





Block-6 NEUROSCIENCES-I & INFLAMMATION

Study Guide 2025

Second Year MBBS

ISLAM MEDICAL COLLEGE

Sialkot–Pakistan

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Block-6

**NEUROSCIENCES-I &
INFLAMMATION**

STUDY GUIDE

MODULE LEAD DETAILS

Hello, I am Dr. Tabinda Fatima working as an Assistant Professor in Department of Biochemistry at Islam Medical and Dental College, Sialkot and now acting as a Module Lead of Neurosciences-I and inflammation module Block-6. You can come to meet me in Biochemistry Department, Academic Block 1 from 08:00 –15:00 hours on weekdays. You can also contact me freely on my email tabindafatima831@gmail.com.

BLOCKOVERVIEW

Neurosciences-I Module:

The neurosciences module is crucial as understanding the brain and nervous system is essential for diagnosing and treating a wide range of neurological and psychiatric conditions. This includes conditions such as Alzheimer's disease, Parkinson's disease, epilepsy, migraines, traumatic brain injuries, depression, schizophrenia, and autism. By studying neurosciences, medical students will gain the knowledge and skills necessary to accurately diagnose and effectively treat these conditions.

Inflammation Module:

The objective of teaching inflammation to undergraduate students is to impart knowledge about cellular and molecular mechanisms of cell injury, inflammation, and repair. This understanding serves as the foundation for comprehending most disease processes within the body. It equips students to apply this knowledge in the clinical field when working with real-life patients.

BLOCKLEARNINGOUTCOMES

Neurosciences-I Module:

- Describe the neuroanatomy, histology and embryology of the central nervous system.
- Discuss the physiology of Autonomic Nervous System (ANS), motor and sensory system.
- Explain the pathophysiology of common diseases pertaining to the nervous system.
- Explain a basic management and prevention plan for common neurological disorders.
- Appreciate the burden of neuroscience disorders and their psychosocial impact.

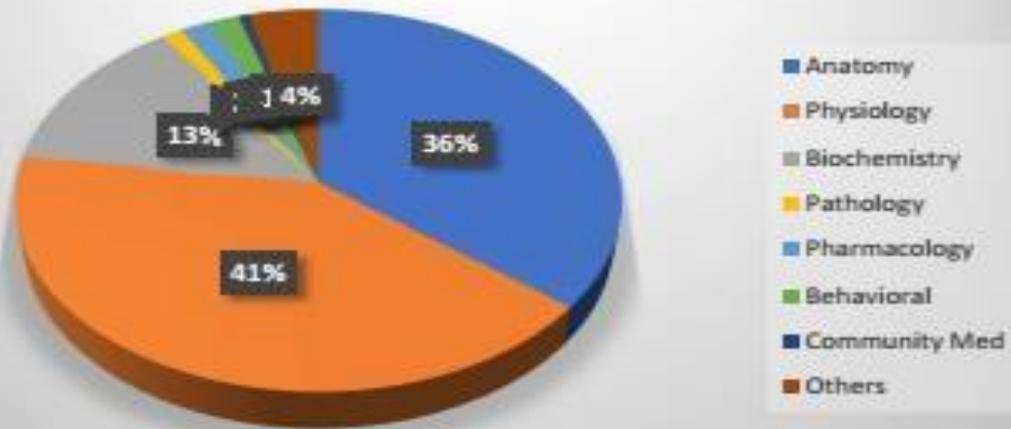
Inflammation Module:

- Define inflammation and describe its fundamental characteristics.
- Explain the cellular and molecular mechanisms that underlie the inflammatory response.
- Differentiate between acute and chronic inflammation
- Discuss the physiological role of inflammation in tissue repair and host defense.
- Identify how dysregulated inflammation contributes to the pathogenesis of various diseases.
- Describe the key inflammatory mediators, including cytokines, chemokines, and prostaglandins.
- Illustrate the signaling pathways involved in the initiation and resolution of inflammation.
- Recognize the roles of different immune cells (e.g., neutrophils, macrophages, lymphocytes) in the inflammatory response.
- Discuss the pharmacological aspects of steroidal and non-steroidal anti-inflammatory drugs
- Discuss the clinical aspects of inflammation.

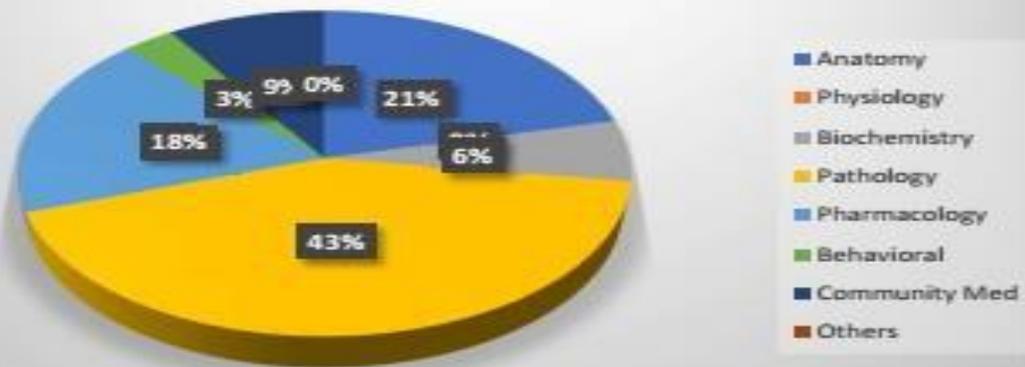
BLOCK SCHEDULE

Block weeks	7weeks
Recommended minimum hours	171+33
Start of Block	20th october 25
Last Day	5th December,25
Tentative Block Exam	12th December,25

Neurosciences-I



Inflammation



NEUROSCIENCES-I MODULE CONTENTS

NORMAL STRUCTURE			
THEORY			
CODE	GROSS ANATOMY	TOTAL HOURS = 46	
	SPECIFIC LEARNING OUTCOMES	DISCIPLINE	TOPIC
NS-A-001	Describe the basic organization of nervous system	Human Anatomy	Nervous system
	Identify and describe the components of the Nervous system and their function	Human Anatomy	
NS-A-002	Trace the Origin, exit from vertebral canal, branches & Distribution of typical spinal nerve.	Human Anatomy	Spinal Nerves
NS-A-003	<p>Identify the Location, Extent, Coverings and Blood supply of spinal cord</p> <p>Discuss & tabulate nuclear organization at different levels of Spinal cord.</p> <p>Describe, draw & label the transverse section of spinal cord at mid cervical level showing ascending & descending tracts</p> <p>Tabulate the sensory nerve endings, and anatomical sites of first, second, third order neurons of ascending tracts</p> <p>Tabulate first, second, third order neurons of descending tracts.</p> <p>Elaborate on the Cross-sectional details of white and gray matter of cervical, thoracic and lumbar segments of Spinal cord for localization of site of lesion.</p>	Human Anatomy	Spinal cord Clinical correlates (Spinal cord)
NS-A-004	Differentiate clearly between upper and lower motor neuron lesions	Human Anatomy	Brainstem
	Location, Relations, Blood supply and external	Human Anatomy	

	<p>features of medulla, pons midbrain.</p> <p>Cross sectional details of white and grey matter of Brain stem (mid brain, pons, medulla)</p> <p>Discuss clinical correlates of brain stem Medial and lateral medullary syndrome Weber syndrome, Benedikt syndrome</p>		
NS-A-005	<p>Location, Relations, Functional classification & Blood supply along with major connections of Cerebellum (Cerebellar Peduncles)</p> <p>Define important clinical correlates</p>	Human Anatomy	Cerebellum
NS-A-006	Identify the Lobes, Sulci & Gyri, Cortical areas. Describe Venous drainage and arterial supply of each lobe	Human Anatomy	Cerebrum
	Describe Functional areas of cerebrum. Draw and Label Homunculus. Define important clinical correlates		
	Describe internal structure of cerebral hemisphere; <ul style="list-style-type: none"> 1. white matter 2. Basal ganglia 3. Lateral ventricle 		
NS-A-007	Describe components & functions of Limbic system & Reticular formation		Limbic system. Reticular formation
NS-A-008	<p>Explain the origin, exit from the brain and intracranial course of cranial nerves</p> <p>Describe the Functional Components and specific functions of each cranial nerve.</p>	Human Anatomy	Cranial nerves
NS-A-009	Identify the Location and sub division of Diencephalon.	Human Anatomy	Diencephalon
NS-A-010	Discuss the Location, Relations, Blood supply, nuclei and major connections of Thalamus, Hypothalamus, Epithalamus, Subthalamus, Metathalamus	Human Anatomy	Thalamus and hypothalamus

	<p>Describe and Illustrate the Hypothalamic and pituitary gland Nuclei with their functions, location afferents.</p> <p>Describe the Hypothalamo-Hypophyseal Portal System</p> <p>Describe the functions of Hypothalamus</p> <p>Explain the anatomical basis for the Thalamic Cauterization, Thalamic Pain, Thalamic Hand and Hypothalamic Disorders</p>		
NS-A-011	Explain the Gross anatomy of Intracranial fossae with intracranial foramina	Human Anatomy	Intracranial fossa
NS-A-012	Explain the attachments, blood supply and nerve supply of the meninges of the brain	Human Anatomy	Meninges
NS-A-013	Discuss the Origin, tributaries & area of drainage, termination of Dural venous sinuses	Human Anatomy	Dural venous sinuses
NS-A-014	Explain the Formation, circulation and absorption into venous system of CSF (Cerebrospinal fluid) Describe ventricular system, Lateral, 3 rd & 4 th ventricles	Human Anatomy	CSF
NS-A-015	Discuss the Origin, course, branches and distribution of internal carotid artery, vertebral artery Formation, Location, branches and area of supply of Circle of Willis	Human Anatomy	Blood supply of brain & spinal cord
NS-A-016	Explain the Major subdivision of ANS into Sympathetic and parasympathetic nervous system with comparison of anatomical differences.	Human Anatomy	ANS
NS-A-017	Describe the Location, connections and functions of autonomic ganglion	Human Anatomy	Autonomic ganglia
NS-A-018	Explain the origin, termination and branches of the sympathetic chain Localize spinal cord lesions	Human Anatomy	Sympathetic chain
CODE	EMBRYOLOGY & POST-NATAL DEVELOPMENT	TOTAL HOURS = 03	

	SPECIFIC LEARNING OUTCOMES	DISCIPLINE	TOPIC
NS-A-019	Explain the Development of Neural tube and Brain vesicles. Discuss related clinical anomalies	Embryology	Neural tube development
NS-A-020	Describe the development of the spinal cord and related clinical anomalies	Embryology	Spinal cord development
NS-A-021	Describe development of Pituitary gland	Embryology	Pituitary gland
CODE	MICROSCOPIC ANATOMY (HISTOLOGY & PATHOLOGY)	TOTAL HOURS = 05	
	SPECIFIC LEARNING OBJECTIVES	DISCIPLINE	TOPIC
NS-A-022	Describe the histological structure of Nervous tissue, Neuron, Nerve fiber, Sensory & motor nerve endings, Neuroglia, Blood brain barrier, ganglia	Histology	Nervous tissue
NS-A-023	Describe the histological structure of the spinal cord	Histology	Spinal cord
NS-A-024	Describe the histological structure of Cerebrum, Cerebellum	Histology	Cerebrum, Cerebellum
PRACTICAL			
CODE	HISTOLOGY	TOTAL HOURS = 07	
	SPECIFIC LEARNING OBJECTIVES	DISCIPLINE	TOPIC
NS-A-025	Identify draw & label light microscopic structure of Peripheral nerve sensory ganglia, autonomic ganglia	Histology	CNS
NS-A-026	Identify Draw & label the light microscopic structure of the spinal cord	Histology	Cerebrum
NS-A-027	Identify Draw & label the light microscopic structure of the Cerebrum	Histology	Cerebellum
NS-A-028	Identify Draw & label the light m structure of the Cerebellum	Histology	Spinal Cord

NORMAL FUNCTION			
THEORY			
CODE	MEDICAL PHYSIOLOGY	TOTAL HOURS = 60	
	SPECIFIC LEARNING OBJECTIVES	DISCIPLINE	TOPIC
NS-P-001	Describe the general organization of nervous system	Medical Physiology	Organization of Nervous System, Neurons and Synapses
	Classify synapses		
	Explain physiological anatomy of synapses		
	Describe the properties of synaptic transmission		
	Classify the substances that act as neurotransmitters		
	Classify all sensory receptors in the body		
	Enumerate the properties of receptors		
	Explain the mechanism of adaptation of receptors		
	Enlist the rapid adapting mechanism of receptors		
NS-P-002	Explain the properties of receptors	Medical Physiology	Nerve fibers
	Explain the general classification of nerve fibers		
	Explain the numerical classification of nerve fibers		
	Explain Gasser classification of nerve fibers		
	Explain summation and its types		
NS-P-003	Describe the sensory areas of brain	Medical Physiology	Sensory areas of the brain
	Enlist Brodmann number of sensory areas		
	Describe the effects produced by damage to each sensory area of brain		
	Describe the pathophysiology and features of personal neglect syndrome		
NS-P-004	Classify and explain somatic sensations	Medical Physiology	Somatic sensations
NS-P-005	Enumerate the ascending tracts/Pathways		Ascending Tracts/ pathways
NS-P-006	Name the sensations carried by Dorsal column	Medical	Anterolateral

	medial lemniscus system DCMLS	Physiology	system
	Trace the pathway of DCMLS		
NS-P-007	Classify pain		Pain
	Differentiate between slow pain and fast pain		
	Describe the analgesia system in brain and spinal cord		
	Describe the cause and features of Brown Sequard Syndrome		
NS-P-008	Describe the Physiological anatomy of spinal cord		Spinal cord
	Name the anterior motor neurons and their location		
	Explain the Renshaw cells feedback		
	Classify the spinal cord reflexes according to number of synapses		
NS-P-009	Describe the structure & functions of Muscle spindle	Medical Physiology	Muscle Spindle and stretch reflex
	Trace the reflex arc of stretch reflex		
	Discuss the clinical significance of stretch reflex		
NS-P-110	Define tone and how it is maintained		Tone
NS-P-011	Trace the reflex arc of Golgi Tendon Organ GTO, Golgi tendon reflex Explain the importance of Golgi tendon reflex		GTO
NS-P-012	Name the motor areas of brain		Motor areas of the brain
	Enlist Brodmann number of motor areas of brain Explain the features produced due to damage to the motor areas		
NS-P-013	Enlist the functions of brain stem		Brainstem
NS-P-014	Enumerate the descending tracts	Medical Physiology	Descending tracts
	Describe the functions of Pyramidal tract		
	Describe the effect of lesions in motor cortex of brain or pyramidal tract		

NS-P-015	Discuss the location of upper and lower motor neuron		Location of motor neurons
	Explain the features of upper motor neuron lesion		
	Explain the features of lower motor neuron lesions		
NS-P-016	Define spinal shock		Spinal shock and hemi section
	Enumerate and explain the stages of spinal shock		
	Describe the features of hemi section of spinal cord (at the level, above the level, below the level)		
NS-P-017	Name the functional parts of cerebellum		Cerebellum
	Explain the functions of spinocerebellum		
	Describe the functions of cerebro cerebellum		
	Discuss the functions of vestibule cerebellum		
	Explain the clinical features of cerebellar disease		
NS-P-018	Name the components of Basal ganglia	Medical Physiology	Basal Ganglia
	EXPLAIN the putamen and caudate circuits		
	Enlist the neurotransmitters in basal ganglia and enlist the functions of basal ganglia		
	Enumerate and explain the clinical abnormalities of putamen circuit		
	Explain the pathophysiology and features of Huntington's disease		
	Explain the types of rigidity		
	Differentiate spasticity and rigidity		
	Define decerebrate rigidity		
NS-P-019	Enumerate the components of vestibular Apparatus	Medical Physiology	Vestibular apparatus
	Name the sensory organs of vestibular apparatus		
	Describe the role of vestibular Apparatus in maintenance of linear and angular equilibrium		
NS-P-020	Enlist the components of limbic system		Limbic system
	Describe the functions of amygdala		

	Explain the effects of bilateral ablation of the amygdala—The Klüver-Bucy Syndrome		
	Explain the functions of hippocampus		
	Explain the functions of Hypothalamus		
	Explain Functions of Thalamus		
	Discuss the Thalamic syndrome		
NS-P-021	define brain stem reticular formation (BRF), name the neurotransmitters of BRF, enlist functions of BRF, differentiate between the functions of Pontine and medullary reticular Formation	Medical Physiology	Brain stem reticular formation
NS-P-022	Enumerate and discuss the physiological basis of Electroencephalogram EEG waves		EEG
NS-P-023	Explain the types of sleep	Medical Physiology	Sleep
	Discuss the stages of slow wave sleep		
	Explain the changes in EEG during sleep wake cycle		
	Enumerate the areas and hormones/ neurotransmitters involved in sleep		
	Describe sleep disorders (narcolepsy, cataplexy, insomnia, somnolence, somnambulism, bruxism, nocturnal enuresis and sleep apnea)		
NS-P-024	Enumerate different types of epilepsy	Medical Physiology	Epilepsy
	Explain the features and physiological basis and EEG waves in different types of epilepsy		
NS-P-025	Define memory	Medical	Memory
	Classify memory on the basis of duration and information stored		
	Explain the Molecular Mechanism of Intermediate Memory		
	Enumerate the structural changes of long-term memory		
	Explain the higher intellectual functions of prefrontal		

	association cortex	Physiology	
	Explain the mechanism of consolidation of memory		
	Explain retrograde and anterograde amnesia		
	Explain the physiological basis and features of Alzheimer's disease		
NS-P-026	Enlist the areas of speech		Speech
	Explain the functions of motor and sensory areas of speech		
	Trace and explain the pathway of written and heard speech		
	Enlist the abnormalities of speech		
	Explain the features of motor aphasia		
	Elaborate the features of sensory aphasia		
	Define dyslexia, alexia, agraphia		
NS-P-027	Discuss Components of Autonomic nervous system	Medical Physiology	ANS
	Explain the physiological anatomy of sympathetic and parasympathetic nervous system		
	Describe the types of adrenergic and cholinergic receptors		
	Explain the effects of sympathetic and parasympathetic on various organs/ system of body		
CODE	MEDICAL BIOCHEMISTRY	TOTAL HOURS = 20	
	SPECIFIC LEARNING OBJECTIVES	DISCIPLINE	TOPIC
NS-B-001	Explain the digestion and absorption of lipids with enzymes involved in it. Discuss role of bile acids and salts in lipid digestion and absorption	Medical Biochemistry	Digestion and absorption of lipids
NS-B-002	Explain the concept of lipid transport and storage		Lipid transport and storage

NS-B-003	Discuss the reactions of beta-oxidation, alpha and omega oxidation of unsaturated and saturated fatty acids Calculate energy yield from palmitate in oxidation		Sphingolipidosis
NS-B-004	Discuss role of carnitine shuttle		Carnitine shuttle
NS-B-005	Discuss the role of citrate shuttle in fatty acid synthesis		Citrate shuttle
NS-B-006	Explain the pathway of fatty acid synthesis and its regulation Explain the steps of the reactions of hepatic ketogenesis and regulation		Fatty acid synthesis
NS-B-007	Describe utilization of ketone bodies by extrahepatic tissue. Describe the Synthesis and degradation of phospholipids and sphingolipids interpret the disorders related to enzyme deficiencies.		Metabolism of phosphor and sphingolipids
NS-B-008	Discuss the metabolism of glycolipids interpret the disorders related to enzyme deficiencies.		Glycolipid metabolism
NS-B-009	Explain fast feed cycle with reference to pathways activated and suppressed in each tissue in starved and fed state Discuss integration of metabolism		Fast feed cycle
NS-B-010	Explain fast. Discuss the structure, biochemical function and metabolism, dopamine, serotonin, histamine, GABA Correlate the biochemical functions of these neurotransmitters with their deficiency diseases	Medical Biochemistry	Neurotransmitters
NS-B-011	Explain proto-oncogene and oncogene concept.		Oncogene
NS-B-012	Discuss tumor markers and their significance.		Tumor markers

NS-B-013	Explain the role of genetics in cancers especially breast, ovary, lung and colon.		Cancer
NS-B-014	Discuss the concept of xenobiotics.		Xenobiotics

PRACTICAL

CODE	SPECIFIC LEARNING OBJECTIVES	TOTAL HOURS = 14	
		DISCIPLINE	TOPIC
NS-B-015	Interpret the lysosomal storage diseases on given data Neiman pick disease, Gaucher's disease etc.	Biochemistry Practical	Data Interpret
NS-B-016	Perform the estimation of triglycerides by kit method		Triglycerides estimation
NS-P-028	Examine the Sensory System	Physiology Practical	Sensory system
NS-P-029	Examine the Superficial Reflexes		Superficial Reflexes
NS-P-030	Examine the Deep Reflexes		Deep Reflexes
NS-P-031	Demonstrate Cerebellar Function Test		Cerebellar Tests
NS-P-032	Demonstrate the testing of Cranial Nerve (CN) VII		CN VII
NS-P-033	Demonstrate the Testing of Cranial Nerves (XI, XII)		CN X, XI, XII
NS-P-034	Examine the Motor system		Motor system

PATHOPHYSIOLOGY AND PHARMACOTHERAPEUTICS

CODE	SPECIFIC LEARNING OBJECTIVES	TOTAL HOURS = 05	
		DISCIPLINE	TOPIC
NS-Ph-001	1.Classify various opioid receptors 2.Describe Mechanism of Action (MOA), pharmacological actions, clinical uses and adverse effects of opioid agonist, mixed agonist -antagonist and antagonist	Pharmacology	Opioids
NS-Ph-002	1.Classify various CNS stimulants and depressants 2.Describe MOA, pharmacological actions, clinical uses and adverse effects of CNS stimulant and		CNS stimulants & depressants

	depressants		
NS-Pa-001	Define cerebral vascular accident (CVA). Discuss the etiology and morphological changes of Cerebrovascular accidents	Pathology	CVA
NS-Pa-002	Define Meningitis Identify types of meningitis		Meningitis
DISEASE PREVENTION AND IMPACT			
CODE	SPECIFIC LEARNING OBJECTIVES	TOTAL HOURS = 10	
		DISCIPLINE	TOPIC
NS-CM-001	Students should be able to depict the depth of problem in context of mental illnesses	Community Medicine and Public Health	Epidemiology of Mental Disorders
NS-CM-002	Able to learn the general approach to prevent mental illnesses at community level		Community based interventions for Mental Illnesses
NS-BhS-001	Explain the theoretical basis of classic conditioning, operant conditioning and observational learning with examples in medical practice Incorporate learning principles to help prepare people for medical interventions	Behavioral Sciences	Learning and Behavior
NS-BhS-002	Outline the structure of memory and explain the distinction between short- and long-term memory. Describe memory improvement techniques and how the appropriate ones will help patients recall long and complex explanations		Memory
NS-M-001	Identify various types of CVA (cerebrovascular accident) Describe various symptoms and signs Outline management strategies	Medicine	Stroke/CVA
NS-S-001	Discuss the role of surgery in stroke	Surgery	Stroke/CVA
NS-M-002	Define Epilepsy Enlist various types of epilepsy Identify various symptoms and signs Outline management strategies	Medicine	Epilepsy

NS-M-003	Enlist various types of meningitis Describe symptoms and signs Outline management strategies	Medicine/ Neurology	Meningitis
NS-S-002	Describe triage in ER Emergency Room	Surgery	Head injury
NS-S-003	Identify the various types of hematomas	Neurosurgery	Hematoma/ CVA
NS-Pe-001	Describe the clinical features of Cerebral Palsy	Pediatrics	Cerebral Palsy
AGING			
CODE	THEORY	TOTAL HOURS = 01	
	SPECIFIC LEARNING OBJECTIVES	DISCIPLINE	TOPIC
NS-Ag-001	Define dementia	Medicine	Dementia
	Discuss various causes for dementia		
	Discuss various risks for dementia		
	Outline management strategies		

INFLAMMATION MODULE CONTENTS

NORMAL STRUCTURE

THEORY

CODE	EMBRYOLOGY & POST-NATAL DEVELOPMENT	TOTAL HOURS = 03	
	SPECIFIC LEARNING OUTCOMES	DISCIPLINE	TOPIC
IN-A-001	Identify role of inflammation in implantation Development of cells involved in acute & chronic inflammation Development of integumentary system	Embryology	Role of inflammation in Implantation & Development of Integumentary System
CODE	MICROSHOPIC STRUCTURE	TOTAL HOURS = 02	
	SPECIFIC LEARNING OBJECTIVES	DISCIPLINE	TOPIC
IN-A-002	Discuss the microscopic structure of components involved in inflammation (cells, capillaries) Discuss the histology of integumentary system	Histology	Integumentary system & Inflammatory Response at Cellular Level

PRACTICAL

CODE	HISTOLOGY	TOTAL HOURS = 02	
	SPECIFIC LEARNING OBJECTIVES	DISCIPLINE	TOPIC
IN-A-003	Draw and identify microscopic structure of integumentary system	Histology	Integumentary System
CODE	MEDICAL BIOCHEMISTRY	TOTAL HOURS = 01	
	SPECIFIC LEARNING OBJECTIVES	DISCIPLINE	TOPIC
IN-B-001	Explain the biochemical and therapeutic roles of eicosanoids (prostaglandins, leukotrienes, thromboxane and prostacyclin)	Medical Biochemistry	Eicosanoids

PATHOPHYSIOLOGY AND PHARMACOTHERAPEUTICS			
CODE	SPECIFIC LEARNING OBJECTIVES	TOTAL HOURS = 06+12	
		DISCIPLINE	TOPIC
IN-Ph-001	Enumerate prostaglandin analogues Discuss the clinical use and adverse effect of prostaglandin analogues	Pharmacology & Therapeutics	Prostaglandin analogues
IN-Ph-002	Enlist anti-inflammatory drugs Differentiate between steroidal and non-steroidal anti-inflammatory drugs		Anti-inflammatory drugs
IN-Ph-003	Discuss mechanism of action, clinical usage, and adverse effects of steroidal anti-inflammatory drugs		Steroidal anti-inflammatory drugs
IN-Ph-004	Discuss mechanism of action, pharmacological effects, clinical usage, and adverse effects of non-steroidal anti-inflammatory drugs		Non-steroidal anti-inflammatory drugs (NSAIDs)
IN-Ph-005	Differentiate between selective and non-selective cyclooxygenase (COX) inhibitors Differentiate between Aspirin and paracetamol Classify antihistamines Discuss the role of histamines and antihistamines in inflammation and allergies, adverse effects and drug interactions		COX inhibitors
IN-Pa-001	Define acute inflammation Enlist stimuli for Acute Inflammation Recognize microbes, necrotic cells, and foreign substances causing acute inflammation Identify different components of inflammation Define necrosis and explain its type with example	Pathology	Acute inflammation
IN-Pa-002	Discuss the role of vascular and cellular events in acute inflammation Differentiate between transudate and exudate Classify chemical mediators Describe the different pathways of synthesis of chemical mediators and their role in clinical practice	Pathology	Process of acute inflammation

	<p>Discuss the role of different chemical mediators in acute inflammation</p> <p>Describe the different morphological patterns and outcomes of acute inflammation</p>		
IN-Pa-003	<p>Define chronic inflammation</p> <p>Discuss the role of chronic inflammatory cells and mediators in chronic inflammation</p> <p>Discuss the causes, pathophysiology and morphology of granulomatous inflammation</p> <p>Classify mycobacteria</p> <p>Explain the pathogenesis and lab diagnosis of mycobacterium tuberculosis</p> <p>Discuss the Runyon classification of atypical mycobacteria</p> <p>Discuss pathogenesis and lab diagnosis of leprosy</p>	<p>Pathology</p> <hr/> <p>Microbiology</p>	Chronic Inflammation
IN-Pa-004	<p>Discuss the concept of Cell Proliferation, the Cell Cycle and Stem Cells in tissue repair</p> <p>Discuss the role of Growth Factors, receptors, signal transduction and extracellular matrix Involved in Regeneration and Repair</p> <p>Explain the types of healing along with the steps in scar formation</p> <p>Identify the factors that influence the tissue repair</p> <p>Discuss the complication of wound healing</p> <p>-keloid, Hypertrophy, Scarring</p>	Pathology	Cell Repair

PRACTICAL

CODE	PATHOLOGY	TOTAL HOURS = 02	
	SPECIFIC LEARNING OBJECTIVES	DISCIPLINE	TOPIC
IN-Pa-005	<p>Identify the pathological features of acute inflammation</p> <hr/> <p>Identify the pathological features of chronic inflammation & granulomatous inflammation</p>	Pathology	Inflammation

DISEASE PREVENTION AND IMPACT			
CODE	SPECIFIC LEARNING OBJECTIVES	TOTAL HOURS = 03+01	
		DISCIPLINE	TOPIC
IN-CM-001	<p>Discuss the mode of transmission of communicable diseases</p> <p>Explain the general concept of prevention of communicable diseases</p> <p>Discuss the primary, secondary and tertiary prevention of acute and chronic diseases</p> <p>Discuss the role of immunoprophylaxis and chemoprophylaxis in prevention of communicable diseases</p>	Community Medicine and Public Health	Communicable Diseases
IN-BhS-001	Understand the correlation between psychological stress and inflammation	Behavioral Sciences	Role of Psychological stress in Inflammation
AGING			
CODE	THEORY	TOTAL HOURS = 01	
	SPECIFIC LEARNING OBJECTIVES	DISCIPLINE	TOPIC
IN-Ag-001	Explain inflammatory changes and role of leukotriene and cytokines in old age	Biochemistry	Inflammatory changes & signaling molecules in Aging

WEEKLY TIME TABLES

NEUROSCIENCES-I & INFLAMMATION

WEEK- 01/07												
Date	Day	8:00 - 10:00			10:00 - 10:50	10:50 - 11:40	11:40 - 1:10		1:10-1:40	1:40-2:20	2:20-3:00	
20/Oct/2025	Monday	Block-5 Paper Discussion			LGIS Physiology	LGIS Embryology Development of Neural Tube Dr. Aaqiba Rasheed	Practical (Anat, Bio, Physio) Introduction of Nervous System (Dr Fatima) Bio: B (Data Interpret) Dr. Zeeshan & Dr. Usman Elahi		Break	LGIS CFRC	BS	
21/Oct/2025	Tuesday	8:00 - 8:50	8:50 - 9:00	9:00 - 10:00	Physio LGIS	LGIS Biochemistry Digestion and absorption of lipids, Lipid transport and storage Dr. Umber Naem (A.P)	Practical (Anat, Bio, Physio) Introduction of Nervous System (Dr Fatima) Bio: C (Data Interpret) Dr. Zeeshan & Dr. Usman Elahi			1:40 - 3:00		
		LGIS Gross Anatomy Nervous System & Spinal nerves Dr Rana Muhammad Zeeshan	SGD Gross Anatomy Nervous System & Spinal nerves Demonstrators (DISSECTION HALL)	SGD						Physio	Biochem Dr. Zeeshan, Dr. Usman Elahi & Dr. Usman Karim	
22/Oct/2025	Wednesday	LGIS Gross Anatomy Spinal Cord-1 (Ascending Tract) Prof Dr Naureen Waseem	Break	SGD Gross Anatomy Spinal Cord-1 (Ascending Tract) Demonstrators (DISSECTION HALL)	Physio LGIS	LGIS Patho	Practical (Anat, Bio, Physio) Introduction of Nervous System (Dr Fatima) Bio: A (Data Interpret) Dr. Zeeshan & Dr. Usman Elahi			SGD	Physio	Biochem Dr. Zeeshan, Dr. Usman Elahi & Dr. Usman Karim
23/Oct/2025	Thursday	LGIS Gross Anatomy Spinal Cord-2 (Descending Tract) Prof Dr Naureen Waseem		SGD Gross Anatomy Spinal Cord-2 (Descending Tract) Demonstrators (DISSECTION HALL)	Physio LGIS	10:50 - 11:30	11:40 - 12:30	12:20-01:10		SGD	Physio	Biochem Dr. Zeeshan, Dr. Usman Elahi & Dr. Usman Karim
		LGIS Patho		LGIS Biochemistry cholesterol metabolism Dr. Umber Naem (A.P)	LGIS PERLs							
24/Oct/2025	Friday	LGIS Gross Anatomy Spinal Cord-3 (Applied Anatomy) Dr Aftab ahmad		SGD Gross Anatomy Spinal Cord-3 (Applied Anatomy) Demonstrators (DISSECTION HALL)	Physio LGIS	LGIS Histo Histology of Nervous Tissue Prof Dr Riaz Ahmad	LGIS Physiology	LGIS Community Medicine	1:10-2:00	2:00-3:00		
		Lunch /Friday Prayer Break		SGD	Physio	Biochem Dr. Zeeshan, Dr. Usman Elahi & Dr. Usman Karim						
WEEK- 02/07												
Date	Day	8:00-9:30			10:00 - 10:50	10:50 - 11:40	11:40 - 1:10		1:10-1:40	1:40-2:20	2:20-3:00	
27/Oct/2025	Monday	Weekly Assessment			Physio LGIS	Embryo LGIS Development of Spinal Cord Prof. Dr Naureen Waseem	Practical (Anat, Bio, Physio) Peripheral nerve ganglia, Sensory & Autonomic Ganglia (Dr Fatima)		Break	LGIS CFRC	BS	
28/Oct/2025	Tuesday	8:00 - 8:50	8:50 - 9:00	9:00 - 10:00	10:00-10:50	LGIS Biochemistry Dr. Umber Naem (A.P)	Practical (Anat, Bio, Physio) Peripheral nerve ganglia, Sensory & Autonomic Ganglia (Dr Fatima)			1:40 - 3:00		
		LGIS Gross Anatomy Brainstem-1 Dr Aaqiba Rasheed	SGD Gross Anatomy Brainstem-1 Demonstrators (DISSECTION HALL)	SGD						Physio	Biochem Dr. Zeeshan, Dr. Usman Elahi & Dr. Usman Karim	
29/Oct/2025	Wednesday	LGIS Gross Anatomy Brainstem-2 Dr Aaqiba Rasheed	Break	SGD Gross Anatomy Brainstem-2 Demonstrators (DISSECTION HALL)	Physio LGIS	LGIS Patho	Practical (Anat, Bio, Physio) Peripheral nerve ganglia, Sensory & Autonomic Ganglia (Dr Fatima)			SGD	Physio	Biochem Dr. Zeeshan, Dr. Usman Elahi & Dr. Usman Karim
30/Oct/2025	Thursday	LGIS Gross Anatomy Brainstem-3 Dr Aaqiba Rasheed		SGD Gross Anatomy Brainstem-3 Demonstrators (DISSECTION HALL)	Physio LGIS	10:50 - 11:30	11:40 - 12:30	12:20-01:10		SGD	Physio	Biochem Dr. Zeeshan, Dr. Usman Elahi & Dr. Usman Karim
		LGIS Patho		LGIS Biochemistry cholesterol metabolism Dr. Umber Naem (A.P)	LGIS PERLs							
31/Oct/2025	Friday	LGIS Gross Anatomy Cerebellum Dr Rana Muhammad Zeeshan		SGD Gross Anatomy Cerebellum Demonstrators (DISSECTION HALL)	Physio LGIS	LGIS Histo Histology of Spinal cord, Cerebellum, Cerebrum Prof Dr Riaz	LGIS Physiology	LGIS BS	1:10-2:00	2:00-3:00		
		Lunch /Friday Prayer Break		SGD	Physio	Biochem Dr. Zeeshan, Dr. Usman Elahi & Dr. Usman Karim						

WEEK- 03/07

Date	Day	8:00-9:40			10:00 - 10:50	10:50 - 11:40	11:40 - 1:10	1:10-1:40	1:40-2:20	2:20-3:00	
3/Nov/2025	Monday	Weekly Assessment			Physio LGIS	LGIS Gross Anatomy Cerebrum Dr Rana Muhammad Zeeshan	Practical (Anat, Bio, Physio) Cerebrum and Cerebellum (Dr Fatima)	Break	LGIS CFRC	BS	
4/Nov/2025	Tuesday				8:00 - 8:50	8:50 - 9:00	9:00 - 10:00		10:00-10:50	LGIS Biochemistry Dr. Umber Naem (A.P)	Practical (Anat, Bio, Physio) Cerebrum and Cerebellum (Dr Fatima)
5/Nov/2025	Wednesday	SGD Gross Anatomy Cerebrum-1 Demonstrators (DISSECTION HALL)	Break	SGD Gross Anatomy Cerebrum-1 Demonstrators (DISSECTION HALL)	Physio LGIS	LGIS Patho	Practical (Anat, Bio, Physio) Cerebrum and Cerebellum (Dr Fatima)	SGD	Physio		
3/Nov/2025	Thursday			SGD Gross Anatomy Cranial Nerves-1 Demonstrators (DISSECTION HALL)	SGD Gross Anatomy Cranial Nerves-1 Demonstrators (DISSECTION HALL)	Physio LGIS		10:50 - 11:30 LGIS Patho	11:40- 12:30 LGIS Biochemistry cholesterol metabolism Dr. Umber Naem (A.P)	12:20-01:10 Pharmacology INF	SGD
7/Nov/2025	Friday	SGD Gross Anatomy Cranial Nerves-2 Demonstrators (DISSECTION HALL)	Break	SGD Gross Anatomy Cranial Nerves-2 Demonstrators (DISSECTION HALL)	Physio LGIS	LGIS Gross Anatomy Cranial Nerves Dr Rana Muhammad Zeeshan	LGIS Physiology	LGIS Surgery	1:10-2:00 Lunch/Friday Prayer Break	2:00-3:00	Biochem Dr. Zeeshan, Dr. Usman Elahi & Dr. Usman Karim

WEEK- 04/07

Date	Day	8:00-9:40			10:00 - 10:50	10:50 - 11:40	11:40 - 1:10	1:10-1:40	1:40-2:20	2:20-3:00	
10/Nov/2025	Monday	Weekly Assessment			Physio LGIS	LGIS Gross Anatomy Diencephalon & Thalamus Dr Rana Muhammad Zeeshan	Practical (Anat, Bio, Physio) Spinal Cord (Dr Fatima)	Break	LGIS PERLs	Pharmacology INF	
11/Nov/2025	Tuesday				8:00 - 8:50	8:50 - 9:00	9:00 - 10:00		10:00-10:50	LGIS Biochemistry Dr. Umber Naem (A.P)	Practical (Anat, Bio, Physio) Spinal Cord (Dr Fatima)
12/Nov/2025	Wednesday	SGD Gross Anatomy Diencephalon Demonstrators (DISSECTION HALL)	Break	SGD Gross Anatomy Thalamus Demonstrators (DISSECTION HALL)	Physio LGIS	LGIS Patho	Practical (Anat, Bio, Physio) Spinal Cord (Dr Fatima)	SGD	Physio		
13/Nov/2025	Thursday			SGD Gross Anatomy Intracranial Fossa-1 Demonstrators (DISSECTION HALL)	SGD Gross Anatomy Intracranial Fossa-1 Demonstrators (DISSECTION HALL)	Physio LGIS		10:50 - 11:30 LGIS Patho	11:40- 12:30 LGIS Biochemistry cholesterol metabolism Dr. Umber Naem (A.P)	12:20-01:10 Pharmacology INF	SGD
14/Nov/2025	Friday	SGD Gross Anatomy Hypothalamus & Basal Ganglia Demonstrators (DISSECTION HALL)	Break	SGD Gross Anatomy Intracranial Fossa-2 Demonstrators (DISSECTION HALL)	Physio LGIS	LGIS Gross Anatomy Hypothalamus, Basal Ganglia Limbic System & Reticular formation Dr Aftab Ahmad	LGIS Physiology	LGIS Medicine	1:10-2:00 Lunch/Friday Prayer Break	2:00-3:00	Biochem Dr. Zeeshan, Dr. Usman Elahi & Dr. Usman Karim

WEEK- 05/07												
Date	Day	8:00-9:40			10:00 - 10:50	10:50 - 11:40	11:40 - 1:10		1:10-1:40	1:40-2:20	2:20-3:00	
17/Nov/2025	Monday	Weekly Assessment			Physio LGIS	LGIS Gross Anatomy Meninges and Dural Venous Sinus Dr Aaqiba Rasheed	Practical (Anat, Bio, Physio) Revision (Dr Fatima)			LGIS Medicine	LGIS Community Medicine	
18/Nov/2025	Tuesday	8:00 - 8:50	8:50 - 9:00	9:00 - 10:00	10:00-10:50	LGIS Biochemistry Dr. Umber Naeem (A.P)	Practical (Anat, Bio, Physio) Revision (Dr Fatima)			1:40 – 3:00		
		SGD Gross Anatomy Meninges Demonstrators (DISSECTION HALL)	Break	SGD Gross Anatomy Meninges Demonstrators (DISSECTION HALL)	Physio LGIS	SGD Gross Anatomy Dural Venous Sinues Demonstrators (DISSECTION HALL)				Physio	SGD	Physio
19/Nov/2025	Wednesday	SGD Gross Anatomy Dural Venous Sinues Demonstrators (DISSECTION HALL)		SGD Gross Anatomy Dural Venous Sinues Demonstrators (DISSECTION HALL)	Physio LGIS	LGIS Patho	Practical (Anat, Bio, Physio) Revision (Dr Fatima)		SGD	Physio	Biochem Dr. Zeeshan, Dr. Usman Elahi & Dr. Usman Karim	
20/Nov/2025	Thursday	SGD Gross Anatomy Autonomic Nervous System Demonstrators (DISSECTION HALL)		SGD Gross Anatomy Autonomic Ganglia and Sympathetic chain Demonstrators (DISSECTION HALL)	Physio LGIS	10:50 - 11:30 LGIS Patho	11:40- 12:30 LGIS Biochemistry cholesterol metabolism Dr. Umber Naeem (A.P)	12:20-01:10 LGIS Physiology	SGD	Physio	Biochem Dr. Zeeshan, Dr. Usman Elahi & Dr. Usman Karim	
21/Nov/2025	Friday	SGD Gross Anatomy Models of Cerebrum, cerebellum and Brainstem Demonstrators (DISSECTION HALL)			Physio LGIS	LGIS Gross Anatomy Ventricular System and CSF Prof Dr Naureen Waseem	LGIS Physiology	LGIS NeuroSurg ery	Break 1:10-2:00 Lunch/Friday Prayer Break	SGD	Physio	Biochem Dr. Zeeshan, Dr. Usman Elahi & Dr. Usman Karim

WEEK- 06/07												
Date	Day	8:00-9:40			10:00 - 10:50	10:50 - 11:40	11:40 - 1:10		1:10-1:40	1:40-2:20	2:20-3:00	
24/Nov/2025	Monday	Weekly Assessment			Physio LGIS	Physio LGIS	Practical (Anat, Bio, Physio) Revision (Dr Fatima)			LGIS Surgery	LGIS PERLs	
25/Nov/2025	Tuesday	8:00 - 10:00			10:00-10:50	LGIS Biochemistry Dr. Umber Naeem (A.P)	Practical (Anat, Bio, Physio) Revision (Dr Fatima)			1:40 – 3:00		
		SGD Gross Anatomy Ventricular System-1 Demonstrators (DISSECTION HALL)	Physio LGIS	SGD Gross Anatomy Ventricular System-2 and CSF Demonstrators (DISSECTION HALL)	Physio	SGD				Physio	Biochem Dr. Zeeshan, Dr. Usman Elahi & Dr. Usman Karim	
26/Nov/2025	Wednesday	SGD Gross Anatomy Ventricular System-2 and CSF Demonstrators (DISSECTION HALL)			Physio LGIS	LGIS Patho	Practical (Anat, Bio, Physio) Revision (Dr Fatima)		Break	SGD	Physio	Biochem Dr. Zeeshan, Dr. Usman Elahi & Dr. Usman Karim
27/Nov/2025	Thursday	SGD Gross Anatomy Blood Supply of Spinal Cord Demonstrators (DISSECTION HALL)			Physio LGIS	10:50 - 11:30 LGIS Patho	11:40- 12:30 LGIS Biochemistry cholesterol metabolism Dr. Umber Naeem (A.P)	12:20-01:10 LGIS PERLs	SGD	Physio	Biochem Dr. Zeeshan, Dr. Usman Elahi & Dr. Usman Karim	
28/Nov/2025	Friday	SGD Gross Anatomy Blood Supply of Brain Demonstrators (DISSECTION HALL)			Physio LGIS	SGD Gross Anatomy Blood Supply of Spinal Cord and Brain Dr Rana Muhammad Zeeshan	LGIS Physiology	LGIS Community Medicine	1:10-2:00 Lunch/Friday Prayer Break	SGD	Physio	Biochem Dr. Zeeshan, Dr. Usman Elahi & Dr. Usman Karim

WEEK- 07/07

Date	Day	8:00-9:40	10:00 - 10:50	10:50 - 11:40	11:40 - 1:10	1:10-2:00	2:00-3:00				
1/Dec/2025	Monday	Subject Wise Assessment Anatomy		Physio LGIS	Embryo LGIS Development of Integumentary System Dr Aaqiba Rasheed	Practical (Anat, Bio, Physio) Integumentary System (Dr Fatima)	Break	Pharmacology INF			
2/Dec/2025	Tuesday	8:00-9:00	9:00-10:00	10:00-10:50	LGIS Biochemistry Dr. Umber Naeem (A.P)	Practical (Anat, Bio, Physio) Integumentary System (Dr Fatima)	1:10-1:40	1:40 – 3:00			
		LGIS Biochemistry cholesterol metabolism Dr. Umber Naeem (A.P)	Paper Discussion Anatomy	LGIS Physio			SGD	Physio	Biochem Dr. Zeeshan, Dr. Usman Elahi & Dr. Usman Karim		
3/Dec/2025	Wednesday	Subject Wise Assessment Biochemistry		Physio LGIS	Physio LGIS	Practical (Anat, Bio, Physio) Integumentary System (Dr Fatima)	Break	SGD	Physio	Biochem Dr. Zeeshan, Dr. Usman Elahi & Dr. Usman Karim	
4/Dec/2025	Thursday	8:00-9:00	9:00-10:00	LGIS Peads	10:50 - 11:30	11:40- 12:30	12:20-01:10	SGD	Physio	Biochem Dr. Zeeshan, Dr. Usman Elahi & Dr. Usman	
		LGIS PERLs	Paper Discussion Biochemistry		Pharmacology INF	LGIS PERLs	LGIS BS				
5/Dec/2025	Friday	Subject Wise Assessment Physiology		LGIS PERLs	LGIS Histology Integumentary System Prof Dr Riaz Ahmad	Pharmacology INF	LGIS Community Medicine	1:10-2:00 Lunch/Friday Prayer Break	SGD	Physio	Biochem Dr. Zeeshan, Dr. Usman Elahi & Dr. Usman Karim

ASSESSMENT TOOLS

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-2						
Block 4 Modules (GIT & Nutrition-I + Renal-I)	Part I MCQs (90)	90 Marks	Practical /Clinical Examination	11 OSPE 02 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 5 Modules (Endocrinology & Reproduction-I +	Part I MCQs (90)	90Marks	Practical /Clinical Examination	11 OSPE 02 OSCE 03 OSVE	Marks 88 10 42	350
	Part II SEQs (10)	50Marks				
Head& Neck, Special Senses)	Internal Assessment 10%	35 Marks	Internal Assessment 10%	35 Marks		
	Total	175	Total	175		
Block 6 Modules (Neurosciences-I + Inflammation)	Part I MCQs (90) Part II SEQs (10)	90 Marks 50 Marks	Practical /Clinical Examination	11 OSPE 02 OSCE 03 OSVE	Marks 88 10 42	350
	Internal Assessment	35 Marks				
	Total	175	Total	175		
Total Marks:						1050
Islamic Studies/ Civics and PakistanStudies	Islamic Studies/Civics 3 LEQs of 20 marks each		60 Marks		100*	
	Pakistan Studies 2 LEQs of 20 marks each		40 Marks			
	Total		100			

MBBS 2nd Professional

Block-6

Theme	Subject	Written Exam			Oral/Practical/Clinical Exam			
		MCQ (1 mark)	SEQ (5 mark each)	Marks	OSPE (8 marks each observed)	OSCE (5 marks each observed)	OSVE (14 marks each observed)	Marks
Normal Structure	Anatomy applied/clinical	24	03	39	03	-	01	38
Normal Function	Physiology applied/clinical	27	04	47	04	-	01	46
	Biochemistry applied/clinical	12	02	22	01	-	01	22
Disease Burden & Prevention	Community Medicine & Public Health	04	-	04	-	-	-	-
	Behavioral Sciences	03	-	03	-	-	-	-
Pathophysiology & pharmacotherapeutics	Pathology	12	01	17	02	-	-	16
	Pharmacology	08	-	08	01	-	-	08
CFRC	CF-2	-	-	-	-	01	-	05
PERLs	PERLs-2	-	-	-	-	01	-	05
Total		90	10x5=50	140	11 stations x 08 = 88	02 stations x 05 = 10	03 stations x 14=42	140

RECOMMENDED SOURCES

Anatomy

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

Physiology

- Guyton AC and Hall JE .Textbook of Medical Physiology. W.B. Saunders & Co., Philadelphia 14th Edition.
- Essentials of Medical Physiology by Mushtaq Ahmed

Biochemistry

- Harpers Illustrated Biochemistry 32nd edition. Rodwell. V. W. MCGraw Hill publishers.
- Lippincott Illustrated Review 8th edition Kluwer. W.
- Essentials of Medical Biochemistry vol 1 & 2 by Mushtaq Ahmed.

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Pharmacology

- Basic and Clinical Pharmacology by Katzung. McGraw-Hill
- Pharmacology by Champe and Harvey, Lippincott Williams & Wilkins

Pathology

- Vinary Kumar, Abul K. Abbas and Nelson Robbins and Cotran, Pathologic basis of disease, WB Saunders.
- 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.

Behavioural Sciences

- Handbook of Behavioural Sciences by Prof. Mowdat H. Rana, 3rd Edition
- Medical and Psychosocial aspects of chronic illness and disability SIXTH EDITION by Donna R. Falvo, PhD Beverly E. Holland, PhD, RN

Community medicine

- Parks Textbook of Preventive and Social Medicine. K. Park (Editor)
- Public Health and Community Medicine Ilyas, Ansari (Editors)

Surgery

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- Bailey & Love's Short practice of Surgery

Medicine

- Davidson's Principles and Practice of Medicine

Block Coordinators

BIOCHEMISTRY

Dr. Tabinda Fatima

Assistant Professor Biochemistry

Office: AP Office Biochemistry Department Academic block 1, First Floor

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

ANATOMY

Dr. Zeeshan

Assistant Professor of Anatomy

Office: Anatomy Department Academic block 1, First Floor

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

PHYSIOLOGY

Dr.Mamoona Shafiq

HOD/Professor of Physiology

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

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

Dr. Umer Shamim

Professor of Physiology

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

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

PHARMACOLOGY

Dr. Azan Hassan

Assistant Professor Pharmacology

Office: Demonstrator Room Pharmacology, Academic block2, First Floor

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

PATHALOGY

Dr. Ali haider

Demonstrator Pathology

Office: Pathology, Academic block1, Ground Floor

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

COMMUNITY MEDICINE

Dr. Sehar

Lecturer Community Medicine

Office: Community Medicine, Academic block1,First Floor

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

BEHAVIOUR SCIENCES

Dr. Fatima

Senior Lecturer Behavioural Sciences

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

MEDICINE

Dr. Abdullah

SUGERY

Dr. Abdullah

PAEDIATRICS

Dr. Shafaq

PERLS

Dr. Shehneel

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.

