





Block-7

Study Guide 2025

3rd Year MBBS

ISLAM MEDICAL COLLEGE

Sialkot–Pakistan

Table of Contents

Table of Contents	iii
Module Lead Details	2
Block Overview	3
Block Learning Outcomes	6
Block Schedule	11
Block Contents	14
Weekly Timetables.....	46
Assessment Tools.....	52
Recommended Sources	56
Block Coordinators	60
Important Note	61
Disclaimer	61

Block-7

Foundation 2 & EBM Module

General & Clinical Pharmacology Module

Hematopoietic Immunity and Transplantation

Forensic Medicine and Toxicology Module 1

STUDY GUIDE

BLOCK LEAD DETAILS

Hello, I am Dr. Muhammad Usman working an Assistant Professor in the Department of Pharmacology at Islam Medical College, Sialkot and now acting as a Block-7 Lead. I completed my MBBS from Sharif Medical & Dental College in 2014 and M.Phil Pharmacology in 2020 from Shaikh Zyed FPGMI, Lahore. You can come to meet me in Pharmacology Department, Academic Block 2 from 08:00 –15:00 hours on weekdays. You can also contact me freely on my email drusmanjamil8058@gmail.com.

BLOCK OVERVIEW

Block 7 comprise of the following four modules:

Foundation 2 & EBM Module:

The Foundation 2 module is designed to build upon and consolidate the foundational knowledge acquired in the earlier years of medical education, particularly from the Foundation-I module. As students transition into their clinical years, it is crucial to reinforce and deepen their understanding of basic medical sciences to support the integration of new, clinically relevant concepts.

This module serves as a bridge, revisiting core topics in general Pharmacology, Pathology, and Forensic medicine with an emphasis on their clinical applications. By doing so, it ensures that students develop a more comprehensive understanding, which is vital for the advanced study of organ systems in subsequent modules (e.g., CVS 2, Respiratory-2, GIT-2, Neurosciences-2, and Reproduction 2). Mastery of these topics is essential before students can effectively approach the complexities of clinical scenarios. The revisiting of these concepts throughout the curriculum ensures a robust and integrated understanding, laying a solid foundation for clinical competence.

General & Clinical Pharmacology Module:

The General & Clinical Pharmacology module consists of General Pharmacology and Autonomic Nervous System Pharmacology. It is designed to emphasize on various pharmacodynamic processes, drug interactions, and adverse drug reactions, all of which are integral in understanding how the drugs work and how they are used in

clinical practice.

Additionally, it highlights the role of pharmacogenetics in drug responses and explores the phases of drug development, providing students with the basic knowledge necessary for safe, effective, and personalized pharmacological interventions in clinical practice.

The Autonomic Pharmacology module introduces third-year medical students to the pharmacological principles of the autonomic nervous system (ANS), which regulates essential involuntary functions such as heart rate, blood pressure, digestion, and respiratory function. The module covers both the cholinergic and adrenergic systems, providing a strong foundation for understanding how drugs interact with these systems to treat diseases/conditions. Given the wide ranging clinical applications of autonomic drugs, this module plays a critical role in bridging basic pharmacology with clinical medicine, particularly in fields like cardiovascular, gastrointestinal, and respiratory medicine.

Hematopoietic Immunity and Transplantation:

The study of hematopoietic immunity and transplantation is critical for 3rd-year MBBS students as it forms the foundation for understanding the pathological basis for immune function, blood disorders, and the life-saving field of organ and tissue transplantation. This module integrates immunology, hematology, and clinical medicine, providing students with essential knowledge, skills and behavior about hematopoietic stem cells, immune responses, and their role in diseases like leukemia, lymphoma, and immunodeficiencies.

Understanding graft rejection, immunosuppression, and transplant-related

complications prepares students to manage clinical cases involving blood transfusions, organ transplants, and autoimmune diseases. In addition, it integrates key concepts from pharmacology, general medicine, surgery and ethics, preparing students for future clinical practice, decision-making, and research in advanced therapies like immunotherapy and bioengineered organs. The module also emphasizes the ethical and legal considerations of organ donation, helping students navigate the complexities of modern transplantation medicine.

Forensic Medicine and Toxicology Module 1:

The Forensic Medicine and Toxicology Module 1 prepares the medical graduate to handle the complexities of life and death and the medico-legal cases they encounter in their early career as doctors. The Autopsy training provides them with diagnostic skills for determining the cause of death, personal identity is essential for disaster victim identification, and medico-legal cases involving unidentified bodies. The death indicators and certification of death are important in their clinical practice. Introducing these topics in the 3rd year builds a strong foundation for handling medico-legal cases; ensuring students are ready to navigate the complexities of death-related issues in their future careers.

BLOCK LEARNING OUTCOMES

Foundation 2 & EBM Module:

- **Apply Integrated Knowledge of Basic and Clinical Sciences:** Synthesize concepts from general Pharmacology, Pathology, and Forensic Medicine to better understand the physiological and pathological processes underlying common clinical conditions. Correlate the foundational knowledge of disease mechanisms with their clinical presentations in Surgery and Medicine.
- **Demonstrate Competency in Core Pharmacological Principles:** Understand and explain the pharmacokinetics and pharmacodynamics of commonly used drugs in clinical practice. Analyze drug interactions, adverse effects, and therapeutic uses in various organ systems, including cardiovascular, respiratory, gastrointestinal, and neurological systems.
- **Interpret Pathological Findings:** Interpret key pathological processes such as inflammation, infection, neoplasia, and tissue repair in the context of disease progression. Apply knowledge of histopathology and laboratory medicine in diagnosing common diseases seen in clinical practice.
- **Apply Forensic Medicine Principles in Clinical Contexts:** Demonstrate understanding of medicolegal aspects of medical practice, including documentation, consent, patient rights, and legal responsibilities. Analyze and interpret findings relevant to forensic medicine, such as injury patterns, cause of death, and toxicology, and understand their clinical significance.
- **Develop Surgical and Medical Clinical Reasoning:** Utilize foundational knowledge to assess and plan appropriate management strategies for common surgical and medical conditions. Integrate surgical principles with an understanding of anatomy and pathology to explain clinical presentations and operative approaches.
- **Practice Patient Safety Principles:** Identify potential risks to patient safety in clinical settings, including medication errors, procedural risks, and diagnostic mistakes. Apply strategies to mitigate risks and promote patient safety, including adhering to clinical guidelines, infection control measures, and communication best practices.

- **Demonstrate Ethical and Professional Conduct:** Recognize the importance of ethical decision-making and professionalism in both clinical practice and forensic medicine. Engage in responsible clinical practice, demonstrating accountability, integrity, and respect for patient autonomy and confidentiality.
- **Employ Critical Thinking and Problem-Solving Skills:** Use clinical reasoning to solve complex problems related to pharmacological treatment plans, pathological diagnoses, and surgical management. Analyze case scenarios that integrate knowledge across multiple subjects, drawing from basic and clinical sciences to reach accurate clinical conclusions.
- **Communicate Effectively in Multidisciplinary Teams:** Demonstrate the ability to collaborate and communicate clearly with peers and healthcare professionals from various specialties. Present clinical findings, diagnoses, and management plans effectively in both written and verbal formats, ensuring clarity and precision.

General & Clinical Pharmacology Module:

- Explain the fundamentals of pharmacodynamics and how drugs interact with biological systems and their mechanism of action. Describe dose-response relationships, drug efficacy, and potency.
- Recognize therapeutic windows and factors influencing drug response.
- Apply pharmacodynamic principles to predict drug effects and optimize therapy.
- Understand different types of drugs that act on the autonomic nervous system and their clinical usage.

Hematopoietic Immunity and Transplantation Module:

- Describe the process of hematopoiesis including sites of blood cell formation in embryonic and adult stages.
- Describe the differentiation of stem cells into various mature blood cell lines
- Classify the key factors and signaling pathways for haemopoietic stem cell development and maintenance.
- Describe the characteristics of various blood cell, including erythrocytes, leukocytes and platelets.
- Explain the various hematological disorders such as inherited and acquired anemias, acute and chronic leukemias, Hodgkin and Non Hodgkin lymphomas and coagulation disorders in terms of inheritance, etiology, classification, pathogenesis, clinical features, diagnosis and prognosis.
- Explain and interpret the data of inheritance, etiology, classification, pathogenesis, clinical features, diagnosis and prognosis of Primary & Secondary Polycythemia and other myeloproliferative neoplasms.
- Interpret the patient and laboratory/radiological data of various hematological disorders such as inherited and acquired anemias, acute and chronic leukemias, Bone Marrow Failure Syndromes, Hodgkin and Non-Hodgkin lymphomas and coagulation disorders in terms of inheritance, etiology, classification, pathogenesis, clinical features, diagnosis and prognosis.
- Classify and explain mechanisms which can cause neutropenia/agranulocytosis, eosinophilia, lymphocytosis, neutrophilia and basophilia
- Differentiation between infective and malignant causes of leukocytosis with special reference to infectious mononucleosis, acute and chronic non-specific lymphadenitis.
- Explain and interpret the data of multiple myeloma with respect to etiology, pathogenesis, morphology, clinical features and diagnosis.
- Explain and apply knowledge of different drugs used to treat anemias, polycythemias, coagulation disorders, myeloproliferative disorders and bone marrow failure syndromes.
- Explain ABO and Rhesus blood groups, their clinical importance and method of group typing.

- Explain and identify common indications of blood products (red cells, platelets and plasma) in different clinical scenarios.
- Explain and interpret the data regarding hazards of blood transfusion and apply methods of their prevention in different clinical scenarios.
- Describe concepts of immune system and different immunities as passive, active, innate and adaptive
- Compare and contrast the various immune cell
- Elaborate the primary (bone marrow and thymus) and secondary (Spleen, lymph nodes and MALT {mucosa associated lymphoid tissue}) lymphoid organs.
- Analyze the mechanisms of antigen recognition/presentation and interpret the data regarding the related diseases.
- Describe the processes involved in antibody production and B cell role in humoral immunity.
- Describe the complement activation pathways and interpret the data regarding their role in immune response to infections, autoimmunity, transplant rejection and immune deficiency diseases.
- Explain and interpret the data regarding clinical aspects of hypersensitivity reactions (infectious diseases and autoimmune diseases).
- Describe the principles of organ and tissue transplantation including the various types as allograft, isograft etc.
- Identify the common organs/tissue transplanted such as kidneys, liver, cornea, lung etc.
- Understand the role of Human Leukocyte Antigen (HLA) system and tissue matching.
- Illustrate the pharmacological drugs used in immunosuppression along with their mechanism of action.
- Explain the different types of rejection as hyperacute, acute and chronic.

- Apply knowledge of haemopoietic, immune and transplant principles to clinical scenarios along with management of hematological disorders and transplant patients
- Explain recent advancements in haemopoietic stem cell research, immunotherapy and transplantation techniques.
- Describe the ethical considerations such as consent, national and international laws governing organ donation and transplantation.
- Identify the future challenges in field of transplantation such as bioengineered organs.

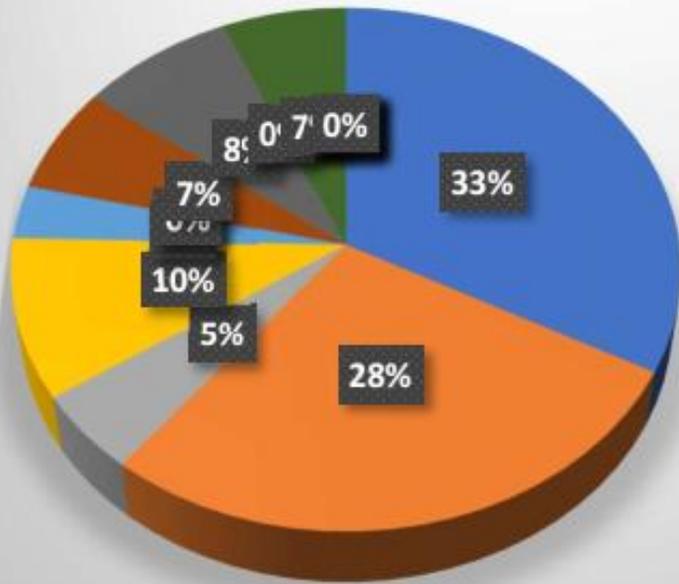
Forensic Medicine and Toxicology Module 1:

- Explain the concept of death and its medico-legal aspect
- Discuss the indicators of death
- Describe the inter-relationship of cause, mechanism, mode, and manner of death
- Determine the parameters of personal identification in living and dead
- Describe the types, objectives, rules, and techniques of autopsy
- Discuss the post-mortem artifacts and their medic-legal significance
- Discuss the methodologies and techniques employed for personal identification.
- Describe the methods of age certification

BLOCK SCHEDULE

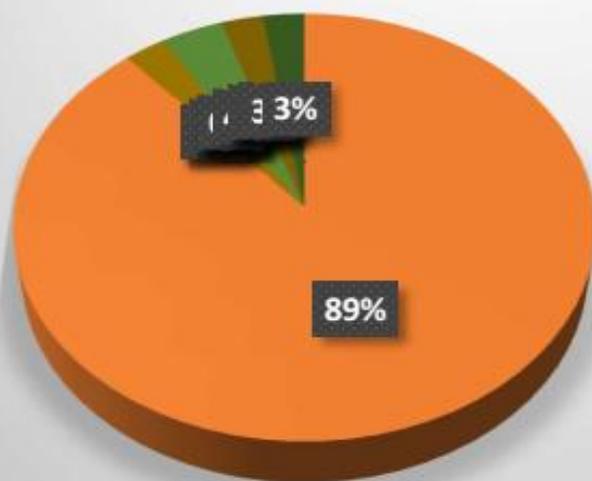
Block weeks	9 weeks
Recommended minimum hours	61+79+70+32 = 242
Start of Block	17 th March,2025
Last Day	23 rd May,2025
Tentative Block Exam	27 th May,2025

Foundation II & EBM



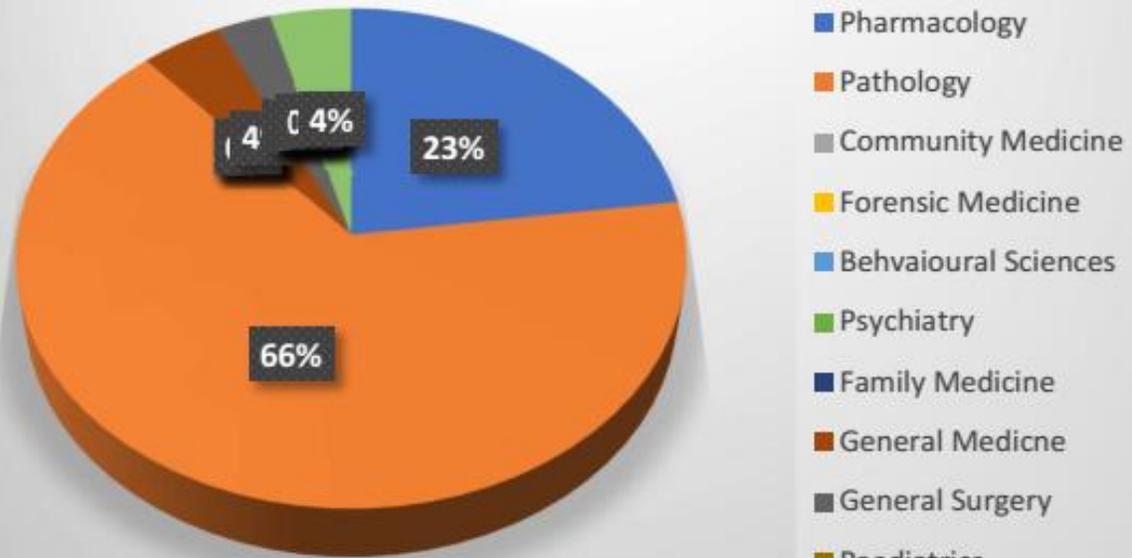
- Pharmacology
- Pathology
- Community Medicine
- Forensic Medicine
- Behvaioural Sciences
- Psychiatry
- Family Medicine
- General Medicine
- General Surgery
- Paediatrics

General & Clinical Pharmacology

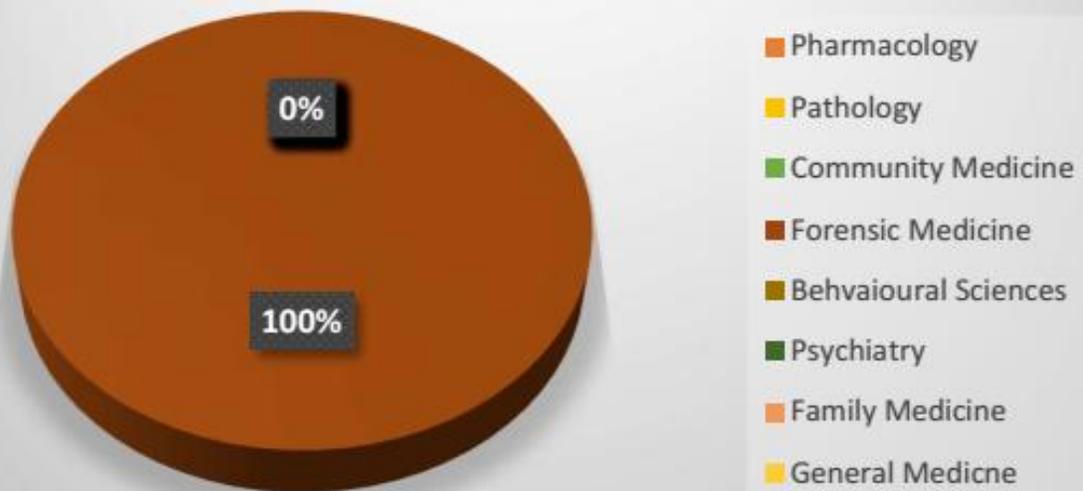


- Pharmacology
- Pathology
- Community Medicine
- Forensic Medicine
- Behvaioural Sciences
- Psychiatry
- Family Medicine
- General Medicine

Hematopoeitic, Immunity, Transplant



Forensic Medicine & Toxicology I



Foundation 2 & EBM Module Content

THEORY			
GENERAL PHARMACOLOGY			
CODE	SPECIFIC LEARNING OUTCOMES	TOTAL HOURS = 17	
		INTEGRATING DISCIPLINE	TOPIC
F2-Ph-001	Define Pharmacology, different branches of Pharmacology, Drug Nomenclature and Pharmacopoeias	Pharmacology	Introduction
F2-Ph-002	Identify the Sources & Active Principles of Drugs with Clinical Applications of Active Principles. Describe different sources of drugs. Tabulate differences between fixed oils and volatile oils as sources of drugs.		Sources of drugs and active principles
F2-Ph-003	Summarize definitions of various pharmacokinetic and pharmacodynamic parameters		Parameters
F2-Ph-004	Name various routes of drug administration. Discuss the advantages & disadvantages of various routes of drug administration. Describe the factors that influence the route of administration of a drug. Understand the Clinical Relevance of the Selection of Routes of Administration.		Routes of Administration
F2-Ph-005	Enlist the different processes by which drugs are transported across cell membranes. Describe and differentiate each transport process.		Permeation
F2-Ph-006	Describe drug absorption.		Pharmacology

	<p>Describe drug-based factors affecting rate and extent of drug absorption.</p> <p>Predict the relative permeation of a clinically useful weak acid or a weak base from knowledge of its pKa, the pH of the medium using the Henderson Hasselbalch equation.</p> <p>Determine percentage of drug ionized or unionized when placed in a certain Ph media.</p> <p>Explain ion trapping.</p> <p>Describe patient-based factors affecting rate and extent of drug absorption.</p> <p>Describe the Clinical Significance of Drug Absorption.</p>		
F2-Ph-007	<p>Define Bioavailability.</p> <p>Describe factors affecting bioavailability.</p> <p>Define Area under the curve (AUC).</p> <p>Explain first pass elimination.</p> <p>Explain extraction ratio.</p> <p>Understand that how bioavailability and the first pass effect, affect the different Clinical conditions.</p> <p>Explain bioequivalence and therapeutic equivalence.</p>	Pharmacology	Bioavailability and first pass effect
F2-Ph-008	Define drug distribution.	Pharmacology	Distribution

	<p>Describe the distribution of a drug through various body compartments.</p> <p>Explain selective distribution.</p> <p>Describe factors affecting distribution of a drug.</p> <p>Explain volume of distribution (Vd) and how to calculate Vd. understand the clinical significance of Vd</p> <p>Explain the characteristics of a drug that is bound to plasma proteins.</p> <p>Describe the clinical consequences of displacement of a drug from plasm protein binding.</p>		
F2-Ph-009	<p>Explain metabolism and biotransformation.</p> <p>Describe the aims and outcomes of metabolism and biotransformation.</p> <p>Explain a 'prodrug'</p> <p>Enlist and describe characteristics of Phase 1 and Phase 2 reactions of biotransformation.</p> <p>Describe microsomal and non-microsomal biotransformation reactions.</p> <p>Describe the microsomal oxidation system.</p> <p>Explain Hoffman's elimination.</p> <p>Describe factors affecting metabolism & biotransformation.</p>	Pharmacology	Metabolism and biotransformation

	<p>Describe the clinical significance of enzyme induction and enzyme inhibition with their examples.</p> <p>Describe the clinical significance of metabolism & biotransformation.</p> <p>Describe clinical significance of enterohepatic recycling of drugs.</p>		
F2-Ph-010	<p>Define Plasma Half-Life, and Understand the concept of plasma half-life.</p> <p>Describe factors affecting half-life and clinical significance of plasma half-life.</p> <p>Understand the concept of drug clearance.</p> <p>Describe factors affecting drug clearance.</p> <p>Explain the Clinical Significance of different values of Drug Clearance.</p> <p>Explain steady state plasma concentration.</p> <p>Explain Clinical Significance of Steady State plasma concentration.</p> <p>Define & Explain Elimination and Orders of Elimination – First & Zero Order Kinetics with examples.</p> <p>Describe Clinical Significance of First & Zero Order Kinetics.</p>	Pharmacology	Elimination

	<p>Tabulate differences between First order kinetics and Zero Order Kinetics.</p> <p>Define, explain & calculate maintenance dose and loading dose using appropriate formula.</p>		
F2-Ph-011	<p>Describe drug excretion.</p> <p>Enlist routes of drug excretion.</p> <p>Describe processes of drug excretion through the kidneys.</p> <p>Describe factors affecting glomerular filtration & tubular reabsorption.</p> <p>Describe the Clinical Significance of Glomerular Filtration, Active Tubular Secretion and Passive Tubular Reabsorption of Drugs</p>	Pharmacology	Excretion
GENERAL PATHOLOGY			
CODE	SPECIFIC LEARNING OUTCOMES	TOTAL HOURS = 06	
		INTEGRATING DISCIPLINE	TOPIC
F2-Pa-001	<p>Define mutation and classify different types</p> <p>Describe the features and examples of the following</p> <ol style="list-style-type: none"> i. Autosomal dominant disorders ii. Autosomal recessive disorders iii. X-linked disorders <p>Give brief account of steps of PCR and types of PCR</p>	Pathology	Genetics
F2-Pa-002	<p>Give brief account of;</p> <ol style="list-style-type: none"> i. Marfan syndrome ii. Ehlers-Danlos syndrome iii. Down syndrome iv. Klinefelter syndrome v. Turner syndrome 	Pathology	Genetic syndromes

	Define karyotyping and enlist the karyotyping of above-mentioned syndromes		
F2-Pa-003	To know the difference between gram positive and negative cell wall. How it affects the choice of antibiotic	Pharmacology	Comparison of Gram-positive and negative Bacterial cell wall structure, how bacteria differ from viruses
MICROBIOLOGY			
CODE	SPECIFIC LEARNING OUTCOMES	TOTAL HOURS = 09	
		INTEGRATING DISCIPLINE	TOPIC
F2-Pa-004	Classify gram-positive and negative cocci. Classify gram +ve and gram –ve rods. Classify spirochetes and atypical bacteria. Classify culture media and describe blood, chocolate, McConkey, nutrient, CLED, TCBS, TSI, citrate & urease media. Blood culture. seaboard agar. Define conjugation, transduction, transformation and describe mechanisms of antimicrobial resistance. Define colonization resistance and enlist normal flora of skin, gut, respiratory tract, and vagina. Classify DNA viruses and RNA viruses. Classify medical mycoses fungi. Classify medically important parasites.	General Microbiology	Microbiology

FORENSIC MEDICINE			
CODE	SPECIFIC LEARNING OUTCOMES	TOTAL HOURS = 02	
		INTEGRATING DISCIPLINE	TOPIC
F2-For-001	Describe Forensic Medicine & its various branches.	Forensic Medicine & Jurisprudence	Introduction to the subject of Forensic Medicine
F2-For-002	Describe evidence, its types & recording of evidence	Jurisprudence	Chain of evidence
F2-For-003	Describe the importance of diagnosis of death		Introduction to Thanatology
F2-For-004	Describe the WHO format of the death certificate.		Death certificate

COMMUNITY MEDICINE			
CODE	SPECIFIC LEARNING OUTCOMES	TOTAL HOURS = 03	
		INTEGRATING DISCIPLINE	TOPIC
F2-CM-001	Define Health.	Medicine	Concept & health disease
	What are health dimensions?		
	What are the good health indicators?		
	Calculate and interpret health indicators of Public Health Importance.		

PATIENT SAFETY			
CODE	SPECIFIC LEARNING OUTCOMES	TOTAL HOURS = 04	
		INTEGRATING DISCIPLINE	TOPIC
F2-PS-001	Explain why patient safety is a critical concern in healthcare and how it impacts the quality of patient care.	Clinical subjects	What is patient safety
F2-PS-002	Students should understand the relationship between human factors and patient safety		Applying human factors is important for patient safety
GENERAL SURGERY			
CODE	SPECIFIC LEARNING OUTCOMES	TOTAL HOURS = 03	
		INTEGRATING DISCIPLINE	TOPIC
F2-S-001	Describe the basics of Wound Healing & tissue repair	Pathology	Wound Management
F2-S-002	Classify Burns & its management	Gen surgery	Burns
F2-S-003	Identify hemorrhage & shock in Trauma patient.	Emergency medicine	Shock & hemorrhage

GENERAL MEDICINE			
CODE	SPECIFIC LEARNING OUTCOMES	TOTAL HOURS = 02	
		INTEGRATING DISCIPLINE	TOPIC
F2-M-001	Signs, symptoms, and differentials of common bacterial diseases.	Medicine	Bacterial diseases
F2-M-002	Signs, symptoms, and differentials of common viral diseases.		Viral diseases
PSYCHIATRY			
CODE	SPECIFIC LEARNING OUTCOMES	TOTAL HOURS = 02	
		INTEGRATING DISCIPLINE	TOPIC
F2-BhS-001	Define health behavior and discuss the importance of behavioral sciences in medical practice.	Behavioral sciences	Introduction to Health Behavior and Its Determinants
	Identify biological, psychological, and social factors that influence health behaviors and decision-making.		
	Discuss key behavioral change models (e.g., Health Belief Model, Theory of Planned Behavior) and their application in patient care.		
PRACTICAL / LAB WORK			
FORENSIC MEDICINE			
CODE	SPECIFIC LEARNING OUTCOMES	TOTAL HOURS = 04	
		INTEGRATING DISCIPLINE	TOPIC
F2-For-009	Describe trace evidence & its types	Forensic Medicine	Trace evidence
F2-For-010	Types of fingerprints		Dactylography
	Recording of dying declaration		Recording of evidence

F2-For-011	Take written informed consent for various procedures		Consent form
PATHOLOGY			
CODE	SPECIFIC LEARNING OUTCOMES	TOTAL HOURS = 02	
		INTEGRATING DISCIPLINE	TOPIC
F2-Pa-005	To perform steps of gram staining. How this staining will help to choose antibiotics.	Pathology	Use of Microscope & Gram staining
PHARMACOLOGY			
CODE	SPECIFIC LEARNING OUTCOMES	TOTAL HOURS = 03	
		INTEGRATING DISCIPLINE	TOPIC
F2-Ph-012	Calculations of drug dosing (e.g., IV infusion) & dose of children.	Pharmacology	Calculation
F2-Ph-013	Calculations (Mean, Mode, Median, Standard Deviation, and Standard Error), and Metrology.		Drug dosing
CLINICAL ROTATIONS / COMMUNITY HEALTHCARE			
SURGERY			
CODE	SPECIFIC LEARNING OUTCOMES	TOTAL HOURS = 02	
		INTEGRATING DISCIPLINE	TOPIC
F2-S-004	Enlist Suture types & techniques	Surgical Emergency Integrate General Surgery	Basic Surgical Skills
F2-S-005	Classify Wound Dressings & its protocols		Wound Management
MEDICINE			
CODE	SPECIFIC LEARNING OUTCOMES	TOTAL HOURS = 02	
		INTEGRATING DISCIPLINE	TOPIC
F2-M-003	History taking skills	Gen medicine	History taking
F2-M-004	Approach to patient	Gen medicine	General physical examination

General & Clinical Pharmacology Module Content

THEORY			
PHARMACOLOGY			
CODE	SPECIFIC LEARNING OUTCOMES	TOTAL HOURS = 58	
		INTEGRATING DISCIPLINE	TOPIC
GPh-Ph-001	Define Pharmacodynamics, Affinity, Efficacy, Potency	Pharmacology	Pharmacodynamics
	Explain Agonists, partial agonists, inverse agonists, bias, allosteric agonists, and modulators with examples.		
	Define Spare receptors and give clinical importance.		
	Elaborate Transmembrane signaling pathways		
	Name the Effectors controlled by G-proteins		
	Describe various Drug-antagonism types with examples		
	Define Median Effective (ED50), Median Toxic (TD50) & Median Lethal Dose (LD50) and its clinical relevance		
	Define the Therapeutic index and give its clinical importance.		
	Define the Therapeutic window and give its clinical importance.		
	Compare & discuss the information derived from Graded and Quantal dose-response curves.		
	Explain the significance of Semi-log Transformation.		
	Define Desensitization, Tachyphylaxis, Tolerance, Resistance, Super sensitivity, Hypersensitivity, Superinfection, Iatrogenic effect, and Idiosyncrasy, and give examples.		
	Describe the Phenomenon of down-regulation of receptors.		
Describe Pharmacogenetics and give examples.			

	Illustrate various phases of Drug development.		
GPh-Ph-002	List the cholinergic receptors and recall their site of action and 2 nd messenger system.	Biochemistry & Physiology	Autonomic Pharmacology Cholinergic System
	Classify cholinergic agonists and antagonists.		
	Discuss the pharmacological actions / systemic effects of cholinergic agonists and antagonists.	Physiology	
	Outline the clinical uses and adverse effects of Cholinomimetics.		
	Differentiate between myasthenic crisis and cholinergic crisis.	Medicine	
	Give the outline of the management of Myasthenia gravis.		
	Role of pharmacology in Alzheimer's disease.		
	Role of Pharmacology in treatment of Glaucoma	Ophthalmology	
	Discuss the management of Organophosphate (OPC) poisoning	Medicine	
	Describe the process of "aging" in OPC poisoning and its management		
	Discuss the Therapeutic Uses of Antimuscarinics		
	Role of anticholinergic drugs in the management of Parkinson's disease		
	Enlist the Toxicity and contraindications of Atropine along with their rationale.		
	Enlist the Toxicity and Management of Nicotine Poisoning		
Enlist the Toxicity and Management of Mushroom Poisoning			
GPh-Ph-003	Enlist the adrenergic receptors and recall their site of action and 2 nd messenger system.	Physiology and Biochemistry	Autonomic Pharmacology (Adrenergic System)
	Classify adrenergic agonists		
	Recall the general characteristics of catecholamines.	Biochemistry	

	Compare the structural characteristics of catecholamines & non-catecholamines	Physiology	
	Discuss the pharmacological actions / systemic effects of direct and indirect-acting adrenergic agonists.		
	Enlist the therapeutic uses, adverse effects, and contraindications of direct-acting adrenergic agonists.		
	Classify alpha blockers		
	Elaborate the clinical uses of alpha-blockers.	Medicine	
	Discuss the adverse effects of alpha-blockers.		
	Classify Beta-blockers		
	Explain the clinical indications of beta antagonists		
	Enlist their adverse effects.		
	Compare and contrast the characteristics of Reserpine and Guanethidine.		
	Explain the pharmacological actions of ganglion blockers.		
	Discuss epinephrine reversal		
	Expand on the pharmacology of drugs that balance sympathetic and parasympathetic activity. (like clonidine and methyldopa)		
	Use of Artificial Intelligence (AI) in understanding and modulating the autonomic nervous system		
	Use of AI to improve pharmacotherapy for conditions like hypertension and chronic heart failure		

BIOCHEMISTRY

CODE	SPECIFIC LEARNING OUTCOMES	TOTAL HOURS = 02	
		INTEGRATING DISCIPLINE	TOPIC
GPh-B-001	Describe the features of Signal transduction. Describe different types of second messengers Differentiate the G protein and non-G protein mediated	Biochemistry	Signal Transduction & Second Messengers

PHYSIOLOGY			
CODE	SPECIFIC LEARNING OUTCOMES	TOTAL HOURS = 02	
		INTEGRATING DISCIPLINE	TOPIC
GPh-P-001	Describe the types of adrenergic and cholinergic receptors and their functions. Explain the effects of sympathetic and parasympathetic on various organs/systems of the body	Medical physiology	Autonomic Nervous System
BEHAVIOURAL SCIENCES			
CODE	SPECIFIC LEARNING OUTCOMES	TOTAL HOURS = 02	
		INTEGRATING DISCIPLINE	TOPIC
GPh-BhS-001	Describe common ethical dilemmas in drug trials & pharmaceutical industry.	Behavioural sciences	Ethical dilemmas
PRACTICAL / LAB WORK			
PHARMACOLOGY			
CODE	SPECIFIC LEARNING OUTCOMES	TOTAL HOURS = 12	
		INTEGRATING DISCIPLINE	TOPIC
GPh-Ph-004	Preparation on Normal Saline, dextrose Saline and 1000 ml of O.R.S. in water	Pharmacology	Drug preparation and dispensing
	To prepare and dispense doses of carminative mixture		
	To prepare and dispense 100 ml of 0.1 % KMnO ₄ solution using a stock solution		
	To prepare and dispense 4 doses of APC Powder		
	To prepare and dispense 12 g of Sulphur ointment B-P 10%		
GPh-Ph-005	Analysis and interpretation of Drugs (Acetylcholine, Atropine Adrenaline, Propranolol) on animal through	Pharmacology	

	online videos / simulations / graphs / practical performance.		Autonomic Nervous System
	Analysis and interpretation of different Concentrations of Acetylcholine on Rabbit's Ileum through online videos / simulations / graphs / practical performance.		
	Analysis and interpretation of drug Antagonism Between Acetylcholine and Atropine on Rabbit's Ileum through online videos / simulations / graphs / practical performance.		
	Analysis and interpretation of Drugs (Pilocarpine, Adrenaline, Atropine, Homatropine, Proparacaine) on Rabbit's Eye through online videos / simulations / graphs / practical performance.		
PATIENT SAFETY			
CODE	SPECIFIC LEARNING OUTCOMES	TOTAL HOURS = 03	
		INTEGRATING DISCIPLINE	TOPIC
GPh-PS-001	Understanding of the terms error, slip, lapse, mistake, violation, near miss and hindsight bias	Pharmacology	Learning from errors to prevent harm
GPh-PS-002	Learn and practice ways to improve the safety of medication use.		Medication safety

Hematopoietic Immunity and Transplantation Module Content

THEORY			
HEMATOLOGY			
CODE	SPECIFIC LEARNING OUTCOMES	TOTAL HOURS = 39	
		INTEGRATING DISCIPLINE	TOPIC
HIT-H-001	Describe the stages in formation of red blood cells (RBCs), white blood cells (WBCs), platelets	Hematology	Hematopoietic system
	Correlate hematopoiesis with various hematopoietic growth factors along with normal bone marrow morphology		
	Identify normal values of RBC, WBC, hemoglobin level, packed cell volume, MCH, MCV, MCHC and platelet count.		
	Classify and interpret the anemias on basis of morphology and underlying pathogenesis of RBC production		
	Describe and interpret data related to causes, clinical features, clinical presentation and diagnosis of hypochromic anemia, megaloblastic anemia, anemia of chronic disease, Hereditary Spherocytosis, aplastic anemia and hemolytic anemias	Hematology	
	Give biochemical explanation for megaloblastic anemia in subjects suffering from deficiency of vitamin B ₉ and B ₁₂ .		
	Give biochemical explanation for microcytic anemia in subjects suffering from deficiency of vitamin B ₆ , vitamin B ₂ , vitamin C, vitamin A, and iron.		
	Elaborate the biochemical mechanism underlying hemolysis in subjects suffering from deficiency of pyruvate kinase and glucose-6-phosphate dehydrogenase.		

Elaborate the biochemical mechanism underlying hemolysis in subjects suffering from hereditary spherocytosis and elliptocytosis.		
Give biochemical explanation for hemolysis in subjects suffering from vitamin E deficiency.		
Describe the clinical manifestations, clinically differentiating features and clinical course of patient with anemia.	Hematology	
Recognize symptoms driving surgical decisions such as jaundice, pallor and fatigue that may require surgical intervention especially splenectomy		
Evaluate physical signs for surgical planning as splenectomy particularly in cases where splenic sequestration or hypertension exacerbates hemolysis	General Surgery	
Monitor patient's post-splenectomy for recurrent symptoms like jaundice or anemia, which may suggest incomplete resolution or complications requiring surgical or medical management		
Describe and interpret data related to etiology, pathogenesis, clinical types and diagnosis of thalassemia with emphasis on incidence, common mutations, associated psychosocial problems and prevention	Hematology	
Clearly differentiate between quantitative and qualitative hemoglobinopathies.		
Elaborate the genetic basis and inheritance of important types of quantitative hemoglobinopathies (alpha and beta thalassemia's).		
Elaborate the genetic basis and inheritance of important types of qualitative hemoglobinopathies (HbS, HbC, HbSC).	Biochemistry	
Explain how does electrophoresis help in confirming the diagnosis of various types of qualitative hemoglobinopathies (HbS, HbC, HbSC).		

	Enlist the inherited and acquired causes of methemoglobinemia's and elaborate the consequences.		
	Describe and interpret the data inheritance, clinical features, lab diagnosis of Von Willebrand's disease, Hemophilia A&B and Polycythemia	Hematology	
	Give explanation for hemorrhages in subjects suffering from vitamin K and vitamin C deficiency.	Biochemistry	
	Elaborate mechanisms which can cause neutropenia/agranulocytosis	Hematology	
	Explain how does deficiency of glucose-6-phosphate translocase result in neutropenia and recurrent infections.	Biochemistry	
HIT-H-002	Differentiate between infective and malignant causes of leukocytosis with special reference to infectious mononucleosis, acute and chronic non-specific lymphadenitis		
	Explain and interpret the data of Non-Hodgkin's lymphoma in terms of classification, etiology, pathogenesis, clinical features, diagnosis, staging and prognosis.	Hematology	
	Explain and interpret the data of Hodgkin's lymphoma in terms of classification, etiology, pathogenesis, clinical features, diagnosis, staging and prognosis.		Lymphoid system
	Explain the pathophysiology of gastric lymphomas including the type (eg. MALT and diffuse large B-cell lymphoma), role of H. pylori infection		
	Identify the clinical features and diagnostic modalities (eg. Endoscopy, biopsy and imaging) and differential diagnosis of gastric lymphomas inpatients presenting with gastrointestinal symptoms	General Surgery	
HIT-H-003	Explain and interpret the data of acute and chronic leukemias with respect to classification, etiology, pathogenesis, clinical features, diagnosis, staging and prognosis.	Hematology	Haemopoietic system

Describe the clinical manifestations, clinically differentiating features and clinical course of patient with leukemia.	General Medicine	
Explain and interpret the data of multiple myeloma with respect to aetiology, pathogenesis, morphology, clinical features, diagnosis, staging and prognosis		
Explain and interpret the data of disseminated intravascular coagulation with respect to classification, aetiology, pathogenesis, morphology, clinical features, diagnosis, prognosis and management.	Hematology	
Classify anticlotting drugs: Compare their usefulness in venous and arterial thromboses Describe the mechanisms of action, clinical uses and adverse effects of anticoagulants Compare Unfractionated heparin, LMW heparins and oral anticoagulants	Pharmacology	
Compare and contrast the mechanism of action, clinical uses, and toxicities of the oral anticoagulants (warfarin, rivaroxaban, and dabigatran). Explain the pharmacokinetic and pharmacodynamic drug interactions of Warfarin		
Describe the mechanisms of action, clinical uses and adverse effects of antiplatelet drugs Illustrate where the 4 major classes of antiplatelet drugs act Differentiate between Clopidogrel and Ticlopidine		
Discuss the mechanism of action, clinical uses, adverse effects and contraindications of Thrombolytics Tabulate differences between Streptokinase & recombinant tissue plasminogen activators.	Pharmacology	
Enumerate hematopoietic growth factors, explain their mechanism of action, uses and adverse effects.		
Explain and interpret the data with respect to causes of decreased production and decreased survival of platelets in terms of classification, etiology,	Hematology	

	pathogenesis, morphology, clinical features, diagnosis, prognosis and management.		
	Interpretation of coagulation profile in the assessment of bleeding disorders		
	Describe the clinical manifestations, clinically differentiating features of patients with bleeding tendency.	General Medicine	
	List the drugs used to treat bleeding disorders	Pharmacology	
HIT-H-004	Understand the ABO and Rhesus blood groups their clinical importance and method of group typing	Hematology	Blood Transfusion
	Explain and identify common indications of blood products (red cells, platelets and plasma) and hazards of blood transfusion and methods of their prevention in different clinical scenarios		
	Enlist changes that take place in the biochemical composition of stored blood. Give significance of rejuvenation.	Biochemistry	
GENERAL PATHOLOGY			
CODE	SPECIFIC LEARNING OUTCOMES	TOTAL HOURS = 10	
		INTEGRATING DISCIPLINE	TOPIC
HIT-Pa-001	Describe clinical aspects of innate and acquired immunity, active and passive immunity	General Pathology	Immunology
	Classify the types of cells taking part in immune response (Phagocytes, T cells, B cells & NK cells) and apply data in their clinical importance		
	Correlate complement activation pathways with their role in immune response to infections, autoimmunity, transplant rejection and immune deficiency disease		
	Elaborate MHC and their role in clinical diseases		
	Understand the types and apply the knowledge in clinical aspects of antibodies		
HIT-Pa-002	Classify immunosuppressants and antibodies with their mechanism of action, clinical uses, and toxicities	Pharmacology	Hematopoietic system

	Identify the major cytokines and other immunomodulating agents and know their clinical applications.		
HIT-Pa-003	Understand the clinical aspects of hypersensitivity reactions and interpret the data related to these conditions (infectious diseases and autoimmune disease)	General Pathology	Immunology
HIT-Pa-004	Describe types of transplant rejection & Graft vs Host disease and apply the knowledge in different clinical scenarios		Pharmacology
	Role of pharmacology in organ transplant		
	Overview of prophylactic treatments of Post-Transplant Infections, such as antiviral drugs (e.g., valganciclovir for CMV) and antifungal medications		
	Describe clinical aspects of auto immunity and autoimmune disease and apply the knowledge in different clinical settings.	General Pathology	

PRACTICAL / LAB WORK

CODE	SPECIFIC LEARNING OUTCOMES	TOTAL HOURS = 15	
		INTEGRATING DISCIPLINE	TOPIC
HIT-H-005	Perform CBC on analyzer and interpret the report.	Hematology	Hematopoietic and Lymphoid System
HIT-H-006	Analyze RBC indices, Platelet Indices and WBC parameters.		Hematopoietic System
	Perform PT, APTT and Bleeding Time. Interpret the reports		
	Perform Blood Group and Cross Match, interpret the reports.		
	Identify normal blood cells.		
Identify common malignant disorders e.g. CML, CLL, Acute Leukemias.			

HIT-Pa-005	Interpret the data of ELISA for different tests related to immunology.	Immunology	Immunology
HIT-Pa-006	Interpret the data of Graft rejection, Graft versus host disease.		Transplant
CLINICAL ROTATIONS / COMMUNITY HEALTHCARE			
CODE	SPECIFIC LEARNING OUTCOMES	TOTAL HOURS = 06	
		INTEGRATING DISCIPLINE	TOPIC
HIT-H-007	Administer Blood Products x3	Hematology	Blood Transfusion
	Clinical Audit for indications and transfusion reactions x3		

Forensic Medicine and Toxicology Module 1 Content

THEORY			
THANATOLOGY			
CODE	SPECIFIC LEARNING OUTCOMES	TOTAL HOURS = 05	
		INTEGRATING DISCIPLINE	TOPIC
For-Th-001	Define life and death.	Integration with Medicine	Death and life
	Describe views about death of different authorities.		
	Differentiate between somatic and molecular death.		
	Diagnose a case of death clinically.		
	Describe the legal procedure of disposal of a dead body-known /unclaimed		
	Describe brain death.		
	Explain criteria of diagnosis of brain death		
	Enlist guiding principles to diagnose a case of brain death		
	Describe the medico legal importance of brain stem death.		
	Summarize ethical, legal and moral considerations related with organ transplant and brain death		
	Differentiate between Death and Apparent/Suspended Animation		
Describe different clinical conditions simulating with suspended animation			
For-Th-002	Classify post-mortem changes.	Forensic Medicine, Pathology & Chemical Pathology	Post-mortem changes - (Immediate early and late)
	Classify post-mortem changes.		
	Describe immediate signs of somatic death		
	Explain early eye changes after death		
	Explain Post-mortem Cooling of Dead body (Algor Mortis) and its medicolegal implications.		
	Describe methods of recording the temperature of a dead body.		

	Explain cooling curve of a dead body.		
	State different formulas applied for calculating body temperature after death.		
	Summarize factors affecting Algor Mortis		
	Explain Postmortem Lividity and its mechanism of development.		
	Explain its Medicolegal implications.		
	Summarize factors affecting post-mortem lividity.		
	Differentiate Postmortem Lividity from Congestion and Bruise		
	Explain Rigor Mortis and its mechanism of development.		
	Describe its Medicolegal implications.		
	Summarize factors affecting Rigor Mortis		
	Summarize conditions simulating Rigor Mortis		
	Distinguish Rigor Mortis from Cadaveric Spasm and instantaneous rigor		
	Enlist late changes after death		
	Explain the process of putrefaction.		
	Describe different stages of putrefaction.		
	Summarize factors affecting putrefaction		
	Describe forensic entomology and its role in the estimation of post mortem interval		
	Summarize the procedure to collect specimens of forensic entomology		
	Draw and label graphic representation of post-mortem changes.		
	Infer the importance of putrefaction in toxicological analysis		
	Describe the process of Mummification		
	Describe the process of adipocere formation		
For-Th-003	Summarize the biochemical changes in blood, vitreous humour and CSF after death	Biochemistry	Bio chemical changes, after death.
	List of different parameters to determine PMI.		Estimation of

For-Th-004	Describe rate method and concurrent methods to estimate PMI.	Forensic Medicine	Post-mortem interval
For-Th-005	Define sudden death	Medicine	Sudden death
	Summarize common causes of sudden death		
For-Th-006	Differentiate between modes, manner cause and mechanism of death.		Mechanism, manner, cause, modes of death,
For-Th-007	Define and classify post mortem artefacts	Forensic medicine	Post-mortem artefacts
	Explain medico legal significance of artefacts.		
For-Th-008	Discuss the use of flow-cytometry in forensic medicine.		Flow-cytometry
For-Th-009	Define sudden infant death syndrome	Medicine	Sudden infant death syndrome (SIDS)
	Explain causes of sudden infant death syndrome and its pathological findings		

AUTOPSY

CODE	SPECIFIC LEARNING OUTCOMES	TOTAL HOURS = 6	
		INTEGRATING DISCIPLINE	TOPIC
For-Au-001	Define autopsy	Forensic medicine	Autopsy, Its types and objectives.
	Summarize types of autopsies		
	Compare the differences of medical and medico legal autopsy.		
	Enlist objectives of autopsy		
	Enlist Essentials of autopsy		
For-Au-002	Compare and contrast four death investigation systems <ul style="list-style-type: none"> i. Coroner s system, ii. Medical examiner system, iii. Continental system, iv. Procurator fiscal system in Scotland. 		Global systems of death investigations
For-Au-003	Define autopsy protocol. <ul style="list-style-type: none"> i. Preliminary documents required for ii. autopsy, 		Autopsy Protocol

	<ul style="list-style-type: none"> iii. Bio data. iv. Identification v. External examination vi. Internal examination vii. Conclusion. viii. Documentation. 		
	Differentiate between narrative and numerical autopsy protocol.		
For-Au-004	Describe primary autopsy incisions, secondary autopsy incisions and tertiary autopsy Incisions		Autopsy incisions
	Explain autopsy incisions to dissect neck, heart, brain, spinal cord, limb and bone marrow		
	Explain incisions to reveal pneumothorax, DVT, Fat embolism and pulmonary embolism		
For-Au-005	Describe 4 autopsy techniques- Letulle, Ghon, Virchow and Rokitansky		Autopsy techniques
For-Au-006	Describe the viscera with quantity to be taken for toxicological analysis		Collection of viscera at autopsy
	Describe the viscera with quantity to be taken for histopathological analysis.		
	Explain preservatives used for autopsy samples.		
	Demonstrate the preservation of different viscera to be sent to analyst.		
	Explain the autopsy protocol for collection/recovery, preservation, labelling and dispatch of biological and non-biological material		
For-Au-007	Describe standard autopsy suite		Essential of autopsy suite
	Summarize the requirements of autopsy room		
For-Au-008	Summarize the hazards of autopsy		Hazards of autopsy
For-Au-009	Define Negative autopsy		Negative autopsy
	Explain the causes of negative autopsy		

For-Au-010	Define exhumation		Exhumation
	Enlist the objectives of exhumation		
	Explain the procedure of exhumation		
	Enlist the specimens collected in exhumation		
	Enlist the limitations of exhumation		
	Summarize the precautions during exhumation		
For-Au-011	Summarize the objectives of autopsy on mutilated dead body/fragmentary remains	Anatomy	Examination of fragmentary / Mutilated / Skeletal remains
PERSONAL IDENTITY			
CODE	SPECIFIC LEARNING OUTCOMES	TOTAL HOURS = 05	
		INTEGRATING DISCIPLINE	TOPIC
For-PI-001	Define Personal Identity	Forensic Medicine	Personal Identity
	Describe types of personal identity		
	List the purpose of identification in Living & dead		
	Briefly describe the parameters of Personal Identity in living and dead		
	Describe different methods of determining personal identity		
	Enumerate surest methods to determine personal identity for identification		
	Enlist the ages of medico-legal importance for civil & criminal responsibility		
For-PI-002	Determine the age of a living person for medico-legal Purpose		Age determination
	Determine the age of a fetus regarding its length, weight & morphological features		
	Determine the age of an examinee from appearance & union of ossification centres of different bone		
	Identify the sequence of appearance of ossification		

	activity in intrauterine life.		
	Relate the medico-legal importance of bones in the identification		
For-PI-003	Determine the sex of an individual by carrying out anatomical, chromosomal investigations	Anatomy	Sex determination
	Diagnose the disorders of sexual development		
	Describe the Medico Legal Importance of Sex Determination		
	Enlist limitations of sex determination in Dead		
For-PI-004	Describe the process of estimation of age from primary, secondary & mixed dentition	Forensic Medicine	Forensic Odontology
	Describe different methods for age estimation from odontology		
	Enlist the information obtained from dental examination		
	Relate medico legal importance of identification with odontology		
For-PI-005	Determine Race of a person from different parameters		Race determination
For-PI-006	Determine stature of a person by different methods.		Stature estimation
For-PI-007	Describe anthropometry with reference to age Determination		Anthropometry
For-PI-008	Classify fingerprint patterns according to Galton's classification.		Dactylography
	Explain different methods of recording fingerprints.		
	Describe the advantages & medico legal importance of Dactylography		
	Define Poroscopy / Locards method		
For-PI-009	Describe the role of DNA Fingerprinting in identification.	Pathology	DNA Profiling
	Enlist the samples required for DNA profiling in medicolegal cases		
	Enumerate the medicolegal importance of DNA Fingerprinting		

For-Pl-010	Identify different methods of identification in case of mutilated, burnt and decomposed dead bodies	Forensic Medicine	Mass Disaster Identification
	Apply the international SOP of disaster Victim Identification (DVI) in mass disaster		
PRACTICAL / LAB WORK			
THANATOLOGY			
CODE	SPECIFIC LEARNING OUTCOMES	TOTAL HOURS = 06	
		INTEGRATING DISCIPLINE	TOPIC
For-Th-010	Demonstrate the immediate, early and late changes after death in a corpse.	Forensic Medicine	Autopsy
	Calculate time since death on the basis of findings noted in the corpse		
For-Au-011	Prepare a death certificate of cause of death according to WHO guidelines	Medicine	WHO guidelines of death certificate
AUTOPSY			
CODE	SPECIFIC LEARNING OUTCOMES	TOTAL HOURS = 05	
		INTEGRATING DISCIPLINE	TOPIC
For-Au-012	Demonstrate correct report writing	Forensic medicine	Autopsy report
For-Au-013	Observe the procedure of autopsy examination and dissection		autopsy
For-Au-014	Demonstrate the correct method of preservation and dispatch of specimens for histopathological and toxicological analysis	Pathology	Biological material
PERSONAL IDENTITY			
CODE	SPECIFIC LEARNING OUTCOMES	TOTAL HOURS = 05	
		INTEGRATING DISCIPLINE	TOPIC
For-Pl-011	Identify the person for different medico-legal cases (age determination, sex determination)	Forensic medicine	Personal identification

	Take fingerprints by plain and rolling method and classify according to Galton's Classification		
	Estimate & certify the age of a person for medico-legal purposes		
For-PI-012	Identify the bite marks and perform their analysis		Bite marks analysis
For-PI-013	Estimate the age of the person from the oral examination of the teeth	Forensic medicine	Age & sex determination
	Interpret the findings from x-rays of bones for appearance and union of ossification centres for age determination		
	Identify the sex and age from morphological features of different bones.		

CFRC

BLOCK 7

CFRC Code	Task/Skill	Discipline	Module	Signature DME/HOD
CFRC3-001	Prescribing antihypertensives	All rotations/Pharmacology Lab/Skills Lab	Pharmacology	
CFRC3-002	Prescribing antibiotics for infection			
CFRC3-003	Monitoring for drug side effects			
CFRC3-004	Adjusting medications based on response			
CFRC3-005	Knowledge of common drug classes relevant to foundational clinical care (e.g., antibiotics, analgesics, antihypertensives).			
CFRC3-006	Ability to calculate and adjust dosages for common medications based on patient factors.			
CFRC3-007	Perform proper hand hygiene, aseptic techniques, and basic infection control protocols.	All rotations	Foundation	
CFRC3-008	Demonstrate appropriate use of PPE and understand its importance in preventing healthcare-associated infections.	All rotations /Skill lab		
CFRC3-009	Take detailed patient history and perform general physical exams.	All rotations		
CFRC3-010	Understand fluid compartments and the basics of electrolyte balance.			
CFRC3-011	Offer guidance on health maintenance, such as hygiene, nutrition, and medication adherence.			
CFRC3-012	Perform and interpret measurements of vital signs (e.g., BP, pulse, temperature, respiratory rate).			Hematopoetic

CFRC3-013	Recognize abnormal vital signs and escalate care accordingly.			
CFRC3-014	Perform basic blood sampling (e.g., venipuncture) with proper aseptic technique.			
CFRC3-015	Order common hematologic tests (e.g., CBC, blood typing, coagulation profile).			
CFRC3-016	Interpret basic hematologic lab results, including CBC parameters (e.g., hemoglobin, WBC count, platelets).			

WEEKLY TIMETABLES

3 rd year MBBS 2024-2025							
WEEK- 01/09							
Day/Date	8:30-9:10	9:10-9:50	9:50-10:40	10:40-11:30	11:30-12:20	12:20-12:55	12:55-1:30
Monday 17/3/2025	Introduction to Module	Forensic Medicine LGIS	Clinical Ward	Practical Pharmacology A Pathology B Forensic Medicine C	SGD Pharmacology A Pathology B Forensic Medicine C	Pharmacology LGIS	Pathology LGIS
Tuesday 18/3/2025	Pharmacology LGIS	Pathology LGIS	Clinical Ward	Practical Pharmacology B Pathology C Forensic Medicine A	SGD Pharmacology B Pathology C Forensic Medicine A	Forensic Medicine LGIS	Biochemistry LGIS
Wednesday 19/3/2025	Forensic Medicine LGIS	Pharmacology LGIS	Clinical Ward	Practical Pharmacology C Pathology A Forensic Medicine B	SGD Pharmacology C Pathology A Forensic Medicine B	Surgery LGIS	Pathology LGIS
Thursday 20/3/2025	Pathology LGIS	Pharmacology LGIS	Clinical Ward	Pharmacology LGIS	Pathology LGIS	PERLS	Community Medicine LGIS
Friday 21/3/2025	Pathology LGIS	Pharmacology LGIS	Clinical Ward	10:40-11:15	11:15-11:50	11:50-12:25	12:25-1:00
				Pharmacology LGIS	PERLS	DSL Pharmacology (Formative Assessment)	Expository

3 rd year MBBS 2024-2025							
WEEK- 02/09							
Day	8:30-9:10	9:10-9:50	9:50-10:40	10:40-11:30	11:30-12:20	12:20-12:55	12:55-1:30
Monday 24/3/2025	Patient Safety	Forensic Medicine LGIS	Clinical Ward	Practical Pharmacology A Pathology B Forensic Medicine C	SGD Pharmacology A Pathology B Forensic Medicine C	Pharmacology LGIS	Pathology LGIS
Tuesday 25/3/2025	Pharmacology LGIS	Pathology LGIS	Clinical Ward	Practical Pharmacology B Pathology C Forensic Medicine A	SGD Pharmacology B Pathology C Forensic Medicine A	Forensic Medicine LGIS	Biochemistry LGIS
Wednesday 26/3/2025	Forensic Medicine LGIS	Pharmacology LGIS	Clinical Ward	Practical Pharmacology C Pathology A Forensic Medicine B	SGD Pharmacology C Pathology A Forensic Medicine B	Medicine LGIS	Pathology LGIS
Thursday 27/3/2025	Pathology LGIS	Pharmacology LGIS	Clinical Ward	Pharmacology LGIS	Pathology LGIS	PERLS	Community Medicine LGIS
Friday 28/3/2025	Pathology LGIS	Pharmacology LGIS	Clinical Ward	10:40-11:15	11:15-11:50	11:50-12:25	12:25-1:00
				Pharmacology LGIS	PERLS	DSL Pathology (Formative Assessment)	Expository

3 rd year MBBS 2024-2025							
EID-UL-FITAR							
Day	8:00-8:50	8:50-9:40	9:40-11:10	11:10-12:10	12:10-1:40	1:40-2:20	2:20-3:00
Monday 31/3/2025	EID-UL-FITAR						
Tuesday 1/4/2025							
Wednesday 2/4/2025							
Thursday 3/4/2025							
Friday 4/4/2025							

3 rd year MBBS 2024-2025								
WEEK- 03/09								
Day	8:00-8:50	8:50-9:40	9:40-11:10	11:10-12:10	12:10-1:10	1:10-1:40	1:40-2:20	2:20-3:00
Monday 7/4/2025	Assessment 1	Forensic Medicine LGIS	Clinical Ward	Practical Pharmacology A Pathology B Forensic Medicine C	SGD Pharmacology A Pathology B Forensic Medicine C	B R E A K	Pharmacology LGIS	Pathology LGIS
Tuesday 8/4/2025	Physiology LGIS	Pathology LGIS	Clinical Ward	Practical Pharmacology B Pathology C Forensic Medicine A	SGD Pharmacology B Pathology C Forensic Medicine A		Forensic Medicine LGIS	Pharmacology LGIS
Wednesday 9/4/2025	Forensic Medicine LGIS	Pharmacology LGIS	Clinical Ward	Practical Pharmacology C Pathology A Forensic Medicine B	SGD Pharmacology C Pathology A Forensic Medicine B		Surgery LGIS	Pathology LGIS
Thursday 10/4/2025	Pathology LGIS	Pharmacology LGIS	Clinical Ward	Pharmacology LGIS	Pathology LGIS		PERLS	Community Medicine LGIS
Friday 11/4/2025	Pathology LGIS	Pharmacology LGIS	Clinical Ward	11:10-12:05 Pharmacology LGIS	12:05-1:00 PERLS		Friday 1:00-1:40	DSL Forensic Medicine (Formative Assessment)

3 rd year MBBS 2024-2025								
WEEK- 04/09								
Day	8:00-8:50	8:50-9:40	9:40-11:10	11:10-12:10	12:10-1:10	1:10-1:40	1:40-2:20	2:20-3:00
Monday 14/4/2025	Patient Safety	Forensic Medicine LGIS	Clinical Ward	Practical Pharmacology A Pathology B Forensic Medicine C	SGD Pharmacology A Pathology B Forensic Medicine C	B R E A K	Pharmacology LGIS	Pathology LGIS
Tuesday 15/4/2025	Physiology LGIS	Pathology LGIS	Clinical Ward	Practical Pharmacology B Pathology C Forensic Medicine A	SGD Pharmacology B Pathology C Forensic Medicine A		Forensic Medicine LGIS	Pharmacology LGIS
Wednesday 16/4/2025	Forensic Medicine LGIS	Pharmacology LGIS	Clinical Ward	Practical Pharmacology C Pathology A Forensic Medicine B	SGD Pharmacology C Pathology A Forensic Medicine B		Medicine LGIS	Pathology LGIS
Thursday 17/4/2025	Pathology LGIS	Pharmacology LGIS	Clinical Ward	Pharmacology LGIS	Pathology LGIS		PERLS	B. Sciences LGIS
Friday 18/4/2025	Pathology LGIS	Pharmacology LGIS	Clinical Ward	11:10-12:05 Pharmacology LGIS	12:05-1:00 PERLS		Friday 1:00- 1:40	DSL Pharmacology (Formative Assessment)

3 rd year MBBS 2024-2025								
WEEK- 05/09								
Day	8:00-8:50	8:50-9:40	9:40-11:10	11:10-12:10	12:10-1:10	1:10-1:40	1:40-2:20	2:20-3:00
Monday 21/4/2025	Assessment 2	Forensic Medicine LGIS	Clinical Ward	Practical Pharmacology A Pathology B Forensic Medicine C	SGD Pharmacology A Pathology B Forensic Medicine C	B R E A K	Pharmacology LGIS	Pathology LGIS
Tuesday 22/4/2025	Pharmacology LGIS	Pathology LGIS	Clinical Ward	Practical Pharmacology B Pathology C Forensic Medicine A	SGD Pharmacology B Pathology C Forensic Medicine A		Forensic Medicine LGIS	Expository
Wednesday 23/4/2025	Forensic Medicine LGIS	Pharmacology LGIS	Clinical Ward	Practical Pharmacology C Pathology A Forensic Medicine B	SGD Pharmacology C Pathology A Forensic Medicine B		Surgery LGIS	Pathology LGIS
Thursday 24/4/2025	Pathology LGIS	Pharmacology LGIS	Clinical Ward	Pharmacology LGIS	Pathology LGIS		PERLS	B. Sciences LGIS
Friday 25/4/2025	Pathology LGIS	Pharmacology LGIS	Clinical Ward	11:10-12:05 Pharmacology LGIS	12:05-1:00 PERLS		Friday 1:00- 1:40	DSL Pathology (Formative Assessment)

3 rd year MBBS 2024-2025									
WEEK- 06/09									
Day	8:00-8:50	8:50-9:40	9:40-11:10	11:10-12:10	12:10-1:10	1:10-1:40	1:40-2:20	2:20-3:00	
Monday 28/4/2025	Patient Safety	Forensic Medicine LGIS	Clinical Ward	Practical Pharmacology A Pathology B Forensic Medicine C	SGD Pharmacology A Pathology B Forensic Medicine C	B R E A K	Pharmacology LGIS	Pathology LGIS	
Tuesday 29/4/2025	Pharmacology LGIS	Pathology LGIS	Clinical Ward	Practical Pharmacology B Pathology C Forensic Medicine A	SGD Pharmacology B Pathology C Forensic Medicine A		Forensic Medicine LGIS	PERLS	
Wednesday 30/4/2025	Forensic Medicine LGIS	Pharmacology LGIS	Clinical Ward	Practical Pharmacology C Pathology A Forensic Medicine B	SGD Pharmacology C Pathology A Forensic Medicine B		Medicine LGIS	Pathology LGIS	
Thursday 1/5/2025	LABOUR DAY								
Friday 2/5/2025	Pathology LGIS	Pharmacology LGIS	Clinical Ward	11:10-12:05 Pharmacology LGIS	12:05-1:00 PERLS		Friday 1:00- 1:40	DSL Forensic Medicine (Formative Assessment)	Expository

3 rd year MBBS 2024-2025								
WEEK- 07/09								
Day	8:00-8:50	8:50-9:40	9:40-11:10	11:10-12:10	12:10-1:10	1:10-1:40	1:40-2:20	2:20-3:00
Monday 5/5/2025	Assessment 3	Forensic Medicine LGIS	Clinical Ward	Practical Pharmacology A Pathology B Forensic Medicine C	SGD Pharmacology A Pathology B Forensic Medicine C	B R E A K	Pharmacology LGIS	Pathology LGIS
Tuesday 6/5/2025	Pharmacology LGIS	Pathology LGIS	Clinical Ward	Practical Pharmacology B Pathology C Forensic Medicine A	SGD Pharmacology B Pathology C Forensic Medicine A		Forensic Medicine LGIS	PERLS
Wednesday 7/5/2025	Forensic Medicine LGIS	Pharmacology LGIS	Clinical Ward	Practical Pharmacology C Pathology A Forensic Medicine B	SGD Pharmacology C Pathology A Forensic Medicine B		Surgery LGIS	Pathology LGIS
Thursday 8/5/2025	Pathology LGIS	Pharmacology LGIS	Clinical Ward	Pharmacology LGIS	Pathology LGIS		PERLS	B. Sciences LGIS
Friday 9/5/2025	Pathology LGIS	Pharmacology LGIS	Clinical Ward	11:10-12:05 Pharmacology LGIS	12:05-1:00 PERLS		Friday 1:00- 1:40	DSL Pharmacology (Formative Assessment)

3 rd year MBBS 2024-2025								
WEEK- 08/09								
Day	8:00-8:50	8:50-9:40	9:40-11:10	11:10-12:10	12:10-1:10	1:10-1:40	1:40-2:20	2:20-3:00
Monday 12/5/2025	Patient Safety	Forensic Medicine LGIS	Clinical Ward	Practical Pharmacology A Pathology B Forensic Medicine C	SGD Pharmacology A Pathology B Forensic Medicine C	B R E A K	Pharmacology LGIS	Pathology LGIS
Tuesday 13/5/2025	Pharmacology LGIS	Pathology LGIS	Clinical Ward	Practical Pharmacology B Pathology C Forensic Medicine A	SGD Pharmacology B Pathology C Forensic Medicine A		DSL Pathology (Formative Assessment)	Forensic Medicine LGIS
Wednesday 14/5/2025	Forensic Medicine LGIS	Pharmacology LGIS	Clinical Ward	Practical Pharmacology C Pathology A Forensic Medicine B	SGD Pharmacology C Pathology A Forensic Medicine B		Medicine LGIS	Pathology LGIS
Thursday 15/5/2025	Pathology LGIS	Pharmacology LGIS	Clinical Ward	Pharmacology LGIS	Pathology LGIS		PERLS	B. Sciences LGIS
Friday 16/5/2025	Pathology LGIS	Pharmacology LGIS	Clinical Ward	11:10-12:05 Pharmacology LGIS	12:05-1:00 PERLS		Friday 1:00- 1:40	DSL Forensic Medicine (Formative Assessment)

3 rd year MBBS 2024-2025								
WEEK- 09/09								
Day	8:00-8:50	8:50-9:40	9:40-11:10	11:10-12:10	12:10-1:10	1:10-1:40	1:40-2:20	2:20-3:00
Monday 19/5/2025	Assessment 4	Forensic Medicine LGIS	Clinical Ward	Practical Pharmacology A Pathology B Forensic Medicine C	SGD Pharmacology A Pathology B Forensic Medicine C	B R E A K	Pharmacology LGIS	Pathology LGIS
Tuesday 20/5/2025	Pharmacology LGIS	Pathology LGIS	Clinical Ward	Practical Pharmacology B Pathology C Forensic Medicine A	SGD Pharmacology B Pathology C Forensic Medicine A		DSL Pharmacology (Formative Assessment)	Forensic Medicine LGIS
Wednesday 21/5/2025	Forensic Medicine LGIS	Pharmacology LGIS	Clinical Ward	Practical Pharmacology C Pathology A Forensic Medicine B	SGD Pharmacology C Pathology A Forensic Medicine B		Surgery LGIS	Pathology LGIS
Thursday 22/5/2025	Pathology LGIS	Pharmacology LGIS	Clinical Ward	Pharmacology LGIS	Pathology LGIS		DSL Pathology (Formative Assessment)	PERLS
Friday 23/5/2025	Pathology LGIS	Pharmacology LGIS	Clinical Ward	11:10-12:05 Pharmacology LGIS	12:05-1:00 PERLS		Friday 1:00- 1:40	DSL Forensic Medicine (Formative Assessment)

3 rd year MBBS 2024-2025							
BLOCK EXAM WEEK							
Day	8:00-8:50	8:50-9:40	9:40-11:10	11:10-12:10	12:10-1:10	1:40-2:20	2:20-3:00
Monday 26/5/2025	BLOCK EXAM						
Tuesday 27/5/2025							
Wednesday 28/5/2025							
Thursday 29/5/2025							
Friday 30/5/2025							

ASSESSMENTTOOLS

Students will be assessed by the following methods

1. Fortnightly Assessments

Assessments will be conducted every Monday.

2. Assignments/PBLs:

Assignments/PBLs will be given monthly.

3. Block Exam:

At the end of block an exam will be conducted comprising of theory(MCQs & SEQs) and practical/OSPE content.

4. Departmental quizzes, presentations & group projects:

Above mentioned can be the assessment tools for different departments on their will.

YEAR-3

Subject	Theory		Practical			Total
BLOCK 7 Modules (Foundation-II + Hematopoietic, Immunity & Implant + General & Clinical Pharmacology + Forensic Medicine & Toxicology-I)	Part I MCQs (90)	90 Marks	Practical /Clinical Examination	11 OSPE 01 OSCE 03 OSVE	Marks 88 10 42	350
	Part II SEQs (10)	50 Marks				
	Internal Assessment 10%	35 Marks	Internal Assessment 10%	35 Marks		
	Total	175	Total	175		
BLOCK 8 Modules (Neoplasia + Infectious Diseases + Musculoskeletal & Locomotion-II + Forensic Medicine & Toxicology- II)	Part I MCQs (90)	90 Marks	Practical /Clinical Examination	11 OSPE 01 OSCE 03 OSVE	Marks 88 10 42	350
	Part II SEQs (10)	50 Marks				
	Internal Assessment 10%	35 Marks	Internal Assessment 10%	35 Marks		
	Total	175	Total	175		
BLOCK 9 Modules (Cardiovascular -II + Respiratory II + Community Medicine & Public Health + Family Medicine I + Forensic Medicine & Toxicology- III)	Part I MCQs (90)	90 Marks	Practical /Clinical Examination	11 OSPE 01 OSCE 03 OSVE	Marks 88 10 42	350
	Part II SEQs (10)	50 Marks				
	Internal Assessment 10%	35 Marks	Internal Assessment 10%	35 Marks		
	Total	175	Total	175		
Total Marks:						1050

MBBS 3rd Professional

Block-7

Subject	Written Exam			Oral/Practical/Clinical Exam			
	MCQ (1 mark)	SEQ (5 mark each)	Marks	OSPE /OSCE (8 marks each observed)	OSCE (10 marks each observed)	OSVE (14 marks each observed)	Marks
Pharmacology	30	05	55	03	-	01	38
Pathology	30	04	50	03	-	01	38
Family Medicine	-	-	-	-	-	-	-
Community Medicine	02	-	02	01	-	-	08
Surgery	05	-	05	01	-	-	08
Medicine	05	-	05	01	-	-	08
Forensic	13	01	18	01	-	01	22
Behavioral	02	-	02	-	-	-	-
Patient Safety	03	-	03	-	-	-	-
CFRC	-	-	-	01	-	-	08
PERLs + Expository	-	-	-	-	01	-	10
Total	90	10x5=50	140	11 stations x 08 = 88	01 stations x 10 = 10	03 stations x 14=42	140

Internal Assessment (Theory)

Sr #	Scoring Parameter	Marks out of 20%	Marks distribution
1	Attendance in Lectures	85-90%=1%, > 90%=2%	85-90%= 01 mark > 90%= 02 marks
		Remedial classes – re-sit examination allowed only after case endorsed and submitted by the college Principal and approval given by the Competent Authority . However, no marks given	
		Remedial classes – re-sit exam allowed only in genuine cases after approval from Competent Authority . However, no marks given	
2	Block Examination	15%	27
3	Continuous Assessment/Class participation/ Behaviour/ Leadership traits/ Discipline/Punctuality	3%	06

Internal Assessment (Practical & Behavioral)

Sr #	Scoring Parameter	Marks out of 20%	Marks distribution
1	Attendance in Practicals & Rotations	85-90%=1%, > 90%=2%	85-90%= 01 mark > 90%= 02 marks
		Remedial classes – re-sit examination allowed only after case endorsed and submitted by the college Principal and approval given by the Competent Authority . However, no marks given	
		Remedial classes – re-sit exam allowed only in genuine cases after approval from Competent Authority . However, no marks given	
2	Block Examination (OSPE/OSCE/OSVE)	13%	23
3	CFRC Log Book / PERLs Portfolio	02%	06
4	Ward / Clinical / Bedside assessment based on the clinical rotation / DOPS	02%	04

List of Resources

Anatomy

- Snell's Clinical Anatomy 10th ed.
- Langman's Medical Embryology 12th ed
- Medical Histology by Laiq Hussain Siddiqui 8th edition.
- General Anatomy by Laiq Hussain Siddiqui 6th edition.

Biochemistry

- Harpers illustrated Biochemistry (latest edition). Rodwell.V.W MCGrawHill publishers.
- Lippincott illustrated Review (latest edition). Kluwer.W.
- Essentials of Medical Biochemistry vol 1&2 by Mushtaq Ahmed.

Pathology

- Vinary Kumar, Abul K. Abbas and Nelson Fausto Robbins and Cotran, Pathologic basis of disease. WB Saunders.
- Robbins and Cotran Pathological Basis of Disease. Kumar, V., Abbas, A. and Aster, J. Latest Edition
- Richard Mitchall, Vinary Kumar, Abul K. Abbas and Nelson Fausto Robbins and Cotran, Pocket Companion to Pathologic basis of diseases, Saunder Harcourt.
- Walter and Israel. General Pathology. Churchill Livingstone.
- Robbins & Kumar, Medical Microbiology and Immunology Levinson.

General Medicine

- Principles and Practice of Medicine by Davidson (latest edition)
- Clinical Medicine by Parveen J Kumar & Michael Clark
- Oxford Handbook of Medicine
- Macleod's Clinical Examination book
- Medicine and Toxicology by C.K. Parikh
- Hutchison's Clinical Methods by Michael Swash. 21st edition

Pharmacology And Therapeutics

- Katzung and Trevor's Pharmacology: Examination and Board Review- 15th Edition
- Basic and Clinical Pharmacology by Bertram G Katzung (case scenarios only) - 16th Edition-
- Current Medical Diagnosis and Treatment- reference book –Edition-2024
- Basic and Clinical Pharmacology by Bertram G Katzung (case scenarios only) - 15th Edition
- Basic and Clinical Pharmacology by Katzung, McGraw-Hill. 16th Edition.

- Pharmacology by Champe and Harvey, Lippincott Williams & Wilkins 8th Edition.
- Katzung Basic and Clinical pharmacology, Lippincot Illustated reviews.
- Clinical Pathology Interpretations by A. H. Nagi

Behavioural Sciences

- Handbook of Behavioural Sciences by Prof. Mowadat H.Rana, 3rd Edition
- Medical and Psychosocial aspects of chronic illness and disability 6th edition by Donna R.Falvo and Beverly E.Holland,
- Integrating behavioral sciences in healthcare, Asma Humayun,2003, 1st edition

Community medicine

- Parks Textbook of Preventive and Social Medicine. K. Park
- Public Health and Community Medicine by Ilyas Ansari
- MSDS manual of Government of Punjab
- Text book of Community Medicine by Park J E. Latest Edition

Surgery

- Bailey & Love's Short Practice of Surgery (latest edition)
- Browse's Introduction to the Symptoms & Signs of Surgical Disease 4th Edition
- Bailey & Love Short Practice of Surgery, Clinical Surgery pearls by Dayananda Babu RACS for Surgical Audits.

Patient Safety

- Patient Safety Currciulum Guide: Multi Professional Guide

Microbiology

- Levinson's review of Microbiology
- Medical Microbiology and Immunology by Levinson and Jawetz,

Pediatrics Medicine

- Nelson Textbook of Pediatrics
- Basis of Pediatrics by Pervez Akbar Khan

Gynecology

- Gynecology by Ten Teachers

Infection Control

- National Guidelines Infection Prevention and control, National Institute of Health Pakistan

Biosafety

- Biosafety in Microbiological and Biomedical Laboratories, 6th Edition (CDC, USA)
- WHO Laboratory Biosafety Manual, Fourth Edition, And Associated Monographs
- WHO safe management of wastes from healthcare facilities chapter 7 -8 page 77-99, 105-125)

Family medicine

- Oxford Handbook of General Practice, 5th Edition

Orthopedics

- Apley and Solomon's System of Orthopaedics and Trauma by Ashley Blom (Editor)

Rheumatology

- Davidson's Principles and Practice of Medicine
- Clinical Medicine by Parveen J Kumar & Michael Clark
- Hutchison's Clinical Methods by Michael Swash

Radiology

- Aids to Radiological Differential Diagnosis by Chapman S. and Nakielny R. 4th edition. Elsevier Science Limited; 2003.

Forensic Medicine

- Knight's Forensic Pathology by Barnard Knight 3rd edition
- G. Principles and Practice of Forensic Medicine by Prof. Nasib R. Awan, 2nd edition
- Forensic DNA Typing – 2nd Edition, Author: John M. Butler
- Parikh's Text book of Medical Jurisprudence, Forensic Medicine and Toxicology by C.K. Parikh 6th Ed., CBS Publisher.
- Gun Shot Wounds 2nd edition by V.J. De Maio
- Knight B. Simpson's Forensic Medicine.
- Knight and Pekka. Principles of Forensic Medicine

Forensic Pathology

- Forensic pathology 2nd edition by V.J. De Maio CRC press Boca Raton London New York Washington DC

Toxicology

- Principles of clinical toxicology 3rd edition Thomas. Gossel CRC press Taylor and Francis group

Forensic Sciences

- Fundamentals of Forensic Science- 3rd Edition: Author: Max M Houck, Jay A. Siegel
- Text Book of forensic medicine and toxicology Principles and Practice 5th edition by Krishan Vig

Biomedical ethics

- Principles of Biomedical ethics, 8th edition by Tom. L. Beauchamp, James F. Childress.

Evidence Based Medicine

- Databases for the latest articles/manuscripts
- Clinical Practice Guidelines- local and international - (within last 3 years)
- Books (Latest edition-within last 5 years)

Pediatrics

- Nelson's Book of Pediatric 22 edition Illustrated book of Pediatrics, Pervaiz Akbar textbook pediatrics medicine

Islamiyat

- Standard Islamiyat (compulsory) for B.A, BSc, MA, MSc, MBBS by Prof M Sharif Islahi.
- Ilmi Islamiyat(compulsory) for BA, BSc & equivalent.

Block-7 Coordinators

PHARMACOLOGY

Dr. Muhammad Usman (BLOCK LEAD)

Assistant Professor Pharmacology

Office: AP Office Pharmacology, Academic block2, First Floor

Office Hours: Monday to Friday from 0800 Hours till 1500Hours

PATHALOGY

Dr.Rana Muhammad Asad

Senior Lecturer Pathology

Office: Pathology, Academic block1, Ground Floor

Office Hours: Monday to Friday from 0800 Hours till 1500Hours

FORENSIC MEDICINE

Prof. Alvina Raja

HoD & Professor of Forensic Medicine

Office: Forensic Medicine Department Academic block 1, First Floor

Office Hours: Monday to Friday from 0800Hours till 1500Hours

ANATOMY

Prof. Noreen Waseem

Professor of Anatomy

Office: Anatomy Department Academic block 1, First Floor

Office Hours: Monday to Friday from 0800Hours till 1500Hours

PHYSIOLOGY

Dr.Maimoona Shafiq

HOD/Professor of Physiology

Office: HOD Office Physiology, Academic block 1, Ground Floor

Office Hours: Monday to Friday from 0800 Hours till 1500Hours

BIOCHEMISTRY

Dr. Muhammad Usman Karim

Demonstrator Biochemistry

Office: Biochemistry Department Academic block 1, First Floor

Office Hours: Monday to Friday from 0800 Hours till 1500Hours

COMMUNITY MEDICINE

Dr. Arooj

Lecturer Community Medicine

Office: Community Medicine, Academic block1,First Floor

Office Hours: Monday to Friday from 0800 Hours till 1500 Hours

BEHAVIOUR SCIENCES

Dr. Rubab Waseem

Senior Lecturer Behavioural Sciences

Office Hours: Monday to Friday from 0800 Hours till 1500Hours

MEDICINE

Dr.Momin/Dr. Zara

SUGERY

Dr. Shafaq

GYNAECOLOGY

Dr. Anoos Butt

PAEDIATRICS

Dr. Ghanwa

IMPORTANTNOTE

To be able to sit in Annual Exam

**85% attendance and at least 50% in internal
assessment is mandatory**

DISCLAIMER

This module guide may be subject to changes and students should stay updated through official communication change.

