Biochemistry and Laboratory Medicine

Applied Biochemistry and Laboratory Medicine content is not centered within a single course but is integrated throughout the medical curriculum, contextually associated with relevant body systems physiologic or pathologic states. Content related to applied biochemistry and laboratory medicine can be found in the following areas of the UGME program:

Foundations of Clinical
Medicine I-IV

Introduction to Foundations of Medicine Module:

Immunology

Pathology: approach to laboratory diagnostics, gross anatomic and histopathologic diagnosis Haematology/Oncology: hemoglobinopathies, coagulation disorders, tumour markers, other Cardiovascular: lipid metabolism, biochemical markers of congestive heart failure, cardiac ischemia, other

Respiratory: arterial blood gas analysis, other **Gastrointestinal**: biochemical markers of hepatic, pancreatic, other gastrointestinal diseases or presentations, bilirubin metabolism, nutrition assessment, other

Kidney/Urinary Tract: acid-base balance, electrolytes, urine testing, renal function, other Musculoskeletal: autoantibody testing, acute phase response markers, synovial fluid analysis, other Endocrine: biochemistry of pituitary, adrenal, thyroid, pancreatic islet, parathyroid glands, hypercalcemia, diabetic states, other Reproductive: hormonal biochemistry in relation to puberty, pregnancy, and disease states. Histology and microanatomy

Microbiology: cultures, gram stains, PCR, serologies, other

Pharmacology: therapeutic levels, toxicity monitoring, basis of dosing adjustment requirements, other

Core Rotations of Clerkship Clinical Rotations I	Laboratory Medicine plays a significant role in the diagnostic process used daily during clinical experiential rotations.
Clinical Rotations II	
Selected Topics in Medicine	Laboratory Medicine Bootcamp Sessions. Applied biochemistry and laboratory medicine are also included in presentation/disease specific sessions