Demonstrate knowledge, skill, and attitude in diagnosing, low risk and high-risk pregnancies and to modify antenatal care according to the need of patients.
Specific Objectives	• The learner should be able to • Describe the aims of antenatal care • Demonstrate schedules of antenatal care of low and high-risk pregnancies Booking visit, anomaly visit Use of Anti -D, • Diagnose symptoms and problems of pregnancy Nausea, vomiting, hyperemesis, dyspnoea, constipation, discharge. • Recall investigations advised during antenatal care of a low-risk pregnancy • Interpret investigations ordered to a low-risk patient CBC, urine analysis • Identify high-risk pregnancies • Demonstrate an understanding of risk, investigations and schedules visits of

	high-risk pregnancies • Check the blood pressure of the pregnant patient • To perform an abdominal examination • To demonstrate an understanding of the etiology, risk factors, and management of major antenatal complications of pregnancy • To identify, normality and change in the normality of a pregnancy • To recognize the social impact of pregnancy on a patient • To communicate effectively with the family and patient
Teaching& Learning Strategies	Interactive lectures Bedside teaching Skill lab
Assessments	MCQS, OSCE
Learning Resources	Obstetrics By Ten Teachers 2oth Edition William's Obstetrics

Title	GYNAE/OBS
Introduction	In terms of providing care to a woman in Labour, attention must be paid to safety and clinical outcomes but also to her emotional wellbeing and the desire for a fulfilling birth experience
Target Students	Final year MBBS
Course Title	**LABOUR**
Duration	6-12 weeks
Outcomes	It enables the students to provide basic health facilities to women to reduce the maternal mortality rate in our country. Also, the student should be able to understand and demonstrate knowledge, skill, and attitude in relation to LABOUR.
Specific Objectives	• Understand the concept of 3 Ps • To describe the clinical aspect of the maternal pelvis • To understand the clinical aspect of the fetal skull • To understand the physiology of normal Labour • To be able to discuss the mechanism of normal Labour • To be able to recall all 3 stages of Labour • To describe partograph • To sketch partograph • To demonstrate management of all 3 stages of Labour • To explain, analgesia and pain relief in Labour • To differentiate normal & abnormal Labour • To demonstrate an understanding of normal delivery • To describe complications of normal delivery • To explain indication, methods, and complications of instrumental delivery

	• To demonstrate indications and complications of cesarean section • To identify indications, contraindications, methods, and complications of induction of labour • To be able to recall bishop score • To describe the test of fetal wellbeing, (meconium grading, fetal heart rate) • To be able to interpret CTG • To show empathy to patient and family
Teac&Learning strategies	Interactive Lecture, Bedside Teaching. Skill Lab. One Minute Perceptor
Assessments	MCQS, OSCE
Books	• Obstetrics By Ten Teachers 2oth Edition • William's Obstetrics

TITLE	GYNAE/OBS
INTRODUCTION	The puerperium refers to the 6-week period following completion of the third stage of Labour, when considerable adjustments occur before return to the prepregnant state. During this period of physiological change, the mother is also vulnerable to psychological disturbances, which may be aggravated by adverse social circumstances. Learners are supposed to know the problems associated with these periods.
TARGET STUDENTS	Final year MBBS
COURSE TITLE	**PUERPERIUM**
DURATION	1 week (3 lectures)-→ final year 8 weeks ward rotation--→final year 1 lecture → 4th year 2-week ward rotation -→4th year
OUTCOMES	TO be able to demonstrate Knowledge, skill, and attitude in relation to postpartum and neonatal problems.
SPECIFIC OBJECTIVES	To be able to • Describe the normal and abnormal postpartum period • Describe, primary and secondary PPH to manage PPH • Give advice about contraception • Identify lactational problems • Identify psychiatric illness during the postpartum period
BOOKS	• Obstetrics By Ten Teachers 2oth Edition • William's Obstetrics

TITLE	GYNAE/OBS
INTRODUCTION	Pregnancy in women with pre-existing medical diseases is becoming increasingly common as the treatment of many chronic conditions improves. Women with underlying medical conditions are at increased risk of developing complications in pregnancy and pre-existing medical conditions may, in some circumstances, be associated with significant maternal and fetal morbidity and, more rarely, mortality. Learners are supposed to have knowledge and skill to manage these conditions.
TARGET STUDENTS	Final year MBBS
COURSE TITLE	**MATERNAL MEDICINE**
DURATION	4 week (11 lectures)--→ final year Ward rotation (8 weeks)-→final year 2 lectures → 4th year (introduction lecture)
OUTCOMES	It enables the students to provide basic health facilities to women to reduce the maternal mortality rate in our country. The Learner To understand and demonstrate appropriate knowledge, skills, and attitudes in relation to the effect of pre-existing medical conditions on pregnancy and the effect of pregnancy on these conditions.
SPECIFIC OBJECTIVES	1. To be able to identify, a medical condition in pregnancy, like hypertension, diabetes, anemia, cardiac diseases, 2. To be able to diagnose these medical conditions 3. To be able to order investigations, relevant to these conditions. 4. To be able to interpret, reports of various investigations 5. To be able to understand the management plan 6. To be able to Demonstrate an understanding of the role of preconception counseling of women with pre-existing illness
TEACHING& LEARNING STRATEGIES	Interactive lectures Bedside teaching, One minute preceptor Skill lab
ASSESSMENTS	MCQS, OSCE
LEARNING RESOURCES	• Obstetrics By Ten Teachers 2oth Edition • William's Obstetrics

Title	GYNAE/OBS
Introduction	Fetal medicine is about prenatal diagnosis and fetal well-being. Prenatal diagnosis is the identification of a disease in the fetus prior to birth.

Target Students	Final year MBBS
Course Title	**Fetal medicine**
Duration	1.5 week (5 lectures)-→ final year Ward rotation (8 weeks)-→final year
Outcomes	It enables the students to provide basic health facilities to women to reduce the maternal mortality rate in our country. To be able to demonstrate, knowledge, skill, attitude in relation to prenatal investigations, fetal well being
Specific ObjectiveS	The learner should be able to • To be able to list prenatal investigations • To be able to identify the conditions where prenatal investigations should be performed. • To be able to describe the procedure and complication associated with these tests. • To be able to counsel the patients on whom these tests are going to be performed. • To know the principal of radiological imaging in pregnancy • To be able to prescribe different ultrasound in pregnancy • To be able to describe the role of Doppler ultrasound in high-risk pregnancies • To be able to order CTG as a test of fetal well-being as required during pregnancy • To be able to interpret CTG and Order treatment accordingly
Teaching& Learning Strategies	Interactive lectures Bedside teaching, one minute preceptor Skill lab
Assessments	MCQS, OSCE
Learning Resources	OBSTETRICS BY TEN TEACHERS 2OTH EDITION WILLIAM'S OBSTETRICS

Title	GYNAE/OBS
Introduction	Obstetrical complications are the cause of major maternal mortality. Complications should be identified and managed.
Target Students	Final year MBBS
Course Title	**ANTENATAL OBSTETRICAL COMPLICATIONS**
Duration	5 week (15 lectures)

	Ward rotation (8 weeks)
Outcomes	It enables the students to provide basic health facilities to women to reduce the maternal mortality rate in our country.it enables the student to diagnose early pregnancy problems and to manage them, making sure the safety of the patient.
Specific Objectives	**MULTIPLE PREGNANCIES** The learner should be able to • Understand the classification of multiple pregnancies. • Understand the risk factors for multiple pregnancies and why prevalence is increasing. • Understand the increased complications that occur in multiple pregnancies. • Understand the antenatal care of women with multiple pregnancies PRETERM LABOUR To be able • To know the causes of preterm labour • To be able to elicit a history of a patient presenting with preterm labour • To be able to advise test for diagnosis of preterm labour • To be able to manage patient with preterm labour • To be able to show empathy to the patient having preterm labour • To be able to know the complication associated with prematurity Miscellaneous To be able • To know the causes and management of minor complications of pregnancy • To know the differential diagnosis of abdominal pain in pregnancy and its management • To understand the risk factors, presentation, and management of venous thromboembolism in pregnancy • To understand the complications of drug abuse in pregnancy • To understand the causes, complications, and management of oligohydramnios and polyhydramnios • To understand the causes and management of mal presentation in late pregnancy • To understand the causes, treatment, and prevention of hemolytic disease of fetus and new-born
Teaching& Learning Strategies	Interactive lectures Bedside teaching Skill lab One minute preceptor
Assessments	MCQS, OSCE

Learning Resources	• Gynecology by Ten Teachers 2oth edition • William's Obstetrics

TITLE	GYNAE/OBS
Introduction	The menstrual cycle is has a pivotal role in the reproductive life of a woman. Women of all reproductive ages have their age-related problems. Majority of the patients presenting in Gynae OPD are having problems associated with the menstrual cycle.
Target Students	Final year MBBS& 4th year
Course Title	**GYNECOLOGICAL PROBLEM**
Duration	4.5 week (14 lectures)-→ Final year Ward rotation (8 weeks) 2 lectures-→4th year
Outcomes	It enables the students to provide basic health facilities to women to reduce the maternal mortality rate in our country. The Learner will be enabled to know different type of common disorders, related to the menstrual cycle, treatment and will be enabled to improve the quality of life of a female.
Specific Objectives	I. To be able to recall anatomy & physiology of the female reproductive system II. To be able to recall hormonal changes during the menstrual cycle III. To be able to classify, a different type of menstrual disorders. Postcoital bleeding, intermenstrual cycle, menorrhagia, dysmenorrhea, primary amenorrhea, secondary amenorrhea, Menopause, IV. To be able to take a gynecological history of patients with different sign& symptom. V. To be able to diagnose various menstrual disorders VI. To be able to order appropriate investigations relevant to the menstrual disorder VII. To be able to have knowledge of various medical treatment option available for the treatment VIII. To be able to prescribe treatment for the various menstrual disorder. IX. To be able to demonstrate steps of diagnostic dilatation& curettage X. To be able to describe the sign and symptom of patients presenting with vaginal discharge

	XI. To be able to do speculum examination for vaginal discharges XII. To be able to order investigations related to vaginal discharge (physiological and pathological) XIII. To be able to perform PAP smear XIV. To be to show empathy with the patients.
Teaching& Learning Strategies	Interactive lectures Bedside teaching Skill lab One minute preceptor
Assessments	MCQS, OSCE
Learning Resources	• Gynecology By Ten Teachers Ash Monga& Stephen Dobbs 2oth Edition • Textbook Of Gynaecology By Rashid Latif Khan, YousafLatif Khan

TITLE	GYNAE/OBS
Introduction	Subfertility is a common gynecological disorder affecting 35% of the couples. The best approach should be counseling a couple together by a specialized team.
Target Students	Final year MBBS& 4th year
Course Title	**SUBFERTILITY**
Duration	1.5week (5 lectures)-→Final year Ward rotation (8 weeks)-→final year 1 lecture → 4th year Ward rotation → 2 weeks →4th year
Outcomes	It enables the students to provide basic health facilities to women and prepares the student to understand the common condition affecting the life of a couple. The Learner be able to understand and demonstrate appropriate knowledge, skill, and attitude in relation to common gynecological problem subfertility
Specific Objectives	The learner should be able to 1. To be able to define subfertility 2. To be able to demonstrate an understanding of the basic causes of subfertility,

	both in male and female. 3. To be able to elicit the history of an infertile couple 4. To be able to order various investigations for diagnosis of subfertility both in male and female. 5. To be able to interpret the semen analysis report 6. To be able to prescribe test for tubal patency 7.To be able to understand the physiology of ovulation induction 8. To be able to identify laproscope&hysteroscope 9. To be able to understand the principle of gynaecological endoscopy 10. To be able to understand the complications of ovulation induction 11. To be able to discuss new technologies in ART 12. To be able to show empathy with couples suffering from subfertility
Teaching& Learning Strategies	Interactive lectures Bedside teaching Skill lab One minute preceptor
Assessments	MCQS, OSCE
Learning Resources	Gynecology by Ten Teachers Ash Monga& Stephen Dobbs 2oth edition Text Book Of Gynaecology By Rashid Latif Khan, YousafLatif Khan

TITLE	GYNAE/OBS
Target Students	Final year MBBS &4th year
Course Title	**EARLY PREGNANCY PROBLEMS**
Duration	1 week (3 lectures)→ final year Ward rotation (8 weeks)-→ final year 1 lecture→ 4th year

	Ward rotation→ 2week-→ 4th year
Outcomes	It enables the students to provide basic health facilities to women to reduce the maternal mortality rate in our country.it enables the student to diagnose early pregnancy problems and to manage them, making sure the safety of the patient.
Specific Objectives	The learner should be able to 1. To be to explain causes of bleeding& pain in early pregnancy 2. To be able to perform and interpret pregnancy test 3. To be able to elicit relevant history in a woman with bleeding/pain in early pregnancy 4. To differentiate between ectopic pregnancy & miscarriage 5. To be able to describe various types of miscarriages 6. To be able to suggest various investigations helping in diagnosing 7. To be able to advise treatment for miscarriage 8. To be able to advise treatment for ectopic pregnancy 9. To be able to describe the use of Anti-D 10. To be able to manage the emergency conditions in early pregnancy 11. To be able to counsel patients regarding early pregnancy problem and future pregnancy
Teaching& Learning Strategies	Interactive lectures Bedside teaching Skill lab One minute preceptor
Assessments	MCQS, OSCE
Learning Resources	Gynecology By Ten Teachers Ash Monga& Stephen Dobbs 2oth Edition Text Book Of Gynaecology By Rashid Latif Khan, YousafLatif Khan

TITLE	GYNAE/OBS
Introduction	Population explosion is a major problem that Pakistan is suffering, family planning and spacing is need of the time. Couples should be given advice suitable to them regarding contraception.
Target Students	Final year MBBS &4th year
Course Title	**Contraception**

Duration	1 week (3 lectures)-→final year Ward rotation (8 weeks)--→final year 1 lecture →4th year Ward rotation (2 weeks)-→4th year
Outcomes	It enables the students to provide basic health facilities to women to reduce the maternal mortality rate in our country. It enables the learner to provide effective contraception knowledge to a female and advise them regarding family planning and permanent methods of contraception.
Specific Objectives	1. The learner should be able to 2. To be able to describe different types of fertility control methods. 3. To be able to explain the mechanism of action of different contraception drugs 4. To be able to describe non- contraceptive use of these drugs 5. To be able to explain the use of emergency contraception pills 6. To be able to counsel a couple regarding reversible and irreversible methods
Teaching& Learning Strategies	Interactive lectures Bedside teaching Skill lab One minute preceptor
Assessments	MCQS, OSCE
Learning Resources	Gynecology By Ten Teachers Ash Monga& Stephen Dobbs 2oth Edition Text Book Of Gynaecology By Rashid Latif Khan, YousafLatif Khan 4th Edition

Title	GYNAE/OBS
Introduction	Gynecological malignancies are the major cause of maternal morbidity in a third world country like us, where lack of knowledge, diagnostic facilities, and proper treatment leads to end-stage disease.
Target Students	Final year MBBS
Course Title	**BENIGN AND MALIGNANT CONDITIONS OF FEMALE REPRODUCTIVE TRACT**
Duration	4 weeks (11 lectures) Ward rotation (6 weeks)
Outcomes	It enables the students to provide basic health facilities to women to reduce the maternal mortality rate in our country. It enables students to understand, epidemiology, screening, and management of malignant conditions of female in

	Pakistan
Specific Objectives	The learner should be able to • To differentiate benign and malignant conditions based on sign & symptoms • To be able to elicit history relevant to the condition • To be able to diagnose benign conditions like fibroid uterus, poly, endometriosis, adenomyosis • To be able to advise investigations • To be able to plan a treatment option • To able to understand the cause of acute and chronic pelvic pain • To be able to understand the role of laparoscopy and hysteroscopy in the management of benign conditions of the uterus • To be able to identify symptoms of premalignant and malignant conditions of the cervix • To be able to recall premalignant and malignant FIGO staging of disease of cervix • To be able to advise investigations and management of diseases of the cervix • To able to identify symptoms of CA endometrium • To be able to recall FIGO staging of CA Endometrium • To be able to order investigations and treatment plan for CA Endometrium • To be able to identify symptoms of CA Ovary • To be able to order investigations and treatment plan for CA ovary • To be able to recall FIGO staging of CA Ovary • To be able to examine the mass abdomen • To be able to identify the stage of different carcinoma • To be able to identify the benign and malignant condition of vulva & vagina • To be able to show empathy with patient and family
Teaching& Learning Strategies	Interactive lectures, Bedside teaching, Skill lab, one minute preceptor
Assessments	MCQS, OSCE
Learning Resources	Gynecology By Ten Teachers Ash Monga& Stephen Dobbs 2oth Edition Text Book Of Gynaecology By Rashid Latif Khan, YousafLatif Khan

Title	GYNAE/OBS
Introduction	Infection control and prevention occupy a unique role in patient safety. The curriculum is designed in such a way that students should adopt infection control and safety measures and use them during the journey of life-long learning.
Target Students	Final year MBBS &4th year
Course Title	**PATIENT SAFETY & INFECTION CONTROL**

Duration	1 week (3 lectures)→ final year Ward rotation (8 weeks)-→ final year Ward rotation→ 2week-→ 4th year
Outcomes	It enables the students to provide basic health facilities to women to reduce the maternal mortality rate in our country. The learner should be able to understand and demonstrate appropriate knowledge, skill, and attitude in relation to patient safety and infection control
Specific Objectives	The learner should be able to I. To be able to know the basic principles of patient safety II. To be able to demonstrate the basic principle of infection control III. To be able to demonstrate the handling of blood and blood products IV. To be able to scrub up correctly in OT V. TO be able to perform gowning& glowing with aseptic techniques VI. To demonstrate the use of the aseptic techniques/ solutions in OPD while examining the patients.
Teaching& Learning Strategies	Interactive lectures Bedside teaching(scrubbing in OT) Skill lab
Assessments	MCQS, OSCE
Learning Resources	Textbook Of Gynaecology By Rashid Latif Khan, YousafLatif Khan

Title	Gynae/Obs
Introduction	Uro gynecology deals with pelvic organ and their problems, these problems are prevalent in women with multiple births and particularly in low socioeconomic patients.
Target Students	Final year MBBS
Course Title	**UROGYNECOLOGY AND PELVIC FLOOR PROBLEMS**
Duration	1.5 week (5 lectures) Ward rotation (8 weeks)
Outcomes	It enables the students to provide basic health facilities to women to reduce the maternal mortality rate in our country. It enables the student to diagnose UV prolapse, its management .it also enables the student to diagnose fistula, know the causes of fistula and help in reducing the morbidity of females.

Specific Objectives	The learner should be able to 1. To be able to recall anatomy of a female pelvis, ligaments, supports of the uterus, fascia and pelvic floor. 2. To be able to classify different types of prolapse 3. To be able to understand the relationship between uterine prolapse bladder and rectum 4. To be able to elicit history regarding sign & symptoms of prolapse. 5. To be able to advise investigations in the diagnosis and treatment of prolapse 6. To be able to plan treatment for prolapse in different age groups 7. To be able to know different type of treatment options 8. To be able to define different terminologies, related to incontinence 9. To be able to elicit a history of a patient suffering from incontinence 10. To be able to define fistula and different types of fistula 11. To be able to know the management option of fistula 12. To be able to know post-operative care of fistula repair
Teaching & Learning Strategies	Interactive lectures Bedside teaching, Skill lab, One-minute preceptor
Assessments	MCQS, OSCE
Learning Resources	Gynecology By Ten Teachers Ash Monga& Stephen Dobbs 2oth Edition Text Book Of Gynaecology By Rashid Latif Khan, YousafLatif Khan 4th Edition