SMART Learning Objectives for Final Year MBBS Module 1

Module Theme: Basic Concepts for Infections, Perioperative Surgical Care, and Hematologic Disorders

Target Learners: Final Year MBBS Students

The following learning objectives were developed from the uploaded module timetable and are written in SMART format (Specific, Measurable, Achievable, Relevant, and Time-bound). The objectives are aligned with expected competencies for final year undergraduate medical students.

Surgery & Perioperative Care

Topic	SMART Learning Objective
Pre-operative management to prevent surgical site infections	By the end of the session, students will be able to list at least five evidence-based measures used to prevent surgical site infections and apply them appropriately in a simulated perioperative scenario.
Management of diabetic patient for surgery	By the end of the session, students will be able to formulate a perioperative glycemic management plan for a diabetic patient undergoing elective surgery with 80% accuracy in case-based discussions.
Management of jaundiced patient	By the end of the session, students will be able to assess a jaundiced surgical patient, interpret liver function investigations, and identify indications for surgical referral during bedside assessment.
Management of shock	By the end of the session, students will be able to classify shock into major types and initiate first-line management according to standard resuscitation protocols in OSCE-based scenarios.
TPN and central line care	By the end of the session, students will be able to describe indications, complications, and safe care practices for total parenteral nutrition and central venous lines in hospitalized patients.
Acute wound management	By the end of the session, students will be able to demonstrate the initial assessment and management of acute wounds, including wound classification and dressing selection, during skills lab activities.
Operating room care and WHO checklist	By the end of the session, students will be able to explain the components of the WHO Surgical Safety Checklist and demonstrate its correct use in a mock operating room

	exercise.
Postoperative care	By the end of the session, students will be able to identify common postoperative complications and formulate immediate management plans for postoperative patients in ward-based tutorials.
Day care surgery principles	By the end of the session, students will be able to identify suitable cases for day care surgery and outline criteria for safe discharge after ambulatory procedures.
Enhanced Recovery After Surgery (ERAS)	By the end of the session, students will be able to explain the key components of ERAS protocols and discuss their role in reducing postoperative morbidity.
Blood transfusion and blood products	By the end of the session, students will be able to identify indications, contraindications, and complications of blood transfusion and select appropriate blood products for common clinical conditions.

Medicine & Infectious Diseases

Topic	SMART Learning Objective
Viral hemorrhagic fever, Ebola and Dengue	By the end of the session, students will be able to compare the clinical presentation, diagnosis, and infection control measures for Ebola and Dengue fever in written assessments.
Tetanus	By the end of the session, students will be able to recognize the clinical features of tetanus and outline prevention and emergency management strategies.
Pyrexia of unknown origin and enteric fever	By the end of the session, students will be able to formulate a differential diagnosis and investigation plan for patients presenting with prolonged fever.
Liver abscess	By the end of the session, students will be able to differentiate amoebic and pyogenic liver abscesses based on clinical findings and investigations.
Pulmonary and extrapulmonary tuberculosis	By the end of the session, students will be able to diagnose pulmonary and extrapulmonary tuberculosis using standard diagnostic criteria and recommend first-line treatment options.
HIV infection	By the end of the session, students will be able to describe the modes of transmission, screening tests, and principles of

	antiretroviral therapy for HIV infection.
Electrolyte abnormalities	By the end of the session, students will be able to interpret sodium, potassium, and calcium abnormalities and initiate appropriate corrective management in clinical cases.
Acid-base disorders	By the end of the session, students will be able to interpret arterial blood gas reports and identify common acid-base disturbances with 80% accuracy.
Thrombophilia and DIC	By the end of the session, students will be able to identify causes and laboratory findings of thrombophilia and disseminated intravascular coagulation and outline initial management principles.
Malaria	By the end of the session, students will be able to recognize the clinical spectrum of malaria and recommend evidence-based management according to disease severity.
Platelet disorders	By the end of the session, students will be able to interpret platelet count abnormalities and identify common causes of thrombocytopenia and thrombocytosis.
Meningitis	By the end of the session, students will be able to recognize signs of meningitis, initiate emergency treatment, and identify indications for lumbar puncture.
Leptospirosis, brucellosis, and toxoplasmosis	By the end of the session, students will be able to compare the epidemiology, clinical features, and diagnostic tests for leptospirosis, brucellosis, and toxoplasmosis.
Renal involvement in systemic disease	By the end of the session, students will be able to identify renal manifestations of common systemic diseases and interpret basic renal investigations in affected patients.
Pneumonia	By the end of the session, students will be able to diagnose community-acquired pneumonia and formulate empirical treatment plans based on severity assessment tools.
MDR Tuberculosis	By the end of the session, students will be able to explain the principles of diagnosis, prevention, and treatment of multidrug-resistant tuberculosis.

Obstetrics & Gynecology

Topic	SMART Learning Objective
Maternal morbidity and mortality indicators	By the end of the session, students will be able to define key maternal health indicators and calculate maternal mortality ratios using sample datasets.
Physiological changes of pregnancy	By the end of the session, students will be able to describe physiological changes occurring during pregnancy and correlate them with common clinical findings.
Pre-pregnancy counseling and antenatal care	By the end of the session, students will be able to provide evidence-based preconception counseling and outline the schedule of routine antenatal care.
Prenatal diagnosis of congenital malformations	By the end of the session, students will be able to identify commonly used prenatal screening and diagnostic modalities for congenital anomalies.
Prenatal assessment of fetal wellbeing	By the end of the session, students will be able to interpret fetal wellbeing assessment tools including CTG and biophysical profile findings.
Anemia in pregnancy	By the end of the session, students will be able to classify anemia in pregnancy and formulate management plans according to severity and etiology.
Menstrual disorders and dysmenorrhea	By the end of the session, students will be able to evaluate patients with menstrual abnormalities and recommend first-line medical management.
Abnormal uterine bleeding	By the end of the session, students will be able to classify causes of abnormal uterine bleeding using the PALM-COEIN system and plan initial investigations.
Pelvic inflammatory disease	By the end of the session, students will be able to diagnose pelvic inflammatory disease and prescribe appropriate antimicrobial treatment according to guidelines.
Infections in pregnancy	By the end of the session, students will be able to identify common maternal infections during pregnancy and explain preventive and therapeutic strategies.
Thyroid disorders and epilepsy in pregnancy	By the end of the session, students will be able to outline maternal and fetal risks associated with thyroid disease and epilepsy in pregnancy and recommend safe treatment options.

Pediatrics

Topic	SMART Learning Objective
Health statistics and indicators	By the end of the session, students will be able to calculate and interpret common pediatric health indicators used in community health assessment.
Immunization and EPI	By the end of the session, students will be able to describe the national EPI schedule and counsel caregivers regarding vaccine-preventable diseases.
Diphtheria, pertussis and tetanus	By the end of the session, students will be able to identify clinical features and preventive strategies for diphtheria, pertussis, and tetanus in children.
AFP and poliomyelitis	By the end of the session, students will be able to evaluate a child presenting with acute flaccid paralysis and differentiate poliomyelitis from other causes.
Measles and rubella	By the end of the session, students will be able to diagnose measles and rubella clinically and explain preventive immunization strategies.
Mumps and chickenpox	By the end of the session, students will be able to recognize complications of mumps and chickenpox and outline supportive management.
Tuberculosis in children	By the end of the session, students will be able to diagnose pediatric tuberculosis using clinical and radiological findings and recommend appropriate therapy.

Dermatology & Plastic Surgery

Topic	SMART Learning Objective
Bacterial and mycobacterial skin infections	By the end of the session, students will be able to identify common bacterial and mycobacterial skin infections and select appropriate investigations and treatment.
Anatomy and physiology of skin	By the end of the session, students will be able to describe the structure and physiological functions of the skin relevant to common dermatological disorders.
Lichen planus and psoriasis	By the end of the session, students will be able to differentiate lichen planus from psoriasis based on morphology and outline basic treatment principles.
Vascular malformations and skin vascular lesions	By the end of the session, students will be able to classify vascular malformations and

	discuss indications for surgical and non-surgical management.
Drains and dressings	By the end of the session, students will be able to select appropriate wound drains and dressings for common surgical conditions during clinical demonstrations.

Educational Note: These objectives emphasize measurable competencies, clinical reasoning, communication, patient safety, and evidence-based practice expected from final year MBBS students prior to graduation.