AVICENNA MEDICAL & DENTAL COLLEGE

AVICENNA
MEDICAL COLLEGE

STUDY GUIDE

2025

BLOCK- 1

Program: MBBS Integrated Curriculum
Year: 1st Professional Year
Batch No: M-24
Session: 2024-2025

Table of Contents

Module Committee

Name	Designation	Department
Prof. Dr. Gulfreen Waheed	Principal & Director DME	Medical Education
Dr. Saba Iqbal	Assistant Professor	Medical Education
Dr. Ijlal Zehra	HOD	Assessment Cell
Dr. Javaid Shabkhez Rab	Coordinator	Medical Education
Dr. Salar Arsalan	Demonstrator	Medical Education
Dr. Huma Fatima	Demonstrator	Medical Education
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Dr. Majid	Focal Person	Pathology
Prof. Dr. Asma Saeed	HOD	Pharmacology
Dr. Azka	Focal Person	Pharmacology
Prof. Dr.Rana Akhtar	HOD	Community Medicine
Dr. Usman Sheikh	Focal Person	Community Medicine
Prof. Dr. Zainab	HOD	Forensic Medicine
Dr. Anwar	Focal Person	Forensic Medicine
Prof. Dr.Hassan Khan	HOD	Surgery Unit-1
Prof. Dr.Khalid Nizami	HOD	Surgery Unit-2
Dr. Sumaira	Focal Person	General Surgery
Prof. Dr. Muzammil	HOD	Medicine Unit-1
Prof. Dr. Waheed Ahmed	HOD	Medicine Unit-2
Dr. Usman	Focal Person	General Medicine
Dr. Usman	Focal Person	Psychiatry
Dr. Usman Sheikh	Focal Person	Family Medicine
Dr. Farhat Mihas	HOD	Behavioural Sciences
Dr. Mavrah Zafar	Focal Person	Paediatrics

List of Abbreviations

Letter	Abbreviations	Subjects
A	**A**	Anatomy
	ABCDE	Airway, Breathing, Circulation, Disability, Exposure
	ABG	Arterial blood gas
	ACS	Acute Coronary Syndromes
	Ag	Aging
	AKI	Acute kidney injury
	ALT	Alanine transaminase
	AMI	Acute Myocardial Infarction
	AMP	Adenosine monophosphate
	ANA	Antinuclear Antibody
	ANCA	Anti-neutrophil Cytoplasmic Antibodies
	ANS	Autonomic Nervous System
	AO	Association of osteosynthesis
	APTT	Activated Partial Thromboplastin Clotting Time
	ARDS	Acute Respiratory Distress Syndrom
	ARVC	Arrhythmogenic Right ventricular Cardiomyopathy
	ASD	Atrial Septal Defect
	AST	Aspartate aminotransferase
	ATLS	Advanced Trauma Life Support
	Au	Autopsy
	AUC	Area under the curve
	AV	Atrioventricular
B	**B**	Biochemistry
	BhS	Behavioral Sciences
	BHU	Basic Health Unit
	BSL	Biological Safety Level
C	**C**	Civics
	C-FRC	Clinical-Foundation Rotation Clerkship
	C.burnetii	Clostridium burnetii
	C.neoformans	Clostridium neoformans
	C.pneumoniae	Clostridium pneumoniae
	C.psittaci	Clostridium psittaci
	C.trachomatis	Clostridium trachomatis
	CA	cancer
	CABG	coronary artery bypass grafting
	CAD	coronary artery disease
	CBC	Complete Blood Count
	CCR5	cysteine-cysteine chemokine receptor
	CD31	cluster of differentiation 31
	CD34	cluster of differentiation 34
	CD4	cluster of differentiation 4
	CF	cystic fibrosis
	CK	Creatine kinase
	CLED	cystine lactose electrolyte deficient
	CLL	chronic lymphocytic leukemia

	CM	Community Medicine
	CML	chronic myeloid leukemia
	CMV	cytomegalo virus
	CNS	Central Nervous System
	CO	Carbon monoxide
	CO2	Carbon dioxide
	CODIS	combined DNA index system
	COPD	Chronic obstructive pulmonary disease
	COVID-19	Corona Virus Disease 2019
	COX	Cyclooxygenase
	CPR	Cardiopulmonary Resuscitation
	CR	Clinical Rotation
	CRP	Clinical Rotation CSF C- Reactive Protein
	CSF	Cerebro Spinal Fluid
	CT	Computed tomography
	CV	Cardiovascular
	CVA	Cerebral vascular accident
	CVS	Cerebrovascular system
D	**D.medinensis**	Dracunculus Medinensis
	DALY	Disability-Adjusted Life Year
	DCIS	Ductal Carcinoma in situ
	DCM	Dilated Cardiomyopathy Dorsal Colu
	DCMLS	Dorsal column medial lemniscus system
	DLC	Differential Leukocyte Count
	DMARDs	Disease Modifying Anti Rheumatic Drugs
	DNA	DeoxyRibonucleic Acid
	DOTS	Directly Observed Treatment Short-course
	DTP	Diphtheria, Tetanus, Pertussis
	DVI	Disaster Victim Identification
	DVT	Deep Vein Thrombosis
E	**E.coli**	Escherichia coli
	ECF	Extracellular Fluid
	ECG	Electrocardiography
	ECP	Emergency contraceptive pills
	ED50	Median Effective Dose
	EEG	Electroencephalogram
	EIA	Enzyme Immunoassay
	ELISA	Enzyme Linked Immunosorbent Assay
	EnR	Endocrinology & Reproduction
	ENT	Ear Nose Throat
	EPI	Expanded Programme on Immunization
	ER	Emergency Room
F	**F**	Foundation
	FAST	Focused Assessment with Sonography
	FEV1	Forced Expiratory Volume 1
	FM	Family Medicine
	For	Forensic Medicine
	FPIA	Fluorescent Polarization Immunoassay
	FS	Forensic Serology

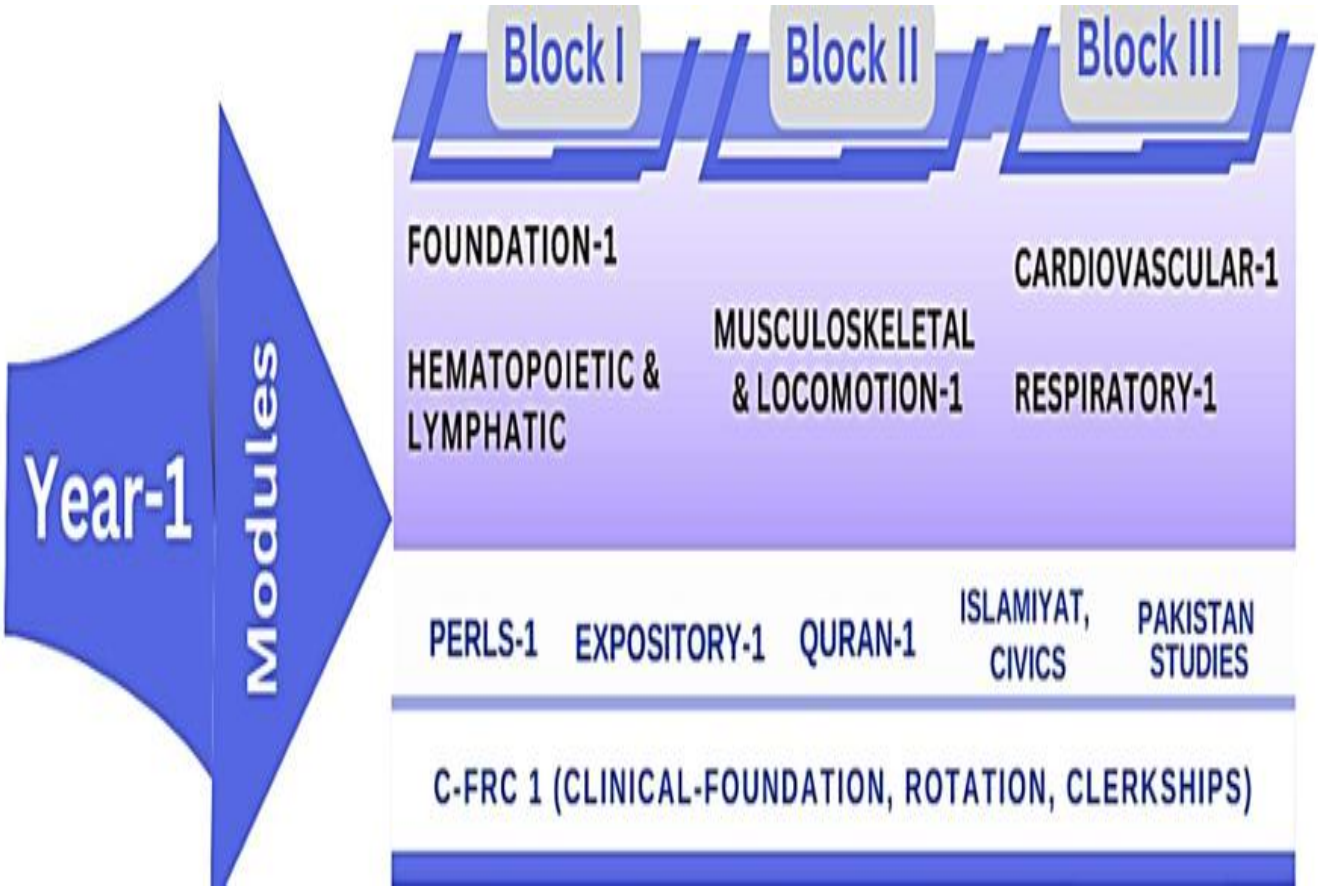
	FSc	Forensic Science
	FVC	Forced Vital Capacity
G	**GCS**	Glasgow Coma Scale
	GFR	Glomerular Filtration Rate
	GIT	Gastrointestinal tract
	GL-MS	Gas Liquid Mass Spectrometry
	GLC	Gas Liquid Chromatography
	GLP	Guanosine Monophosphate
	GMP	Guanosine monophosphate
	GO	Gynecology and Obstetrics
	GP	General Practitioner
	GPE	General Physical Examination
	GTO	Golgi Tendon Organ
	Gynae & Obs	Gynecology and Obstetrics
H	**H & E**	Hematoxylin and eosin
	H. influenzae	Haemophilus influenzae
	H.pylori	Helicobacter pylori
	HAI	Healthcare Associated Infections
	HbC	Hemoglobin C
	HbS	Sickle Hemoglobin
	HbSC	Hemoglobin Sickle C Disease
	HCL	Hydrochloric Acid
	HCM	Hypertrophic Cardiomyopathy
	HHV	Human Herpesvirus
	HIT	Hematopoietic, Immunity and Transplant
	HIV	Human Immunodeficiency Virus
	HL	Hematopoietic & Lymphatic
	HLA	Human Leukocyte Antigen
	HMP	Hexose Monophosphate
	HNSS	Head & Neck and Special Senses
	HPLC	High Pressure Liquid Chromatography
I	**ICF**	Intra Cellular Fluid
	ID	Infectious Diseases
	IE	Infective Endocarditis
	IL	Interleukin
	ILD	Interstitial Lung Disease
	IN	Inflammation
	INR	International Normalized Ratio
	INSTIs	ntegrase Strand Transfer Inhibitors
	IPV	Intrauterine Device
	IUD	Intrauterine device
	IUGR	Intra-Uterine Growth Restriction
J	**JVP**	Jugular Venous Pulse
L	**L**	Law
	LD50	Median Lethal Dose
	LDH	Lactate Dehydrogenase
	LSD	Lysergic acid diethylamide
M	**M**	Medicine
	MALT	Mucosa Associated Lymphoid Tissue
	MBBS	Bachelor of Medicine, Bachelor of Surgery

	MCH	Mean corpuscular hemoglobin
	MCHC	Mean Corpuscular Hemoglobin Concentration
	MCV	Mean Corpuscular Volume
	MHO2001	Mental Health Ordinance 2001
	MoA	Mechanism of action
	MRI	Mechanism of action
	MS	Musculoskeletal
	MSD	Musculoskeletal disorders
	MSDS	Minimum Service Delivery Standards
	MSK	Musculoskeletal
N	**N**	Neoplasia
	NEAA	Non-Essential Amino Acids
	NK cells	Natural Killer Cells
	NNRTI	Non-nucleoside Reverse Transcriptase Inhibitors
	NRTIs	Nucleoside Reverse Transcriptase Inhibitors
	NS	Neurosciences
	NSAIDs	Non-steroidal Anti-Inflammatory Drugs
O	**O**	Ophthalmology
	OA	Osteoarthritis
	OPC	Organophosphate
	OPV	Oral poliovirus vaccine
	Or	Orientation
	Orth	Orthopaedic
P	**P**	Physiology
	P.jiroveci	Pneumocystis jiroveci
	Pa	Pathology
	PAD	Pathology
	PAF	Platelet activating factor
	PBL	Problem Based Learning
	PCH	Psychiatry
	PCR	Polymerase Chain Reaction
	PDA	Patent Ductus Arteriosus
	PDGF	Platelet derived growth factor
	Pe	Pediatrics
	PEM	Protein Energy Malnutrition
	PERLs	Professionalism, Ethics,Research, Leadership
	PET	Positron Emission Tomography
	Ph	Pharmacology
	Ph	Pharmacology
	PI	Personal Identity
	PID	Pelvic inflammatory disease
	PIs	Protease in hibitors
	PMC	Pakistan Medical Commission
	PMDC	Pakistan Medical and Dental Council
	PMI	Post-Mortem Interval
	PNS	Peripheral Nervous System
	PPD	Paraphenylenediamine
	PPE	Personal Protective Equipment
	Psy	Psychiatry

	PT	Prothrombin Time
	PVC	Premature Ventricular Contraction
	PVD	Peripheral Vascular Diseases
Q	**QALY**	Quality-Adjusted Life Year
	QI	Quran and Islamiyat
R	**R**	Renal
	Ra	Radiology
	RA	Radiology
	RBCs	Red Blood cells
	RCM	Restrictive Cardiomyopathy
	RDA	Recommended Dietary Allowance
	Re	Respiratory
	RF	Rheumatoid factor
	RFLP	Restriction Fragment Length Polymorphism
	Rh	Rheumatology
	RHC	Rural Health Center
	RIA	Radioimmunoassay
	RMP	Resting Membrane Potential
	RNA	Ribonucleic Acid
	RTA	Road Traffic Accident
S	**S**	Surgery
	S.pneumonia	Streptococcus pneumoniae
	SA	Sinoatrial
	SCC	Squamous-cell carcinoma
	Se	Sexology
	Sec	Section
	SIDS	Sudden Infant Death Syndrome
	SLE	Systemic Lupus Erythematosus
	SOP	Standard Operating Procedure
T	**TB**	Tuberculosis
	TBI	Traumatic Brain Injury
	TCA	Tricarboxylic acid cycle
	TCBS	Thiosulphate Citrate Bile salts Sucrose
	TD50	Median Toxic Dose
	TGA	Transposition of the Great Arteries
	Th	Thanatology
	TLC	Thin Layer Chromatography
	TNF	Tumor Necrotic Factor
	TNM	Tumor Necrotic Factor
	TOF	Tetralogy of Fallot
	Tox	Toxicology
	Tr	Traumatology
	TSI	Triple Sugar Iron
U	**USG**	Ultrasonography
	UTI	Urinary Tract Infections
	UV	Ultraviolet
V	**VAP**	Ventilator-Associated Pneumonia
	Vd	Volume of Distribution
	VEGF	Vascular Endothelial Growth Factor
	VSD	ventricvular septal defect

W	**W. bancroft**	Wuchereria bancroft
	WBCs	White Blood Cells
	WHO	World Health Organization
Z	**ZN Staining**	Ziehl-Neelsen Staining

Curriculum Framework



Introduction to the Study Guide

Welcome to the Avicenna Medical & Dental College Study Guide!

This guide serves as your essential resource for navigating the complexities of your medical education at Avicenna Medical & Dental College. It integrates comprehensive details on institutional framework, curriculum, assessment methods, policies, and resources, all meticulously aligned with UHS, PMDC and HEC guidelines.

Each subject-specific study guide is crafted through a collaborative effort between the Department of Medical Education and the respective subject departments, ensuring a harmonized and in-depth learning experience tailored to your academic and professional growth.

Objectives of the Study Guide

1. **Institutional Understanding:**
    - Gain insight into the college's organizational structure, vision, mission, and graduation competencies as defined by PMDC, setting the foundation for your educational journey.
2. **Effective Utilization:**
    - Master the use of this guide to enhance your learning, understanding the collaborative role of the Department of Medical Education and your subject departments, in line with PMDC standards.
3. **Subject Insight:**
    - Obtain a comprehensive overview of your courses, including detailed subject outlines, objectives, and departmental structures, to streamline your academic planning.
4. **Curriculum Framework:**
    - Explore the curriculum framework, academic calendar, and schedules for clinical and community rotations, adhering to the structured guidelines of UHS & PMDC.
5. **Assessment Preparation:**
    - Familiarize yourself with the various assessment tools and methods, including internal exam and external exam criteria, and review sample papers to effectively prepare for professional exams.
6. **Policies and Compliance:**
    - Understand the institutional code of conduct, attendance and assessment policies, and other regulations to ensure adherence to college standards and accrediting body requirements.
7. **Learning Resources:**
    - Utilize the learning methodologies, infrastructure resources, and Learning Management System to maximize your educational experience and academic success.

This guide, meticulously developed in collaboration with your subject departments, is designed to support your academic journey and help you achieve excellence in accordance with the highest standards set by PMDC and HEC.

Introduction to Module-1

- The Foundation 1 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.

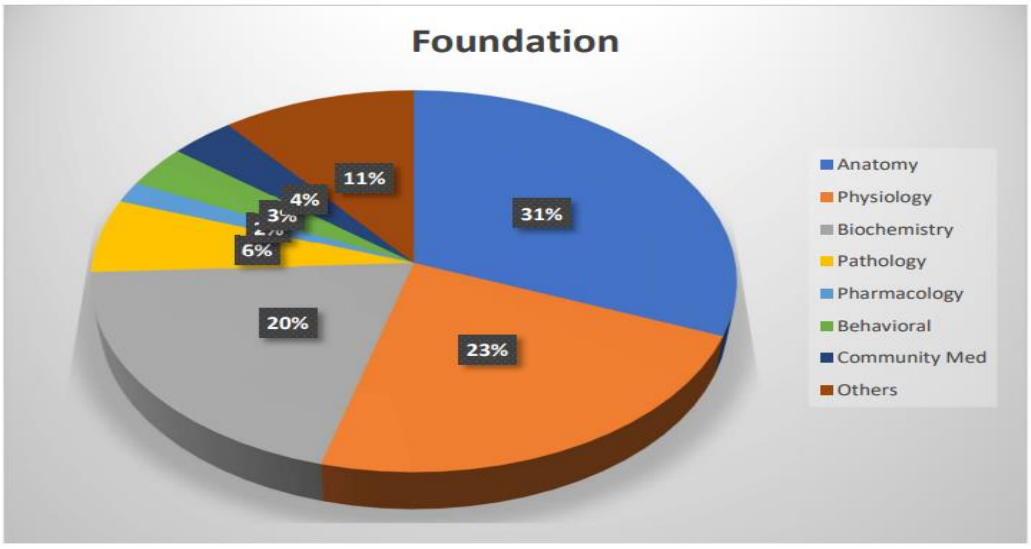
- As students transition into their clinical years, it is crucial to reinforce and deepen their understanding of basic medical sciences to support the integration of new, clinically relevant concepts.

- 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.

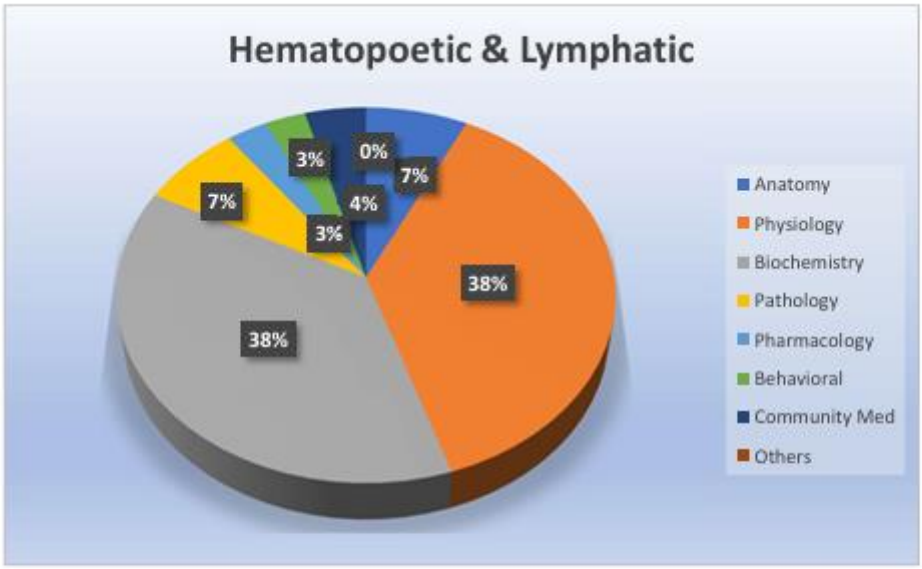
- The revisiting of these concepts throughout the curriculum ensures a robust and integrated understanding, laying a solid foundation for clinical competence.



Module Weeks	Recommended Minimum Hours
08	225

Introduction to Module-2

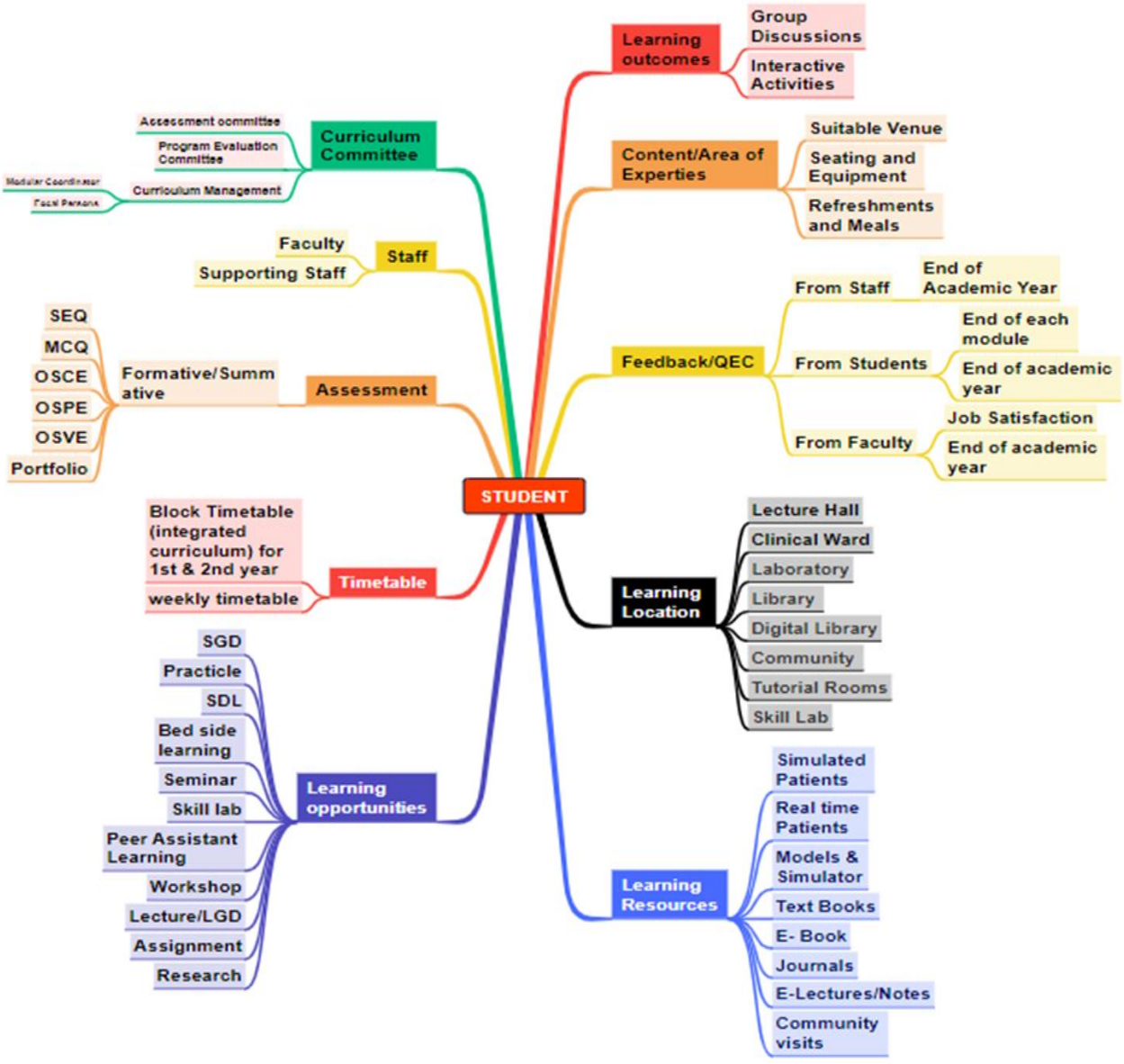
- The module 2 is designed to build upon and consolidate the foundational knowledge acquired in the earlier years of medical education, particularly from the Foundation-I module.
- As students transition into their clinical years, it is crucial to reinforce and deepen their understanding of basic medical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



Module Weeks	Recommended Minimum Hours
03	69

Curriculum Map

This pictorial, vertical and horizontal presentation of the course content and extent shows the sequence in which various systems are to be covered. Curricular map to cover all the subjects and modules and the time allocated to study of the systems for the undergraduate programs offered at four colleges at campus are as follows:



Allocation of Hours

AVICENNA MEDICAL COLLEGE, LAHORE

1st Year MBBS

	Anatomy				Biochemistry				Physiology				Path		Pharm	Bh.Sc.	C.M.	PERL	Quran	Clinical	Exams	Total
Wk #	Lec	Prac	SGD	SDL	Lec	Prac	SGD	SDL	Lec	Prac	SGD	SDL	Lec	Prac								
1	2			1	2			1	2			1	1			1		1	1			13
2	6	2	1	1	5	1	1	1	4	1	1	1	1		1	1	1	1	1	3		34
3	6	1	1	1	5	1	1	1	4	1	1	1	1		1			1		3	4	34
4	5	1	1	1	5	1	1	1	4	1	1	1			1	1	1		1	3	4	34
5																						0
6	6	2	1	1	5	1	1	1	4	1	1	1	1	1	1	1	1		1	3		34
7	6	1	1	1	5	1	1	1	3	1	1	1	2			1		1		3	4	34
8	5	2	1	1	5	1	1	1	3	1	1	1				1		2	1	3	4	34
9	4	1	1		3	1	1	1	4	1	1	1					1			3	4	27
10	5	1	1	1	4	1	1	1	5	1	1	1	1		1	1		1		3	4	34
11	6	1	1	1	3	1	1	1	5	1	1	1	1		1	1				3	5	34
12	5	2	1	1	4	1	1	1	4	1	1	1	1	1		1			1	3	4	34
13	7	2	2	1	3	1	1	1	4	1	1	1								3	6	34
14	5	2	2	1	2	1	1		3	1	1									3	6	28
15	6	1	1	1	2	1	1	1	4	1	1	1	1		1	1	1			2		27
16	7	2	1	1	3	1	1	1	4	1	1	1	1	1	1					3	4	34
17	7	2	1	1	2	1	1	1	3	1	1	1	1		1	1		1	1	3	4	34
18	6	2	2	1	3	1	1	1	4	1	1	1			1		1		1	3	4	34
19	6	2	2	1	3	1	1	1	3	1	1	1	1		1			1	1	3	4	34
20	7	1	1	1	3	1	1	1	5	1	1	1						1	1	3	5	34
21																						0
22																						0
23																						0
24																						0
25	7	2	2	1	4	1	1	1	4	1	1	1			1	1		1	1	3		33
26	7	2	2	1	2	1	1	1	4	1	1	1	1				1	1		3	4	34
27	7	2	1	1	2	1	1	1	5	1	1	1		1			1		1	3	4	34
28	5	2	2	1	2	1	1	1	5	1	1	1	1				1	1	1	3	4	34
29	6	1	1	1	2	1	1	1	5	1	1	1	1		1	1				3	6	34
30	5	2	1	1	2	1	1	1	5	1	1	1	1	1			1			3	6	34
31	5	2	2	1	3	1	1	1	5	1	1	1	1		1	1				3	4	34
32	5	2	1	1	3	1	1	1	5	1	1	1	1		1		1	1		3	4	34
33	6	2	1	1	2	1	1	1	5	1	1	1	1		1	1			1	3	4	34
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35	6	1	1	1	2	1	1	1	5	1	1	1	1		1	1	1			3	5	34
36	6	2	2	1	2	1	1	1	5	1	1	1	1		1		1			3	4	34
37	6	2	1	1	2	1	1	1	5	1	1	1		1	1	1	1			3	4	34
38	6	1	1	1	2	1	1	1	6	1	1	1	1		1	1		1		3	4	34
39																					6	6
40																					6	6
	189	53	41	32	100	32	32	32	141	32	32	32	24	6	22	18	14	15	15	95	135	1092
	AL	AP	AS	AT	BL	BP	BS	BT	PL	PP	PS	PT	PtL	PtP	PhL	Bh.Sc.	C.M.	PERL	Quran	Clinical	Exams	1092
	315				196				237				30		22	18	14	15	15	95	135	1092

Module Outcome

MODULE OUTCOMES
• Describe the microscopic features of nerve cells, muscle cells, general features of epithelia of the body. • Appraise the functional characteristics of various components of cell membrane and organelles of cell. • Differentiate between the dynamics of various transport mechanisms along the cell membrane. • Compare the functional differences between RBCs, WBCs and blood groups. • Explain the significance of homeostatic mechanisms in keeping body's internal environment nearly constant. • Appraise the formation and functions of autonomic nervous system. • Correlate the structural design of each organ to its function. • Acquire information about the different fascial planes in the different regions of the body & their surgical importance. • Use descriptive anatomical terms of position to describe the different body structures in relation to each other. • Describe the movements of body using proper anatomical terms of movement. • Describe and demonstrate the various bony landmarks. • Describe the types of joints and correlate them to the mechanisms of movement. • Classify the bone, joints and muscles based on the structure, function, phylogenetic origin. • Describe the structures associated with muscles and explain their functional correlations. • Classify and describe the cardiovascular system and correlate it functionally. • Amplify the anatomical basis for radiological, cross-sectional, anatomy. • Correlate clinicopathologically the apoptosis in health & diseases.

Learning Objectives

AVICENNA MEDICAL & DENTAL COLLEGE
ACADEMIC SYNOPSIS - BLOCK 1
1st Year MBBS Integrated Curriculum
(2024-2025)

Week#	Total Hours	No.	Mode of Teaching	Topic	Code	Learning Objective	Hours	Reference	Facilitator
Week-1 Day-1	1-7	Orientation: Joining of Students, Issuance of Books, Fee Clearance							
Week-1 Day-2	8-14	Orientation: Medical Check-up of Students (in batches)							
Week-1 Day-3	15-21	Orientation: Understanding the Medical Profession and the Physician's Role: Dr Javaid Shabkhez, Acquainting with the MBBS Program: Dr. Saba Iqbal, Importance and Types of Assessment: Prof. Dr Ijlal Zahra Zaidi , Exploring the Academic: Environment Prof. Dr GullfreenPrincipal, Address by Mr. Abdul Waheed Shaikh, Chairman, to the students, Students Visit to College Premises and Avicenna Hospital							

Week-1 **Day-4**	**22-28**	**Orientation:** **IT / Student affair Departments:Mr. Adeel / Mr. Suleman / Mr. Khuram** **Lectures:** **Community Medicine: Prof.Dr Rana Akhter/ Dr.Usman** **Biochemistry: Prof. Dr Sadia Amir** **Physiology: Prof. Dr Sadia Zafar** **Anatomy: Dr. Ahmed**

Week-1 **Day-5**	**29-34**	**Orientation:** **Anatomy Department: Prof. Dr Razia** **Biochemistry: Prof. Dr Sadia Amir** **Physiology: Prof. Dr Sadia Zafar** **Beh. Sciences: Prof. Dr Farhat** **Lectures:** **Embryology: Prof. Dr. Naheed** **Physiology: Prof. Dr Shaheena** **Extracurricular Activities :** **Committees Discussion** **Ms Saba Bilal** **Students Affairs**

Week:2	Total Hours	No.	Mode of Teaching	Topic	Code	Learning Objective	Hours	Reference	Facilator
Week:2	Physiology								
Week:2	1	1	Lecture	Cell biology	F-P-001	adaptive control/delayed negative feedback mechanism	1	Guyton & Hall Ed 14th Ch.2 Pg 8-9	Dr. Amna Ilyas
Week:2	2	2	Lecture	Cell biology	F-P-001	Explain the structure of cell membrane Enlist the types of cell membrane proteins Enumerate the functions of membrane proteins Define and enumerate the functions of cell Glycocalyx	1	Guyton & Hall Ed 14th Ch.2 Pg 11-14	Dr Nida
Week:2	3	3	Lecture	Cell biology	F-P-001	Enlist membranous and non-membranous organelles Enlist the self-replicative organelles	1	Guyton & Hall Ed 14th Ch.2 Pg 14-16	Dr Hafsa

Week:2	**4**	**4**	**Lecture**	**Cell biology**	**F-P-001**	**Differentiate between the functions of smooth and rough endoplasmic reticulum Explain the functions of Golgi apparatus Enlist the enzymes of lysosomes Explain the functions of lysosomes**	**1**	**Guyton & Hall Ed 14th Ch.2 Pg 16-18**	**Dr Amna Ilyas**
Week:2	**5**	**5**	**Practical**	**Consent**	**F-P-008**	**Explain laboratory clinical procedure to the subject**	**1**	**Practical manual I Zafar Ali Chuadhry**	**Dr Fahad**
Week:2	**6**	**6**	**CBD - Tutorial**	**Cell biology**	**F-P-001**	**Homeostasis and Cell Membrane**	**1**	**Guyton & Hall Ed 14th Ch.1 Pg 3-9**	**Dr. Areej**
Week:2	**Anatomy**								
Week:2	**7**	**1**	**Lecture**	**Cell division and Chromosomal abnormalities**	**F-A-010 -i**	**define chromosome theory of inheritance. Enlist different stages of mitosis and meiosis. Compare and contrast mitosis and meiosis**	**1**	**langman embryology chp 2 page (15-20)**	**Dr Naheed**

Week:2	**8**	**2**	**Lecture**	**Embryology: Cell division and chromosomal abnormalities**	**F-A-010-II**	**Enlist the numerical chromosomal anomalies. Describe the anatomical basis for numerical chromosomal abnormalities. Describe the clinical presentation of numerical chromosomal abnormalities and justify them embryologically**	**1**	**Langman embryology page (21-30)**	**Dr Naheed**
Week:2	**9**	**3**	**Lecture**	**Introduction to general anatomy**	**F-A-001-II**	**Describe the anatomical terms used for limbs. Describe the terms related to movements**	**1**	**General Anatomy Tassaduq hussain page (5-8)**	**Dr Ahmed**
Week:2	**10**	**4**	**Lecture**	**Histology : Introduction**	**F-A-040**	**Describe different types of microscopies. Describe staining methods and their significance**	**1**	**Medical histology laeeq hussain Chp 1 page (1-6)**	**Dr Fatima**
	11	**5**	**Lecture**	**Anat Int Gynae**	**F-A-012**	**Describe the Prenatal and postnatal maturation of oocyte**	**1**	**Langman embryology**	**Dr Muntiha**

Week:2	**12**	**6**	**Lecture**	**General Anatomy : bones (osteology)**	**F-A-002**	**Describe identify the general morphological features of bones. Developmental classification of bones. Describe regional classification of bones. describe sesamoid , pneumatic wormian and heterotopic bones. Describe features of adult typical long bone**	**1**	**General Anatomy Tassaduq hussain chp 2 page (15-22)**	**Dr Ahmed**
Week:2	**13**	**7**	**Lecture**	**General Anatomy : bones (osteology)**	**F-A-002**	**Describe identify the general morphological features of bones. Developmental classification of bones. Describe regional classification of bones. describe sesamoid , pneumatic wormian and heterotopic bones. Describe features of adult typical long bone**	**1**	**General Anatomy Tassaduq hussain chp 2 page (15-22)**	**Dr Ahmed**
Week:2	**14**	**8**	**Practical**	**Osteology imaging and cross sectional anatomy and arthrology**	**F-A-046**	**Demonstrate the anatomical terms of position and movement , in particular on limbs**	**1**	**Anatomy practical handbook**	**Demonstrators**

Week:2	**15**	**9**					**1**		
Week:2	**16**	**10**	**Practical**	**Histology : staining techniques**	**F-A-048-I**	**Describe different type of staining techniques. and their significance**	**1**	**Histology practical handbook**	**Demonstrators**
Week:2	**17**	**11**	**CBD - Tutorial**	**Introduction to general Anatomy**	**F-A-001**	**Briefly describe the applied branches of anatomy. Describe anatomical positions . Describe anatomical planes of body. Describe terms of relationship commonly used in anatomy**	**1**	**General anatomy Tassaduq hussain chp 1 page(1-5)**	**Demonstrators**
Week:2	**Biochemistry**								
Week:2	**18**	**1**	**Lecture**	**Cell Membrane**	**F-B-002**	**Structure and function of cell membrane**	**1**	**Harper 30th edition Page#483**	**Prof. Dr Sadia Amir**
Week:2	**19**	**2**	**Lecture**	**signal transduction**	**F-B-03**	**Cellto-cell communication and to the environment**	**1**	**lippincott ed 8 + harper ed30**	**Prof. Dr Sadia Amir**

Week:2	**20**	**3**	**Lecture**	**Signal transduction**	**F-B-003**	**Cell signaling pathways**	**1**	**lippincott ed 8 + harper ed30**	**Prof. Dr. Sadia Amir**
Week:2	**21**	**4**	**Lecture**	**Subcellular organelles**	**F-B-004**	**Importance of subcellular organelles and their inherited disorders**	**1**	**cell notes**	**Prof. Dr. Sadia Amir**
Week:2	**22**	**5**	**Lecture**	**Chemistry of purine and pyrimidines**	**F-B-005**	**Chemistry of purines, pyrimidines & nucleotides**	**1**	**cell notes**	**Dr. Sadia khalil**
Week:2	**23**	**6**	**Practical**	**Lab hazards**	**F-B-015**	**Laboratory Hazards**	**1**	**Practical Manual**	**Dr. Seemal**
Week:2	**24**	**7**	**CBD - Tutorial**	**signal transduction**	**F-B-03**	**Cellto-cell communication and to the environment**	**1**	**lippincott ed 8 + harper ed30**	**Prof. Dr Sadia Amir**
Week:2	**25-26**	**8**	**Departmental Tutorial**	**Whole Class Tutorial**					**Dr Sadia**
Week:2	**PERLs**								
Week:2	**27**	**1**	**Lecture**	**Communication encounter with a peer or teacher**	**1_02**	**Discuss types of Communication at professional level. Identify different Communication Styles.**	**1**	**Lecture Presentation**	**Dr. Saba Iqbal**

Week:2	**Beh.Sciences**								
Week:2	**28**	**1**	**Lecture**	**F-BhS002**	**Psychological Disorders**	**Identify the burden of mental illness on the person, family and society Describe Intellectual disability, Mental Disorders**	**1**	**M.R**	**Dr.Farhat**
Week:2	**Holy Quran**								
Week:2	**29**		**Lecture**	**Tawheed**			**1**	**Notes**	**Amna Syed**
Week:2	**Com.Medicine**								
Week:2	**30**	**1**	**lecture**	**CONCEPT OF HEATH. POSITIVE HEALTH DIMENSIONS & DETERMINANTS**	**FCM-001&002**	**Describe the changing concepts and new philosophy of health Explain responsibility for health. Explain the dimensions and determinants of health and their role in achieving positive health. Discuss the concept of health and wellbeing. Describe the Physical Quality of Life Index & Human Development Index**	**1**	**K.park Ch # 2**	**Prof Rana Akhtar**
Week:2	**Pharmacology**								

Week:2	**31**	**1**	**lecture**	**Absorption,distribution,metabolism,excretion of drugs**	**F-Ph-001**	**Definition of Pharmacology, drug, pro drug, placebo, active principles, source of drugs,brief outline of absorption, distribution, metabolism,excretion**	**1**	**katzung ch#2**	**PROF.DR.ASMA**
Week:2	**Pathology**								
Week:2	**32**	**1**	**Lecture**	**Cell injury**	**FPa-1**	**Identify the types of cell death. Define necrosis and apoptosis. Describe different types of necrosis. Compare apotosis and necrosis.**	**1**	**Robbins and Cotran**	**Dr Munazza Salman**
Week:2	**Clinical Skill**								
Week:2	**33**	**1**	**Clinical skills**	**Demonstrate the procedure of taking the blood pressure.**			**1**	**LOG BOOK**	**Medical Faculty**
Week:2	**34**	**2**	**Clinical skills**	**Demonstrate the procedure of taking the blood pressure.**			**1**	**LOG BOOK**	**Medical Faculty**

Week:3	Total Hours	No.	Mode of Teaching	Topic	Code	Learning Objective	Reference	Facilator
Week:3	**Physiology**							
Week:3	**1**	**1**	**Lecture**	**Cell biology**	**F-P-001**	**Enlist the enzymes of peroxisomes Explain the functions of peroxisomes Enumerate the components and functions of cytoskeleton**	**Guyton & Hall Ed 14th Ch.2 Pg 18-19**	**Dr. Nida**

Week:3	2	2	Lecture	Cell biology	F-P-001	Define and enlist different types of diffusion Explain the process of facilitated diffusion with the aid of diagram Define and classify different types of active transport	Guyton & Hall Ed 14th Ch.4 PG. 47-49	Dr Nida
Week:3	3	3	Lecture	Cell biology	F-P-001	Explain the process of facilitated diffusion with the aid of diagram Define and classify different types of active transport Describe primary and secondary active transport with examples	Guyton & Hall Ed 14th Ch.4 PG. 47-49	Prof: Dr Shaheena
Week:3	4	4	Lecture	Cell biology	F-P-001	Explain voltage and ligand gated channels with examples Name Na, K channel Blockers.Discuss functions and significance of Na/K ATPase pump	Guyton & Hall Ed 14th Ch.4 PG. 47-49	Dr. Amna Ilyas
Week:3	5	5	Practical	Consent	F-P-008	Explain laboratory clinical procedure to the subject	Practical manual I Zafar Ali Chuadhry	Dr Areej
Week:3	6	6	CBD - Tutorial	Cell biology	F-P-001	Differentiate between the functions of smooth and rough endoplasmic reticulum Explain the functions of Golgi apparatus Enlist the enzymes of lysosomes Explain the functions of lysosomes	Guyton & Hall Ed 14th Ch.2 Pg 16-18	Dr. Tahir

Week:3	7	7	Departmental Tutorial	Whole Class Tutorial				
Week:3	Anatomy							
Week:3	8	1	Lecture	Embryology : Gametogenesis	F-A-011-012	Describe the process of spermatogenesis and spermiogenesis. Describe embryological basis for abnormal gamets. Describe prenatal and post natal maturation of oocytes	Langman embryology page 25	Dr Naheed
Week:3	9	2	Lecture	General Anatomy : Cartilage+joints	F-A-003-004	Describe subtypes and gross features of hyaline elastic and fibrocartilage.Describe structural classification of joingts. Describe components of synovial joints.	general anat by T.H.S chp 3 pg 31 and chp 4 page 35-42	Dr Ahmed
Week:3	10	3	Lecture	General Anatomy : joints	F-A-004-II	Describe blood supply innervation of synovial joints, cartilaginous joints and fibrous joints.List the stabilizing factors of synovial joints. Define common joint injuries and diseases	Gen Anat by T.H.S chp 4 page 35-50	Dr Ahmed
Week:3	11	4	Lecture	Histology:Cell membrane	F-A-041	Describe the significance of arrested devel	Laeeq Hussain histology	Dr Fatima

Week:3	12	5	Lecture	Anat:Int Gynae	F-A-015+19	Describe the hormonal control of female reproductive cycles Enumerate and describe the steps of the ovarian cycle Describe the process of ovulation menstrual cycle.	Langman embryology	Dr Muntiha
Week:3	13-14	6	Lecture	Embryology : Gametogenesis	F-A-12	Describe the Prenatal and postnatal maturation of oocyte	Langman embryology page 25	Dr Naheed
Week:3	15	8	Practical	Histology:Microscope+cell shape	F-A-049-050	Enlist features of light microscope. Identify and draw cell shapes under microscope	Histology practical notebook	Dr Sadia
Week:3								
Week:3	16	9	CBD - Tutorial	Anatomy: cartilage+joints	F-A-003-004	Describe general features of cartilage and synovial joints	General Anatomy by T.H.S chp 3-4	Dr Sadia
Week:3								
Week:3	Biochemistry							
Week:3	17	1	Lecture	F-B-006	Chemistry of purine and pyrimidines	DNA, Higher organ of DNA. Diff b/w DNA, chromatid & chromosome	Lippincott 7th edition	Dr Haroon Habib
Week:3	18	2	Lecture	F-B-007	Chemistry of purine and pyrimidines	Structure and fuctions of various types of RNA	Lippincott 7th edition	Dr Haroon Habib
Week:3	19	3	Lecture	F-B-010	enzymes	Enzymes: Active sites, Specificity, Catalytic efficiency, Cofactor, Coenzyme	Lippincott 7th edition	Dr Haroon Habib

Week:3	**20**	**4**	**Lecture**	**F-B-010**	**enzymes**	**Enzymes: Holoenzyme, Apoenzyme, Prosthetic group, Zymogens, Location**	**Lippincott 7th edition**	**Dr Haroon Habib**
Week:3	**21**	**5**	**Lecture**	**F-b-010**	**enzymes**	**Classify enzymes and their nomenclature**	**lippincott ch 2**	**Dr.Sadia Khalil**
Week:3	**22**	**6**	**Practical**	**Subcellular organelles**	**F-B-17**	**Identify the structure of Cell under microscope**	**Practical copy**	**dr.misbah**
Week:3	**23**	**7**	**CBD - Tutorial**	**F-B-010**	**enzymes**	**Enzymes: Active sites, Specificity, Catalytic efficiency, Cofactor, Coenzyme**	**Lippincott 7th edition**	**Dr Haroon Habib**
Week:3	**PERLs**							

Week:3	**25**	**1**	**Lecture**	**PERLs1-01**	**Reflective Writing**	**Students Portfolio**	**Lecture Presentation**	**Dr.Salar**
Week:3	**Pharmacology**							
Week:3	**26**	**1**	**Lecture**	**Pharmacokinetics**	**F-Ph-001**	**DEFINITIONS OF PHARMACOLOGY,DRUG,PRODRUG, PHARMACOKINETICS**	**katzung ch 2**	**PROF.ASMA**
Week:3	**Pathology**							
Week:3	**27**	**1**	**Lecture**	**Cell injury**	**FPa-1**	**Identify different types and mehanisms of cellular adaptations to stress. Discuss the mechanisms and types of intracellular accumulations and pathological calcifications**	**Robbins and Cotran**	**Dr Munazza**
Week:3	**Clinical Skill**							
Week:3	**28**	**1**	**Clinical skills**	**Demonstrate the procedure of taking the pulse**			**LOG BOOK**	**Medical Faculty**
Week:3	**29**	**2**	**Clinical skills**	**Demonstrate the procedure of taking the pulse**			**LOG BOOK**	**Medical Faculty**
Week:3	**Anatomy Dissection**							
Week:3	**30**	**Whole Class-Anatomy Dissection Hall**						

Week:3	Assessment		
Week:3	31	1	Grand Test
Week:3	32	2	
Week:3	33	3	OSPE/Viva
Week:3	34	4	

Week:4	Total Hours	No.	Mode of Teaching	Topic	Code	Learning Objective	Reference	Facilator
Week:4	Physiology							
Week:4	1	1	lecture	Blood	FP-002	Enumerate the function of blood and composition of blood. Enumerate the plasma proteins	Guyton & Hall Ed 14th Ch.4 PG. 47-49	Prof. Dr Sadia
Week:4	2	2	lecture	RBC	FP-003	Discuss the characteristics of red blood cells Explain different types of Bone marrows	Guyton & Hall Ed 14th Ch.33 Pg 446-447	Prof. Dr. Sadia
Week:4	3	3	lecture	RBC	FP-003	Enumerate the different sites of erythropoiesis at different ages Explain the stages of erythropoiesis Enumerate the types of normal hemoglobin in different ages of life	Guyton & Hall Ed 14th Ch.33 Pg 447-448	Prof Dr Sadia

Week:4	**4**	**4**	**lecture**	**RBC**	**FP-003**	**Explain the role of Iron in Hemoglobin formation. Define blood indices, give their normal values & enumerate the conditions in which these values are disturbed Enlist the abnormal types of hemoglobin**	**Guyton & Hall Ed 14th Ch.33 Pg 449**	**Prof: Dr. Shaheena**
Week:4	**5**	**5**	**Practical**	**Cell injury**	**F-Pa-004**	**Identify the necrosis and calcification along with their types. Identify the cellular adaptations and pigmentations with their salient pathological features. volume**	**Practical manual Pathology**	**Pathology lab on 1st floor of Medical College/ Demonstrators**
Week:4	**6**	**6**	**CBD - Tutorial**	**Cell biology**	**F-P-001**	**Explain the process of facilitated diffusion with the aid of diagram Define and classify different types of active transport Describe primary and secondary active transport with examples ,Explain voltage and ligand gated channels with examples Name Na, K channel Blockers.Discuss functions and significance of Na/K ATPase pump**	**Guyton & Hall Ed 14th Ch.4 PG. 47-49**	**Dr. Areej**

Week:4	**Anatomy**							
Week:4	**7**	**1**	**lecture**	**Embryology: oogenesis**	**F-A-013-014**	**Describe the significance of arrested development of oocytes. Compare and contrast oogenesis and spermatogensis**	**Langman embryology page 26-29**	**Dr Naheed**
Week:4	**8**	**2**	**lecture**	**Gen Anat: Joints +Cartilage**	**F-A-003-004**	**Describe the blood supply, innervation and lymphatic drainage of Synovial Joints, cartilaginous joints, and fibrous joints. List the factors stabilizing a synovial joint. Describe the mechanism of movements**	**GA by Tassadaq Hussain Ch.-5**	**Dr Ahmed**
Week:4	**9**	**3**	**lecture**	**Embryology :Fertilizaton + transportation of gametes**	**F-A-16+17**	**Describe the transportation of male and female gametes Describe viability of gametes Explain the anatomical basis of diaspermy, triploidy., Menopause Define menstrual cycle**	**KLM Embryology ed. 10th, Ch. 2**	**Dr Naheed**

Week:4	10	4	lecture	Gen Anatomy: Integumentary system	F-A-005	Describe the structure and function of Skin on the basis of its two layers; Epidermis and Dermis Describe the surface irregularities of the skin. Describe the structure of Hair as an appendage of skin. Describe the structure of Nail as an appendage of skin.	GA by Tassadaq Hussain Ch.-1	Dr Ahmed
Week:4	11		lecture	Histology : cell membrane +cell organalle	F-A-41+42	Describe the clinical presentation of lysosomal storage diseases and correlate with their histological basis Describe the structural components of cytoskeleton, and correlate them with their functions	Liaq Hussain 6th ed. Ch. 2	Dr Fatima
Week:4	12-13	5	Practical	Anatomy : Osteology	F-A-046	Osteology	KLM Gross Anatomy	Demonstrators
Week:4	14	6	CBD - Tutorial	Joints	F-A-004	Identify various elevations and anatomical landmarks on bones.	KLM	Demonstrators
Week:4	Biochemistry							
Week:4	15	1	lecture	enzymes	F-B-10	Mechanism of enzyme action	harper ch 50	Dr.Sadia Khalil

Week:4	16	2	lecture	enzymes	F-B-10	Effect of various factors on enzymatic activity - 01	harper ch 50	Dr.Sadia Khalil
Week:4	17	3	lecture	enzymes	F-B-10	Effect of various factors on enzymatic activity - 02	harper ch 50	Dr Sadia Khalil
Week:4	18	4	lecture	enzymes	F-B-10	Michaelis Menten and Line weaver Burk's equation	harper ch 50	Dr Sadia Khalil
Week:4	19	5	lecture	enzymes	F-B-10	Inhibitors of enzymatic activity - 01	harper ch 50	Dr Sadia Khalil
Week:4	20	7	Practical	chromatography	F-B-019	Identify the methods of isolation of cell organelles	Practical copy	Dr.Saba
Week:4	21	8	CBD - Tutorial	enzymes	F-B-10	Effect of various factors on enzymatic activity - 02	harper ch 50	Dr.Saba
Week:4	Pharmacology							

Week:4	**22**	**1**	**lecture**	**basic terminologies of pharmacology**	**F-PH-002**	**Definitions of receptor,agonist, partial agonist, antagonist and types of receptors,second messanger,signalling mechanisms**	**katzung ch-2**	**PROF.ASMA**
Week:4	**Holy quran**							
Week:4	**23**	**1**	**lecture**	**Belief in Hereafter (Aakhirat)**		**i. Appraise continuity of life beyond material world ii. Concept of Doomsday and its various stages iii. Concept of Day of Judgment and accountability in the Hereafter iv. Concept of "Meezan"**	**Standard Islamiyat (Compulsory) for B.A, B.Sc., M.A, M.Sc., MBBS by Prof. M.Sharif Islahi Ilmi Islamiyat (Compulsory) for B.A. B.Sc., & equivalent.**	**Amna Syed**
Week:4	**Beh.Sciences**							
Week:4	**24**	**1**	**lecture**	**Personality disorders**	**F-BhS002**	**Personality disorders**	**M.R**	**Dr.Farhat**
Week:4	**Com.Medicine**							

Week:4	**25**	**1**	**lecture**	**HEALTH INDICATORS**	**FCM-003**	**Describe the importance of health indicators. Classify health indicators. Calculate Morbidity and Mortality. Describe Disability indicators. Compare indicators among countries**	**K.park**	**Prof Rana Akhtar**
Week:4	**Pathology**							
Week:4	**26**	**1**	**Microbiology**	**General microbiology**	**FPa-002**	**Describe the basic structure of bacteria and viruses. Enlist medically important microbes causing infectious.**	**Robbins and Cotran**	**Dr Majid**
Week:4	**Clinical Skills**							
Week:4	**27**	**1**	**Clinical skills**	**Record the respiratory rate of patient**			**LOG BOOK**	**Medical Faculty**
Week:4	**28**	**2**	**Clinical skills**	**Record the respiratory rate of patient**			**LOG BOOK**	**Medical Faculty**
Week:4	**SGD**							
Week:4	**29-30**	**1**	**Anatomy Whole Class Small Group Discussions**					
Week:4	**Assessment**							
Week:4	**31**	**1**	**Grand Test**					
Week:4	**32**	**2**						
Week:4	**33**	**3**	**OSPE/Viva**					
Week:4	**334**	**4**						

Week:5	Total Hours	No.	Mode of Teaching	Topic	Code	Learning Objective	Reference	Facilitator
Week:5	Physiology							
Week:5	1	1	lecture	RBC	FP-003	Explain the role of Iron in Hemoglobin formation.Define blood indices, give their normal values & enumerate the conditions in which these values are disturbed Enlist the abnormal types of hemoglobin	Guyton & Hall Ed 14th Ch.33 Pg 449	Prof: Dr. Sadia
Week:5	2	2	lecture	Hemoglobin	FP-004	Enumerate the types of white blood cells Describe the characteristics and functions of Neutrophils Explain the process of defense against invading agent by neutrophils	Guyton & Hall Ed 14th Ch.33 Pg 449	Prof: Dr. Sadia
Week:5	3	3	lecture	WBC	FP-005	Define leukocytosis and leukemia Explain the effects of leukemia on body Define leukopenia	Guyton & Hall Ed 14th Ch.34 Pg 455	Dr Nida

Week:5	4	4	lecture	White blood cells	FP-005	Explain the process of defense against invading agent by macrophages	Guyton & Hall Ed 14th Ch.34 Pg 457	Dr Amna Rizvi
Week:5	5	5	Practical	RBC	FP-010	Determination blood groups	Practical manual I Zafar Ali Chuadhry	Dr Areej
Week:5	6	6	CBD - Tutorial	Cell biology	FP-003	Discuss the characteristics of red blood cells Explain different types of Bone marrows	Guyton & Hall Ed 14th Ch.33 Pg 446-447	Dr. Fahad
Week:5	Anatomy							
Week:5	7	1	lecture	Gen Anatomy: Muscle Tissue (Myology)	FA-006	Describe Type A, B and C of Skeletal Muscles Classify and describe the skeletal muscles based on architecture. Classify skeletal muscle based on action. Describe the parts of a skeletal muscle.	GA by Tassadaq Hussain Ch.-5	Dr.Ahmed
Week:5	8	2	lecture	Embryology :Cleavage, blastocyst formation	FA-020	Describe the process of cleavage of embryo and blastocyst formation Describe the differentiation of embryo blast into epiblast and hypoblast Describe the establishment of cranial-caudal embryonic axis Describe pre-implantation genetic diagnosis	KLM Embryology ed. 10th, Ch. 2	Dr.Naheed

Week:5	**9**	**3**	**lecture**	**General Anatomy: Vascular System (Angiology)-I**	**FA-007-I**	**Classify the types of blood circulation. Classify and exemplify various types of blood vessels. Describe and exemplify various types of anastomoses.**	**GA by Tassadaq Hussain Ch.-7**	**Dr Ahmed**
Week:5	**10**	**4**	**lecture**	**Embryology : Implantation**	**FA-021**	**Describe the Uterus at the time of implantation (decidua reaction) Illustrate the concept of Implantation Describe the differentiation of inner and outer cell mass**	**KLM Embryology ed. 10th, Ch. 2**	**Dr Naheed**
Week:5	**11**	**5**	**lecture**	**Embryology : Implantation**	**FA-021-2**	**Describe the Uterus at the time of implantation (decidua reaction) Illustrate the concept of Implantation Describe the differentiation of inner and outer cell mass**	**KLM Embryology ed. 10th, Ch. 2**	**Dr Naheed**
Week:5	**12**	**6**	**lecture**	**Histology: Cell nucleus**	**FA-047**	**Describe the structure of chromatin Describe the structure of chromosome Draw and label the structure of nucleolus Describe the structure of nucleolus**	**Liaq Hussain 6th ed. Ch. 3**	**Dr Fatima**

Week:5	13	7	Practical	Epithelium	FA-052	Identify and demonstrate under light microscope the following types of epithelia: 1. Simple squamous 2. Simple cuboidal 3. Simple columnar (ciliated & non-ciliated)	Histology Manual	Histo: Dr Sadia Anatomy : Dr Fatima
Week:5	14-15	8	Practical	Osteology, imaging and crooss sectional anatomy, Arthrology	FA-046	Identify and interpret normal radiographs of various body regions	KLM Gross Anatomy	Demonstrators
Week:5	16	9	CBD - Tutorial	Osteology, imaging and crooss sectional anatomy, Arthrology	FA-046	Identify and interpret normal radiographs of various body regions	KLM Gross Anatomy	Demonstrators
Week:5	Biochemistry							
Week:5	17	1	lecture	enzymes	F-B-10	Inhibitors of enzymatic activity - 02	harper ch 50	Dr.Sadia Khalil
Week:5	18	2	lecture	enzymes	F-B-10	Application of enzyme in clinical diagnosis and therapeutic use	harper ch 50	Dr.Sadia Khalil
Week:5	19	3	lecture	amino acids	F-B-11	Classify amino acids	harper ch 50	Dr Sadia Khalil
Week:5	20	4	lecture	amino acids	F-B-11	Properties of amino acids and their biomedical importance	harper ch 50	Dr Sadia Khalil

Week:5	21	5	Lecture	amino acids	F-B-11	Classify proteins	Lippincott's Ch: 05	Prof. Dr. Haroon Habib
Week:5	22	7	Practical	chromatography solutions	F-B-019	"Lab Equipment: Centrifuge, Microlab, Water bath"	practical copy	Dr.Asad
Week:5	23	8	CBD - Tutorial	enzymes	F-B-10	"Enzyme activity, Enzyme Inhibition"	harper ch 50	Dr.Asad
Week:5	Pharmacology							
Week:5	24	1	lecture	Autonomic System	F-Ph-003	pharmacologic aspects of autonomic receptors	katzung ch -6	PROF.ASMA
Week:5	Pathology							
Week:5	25	1	lecture	General Bacteriology	FPa-002	Discuss the growth curve of bacteria and virus. Enlist stages of infectious diseases. Enlist stages of bacterial pathogenesis. Discuss the determinants of bacterial pathogenesis.	Robbins and Cotran	Dr Majid
Week:5	Holy Quran							
Week:5	26	1	lecture	Demonstrate the procedure of taking the blood pressure.			LOG BOOK	Medical Faculty
Week:5	PERLs							

Week:5	**27**	**1**	**lecture**	**Communication encounter with a peer or teacher**	**1_02**	**Discuss types of Communication at professional level. Identify different Communication Styles.**	**Lecture Presentation**	**Dr. Javaid**
Week:5	**Beh.Sciences**							
Week:5	**28**	**1**	**lecture**	**F-Bh-S 003**		**psychosocial factors in various illnesses**	**Integrated Beh sciences by Asma Humayun**	**Dr Farhat**
Week:5	**Com. Medicine**							
Week:5	**29**	**1**	**Lecture**	**FCM-004 & FCM-005**		**Conceptualize disease causation and natural history of disease. Explain Germ theory & multifactorial causation. Describe the Epidemiological Triad. Discuss Web of Disease causation. Describe the Gradient of infection. Describe principles of prevention and control of prevalent diseases.**	**K.Park Ch # 2**	**prof Rana Akhtar**
Week:5	**Anatomy Dissection**							
Week:5	**30**	**1**	**Anatomy Dissection Hall Whole Class**					
Week:5	**SDL**							

Week:5	31-32	1	Self Directed Learning			
Week:5	Clinical Skills					
Week:5	33	1	Clinical skills	Demonstrate the procedure of taking the blood pressure.	LOG BOOK	Medical Faculty
Week5	34	2	Clinical skills	Demonstrate the procedure of taking the blood pressure.	LOG BOOK	Medical Faculty

Week:6	Total Hours	No.	Mode of Teaching	Topic	Code	Learning Objective	Reference	Facilitator
Week:6	Physiology							
Week:6	1	1	Lecture	White blood cells	FP-005	Discuss different lines of defense during inflammation Explain the functions of neutrophils and macrophages in spread of inflammation (walling off effect)	Guyton & Hall Ed 14th Ch.34 Pg 460	Prof Dr sadia
Week:6	2	2	Lecture	White blood cells	FP-005	Define the Reticuloendothelial system Enlist the different components of Reticuloendothelial system Explain the characteristics and functions of basophils	Guyton & Hall Ed 14th Ch.34 Pg 459	Dr. Amna Ilyas
Week:6	3	3	Lecture	White blood cells	FP-005	Explain the characteristics and functions of eosinophils and enlist conditions in which these cells are raised.	Guyton & Hall Ed 14th Ch.34 Pg 459	Prof: Dr shaheena

Week:6	**4**	**4**	**Practical**	**WBC**	**FP-011**	**interpret Total Leucocyte Count, Differential Leucocyte Count (normal & abnormal) in a CBC report generated by Automated Cell Counter.**	**Prof. Zafar Ali Ch. Volume**	**Dr Fahad**
Week:6	**5**	**5**	**CBD - Tutorial**	**White blood cells**	**FP-005**	**Discuss different lines of defense during inflammation Explain the functions of neutrophils and macrophages in spread of inflammation (walling off effect)**	**Guyton & Hall Ed 14th Ch.34 Pg 460**	**Dr. Tahir**
Week:6	**Anatomy**							
Week:6	**6**	**1**	**Lecture**	**Embryology :Gastrulation**	**FA-023**	**Describe the Formation & fate of primitive streak Draw a concept map highlighting the sequence of events responsible for transformation of bilaminar germ disc into trilaminar germ disc**	**KLM Embryology ed. 10th, Ch. 4**	**Dr Naheed**

Week:6	**7**	**2**	**Lecture**	**Gen Anatomy: Vascular System (Angiology)-I**	**FA-007-II**	**Classify the types of blood circulation. Classify and exemplify various types of blood vessels. Describe and exemplify various types of anastomoses. Explain the importance of End Arteries ,Define the terms: Arteriosclerosis, Atherosclerosis**	**GA by Tassadaq Hussain Ch5.-7**	**Dr Ahmed**
Week:6	**8**	**3**	**Lecture**	**Embryology :Formation of notochord**	**FA-024**	**Describe the Invagination and movement of prenotochordal cells Describe the Notochordal plate formation Describe the Neuroenteric canal formation Describe the fate of the notochord Describe the Establishment of body axis Draw and label the fate map establishment Describe the Fate map establishment**	**KLM Embryology ed. 10th, Ch. 4**	**Dr Naheed**
Week:6	**9**	**4**	**Lecture**	**Embryology :Derivates of ectoderm**	**F-A-025-026**	**Derivatives of Ectoderm, Mesoderm and Emdoderm**	**KLM Embryology ed. 10th, Ch. 4**	**Dr Naheed**

Week:6	**10**	**5**	**Lecture**	**Histology : Epithelium**	**FA-044**	**Describe the structure of exocrine glands Explain the mechanism of transport across the epithelia Describe the classification of exocrine glands on the basis of: 1. Shape of secretory portions and ducts 2. Mode of secretion**	**Liaq Hussain 6th ed. Ch. 3**	**Dr Fatima**
Week:6	**11**	**6**	**Lecture**	**Histology : Epithelium**	**FA-044**	**Describe the structure of exocrine glands Explain the mechanism of transport across the epithelia Describe the classification of exocrine glands on the basis of: 1. Shape of secretory portions and ducts 2. Mode of secretion 3. Type of secretion**	**Liaq Hussain 6th ed. Ch. 3**	**Dr Fatima**
Week:6	**12-13**	**7**	**Practical**	**Epithelium**	**FA-044**	**Identify and demonstrate under light microscope Stratified squamous (keratinized & non keratinized), Stratified cuboidal, Stratified columnar epithelium**	**Histology Manual**	**Dr Sadia**
Week:6	**14**	**8**	**CBD - Tutorial**	**Embryology**	**FA-047**	**Events of embryonic period cleavage morula blastula formation**	**KLM**	**Dr Sadia**
Week:6	**Biochemistry**							

Week:6	**15**	**1**	**Lecture**	**proteins**	**F-B-12**	**Structural levels of proteins**	**Lippincott's Ch: 05**	**Prof. Dr. Haroon Habib**
Week:6	**16**	**2**	**Lecture**	**proteins**	**F-B-012**	**Role of chaperons in protein folding**	**Lippincott's Ch: 05**	**Prof. Dr. Haroon Habib**
Week:6	**17**	**3**	**Lecture**	**Plasma Proteins**	**F-B-013**	**Plasma Proteins - 01**	**Lippincott's Ch: 05**	**Prof. Dr. Haroon Habib**
Week:6	**19**	**4**	**Lecture**	**Plasma Proteins**	**F-B-013**	**Plasma Proteins - 02**	**Lippincott's Ch: 05**	**Prof. Dr. Haroon Habib**
Week:6	**20**	**5**	**Lecture**	**immunoglobulins**	**F-B-014**	**Immunoglobulins - 01**	**Lippincott's Ch: 05**	**Prof. Dr. Haroon Habib**
Week:6	21	**7**	**Practical**	**chromatography solutions**	**F-B-019**	**"Lab Equipment: Electrophoresis, Hot oven"**	**practical copy**	**Dr.Asad**
Week:6	22	**8**	**CBD - Tutorial**	**enzymes**	**F-B-10**	**"Therapeutic & Diagnostic enzymes, Classf of A.A. & Proteins"**	**Lippincott's Ch: 05**	**Dr.Asad**
Week:6	**PERLs**							
Week:6	**23**	**1**	**Lecture**	**Communication encounter with a peer or teacher**	**1_02**	**Discuss types of Communication at professional level. Identify different Communication Styles.**	**Lecture Presentation**	**Dr. Saba Iqbal**

Week:6	**Beh.Sciences**							
Week:6	**24**	**1**	**Lecture**	**Beh.Sciences**	**F-BhS-005**	**Palliative care**	**Integrated Beh sciences by Asma Humayun**	**Dr Farhat**
Week:6	**Pathology**							
Week:6	**25**	**1**	**Microbiology**	**General Bacteriology**	**FPa-003**	**"Define sterilization and disinfection. Describe the principles of sterilization and disinfection. Describe clinical uses of common disinfectants and their mode of sterilization. Discuss physical and chemical agents of sterilization**	**Levinson' Microbiology and immunology**	**Dr Ujala**
Week:6	**26**	**2**	**Lecture**	**General Bacteriology**	**FPa-002**	**Compare the structure of bacterial cell and virus Enlist steps of viral replication. Discuss the growth curve of bacteria**	**Levinson' Microbiology and immunology**	**Dr Majid**
Week:76	**Anatomy Dissection**							
Week:6	**27**	**1**	**Anatomy Dissection Hall Whole Class**					
Week:6	**SDL**							
Week:6	**28**	**1**	**Self Directed Learning**					
Week:6	**Clinical Skills**							

Week:6	29	1	Clinical skills	Demonstrate the procedure of taking the blood pressure.	LOG BOOK	Medical Faculty
Week:6	30	2	Clinical skills	Demonstrate the procedure of taking the blood pressure.	LOG BOOK	Medical Faculty
Week:6	Assessment					
Week:6	31	1	Grand Test			
Week:6	32	2				
Week:6	33	3	OSPE/Viva			
Week:6	34	4				

Week:7	Total Hours	No.	Mode of Teaching	Topic	Code	Learning Objective	Reference	Facilator
Week:7	Physiology							
Week:7	1	1	Lecture	Blood Types	FP-006	Enumerate different blood group types. Explain the basis of ABO and Rh blood system	Guyton & Hall Ed 14th Ch.36 Pg 477	Prof: Dr Sadia
Week:7	2	2	Lecture	Blood Types	FP-006	Explain the Landsteiner law	Guyton & Hall Ed 14th Ch.36 Pg 478-479	Prof: Dr Shaheena
Week:7	3	3	Integration Lecture with Pathology	Transplantation of tissues	HL-P-012	Tissue typing and Process of Graft Rejection	Levinson' Microbiology and immunology	Dr Ujala
Week:7	4	4	Practical	Blood Groups	FP-010	Determination of blood group	Prof. Zafar Ali Ch. Volume I	Dr. Fahad

Week:7	5	5	CBD - Tutorial	Blood Types	FP-006	Enumerate different blood group types. Explain the basis of ABO and Rh blood system	Guyton & Hall Ed 14th Ch.36 Pg 477	Dr Areej
Week:7	Anatomy							
Week:7	6	1	Lecture	General Anatomy : Nervous Tissue (Neurology)	FA-008	Describe the gross and/or microscopic anatomy of the following structures: Nerve, Nerve fiber, Ganglion, Tract, Fasciculus, Funiculus and Lemniscus Enlist the cranial nerves I to XII Describe the types of nerve fibers carried by and distribution of the cranial nerves.	GA by Tassadaq Hussain Ch.-7	Dr Ahmed
Week:7	7	2	Lecture	Histology: Connective tissue	F-A-045	Describe the composition and list the constituents of connective tissue Classify the connective tissue with examples Describe the composition of ground substance of connective tissue.Describe the composition, distribution, and function of glycosaminoglycans in connective	Laeeq hussain	Dr Fatima
Week:7	8	3	Lecture	Embryology: Germ layer derivatives	F-A-029	Derivatives of Ectoderm, Mesoderm and Emdoderm. Regulation of embryonic dvelopment by homeobox genes.	KLM Embryology ed. 10th, Ch. 4	Dr Naheed

Week:7	**9**	**4**	**Lecture**	**Embryology: Control of the embryonic development**	**F-A-030+31**	**Describe the Regulation of embryonic development by HomeoBox genes.Enlist the characteristic features of the embryo during Folding of Embryo 98 2nd month**	**KLM**	**Dr Naheed**
Week:7	**10**	**5**	**Lecture**	**Anat Int Gynae: Placenta+ Fetal membranes+Multiple pregnancies**	**F-A-034+F-A-35+36**	**Describe the Placental circulation (fetal & maternal) Embryologically justify the hemolytic disease of the neonate (Erythroblastosis fetalis). Describe the Formation & fate of Umbilical cord**	**KLM**	**Dr Muntiha**
Week:7	**11**	**7**	**Practical**	**Connective tissue**	**F-A-053**	**Identify under light microscope and Draw & Label the various types of connective tissue**	**Practical manual I Zafar Ali Chuadhry**	**Dr Sadia**
Week:7	**12**	**8**	**Practical**	**Osteology Imaging and cross-sectional Anatomy Arthrology**	**F-A-046**	**Demonstrate various anatomical movements of body Identify various elevations and anatomical landmarks on bones. Identify and interpret normal radiographs of various body regions Identify and interpret joint dislocations and displaced**	**Practical copy**	**Dr Sadia**

Week:7	13	9	CBD - Tutorial	Osteology Imaging and cross-sectional Anatomy Arthrology	F-A-046	Demonstrate various anatomical movements of body Identify various elevations and anatomical landmarks on bones. Identify and interpret normal radiographs of various body regions Identify and interpret joint dislocations and displaced	KLM	Dr Sadia
Week:7	Biochemistry							
Week:7	14	1	Lecture	immunoglobulins	F-B-013	Immunoglobulins - 02	Lippincott's Ch: 05	Prof. Dr. Haroon Habib
Week:7	15	2	Lecture	Hb	HL-B-001	Aging: telomeres and telomerase	Lippincott's Ch: 05	Prof. Dr. Haroon Habib
Week:7	16	3	Lecture	Hb	HL-B-001	Sturcture & biomedical impotance of Hb. Differ b/w Hb & myoglobin	Lippincott's Ch: 05	Prof. Dr. Haroon Habib
Week:7	17	4	Lecture	Hb	HL-B-002	Oxygen dissociation curve, CO toxicity, role of 2,3 BPG	Lippincott's Ch: 05	Prof. Dr. Haroon Habib
Week:7	18	5	Lecture	Hb	HL-B-002	Hemoglobinopathies 01	Lippincott's Ch: 31	Prof. Dr. Haroon Habib
Week:7	19	6	Lecture	Hb	HL-B-002	Hemoglobinopathies 01	Lippincott's Ch: 31	Prof. Dr. Haroon Habib
Week:7	20	7	Practical	chromatography solutions	F-B-019	Chromatography	Practical copy	Monday: Dr. Saba Tuesday: Dr. Misbah Wednesday: Dr. Asad Thursday: Dr. Hamza

Week:7	21	8	CBD - Tutorial	proteins	F-B-12	"Levels of structure of proteins, Plasma Proteins"	Lippincott's Ch: 31	Dr.Asad
Week:7	Beh.Sciences							
Week:7	22	1	Lecture	Stress	F-BhS006	Identify the various physiological effects of stress Explain ANS response to stress,	MR	Dr Farhat
Week:7	Pathology							
Week:7	23	1	Patholog y	Blood cells, platelets and blood groups	HL-Pa-001	Terms: Hematopoietic growth factors, their name, mechanism of actions, uses and adverse effects. Define and classify anemias according to underlying mechanism and Mean	Robbins nd Cotran	Dr Nabila
Week:7	PERLs							
Week:7	24	1	lecture	Communication encounter with a peer or teacher	1_02	Discuss types of Communication at professional level. Identify different Communication Styles.	Lecture Presentation	Dr. Javaid
Week:7	Holy Quran							
Week:7	25	1	Lecture	Oneness of Allah (Tawheed)		Describe Concept of Shirk Impact of Tawheed in human life	Islamiyat Notes	Amna Syed

Week:7	**SDL**					
Week:7	**26-27**	**1**	**Self Directed Learning**			
Week:7	**Clinical Skills**					
Week:7	**28**	**1**	**Clinical skills**	**Demonstrate the procedure of taking the blood pressure.**	**LOG BOOK**	**Medical Faculty**
Week:7	**29**	**2**	**Clinical skills**	**Demonstrate the procedure of taking the blood pressure.**	**LOG BOOK**	**Medical Faculty**
Week:7	**30**	**3**	**Clinical skills**	**Demonstrate the procedure of taking the blood pressure.**	**LOG BOOK**	**Medical Faculty**
Week:7	**Assessment**					
Week:7	**31**	**1**	**Grand Test**			
Week:7	**32**	**2**				
Week:7	**33**	**3**	**OSPE/Viva**			
Week:7	**34**	**4**				

Week:8	Total Hours	No.	Mode of Teaching	Topic	Code	Learning Objective	Reference	Facilitator
Week:8	Physiology							
Week:8	1	1	Lecture	ANS	FP-007	Describe the types of adrenergic and cholinergic receptors and their functions	Guyton & Hall Ed 14th Ch.61 Pg 776-780	Prof Dr Shaheena
Week:8	2	2	Lecture	ANS	FP-007	Explain the effects of sympathetic and parasympathetic on various organs/ system of body	Guyton & Hall Ed 14th Ch.61 Pg 781-785	Dr Nida
Week:8	3	3	Lecture	ANS	FP-007	Discuss Components of Autonomic nervous system Explain the physiological anatomy of sympathetic and parasympathetic nervous system	Guyton & Hall Ed 14th Ch.61Pg 773-775	Dr Amna ILyas
Week:8	4	4	Integration with Pathology	Mismatch transfusion	HL-P-011	Discuss the features and complications of mismatched blood transfusion reaction. Elaborate the transplantation of tissues and organs	Robbins and Cotran	Dr Nabila Akram

Week:8	5	5	Practical	WBC	FP-011	interpret Total Leucocyte Count, Differential Leucocyte Count (normal & abnormal) in a CBC report generated by Automated Cell Counter.	Prof. Zafar Ali Ch. Volume I	Dr. Areej
Week:8	6	6	CBD - Tutorial	ANS	FP-007	Explain the effects of sympathetic and parasympathetic on various organs/ system of body	Guyton & Hall Ed 14th Ch.61 Pg 781-785	Dr. Fahad
Week:8	Anatomy							
Week:8	7	1	Lecture	General Anatomy : Nervous Tissue (Neurology)	FA-008	Describe the gross and/or microscopic anatomy of the following structures: Nerve, Nerve fiber, Ganglion, Tract, Fasciculus, Funiculus and Lemniscus Enlist the cranial nerves I to XII Describe the types of nerve fibers carried by and distribution of the cranial nerves.	GA by Tassadaq Hussain Ch.-7	Dr Ahmed

Week:8	**8**	**2**	**Embryology**	**Molecular regulations and signaling pathways**	**F-A-32+33+38**	**Tabulate the criteria for estimating fertilization age during the fetal period Describe the procedures for assessing fetal status Describe the clinical picture of IUGR & factors resulting in IUGR (Intra Uterine Growth Restriction)**	**KLM Embryology ed. 10th, Ch. 4**	**Dr Naheed**
Week:8	**9**	**3**	**Embryology**	**Teratogenicity**	**F-A-039**	**Define teratology and causes of birth defects Define genomic imprinting Define human disorders associated with genetic mutations Describe birth defects caused by genetic factors: numerical and structural anomalies Define and enlist the teratogens**	**Langman Embryo**	**Dr Naheed**

Week:8	**10**	**4**	**Histology**	**Connective tissue**	**F-A-045-II**	**Describe the structure, distribution, and functions of the cells of macrophage mononuclear phagocytic system Describe the role of macrophages in innate immunity & formation of foreign body Giant cell Describe the structure & functions of Mast cells.**	**Liaq Hussain 6th ed**	**Dr Fatima**
Week:8	**11**	**6**	**Practical**	**Osteology Imaging and cross-sectional Anatomy Arthrology**	**F-A-046**	**Demonstrate various anatomical movements of body Identify various elevations and anatomical landmarks on bones.Identify and interpret normal radiographs of various body regions**	**Practical manual I Zafar Ali Chuadhry**	**Dr Sadia/Dr Arishma**
Week:8	**12**	**8**	**CBD - Tutorial**	**Osteology Imaging and cross-sectional Anatomy Arthrology**	**F-A-046**	**Demonstrate various anatomical movements of body Identify various elevations and anatomical landmarks on bones.Identify and interpret normal radiographs of various body regions Identify and interpret joint dislocations and displaced**	**KLM Embryology ed. 10th, Ch. 4**	**Dr Sadia/Dr Arishma**
Week:8	**Biochemistry**							

Week:8	13	1	Lecture	Hemoglobin	HL-B-001	Hemoglobinopathies 02, pedigree of single gene defect	Lippincott's Ch: 3, 21	Prof. Dr. Haroon Habib
Week:8	14	2	Lecture	Hemoglobin	HL-B-001	Heme Synthesis 01	Lippincott's Ch: 3, 21	Prof. Dr. Haroon Habib
Week:8	15	3	Lecture	Heme Degradation	HL-B-004	Heme Synthesis 02	Lippincott's Ch: 3, 21	Prof. Dr. Haroon Habib
Week:8	16	6	Practical	Equipment	H-B-018	Preparation of Solutions	Practical copy	Monday: Dr. Saba Tuesday: Dr. Misbah Wednesday: Dr. Asad Thursday: Dr. Hamza
Week:8	17	7	CBD - Tutorial	Hemoglobin	HL-B-001	Hemoglobinopathies 02, pedigree of single gene defect	Lippincott's Ch: 3, 21	Monday: Dr. Saba Tuesday: Dr. Misbah Wednesday: Dr. Asad Thursday: Dr. Hamza
Week:8	Com.Medicine							

Week:8	**18**	**1**	**Lecture**	**ANEMIA, COMMUNICABLE DISEASES, GENETIC DISEASES.**	**H-CM-001, H-CM-002, H-CM-003**	**Describe the nutritional aspects of iron deficiency anaemia and the psychological aspects of diseases. Enlist the most common blood-borne diseases in Pakistan. Describe the routes of the spread of blood-borne diseases. Genetic counseling of parents**	**K.PARK & LECTURE NOTES**	**Dr Usman Sheikh**
Week:8	**SDL**							
Week:8	**19**	**1**	**Self Directed Learning**					
Week:8	**20**	**2**	**Self Directed Learning**					
Week:8	**Clinical Skills**							
Week:8	**21**	**1**	**Clinical skills**	**Demonstrate the process of wearing the gloves**			**LOG BOOK**	**Medical Faculty**
Week:8	**22**	**2**	**Clinical skills**	**Demonstrate the process of wearing the gloves**			**LOG BOOK**	**Medical Faculty**
Week:8	**23**	**3**	**Clinical skills**	**Demonstrate the process of wearing the gloves**			**LOG BOOK**	**Medical Faculty**
Week:8	**Assessment**							
Week:8	**24**	**1**	**Grand Test**					
Week:8	**25**	**2**						
Week:8	**26**	**3**	**OSPE/Viva**					
Week:8	**27**	**4**						

Week:8	Holidays		
Week:8	28	1	iv- Labor Holiday- 1st May,2025
Week:8	29	2	iv- Labor Holiday- 1st May,2025
Week:8	30	3	iv- Labor Holiday- 1st May,2025
Week:8	31	4	iv- Labor Holiday- 1st May,2025
Week:8	32	5	iv- Labor Holiday- 1st May,2025
Week:8	33	6	iv- Labor Holiday- 1st May,2025
Week:8	34	7	iv- Labor Holiday- 1st May,2025

Week:9	Total Hours	No.	Mode of Teaching	Topic	Code	Learning Objective	Reference	Facilitator
Week:9	Physiology							
Week:9	1	1	Lecture	Anemia	HL-P-001	Define anemia Classify anemia on the basis of morphology and cause	Guyton & Hall 14th edition Ch 33 pg no: 452	Dr Nida
Week:9	2	2	Lecture	Poly cythemia	HL-P-001	Discuss the effects of anemia on the bodyDefine polycythemia	Guyton & Hall 14th edition Ch 33 pg no: 453	Dr Amna Ilyas
Week:9	3	3	Lecture	Coagulation factors	HL-P-005	Define hemostasis Describe the mechanisms by which hemostasis is secured	Guyton & Hall Ed 14th Ch.37 Pg 483	Prof: Dr SHaheena
Week:9	4	4	Lecture	Coagulation factors	HL-P-005	Discuss the characteristics and functions of platelets Explain the mechanism of formation of platelet plug	Guyton & Hall Ed 14th Ch.37 Pg 485	Prof: Dr SHaheena
Week:9	5	5	Integration with Pathology	Immunization	HL-P-007	Define immunity. Classify immunity. Explain humoral immunity. Explain Innate immunity	textbook of microbiology & Immunology	Prof Dr Saeed Ahmed
Week:9	6	6	Practical	Bleeding / clotting time /	HL-P-013	Interpret RBC, Hemoglobin concentration, Hematocrit and RBC Indices by automated cell counter	Prof. Zafar Ali Ch. Volume I	Dr. Fahad

Week:9	7	7	CBD - Tutorial	Anemia	HL-P-001	Define anemia Classify anemia on the basis of morphology and cause	Guyton & Hall 14th edition Ch 33 pg no: 452	Dr. Tahir
Week:9	Anatomy							
Week:9	8	1	Anatomy	Hematopoietic & Lymphoid Tissue	HL-A-001	Identify and describe the components of the Hematopoietic & Lymphoid Tissue and their function	Klm 7E page 263	Dr Kalsoom
Week:9	9	2	Anatomy	Hematopoietic & Lymphoid Tissue	HL-A-001	Location, coverings, relations of Spleen Origin, course branches and distribution of Splenic artery	Klm 7E page 264	Dr Kalsoom
Week:9	10	3	Embryology	Developmental Anatomy of Spleen	HL-A-002	Intrauterine Development of spleen	Langman Embryo chp 15	Dr Naheed
Week:9	11	4	Anatomy	Hematopoietic & Lymphoid Tissue	HL-A-001	Venous drainage of Spleen, Portal vein formation, tributaries, and area of drainage. Location and relations of Thymus.	Klm 7E page 264	Dr Kalsoom
Week:9	12	5	Embryology	Developmental Anatomy of Spleen	HL-A-002	Intrauterine Development of spleen	Langman Embryo chp 15	Dr Naheed

Week:9	13	6	Anatomy	Hematopoietic & Lymphoid Tissue	HL-A-001	Venous drainage of Spleen, Portal vein formation, tributaries, and area of drainage. Location and relations of Thymus. Age related changes in Thymus	Klm 7E page 264	Dr Kalsoom
Week:9	14	7	Practical	Hematopoietic & Lymphoid Tissue	HL-A-001	Location, coverings, relations of Spleen Origin, course branches and distribution of Splenic artery	Klm 7E page 263-264	Dr Sadia
Week:9	15	8	CBD - Tutorial	Anatomy	HL-A-001	Identify and describe the components of the Hematopoietic & Lymphoid Tissue and their function	Klm 7E page 263-264	Dr Sadia
Week:9	Biochemistry							
Week:9	16	1	Lecture	Iron Metabolism 01	HL-B-004	Porphyrias 01	Lippincott's Ch: 3, 21	Prof. Dr. Haroon Habib
Week:9	17	2	Lecture	Iron Metabolism 02	HL-B-005	Porphyrias 02	Lippincott's Ch: 3, 21	Prof. Dr. Haroon Habib
Week:9	18	3	Lecture	Heme Degradation 01	HL-B-005	Iron Metabolism 01	Lippincott's Ch: 3, 21	Prof. Dr. Haroon Habib

Week:9	**19**	**4**	**Lecture Integration with Pathology**	**Heme Degradation 02**	**HL-B-002**	**Iron Metabolism 02**	**Robbins and Cotran Pathologic basis of diseases**	**Dr. Nabila**
Week:9	**20**	**5**	**Practical**	**jaundice and anemias**	**HL-B-009**	**Interpret types of jaundice on the basis of data**	**practical copy**	**Monday: Dr. Maryam Tuesday: Dr. Seemal Wednesday: Dr. Zahra Thursday: Dr. Aleena**
Week:9	**21**	**6**	**CBD - Tutorial**	**Revision of Module 01**				
Week:9	**PERLs**							
Week:9	**22**	**1**	**Lecture**	**Learning styles**	**1_10**	**Discuss responsibilities of being a learner**	**Lecture Presentation**	**Dr. Salar**
Week:9	**Pathology**							
Week:9	**23**	**1**	**Lecture**	**Blood cells, platelets and blood groups**	**HL-Pa-001**	**Classify bleeding disorders. Discuss first line laboratory investigations for bleeding disorders.**	**Robbins and Cotran**	**Dr Nabila**
Week:9	**Pharmacology**							
Week:9	**24**	**1**	**Lecture**	**ANEMIA**	**HL-Ph-001**	**describe oral and parenteral iron preparations**	**katzung ch 34**	**PROF.ASMA**
Week:9	**SDL**							

Week:9	25	1	Self Directed Learning				
Week:9	26	2	Self Directed Learning				
Week:9	Clinical Skills						
Week:9	28	1	Clinical skills	Demonstrate the process of wearing the gloves	LOG BOOK	Medical Faculty	
Week:9	29	2	Clinical skills	Demonstrate the process of wearing the gloves	LOG BOOK	Medical Faculty	
Week:9	English						
Week:9	30	1	Lecture	Introduction	Notes	Ms.Uzma	
Week:9	Assessment						
Week:9	31	1	Grand Test				
Week:9	32	2					
Week:9	33	3	Grand Test				
Week:9	34	4					

Week:10	Total Hours	No.	Mode of Teaching	Topic	Code	Learning Objective	Reference	Facilitator
Week:10	Physiology							
Week:10	1	1	lecture	Coagulation factors	HL-P-005	Discuss the characteristics and functions of platelets	Guyton & Hall Ed 14th Ch.37 Pg 487	Prof: Dr Shaheena

Week:10	2	2	Integration with Patho	Immunity,	HL-P-007	Elaborate cell mediated immunity. Describe the role of Helper T-cells in cell mediated immunity.	Levinson	Prof: Dr Saeed
Week:10	3	3	lecture	Coagulation factors	HL-P-005	Explain the role of Calcium ions in Intrinsic and Extrinsic	Guyton & Hall Ed 14th	Prof: Dr shaheena
Week:10	4	4	lecture	Coagulation factors	HL-P-005	Explain the role of Calcium ions in Intrinsic and Extrinsic	Guyton & Hall Ed 14th Ch.37 Pg 491	Dr Amna Iyas
Week:10	5	5	Integration with Patho	Immunity,	HL-P-007	Describe the structure of antigen and immunoglobulin. Enlist the types of Immunoglobulins along with their functions. Describe the mechanism of action of antibodies.	Levinson	Dr Majid Rauf
Week:10	6	6	Practical	hemostasis	HL-P-014	Determine Clotting Time./ Bleeding time	Prof. Zafar Ali Ch. Volume I	Dr. Areej
Week:10	7	7	CBD - Tutorial	Coagulation factors	HL-P-005	Discuss the characteristics and functions of platelets Explain the mechanism of formation of platelet plug	Guyton & Hall Ed 14th Ch.37 Pg 483	Dr. Fahad
Week:10	Anatomy							
Week:10	8	1	Anatomy	Pectoral Region	MS-A-001	Describe the topographical anatomy of Pectoral Region	Klm page pg 697	Dr Kalsoom

Week:10	**9**	**2**	**Anatomy**	**Pectoral Region**	**MS-A-001**	**Perform dissection of the Pectoral Region or use models to identify the key structures Describe muscles of the Pectoral Region with their origin, insertion, nerve supply and actions.**	**KLM page 697-700**	**Dr kalsoom**
Week:10	**10**	**3**	**Anatomy**	**Fascia & Myotomes of upper limb**	**MS-A-002**	**Describe the fasciae, cutaneous nerves. and blood vessels of the Upper LimbDescribe the extent, attachments, and structures passing through Clavipectoral Fascia.**	**Klm page 693**	**Dr kalsoom**
Week:10	**11**	**4**	**Anatomy**	**Pectoral region & Back + Mammary Glands**	**MS-A-003-I**	**Describe the extent, structure, neurovascular supply, lymphatic drainage of Breast (Mammary Glands)**	**Klm Page 700-710**	**Dr NAheed**
Week:10	**12**	**5**	**Anatomy**	**Pectoral region & Back + Mammary Glands**	**MS-A-003-II**	**Enumerate the muscles of pectoral girdle. Describe the attachments of muscle of pectoral girdle, nerve supply and actions (Pectoralis Major and minor, Subclavius, Trapezius, Latissimus Dorsi, Rhomboid major and minor, Levator Scapulae and Serratus anterior)**	**KLM 98**	**Dr Naheed**

Week:10	Extra slot	6	Anatomy	Bones of Upper Limb: Clavicle & Scapula	MS-A-4-I	Describe the functions of Clavicle in terms of weight transmission of upper limb Describe the Osteology of Scapula (morphological features, attachments, ossification) Determine the side and identify the landmarks of scapula Describe the movements of Scapula associated with movements of Shoulder Girdle	KLM 673	Dr Ahmed
Week:10	Extra slot	7	Anatomy	Fascia & Myotomes of upper limb	MS-A-002	Describe the fasciae, cutaneous nerves. and blood vessels of the Upper LimbDescribe the extent, attachments, and structures passing through Clavipectoral Fascia.	Klm page 693	Dr Kalsoom
Week:10	13-14	8	Practical	Bones of Upper Limb: Clavicle & Scapula	MS-A-004	Describe the Osteology of Clavicle (morphological features, side determination, attachments, ossification)	KLM page 697-700	Dr Fatima
Week:10	15	9	CBD - Tutorial	Bones of Upper Limb: Clavicle & Scapula	MS-A-004	Describe the Osteology of Scapula (morphological features, attachments, ossification)	KLM page 675	Dr Sadia
Week:10	Biochemistry							
Week:10	16	1	BIO LECTURE	Hyperbillirub-inemias	HL-B-005	Heme Degradation 01	Lippincott's Ch: 3, 21	Prof. Dr. Haroon Habib

Week:10	17	2	BIO LECTURE	Hyperbillirub-inemias	HL-B-005	Iron Metabolism - Integrate with Medicine	Lippincott's Ch: 3, 21	Prof. Dr. Haroon Habib
Week:10	19	3	Lecture	Hemoglobino-pathies+Iron Metabolism	HL-B-002+003	Heme Degradation 02	Lippincott's Ch: 3, 21	Prof. Dr. Sadia Amir
Week:10	20	5	Practical	Jaundice		Estimation of Bilirubin, ALP	practical copy	Monday: Dr. Saba Tuesday: Dr. Misbah Wednesday: Dr. Asad Thursday: Dr. Hamza
Week:10	21	6	CBD - Tutorial	Hemoglobino-pathies+Iron Metabolism	HL-B-002+003	Heme Degradation 02	Lippincott's Ch: 3, 21	Monday: Dr. Saba Tuesday: Dr. Misbah Wednesday: Dr. Asad Thursday: Dr. Hamza
Week:10	Beh.Sciences							
Week:10	22	1	lecture	Counselling, informational care	HL-BhS-01	Psychological Counselling of patients and their families	MR	Dr.Farhat
Week:10	Pharmacology							
Week:10	23	1	lecture	ANEMIA	HL-Ph-001	VITAMIN B 12 PREPARATIONS.IRON ANTIDOTES	katzung ch-34	DR.AZKA
Week:10	Pathology							

Week:10	24	1	lecture	Blood cells, Platelets and blood groups	HL-Pa-001	Describe the basic concept of blood grouping and acute hemolytic transfusion reaction.	Robbins and Cotran	Dr Nabila
Week:10	SDL							
Week:10	25	1	Self Directed Learning					
Week:10	26	2	Self Directed Learning					
Week:10	Clinical Skills							
Week:10	27	1	Clinical skills	Measurement of Blood pressure			LOG BOOK	Medical Faculty
Week:10	28	2	Clinical skills	Measurement of Blood pressure			LOG BOOK	Medical Faculty
Week:10	Assessment							
Week:10	30	1	Module -1					
Week:10	31	2						
Week:10	32	4	Key Discussion					
Week:10	33	5	OSPE/Viva					
Week:10	34	6						

Week:11	Total Hours	No.	Mode of Teaching	Topic	Code	Learning Objective	Reference	Facilitator
Week:11	Physiology							

Week:11	**1**	**1**	**Integration with patho**	**Immunity,**	**HL-P-007**	**Explain the role of memory cells in enhancing antibody response (secondary response). Elaborate the complement system.**	**Levinson**	**Dr Majid**
Week:11	**2**	**2**	**Integration with patho**	**Immunity,**	**HL-P-007**	**Elaborate Immune tolerance. Explain the process of clone selection during T cell processing. Discuss the failure of the tolerance mechanism.**	**Levinson**	**Dr Munazza**
Week:11	**3**	**3**	**Integration with patho**	**Immunity,**	**HL-P-007**	**Discuss immunization. Define passive Immunity. Explain features and physiological basis of delayed reaction allergy. Explain features and physiological basis of Atopic Allergy. Explain features and physiological basis of Anaphylaxis, urticaria and Hay fever.**	**Levinson**	**Dr Majid**
Week:11	**4**	**4**	**Integration with patho**	**Immunity,**	**HL-P-011**	**Discuss the features and complications of mismatched blood transfusion reaction. Elaborate the transplantation of tissues and organs**	**Robbins and Cotran**	**Dr Nabila**
Week:11	**5**	**5**	**Practical**	**Bleeding time**	**HL-P-013**	**Interpret platelet count by automated cell counter**	**Prof. Zafar Ali Ch. Volume I**	**Dr Fahad**

Week:11	**6**	**6**	**CBD - Tutorial**	**Immunity,**	**HL-P-007**	**Explain humoral immunity of antigen and immunoglobulin,**	**Guyton & Hall 14th edition Ch 35 pg no: 467**	**Dr. Areej**
Week:11	**Anatomy**							
Week:11	**7**	**1**	**Anatomy**	**Bones of Upper Limb: Clavicle & Scapula**	**MS-A-4-II**	**Describe the movements of Scapula associated with movements of Shoulder Girdle Tabulate the movements of scapula with muscles acting on it Tabulate the attachments, origin, insertion, innervation, and actions of Anterior Axio-**	**KLM 675**	**Dr Kalsoom**
Week:11	**8**	**2**	**Anatomy**	**Bones of thorax, Joints of Upper Limb: Sternoclavicular Joint**	**MS-A-005**	**Describe the Sternoclavicular Joint in terms of articulating surfaces, ligaments, articular disc, nerve supply, blood supply, axes and planes of movements and stability factors**	**KLM 700-705**	**Dr Kalsoom**
Week:11	**9**	**3**	**Anatomy**	**Axilla**	**MS-A-006-I**	**Develop clear concepts of the topographical anatomy of Axilla and its contents.Describe the boundaries of Axilla. (Identification of muscles forming the boundaries of axilla) List the contents of Axilla**	**KLM 713-719**	**Dr Kalsoom**

Week:11	**10**	**4**	**Histology**	**Histology of Muscles**	**MS-A-072**	**Describe the microscopic structure and ultra-microscopic structure of skeletal muscle.Explain the basis of myasthenia gravis and Duchenne muscular dystrophy.**	**Laeeq Hussain chap 5**	**Dr FAtima**
Week:11	**11**	**5**	**Embryology**	**Development of Muscles**	**MS-A-065**	**Name the molecular and genetic factors involved in the development of musculoskeletal system Describe the development of skeletal muscle List the derivatives of epaxial and hypaxial musculature of limb Briefly discuss the development of cardiac and smooth muscle**	**Langman Embryology 157**	**Dr Naheed**
Week:11	**12**	**6**	**Anatomy**	**Axilla**	**MS-A-006-II**	**Describe the formation, tributaries, and drainage of Axillary Vein Identify and demonstrate the course/ relation and branches/tributaries of axillary vessels**	**KLM 713-719**	**Dr Kalsoom**
Week:11	**13**	**7**	**Practical**	**Histology of Muscles**	**MS-A- 079**	**Draw and label the histology of skeletal muscle**	**Histology Practical book**	**Dr Sadia**
Week:11	**14**	**8**	**Practical**	**Pectoral region & Back**	**MS-A-003**	**Describe the osteology of the bones in pectoral region**	**Klm 700-710**	**Dr sadia**

Week:11	15	9	CBD - Tutorial	Pectoral region & Back	MS-A-003	Describe the osteology of the bones in pectoral region	Klm 700-710	Dr sadia
Week:11	Biochemistry							
Week:11	16	1	Lecture	Carbohydr-ates	MS-B-001	Hyperbilirubinemias 01	Lippincott's Ch: 7	Dr. Sadia Khalil
Week:11	17	2	Lecture	Carbohydr-ates	MS-B-001	Hyperbilirubinemias 02	Lippincott's Ch: 7	Dr. Sadia Khalil
Week:11	18	3	Lecture	Carbohydr-ates	MS-B-001	Aging: Role of PRP & glutathione in skin whitening	Lippincott's Ch: 7	Dr. Sadia Khalil
Week:11	19	4	Practical	jaundice and anemias	HL-B-009	"Estimation of AST, ALT"	practical copy	Monday: Dr. Maryam Tuesday: Dr. Seemal Wednesday: Dr. Zahra Thursday: Dr. Aleena
Week:11	20	5	CBD - Tutorial	Carbohydr-ates	MS-B-001	Classification & Biomedical importance of Carbohydrates	Lippincott's Ch: 7	Monday: Dr. Maryam Tuesday: Dr. Seemal Wednesday: Dr. Zahra Thursday: Dr. Aleena
Week:11	Perls							

Week:11	21	1	Lecture	#ERROR!	1_07	Strategic planning Personal development plans Goal Setting	Lecture Presentation	Dr.Salar
Week:11	Beh.Science							
Week:11	22	1	Lecture	MS-BhS-001	factors influencing chronic illnesses	Identify and deal with the various psychosocial aspects of Musculoskeletal conditions	MR	Dr.Farhat
Week:11	Pathology							
Week:11	23	1	Lecture	Muscle remodeling	MS-Pa-001	Describe the hyperplasia, hypertrophy, and atrophy of muscle fiber. Explain the histopathological basis of leiomyoma.	Robbins and Cotran	Dr Nadia
Week:11	24	2	Lecture	Diseases of muscles	MS-Pa-002	Describe the histological basis of Duchenne Muscular Dystrophy and myopathy	Robbins and Cotran	Dr Nadia
Week:11	SDL							
Week:11	25	1	Self Directed Learning					
Week:11	26	2	Self Directed Learning					
Week:11	Clinical Skills							
Week:11	28	1	Clinical skills	Examine the wrist joint for functionality			LOG BOOK	Medical Faculty

Week:11	**29**	**2**	**Clinical skills**	**Examine the wrist joint for functionality**			**LOG BOOK**	**Medical Faculty**
Week:11	Pathology							
Week:11	**30**	**1**	**lecture**	**Blood cells, Platelets and blood groups**	**HL-Pa-001**	**Describe the basic concept of blood grouping and acute hemolytic transfusion reaction.**	**Robbins and Cotran**	**Dr Nabila**
Week:11	**Assessment**							
Week:11	**31**	**1**	**Grand Test**					
Week:11	**32**	**2**						
Week:11	**33**	**3**	**OSPE/Viva**					
Week:11	**34**	**4**						

Week:12	**Total Hours**	**No.**	**Mode of Teaching**	**Topic**	**Code**	**Learning Objective**	**Reference**	**Facilator**
Week:12	**Physiology**							
Week:12	**1**	**1**	**Lecture**	**Diffusion/equilibrium potentials**	**MS-P-001**	**Explain the physiological basis of membrane potential Explain the diffussion potential of Na & K**	**Guyton & Hall Ed 14th Ch.5 Pg 61-62**	**Prof:Dr Sadia**

Week:12	**2**	**2**	**Lecture**	**Nernst potential/ Goldmans equation**	**MS-P-002 MS-P-003**	**Define nernest potential, explain the physiological basis of nernest potential write nernest equation, calculate nernest potentialfor Na & K, Explain the effect of altering the concentration of Na+ & K+, Ca on the equilibrium potential for that ion**	**Guyton & Hall Ed 14th Ch.5 Pg 61-62**	**Dr Nida**
Week:12	**3**	**3**	**Lecture**	**RMP neuron**	**MS-P-004**	**Describe the physiological basis of generation of RMP, Explain the effects of hyperkalemia and hypokalemia on RMP, Name the membrane stabilizers, Explain the physiological basis of local anesthesia**	**Guyton & Hall Ed 14th Ch.5 Pg 63**	**Prof: Dr Shaheena**
Week:12	**4**	**4**	**Integration with Medicine**	**Coagulation Disorder**	**HL-p-006**	**Define Thrombocytopenia and Enlist its causes**	**Devidson**	**Dr USMAN**
Week:12	**5**	**5**	**Practical**	**Bleeding time**	**HL-P-013**	**Interpret platelet count by automated cell counter**	**Prof. Zafar Ali Ch. Volume I**	**Dr Areej**
Week:12	**6**	**6**	**CBD - Tutorial**	**Immunity,**	**HL-P-007**	**Explain humoral immunity of antigen and immunoglobulin,**	**Guyton & Hall 14th edition Ch 35 pg no: 467**	**Dr. Tahir**
Week:12	**Anatomy**							

Week:12	**7**	**1**	**Anatomy**	**Joints of Upper Limb: Shoulder Joint**	**MS-A-008-II**	**Describe the 3 parts of Deltoid Muscle and correlate them with its unique functions. Explain its role in abduction of shoulder joint. Explain mechanism of Abduction of arm Identify and demonstrate the movements of Axio-appendicular Muscles on Skeleton/Model**	**KLM 695-700**	**Dr Kalsoom**
Week:12	**8**	**2**	**Anatomy**	**Rotator Cuff+Nerves of Upper Limb**	**MS-A-009+MS-A-010-I**	**Describe Rotator Cuff Muscles, state their Anatomical significance and explain Rotator Cuff Tendinitis+Describe the formation of Brachial Plexus; Infra and Supraclavicular parts.**	**KLM pg 705-710+KLM pg 745-750**	**Dr Kalsoom**
Week:12	**9**	**3**	**Anatomy**	**Nerves of Upper Limb**	**MS-A-010-II**	**Develop clear concepts of the topographical anatomy of Scapular Region Tabulate the attachments, innervation, and actions of muscles of Scapular Region Identify**	**KLM 737-745**	**Dr Kalsoom**
Week:12	**10**	**4**	**Lecture**	**Embryology:Development of Muscles**	**MS-A-065**	**Describe the development of skeletal muscle and innervation of axial skeletal Muscles-developmental basis of myotome**	**Lagman embro : page-156-158**	**Dr Naheed**

Week:12	11	5	Lecture	Embryology:Development of Muscles	MS-A-065	Briefly discuss the development of cardiac and smooth muscle	Lagman embro : page-156-158	Dr Naheed
Week:12	12	6	Lecture	Histology	MS-A-72	Describe Myosatellite Cells & their role in regeneration of muscle, hyperplasia, and hypertrophy of muscle fiber	Laeeq Hussain chap4	dr fatima
Week:12	13	7	Lecture	Histology	MS-A-73	Describe the light and electron microscopic structure of bone cells Describe the light and electron microscopic structure of compact and spongy bone	Laeeq Hussain chap5	Dr Fatima
Week:12	14	8	Practical	Histology of Muscles	MS-A-079	Draw and label the histology of smooth muscle	Histology Practical book	Dr Sadia
Week:12	15	9	CBD - Tutorial	Bones of upper limb: Humerus	MS-A-007	Describe the Osteology of Humerus (Side Determination, morphological features, attachments, ossification)	KLM 676	Dr Sadia
Week:12	Biochemistry							

Week:12	**16**	**1**	**Lecture**	**Carbohydr-ates**	**MS-B-002+MS-B-003**	**Isomerization of Carbohydrates**	**Lippincott's Ch: 7**	**Dr. Sadia Khalil**
Week:12	**17**	**2**	**Lecture**	**Carbohydr-ates**	**MS-B-003**	**Physical & Chemical properties of Carbohydrates**	**Lippincott's Ch: 8**	**Prof. Dr. Sadia Amir**
Week:12	**18**	**3**	**Lecture**	**Carbohydr-ates**	**MS-B-003 MS-B-004**	**Difference between proteoglycan and glycoproteins, GAGs**	**Lippincott's Ch: 8**	**Prof. Dr. Sadia Amir**
Week:12	**19-20**	**5**	**Practical**	**total proteins**	**MS-B-012**	**Revision**	**Copy**	**Monday: Dr. Saba Tuesday: Dr. Misbah Wednesday: Dr. Asad Thursday: Dr. Hamza**
Week:12	**21-22**	**6**	**CBD - Tutorial**	**Revision of Block I**				**Monday: Dr. Saba Tuesday: Dr. Misbah Wednesday: Dr. Asad Thursday: Dr. Hamza**
Week:12	**Holy Quran**							
Week:12	**23**	**1**	**Lecture**	**Identify gaps in learning through reflection D587**	**1_07**	**Strategic planning Personal development plans Goal Setting**	**Lecture Presentation**	**Dr.Javaid**

Week:12	SDL					
Week:12	24	1	Self Directed Learning			
Week:12	25	2	Self Directed Learning			
Week:12	Clinical Skills					
Week:12	27	1	Clinical skills	Examine the knee joint for functionality.	LOG BOOK	Medical Faculty
Week:12	28	2	Clinical skills	Examine the knee joint for functionality.	LOG BOOK	Medical Faculty
Week:12	Assessment					
Week:12	30	1	Module -2			
Week:12	31	2				
Week:12	32	3	Key Discussion			
Week:12	33	4	OSPE/Viva			
Week:12	34	5				

Week:13	Total Hours	No.	Mode of Teaching	Topic	Code	Learning Objective	Reference	Facilator
Week:13	Physiology							
Week:13	1	1	Lecture	Neurons	MS-P-005	Describe the physiological anatomy of neurons, Discuss the axonal transport Enlist and give functions of neurological cells, Explain process of myelination in CNS and PNS	Guyton & Hall Ed 14th Ch.5 Pg 65 Mushtaq ahmed	Prof: Dr Sadia

Week:13	**2**	**2**	**Lecture**	**Classification of neurons and fibers**	**MS-P-006**	**Classify neurons functionally Classify nerve fibers according to enlanger and gasser classification**	**Guyton & Hall Ed 14th Ch.47 Pg 599**	**Prof: Dr Sadia**
Week:13	**3**	**3**	**Lecture**	**Action potential of neurons**	**MS-P-007**	**Define action potential, Enlist the properties of action potential, Describe the ionic basis of an action potential, Explain the phases of action potential, Explain the effects of hyperkalemia and hypokalemia on action potential**	**Guyton & Hall Ed 14th Ch.5 Pg 69**	**Dr. Amna Ilyas**
Week:13	**4**	**4**	**Practical**	**Locomotion**	**MS-P-018**	**Demonstrate and categorize the following movements pushing againts the wall,m biceps curls, squats, yoga chair pose, standing on toes**	**Prof. Zafar Ali Ch. Volume I**	**Dr. Fahad**
Week:13	**5**	**5**	**CBD - Tutorial**	**Nernst potential/ Goldmans equation**	**MS-P-002 MS-P-003**	**Define nernest potential, explain the physiological basis of nernest potential write nernest equation, calculate nernest potentialfor Na & K, Explain the effect of altering the concentration of Na+ & K+, Ca on the equilibrium potential for that ion**	**Guyton & Hall Ed 14th Ch.5 Pg 63**	**Dr. Areej**

Week:13	Anatomy							
Week:13	6	1	Surgery Integrated with Anatomy	Pectoral region & Back + Mammary Glands	MS-A-003	Demonstrate palpation of breast and define its relation to the Fibrous septa in Carcinoma of Breast	B&L	Dr Shehzina Surgical Unit I
Week:13	7	2	Anatomy	Blood supply of arm	MS-A-011	Describe the Brachial Artery in terms of its course, relations, branches, and distribution	KLM 757-760	Dr Kalsoom
Week:13	8	3	Anatomy	Muscles of Arm	MS-A-12	Describe Cubital Fossa with emphasis on its boundaries, contents, and clinical significance Demonstrate surface marking of superficial veins of arm and forearm for IV injections.	KLM 765-775	Dr Kalsoom
Week:13	9	4	Anatomy	Bones of Forearm	MS-A-013	Describe the Osteology of Radius (Side Determination, morphological features, attachments, ossification)Describe the Osteology of Ulna (Side Determination, morphological features, attachments, ossification).	KLM 739-745	Dr Kalsoom

Week:13	**10**	**5**	**Embryology**	**Development of Limb**	**MS-A-066**	**List the factors contributing to the development of limb.Describe the role of AER and Zone of polarizing activity in development of limb Describe the process of limb development and limb growth Draw a concept map pertaining to development of limb.**	**KLM 158-160**	**Dr Naheed**
Week:13	**Extra slote**		**Histology**	**Functional Histology**	**MS-A-073**	**Describe the regeneration of muscle, hyperplasia, and hypertrophy of muscle fiber.Explain the histopathological basis of leiomyomaDescribe the histological basis of Duchenne Muscular Dystrophy**	**Laeeq Hussain chap5**	**Dr Fatima**
Week:13	**11**	**7**	**Practical**	**Histology of Bones**	**MS-A-080**	**Draw and label the histological picture of compact boneDraw and label the histological picture of spongy bone**	**Histology Practical book**	**Dr Sadia**
Week:13	**12**		**Practical**	**Histology of Bones**	**MS-A-080**	**Draw and label the histological picture of compact boneDraw and label the histological picture of spongy bone**	**Histology Practical book**	**Dr Sadia**

Week:13	**13**		**CBD - Tutorial**	**Development of Limb**	**MS-A-066**	**List the factors contributing to the development of limb.Describe the role of AER and Zone of polarizing activity in development of limb Describe the process of limb development and limb growth Draw a concept map pertaining to development of limb**	**langman page 158-160**	**Dr Sadia**
Week:13	**14**	**8**	**CBD - Tutorial**	**Development of Limb**	**MS-A-066**	**List the factors contributing to the development of limb.Describe the role of AER and Zone of polarizing activity in development of limb Describe the process of limb development and limb growth Draw a concept map pertaining to development of limb**	**langman page 158-160**	**Dr Sadia**
Week:13	**Biochemistry**							
Week:13	**15**	**1**	**Lecture**	**Carbohydr-ates**	**MS-B-003**	**Collagen 01: structure, biomedical importance, synthesis**	**Lippincott's Ch: 8**	**Prof. Dr. Sadia Amir**
Week:13	**16**	**2**	**Lecture**	**Carbohydr-ates**	**MS-B-003**	**Collagen 02: synthesis, role of Vitamin C & associated diseases**	**Lippincott's Ch: 8**	**Prof. Dr. Sadia Amir**

Week:13	17-18	4	Practical	total proteins	MS-B-012	revision	Copy	Monday: Dr. Saba Tuesday: Dr. Misbah Wednesday: Dr. Asad Thursday: Dr. Hamza
Week:13	19-20	5	CBD - Tutorial	Carbohydr-ates	MS-B-003	Collagen 02: synthesis, role of Vitamin C & associated diseases	Lippincott's Ch: 8	Monday: Dr. Saba Tuesday: Dr. Misbah Wednesday: Dr. Asad Thursday: Dr. Hamza
Week:13	Clinical Skills							
Week:13	21	1	Clinical skills	Identify common fractures showing in X-rays of upper limb.			LOG BOOK	Medical Faculty
Week:13	22	2	Clinical skills	Identify common fractures showing in X-rays of upper limb.			LOG BOOK	Medical Faculty
Week:13	Assessment							
Week:13	23	1	Block-1					
Week:13	24	2						
Week:13	25	3						
Week:13	26	4	Key Discussion					
Week:13	27	5	OSPE/Viva					
Week:13	28	6						
Week:13	Holidays							
Week:13	29	1	Eid- Ul- Adha Holidays- 6th June - 9th June,2025					

Week:13	**30**	**2**	**Eid- Ul- Adha Holidays- 6th June - 9th June,2025**
Week:13	**31**	**3**	**Eid- Ul- Adha Holidays- 6th June - 9th June,2025**
Week:14	**32**	**4**	**Eid- Ul- Adha Holidays- 6th June - 9th June,2025**
Week:14	**33**	**5**	**Eid- Ul- Adha Holidays- 6th June - 9th June,2025**
Week:14	**34**	**6**	**Eid- Ul- Adha Holidays- 6th June - 9th June,2025**

Operational Definition

Traditional & Innovative Teaching Methodologies

Sr.	Pedagogical Methodologies	Description
1.	Lectures	Traditional method where an instructor presents information to a large group of students (large group teaching). This approach focuses on delivering theoretical knowledge and foundational concepts. It is very effective for introducing new topics.
2.	Tutorial	Tutorials involve small group discussion (SGD) where students receive focused instruction and guidance on specific topics.
3	Demonstrations	Demonstrations are practical displays of techniques or procedures, often used to illustrate complex concepts or practices, particularly useful in dental education for showing clinical skills.
4	Practicals	Hands-on sessions where students apply theoretical knowledge to real-world tasks. This might include lab work, clinical procedures, or simulations. Practicals are crucial for developing technical skills and understanding the application of concepts in practice.
5.	Student Presentations	Students prepare and deliver presentations on assigned topics. This method enhances communication skills, encourages students to explore topic in-depth. It also provides opportunities for peer feedback and discussion.
6.	Assignment	Tasks given to students to complete outside of class. Assignments can include research papers, case studies, or practical reports. They are designed to reinforce learning, assess understanding, and develop critical thinking and problem-solving skills.
7.	Self-directed Learning	Students take initiative and responsibility for their own learning process. Students are encouraged to seek resources, set goals, and evaluate their progress. This is a learner-centered approach where students take the initiative to plan, execute, and assess their own learning activities. This method promotes independence, critical thinking, and lifelong learning skills.

8.	Flipped Classroom	In this model, students first engage with learning materials at home (e.g., through videos, readings) and then use class time for interactive activities, discussions, or problem-solving exercises. This approach aims to maximize in-class engagement and application of knowledge.
9.	Peer-Assisted Learning (PAL)	A collaborative learning approach where students help each other understand course material. PAL involves structured peer tutoring, study groups, or collaborative tasks. It enhances comprehension through teaching, reinforces learning, and builds teamwork skills.
10.	Team-based Learning (TBL)	A structured form of small group learning where students work in teams on application-based tasks and problems. Teams are responsible for achieving learning objectives through collaborative efforts, promoting accountability, and deeper understanding of the material.
11.	Problem-based Learning (PBL)	Students work on complex, real-world problems without predefined solutions. They research, discuss, and apply knowledge to develop solutions. PBL fosters critical thinking, problem-solving skills, and the ability to integrate knowledge from various disciplines.
12.	Academic Portfolios	A collection of student's work that showcases learning achievements, reflections, and progress over time. Portfolios include assignments, projects, and self-assessments. They provide a comprehensive view of student development, highlight strengths and areas for improvement, and support reflective learning (experiential learning)
13.	Seminar	A seminar is an academic or professional setting where individuals discuss, present, and explore specific topics, often with expert guidance

AVICENNA MEDICAL & DENTAL COLLEGE
DEPARTMENT OF MEDICAL EDUCATION

Introduction

This policy outlines the guidelines for internal assessment of students at Avicenna Medical and Dental College. Internal assessment plays a crucial role in evaluating a student's progress, understanding their strengths and weaknesses, and providing timely feedback. This policy aims to ensure fairness, consistency, and transparency in the internal assessment process.

Internal Assessment Components

The internal assessment for each course will be comprised of the following components:

1. Attendance

- Attendance will be recorded regularly and will contribute to the overall internal assessment score.
- Students are expected to maintain a minimum attendance of 75% to be eligible for internal assessment marks.

2. Continuous Assessment

- Continuous assessment will be based on regular assignments, quizzes, presentations, and other activities conducted throughout the semester.
- These assessments will evaluate students' understanding of the course material, their critical thinking skills, and their ability to apply knowledge to real-world scenarios.

3. Grand Test and Module Exams

- Grand tests and module exams will be conducted to assess students' comprehensive understanding of the course content.
- These exams will be designed to evaluate both theoretical knowledge and practical skills.

4. Attitude and Behavior

- Students' attitude towards learning, participation in class activities, and adherence to college rules and regulations will be assessed.
- This component will evaluate students' professionalism, teamwork skills, and ethical conduct.

5. Logbook and Portfolio

- Students will be required to maintain a logbook and portfolio to document their learning journey.
- The logbook will include reflections on lectures, tutorials, and practical sessions.
- The portfolio will showcase students' best work, including assignments, projects, and research papers.

Assessment Criteria and Weighting

The following table outlines the weighting of each component in the internal assessment:

Component	Marks	Percentage
Attendance	6	2%
Continuous Assessment	12	4%
Grand Test and Module Exams	30	10%
Attitude and Behavior	10	3%
Logbook and Portfolio	2	1%
Total	60	20%

Assessment Procedures

- Faculty Responsibility: Faculty members will be responsible for designing and administering the internal assessments in accordance with the course syllabus and this policy.
- Marking and Grading: Faculty members will mark and grade the assessments using a transparent and consistent marking scheme. Candidates shall be required to score at least 50% marks in the internal assessment in each subject to become eligible for admission to professional examinations.
- Feedback: Faculty members will provide timely and constructive feedback to students on their performance.
- Record-Keeping: Faculty members will maintain accurate records of all internal assessments, including marks and feedback.
- Moderation: Internal assessments will be moderated by the course coordinator or the head of the department to ensure fairness and consistency.

Appeal Process

Students who have concerns about their internal assessment marks may appeal to the concerned faculty member or the head of the department. The appeal process will be handled promptly and fairly.

The internal assessment policy is designed to promote student learning, assess their progress, and provide a fair and transparent evaluation system. Faculty members and students are expected to adhere to this policy to ensure the integrity of the internal assessment process.

Attendance Requirement & Internal Assessment Criteria

The institution follows the regulations for examinations of the UHS in letter and spirit. The students require **75% attendance** in all academic sessions and **50% passing marks** with internal assessments and send-up examinations to be eligible for the UHS Professional Examinations.

Assessment Guidelines

Assessment in medical & dental education is a critical component designed to ensure that medical & dental students acquire the necessary knowledge, skills, and competencies required for effective medical & dental practice.

Assessment drives learning! – George E. Millar

You will encounter a variety of assessment methods, each serving a specific purpose.

- Written examinations, including multiple-choice and essay questions, will test your grasp of theoretical concepts and subject matter.

- Practical assessments will require you to demonstrate your clinical skills and ability to apply knowledge in real-world scenarios.
- Clinical exams will evaluate your communication skills and reasoning abilities through case discussions and problem-solving exercises.
- Clinical skills and work-place based assessments will observe your hands-on proficiency and patient management capabilities.

At Avicenna Medical & Dental College, internal assessments are systematically conducted throughout each academic year of the MBBS program, as per the guidelines established by the University of Health Sciences (UHS). These assessments, overseen by the Assessment Cell, adhere to either the Annual Subject-Based System or the Integrated/Modular System, depending on the curriculum structure.

Notably, beginning with the 2024-25 academic year, the weightage of internal assessments will be increased from 10% to 20%. The UHS administers professional examinations independently, organizing them at designated neutral sites and appointing external examiners to ensure objectivity and fairness.

Internal Assessment Weightage	20%	100%
External Assessment Weightage	80%	

Assessment Schedule

Avicenna Medical & Dental College 1st Year MBBS (M-24) Test Schedule Block-1					
Week	**Date**	**Day**	**Subject**	**Test**	**Theme**
1st	**3-Mar-25**	**Mon**	**All Subjects**	**Lecture**	**Lecture Time Divided**
2nd	**10-Mar-25**	**Mon**	**All Subjects**	**Lecture**	**Lecture Time Divided**
3rd	**17-Mar-25**	**Mon**	**Biochemistry**	**Grand Test** **OSPE+VIVA**	**Biochemistry of Cell**
4th	**24-Mar-25**	**Mon**	**Physiology**	**Grand Test** **OSPE+VIVA**	**Cell & Transport**
5th	**31-Mar-25**	**Mon**	**Eid- Ul- Fitr +Spring Vacations- 30th March - 6th April,2025**		
6th	**7-Apr-25**	**Mon**	**All Subjects**	**Lecture**	**Lecture Time Divided**
7th	**14-Apr-25**	**Mon**	**Anatomy**	**Grand Test** **OSPE+VIVA**	**All the covered topics**
8th	**21-Apr-25**	**Mon**	**Biochemistry**	**Grand Test** **OSPE+VIVA**	**Chemistry of Nucleotides & Nucleic Acids ,Metabolism of Nucleotides,Enzymes ,Chemistry of Proteins & Amino Acids**
9th	**28-Apr-25**	**Mon**	**Physiology**	**Grand Test** **OSPE+VIVA**	**ANS & Blood 1**
10th	**5-May-25**	**Mon**	**Anatomy**	**Grand Test**	**All the covered topics**

				OSPE+VIVA	
11th	**12-May-25**	**Mon**	**Module Exam:1**		**Whole Syllabus of Module-1**
			OSPE+VIVA		
12th	**19-May-25**	**Mon**	**Biochemistry**	**Grand Test**	**Immunoglobulins,Telomeres, Hemoglobin & Hemoglobinopathies,Heme Synthesis & Degradation, Iron Metabolism**
				OSPE+VIVA	
13th	**26-May-25**	**Mon**	**Module Exam:2**		**Whole Syllabus of Module-2**
			OSPE+VIVA		
14th	**2-Jun-25**	**Mon**	**Block Exam:1**		**Whole Syllabus of Module: 1 & 2**
			OSPE+VIVA		
End Of Block-1					

Table of Specification

MBBS 1st Professional

Block-1

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	20	04	40	04	-	01	46
Normal Function	Physiology applied/clinical	22	03	37	03	-	01	38
	Biochemistry applied/clinical	24	02	34	02	-	01	30
Disease Burden & Prevention	Community Medicine & Public Health	06	-	06	-	-	-	-
	Behavioral Sciences	05	-	05	-	-	-	-
Pathophysiology & pharmacotherapeutics	Pathology	08	01	13	1	-	-	8
	Pharmacology	05	-	05	1	-	-	8
CFRC	CF-I	-	-	-	-	01	-	05
PERLs	PERLs-I	-	-	-	-	01	-	05
Total		**90**	**10x5=50**	**140**	**11 stations x 08 = 88**	**02 stations x 05 = 10**	**03 stations x 14=42**	**140**

Recommended Books & Reading Resources

Anatomy

Snell's Clinical Anatomy 10th ed.

Langman's Medical Embryology 12thed

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 & Michaell 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 Therapeu cs

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 Beverely 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.

Patent 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 & Michaell, 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. NasibR. Awan,2nd edition

Forensic DNA Typing – 2nd Edition, Author: John M. Butler

Parikh's Textbook of Medical Jurisprudence, Forensic Medicine and Toxicology by C.K. Parikh 6th Ed., CBS Publisher.

Gun Shot Wounds 2nd edition by V.J.Deimaio

Knight B. Simpson's Forensic Medicine.

Knight and Pekka. Principles of Forensic Medicine

Forensic Pathology

Forensic pathology 2nd edition by V.J.Deimaio 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

TextBook 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 peads medicine

Islamiyat

Standard Islamiyat (compulsory) for B.A, BSc, MA, MSc, MBBS by Prof M Sharif Islahi.

IImi Islamiyat(compulsory) for BA, BSc & equivalent.

About Avicenna Medical College

Avicenna Medical & Dental College is a purpose-built, fully equipped institution with experienced and excellence-driven faculty to train high-quality dental professionals in Pakistan.

Avicenna Medical & Dental College runs under the umbrella of Abdul Waheed Trust. Abdul Wahid Trust is a non-profit social welfare organization and registered under the Societies Act with the Registrar of Societies. The Trust is legalized through a Trust Deed that bears necessary rectifications. The Trust Deed is further supported by its Memorandum and Article of Association that authorizes the establishment and operation of the Medical College, the Dental College, the Nursing College, the Allied Health Sciences College, and other activities in the healthcare sector.

In 2009, Avicenna Medical & Dental College was recognized by the Pakistan Medical & Dental Council. With the advent of advanced tools and technology in every field of health science, medicine today has shot up to the greater end of the gamut with superior choice and promises in medical therapy in the very vicinity of the common man. AVMDC promises to be one such neighborhood.

Infrastructure Resources

Sr.	Infrastructure Resources	Description
1.	Lecture Hall	Each year has a dedicated lecture hall, totaling five lecture halls for the five professional years. These halls are equipped with modern audiovisual aids to support effective teaching and learning.
2.	Tutorial Room	The college's tutorial rooms, each with a capacity of 30, are specifically designed to support small group discussions and interactive sessions. These rooms facilitate personalized instruction, enabling more engaged and effective learning through direct interaction between students and instructors.
3.	Lab	The college is equipped with state-of-the-art laboratories for practical and clinical work. Each lab is designed to support various disciplines, to facilitate hands-on learning.
4.	Library on campus	A huge library occupies a full floor and has 260 seats including study carrels and group-discussion tables. Latest reference books of Basic and Clinical Sciences along with national & international journals are available in the library.
5.	Digital Library	The digital library offers access to a vast collection of e-books, online journals, research databases, and other digital resources. It supports remote access and provides tools for academic research and learning.
6.	Learning Management System (LMS)	The LMS is a comprehensive online platform that supports course management, content delivery, student assessment, and communication. It provides tools for tracking progress, managing assignments, and facilitates ongoing academic activities.

6.	Phantom Labs	Specialized Phantom Labs are available for advanced simulation and practice in dental procedures. These labs provide high-fidelity models and simulators that help students refine their clinical skills in a controlled environment.
7.	Mess & Cafeteria	The College has its own on-campus Mess which caters to 600 students. All food items including dairy, meat, and vegetables are sourced organically and bought in at the time of cooking, in order to ensure that students get freshly cooked meals at all times Students form the Mess committee which decides the mess menu in consultation with other students. The Mess offers fresh food to all residents three times a day. However, day scholars are also welcome to use the Mess facility at a reasonable cost. Two 50- inch LCD screens provide students an opportunity to get entertained during their meal times.
8.	Gymnasium & Sports	We recognize sports as a pivotal key to shape and maintain students' personality and good health. The College has indoor and outdoor sports facilities to help enhance the cognition and capacity to learn. There is a proper sports section for various games like basketball, football, volleyball, and cricket. The gym itself is fully equipped with modern machinery both for students and faculty.
9.	IT Lab	The IT Lab is equipped with modern computers and software available for students who need access for academic purposes.
10.	Auditorium	The college has a spacious auditorium equipped with advanced audio-visual facilities. It is used for large-scale lectures, guest presentations, and academic conferences, providing a venue for students to engage with experts and participate in important educational events.
11.	Examination Halls	The college provides dedicated examination halls that are designed to accommodate a large number of students comfortably. These halls are equipped with necessary facilities to ensure a smooth and secure examination process, including proper seating arrangements, monitoring systems, and accessibility features.

7-Star Doctor Competencies (PMDC)

According to national regulatory authority PMDC, a Pakistani medical/dental graduate who has attained the status of a 'seven-star doctor' is expected to demonstrate a variety of attributes within each competency. These qualities/ generic competencies are considered essential and must be exhibited by the individual professionally and personally.

1. Skillful / Care Provider.
2. Knowledgeable / Decision Maker.
3. Community Health Promoter / Community Leader.
4. Critical Thinker / Communicator
5. Professional / Lifelong learner.
6. Scholar / Researcher
7. Leader/ Role Model / Manager

Message from the Principal

As a Co-Founder and Co-Chairperson, I have been involved in planning, construction and accreditation of Avicenna Medical College by the Pakistan Medical and Dental Council (PM&DC) and its affiliation with the esteemed University of Health Sciences (UHS). It is a pleasure to see Avicenna Medical College develop, progress and achieve maximum academic excellence in a short period since its inception in 2009. The institution has lived up to its mission of training and producing medical graduates of international standards. Three batches have passed out as Doctors, who currently are serving in the country and abroad while several have opted for post-graduation and are on road to progress. We have achieved several milestones since 2009 including the recognition of our College for FCPS training by College of Physicians and Surgeons of Pakistan (CPSP), establishment of College of Nursing and Avicenna Dental College.

Principal
Prof. Dr. Gulfreen Waheed
MBBS, FCPS, MHPE, PhD Scholar - HPE
Avicenna Medical & Dental Colleg

Message from the Chairman

The Avicenna Medical & Dental College is a project of Abdul Waheed Trust which is a Non-profitable, Non-governmental, Non -political & Social organization, working for the welfare of Humanity and based on Community empowerment. Avicenna Medical College has its own 530 bedded Avicenna teaching Hospital (Not for Profit hospital) within the College Campus & 120 bedded Aadil Hospital, at 15 minutes' distance. Separate comfortable hostels for boys & girls are provided on the campus.

Our students benefit from the state of the art College Library with facilities of Internet & online Journals that remain open 15 hours a day, for our students & faculty members. I am particularly pleased with the hard work by the Faculty and Students in the achievement of historic 100% results for all the classes. It is a rare achievement and speaks of dedication of the Faculty and Staff. Our motto is Goodness prevails and we aim at producing Doctors' who are knowledgeable, competent in clinical skills and ethical values.

Avicenna Medical College & Hospital was founded to provide quality health care services to the deserving patients belonging to the rural areas near Avicenna Hospital as well as to provide quality medical education of international standard to our students. The Hospital provides all medical services and Lab diagnostics to the local population at minimal cost. So far by the grace of Allah Almighty the number of patients being treated and operated upon at our Hospital is increasing every day as there is no other public or charity hospital in the circumference of 20km. We have already established two Satellite Clinics in the periphery which are providing outdoor care while admission cases are brought to the Hospital in Hospital transport.

Following the success of our reputable Medical College and Hospital, we were able to successfully establish Avicenna Dental College which is recognized by the Pakistan medical & Dental Council & University of Health Sciences. To date, we have enrolled five batches in our dental college and we aim to achieve the same level of success for our dental students as our medical students.

Chairman
Abdul Waheed Sheikh
Avicenna Medical & Dental College

Avicenna Medical & Dental College

Vision

The vision of **Avicenna Medical & Dental College** is to become a college that thrives to achieve improvement in healthcare of masses through creative delivery of educational programs, innovative research, commitment to public service and community engagement in a environment that supports diversity, inclusion, creative thinking, social accountability, life-long learning and respect for all.

Mission

The mission of **Avicenna Medical and Dental College** is to educate and produce competent, research oriented healthcare professionals with professional commitment and passion for life-long learning from a group of motivated students through quality education, research and service delivery for the improvement of health status of the general population.