AVICENNA MEDICAL & DENTAL COLLEGE

AVICENNA
MEDICAL COLLEGE

STUDY GUIDE

2025

BLOCK- 3

Program: MBBS
Year: 1st Professional Year
Batch No: M-25
Session: 2024-2025

Table of Contents

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

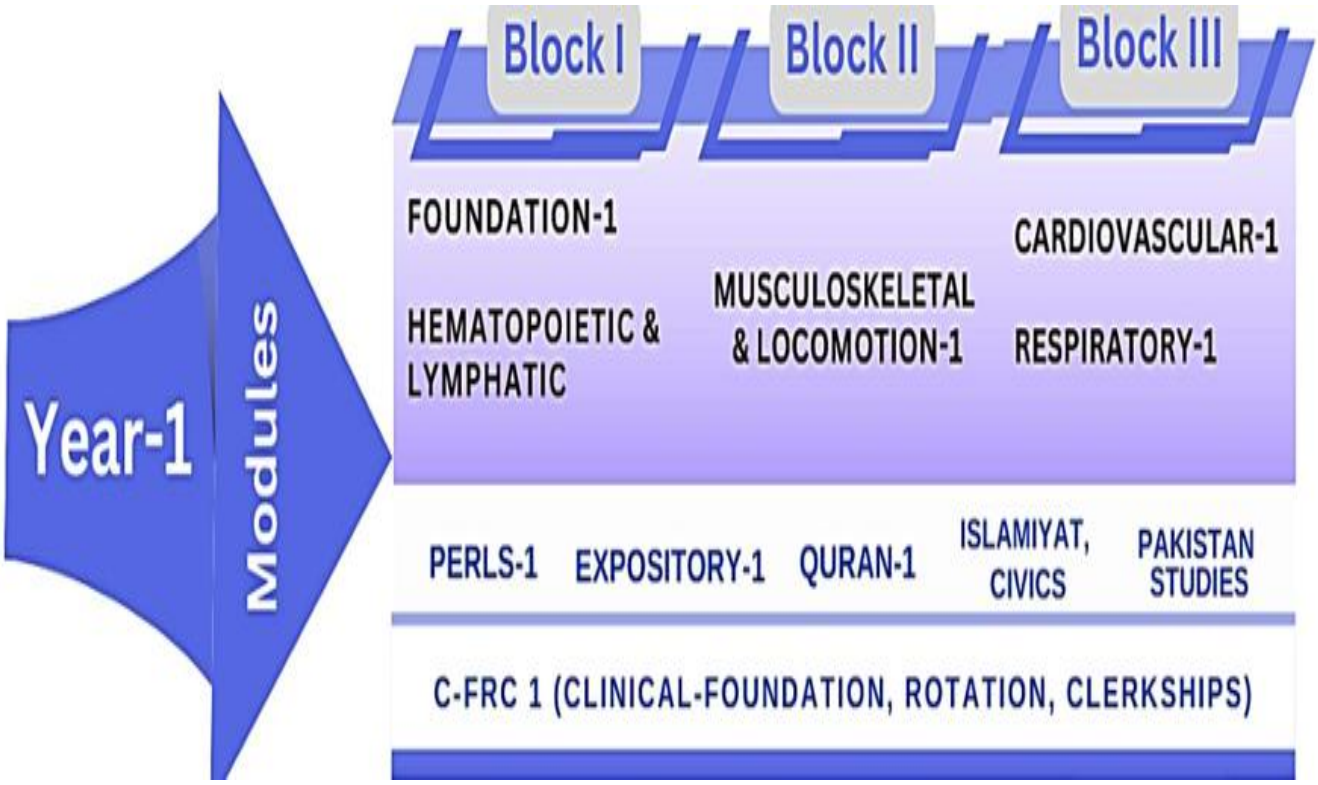
	CMV	cytomegalo virus
	CNS	Central Nervous System
	CO	Carbon monoxide
	CO2	Carbon dioxide
	CODIS	combined DNA index system
	COPD	Chronic obstructive pulmonary disease
	COVID-19	Corona Virus Disease 2019
	COX	Cyclooxygenase
	CPR	Cardiopulmonary Resuscitation
	CR	Clinical Rotation
	CRP	Clinical Rotation 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-4

- The module 4 is designed to build upon and consolidate the foundational knowledge acquired in the earlier years of medical education, particularly from the Foundation-I module.

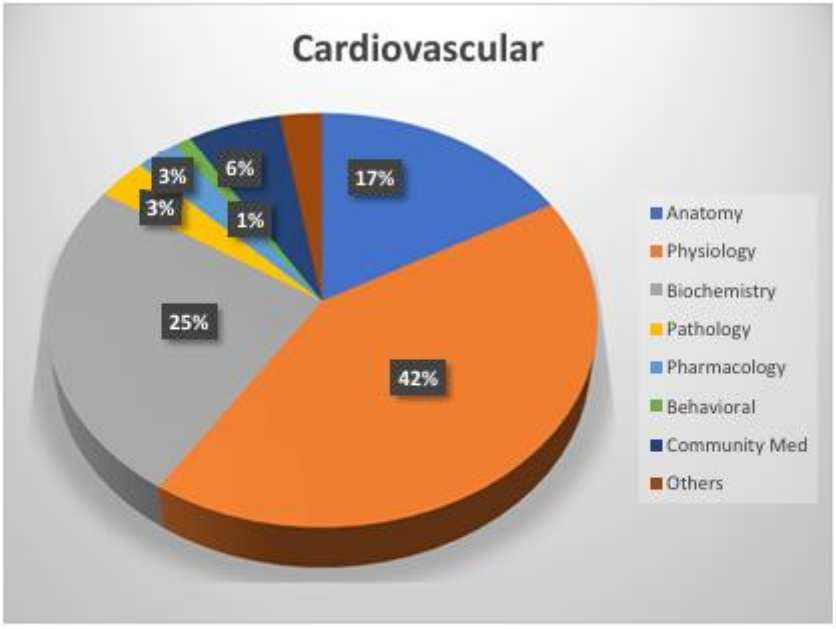
- As students transition into their clinical years, it is crucial to reinforce and deepen their understanding of basic medical sciences to support the integration of new, clinically relevant concepts.

- 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.

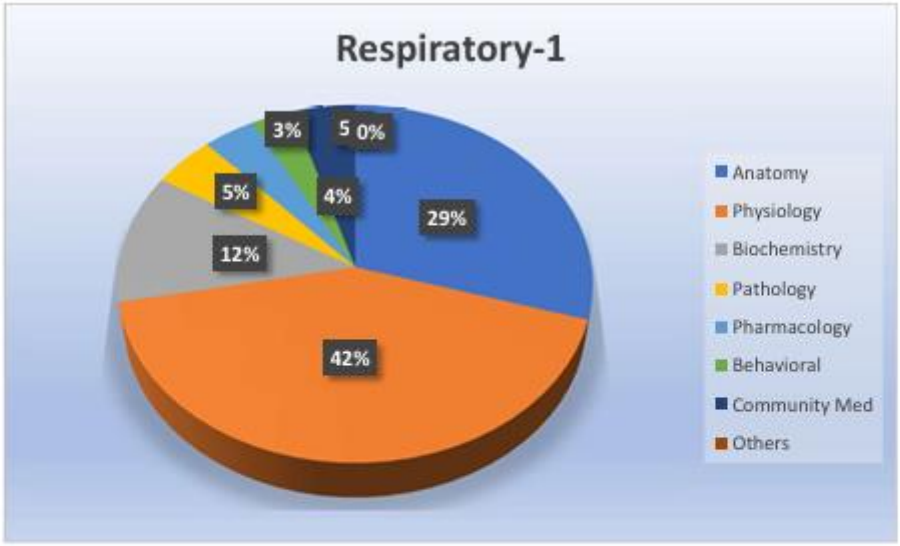
- The revisiting of these concepts throughout the curriculum ensures a robust and integrated understanding, laying a solid foundation for clinical competence.



Module Weeks	Recommended Minimum Hours
07	166

Introduction to Module

- The module 5 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.



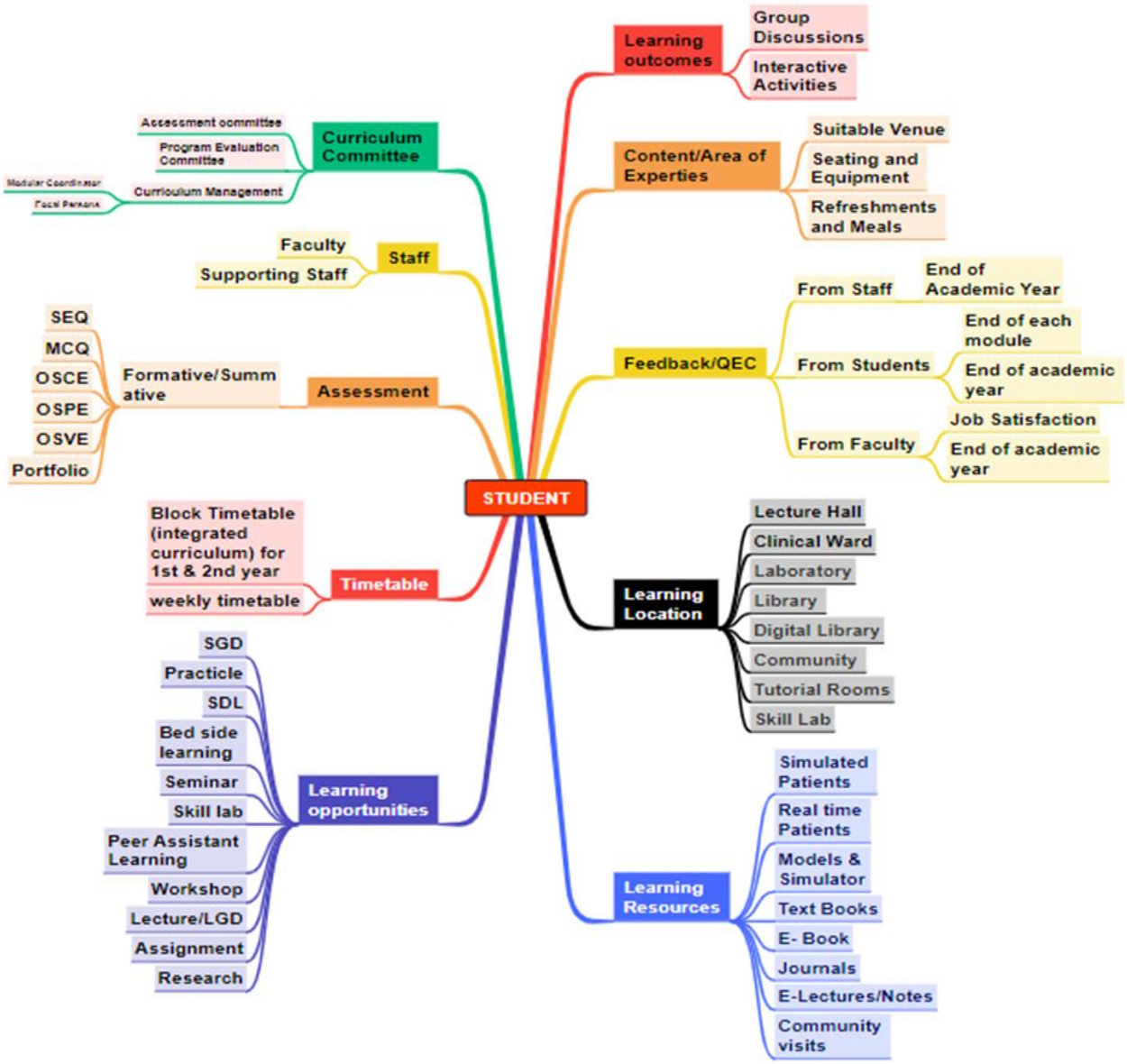
Module Weeks	Recommended Minimum Hours
04	128

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
Ms. Tamzeela	Co-Coordinator	Medical Education
Mr. Adeel	Incharge	Student Affairs
Prof. Dr. Saeed Afzal	HOD	Pathology
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

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
34	5	2	1	1	3	1	1	1	5	1	1	1	1		2				1	3	4	34
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

Modular Outcomes

MODULE OUTCOMES
• Describe the normal structure of heart including development, topographical anatomy, neurovascular supply, and histology. • Review the arrangement of circulatory system (arteries, veins, lymphatics). • Define the congenital anomalies of cardiovascular system with reference to normal development and early circulation. • Define functions of cardiac muscle along with its properties • Interpret pressure changes during cardiac cycle along with regulation of cardiac pumping. • Interpret normal & abnormal Electrocardiogram (ECG), ST-T changes, and its abnormalities. • Identify the risk factors and role of lipids in coronary blockage and atherosclerosis (hyperlipidemia/ dyslipidemia). • Define cardiac output and its modulating/controlling factors. • Differentiate left and right sided heart failure and correlate it with the importance of pressure differences. • Enumerate different types of arrhythmias and describe the electrical events that produce them. • Discuss the psychosocial impact of cardiovascular diseases in society.

Learning Objectives

Week:24	Total Hours	No.	Mode of Teaching	Topic	Code	Learning Objective	Reference	Facilator
Week:24	Physiology							
Week:24	1	1	Physiology Lecture	rapid control of arterial blood pressure	CV _P 011	Explain the role of nervous system in rapid control of arterial blood pressure Explain the regulation of arterial blood pressure during exercise enlist the different mechanism for short term regulation of arterial blood pressure, explain the role of baroreceptors in regulation of arerial blood pressure	Guyton & Hall 14th edition Ch 18 pg no: 215	Dr Amna Rizvi
Week:24	2	2	Physiology Lecture	rapid control of arterial blood pressure	CV _P 011	Explain the role of chemoreceptor in regulation of arterial blood pressure Make the flow chart to discuss the role of atrial volume reflexes / Bainbridge reflex in control of blood pressure	Guyton & Hall 14th edition Ch 18 pg no: 221	Prof: Dr Shaheena
Week:24	3	3	Physiology Lecture	rapid control of arterial blood pressure	CV _P 011	Describe the role of CNS ischemic response in regulation of the blood pressure Explain the Cushing reflex. Role of abdominal compression reflex in inc: blood pressure	Guyton & Hall 14th edition Ch 18pg no: 223	Dr Amna Ilyas

Week:24	4	4	Physiology Lecture	Role of kidney in long term regulation of	CV _P 012	Make a flow chart to discuss the role of renin angiotensin system for long term control of Blood pressure	Guyton & Hall 14th edition Ch 18 pg no: 227	Prof: Dr Sadia
Week:24	5	5	Integration with medicine	Circulatory Shock	CV-P-016	Treatment of Shock	Davidson Principles of Medicine	Dr Humaira
Week:24	6	6	Practical	Arterial pulse	CV _P 021	Examine the arterial pulse to recognize normal characteristics of pulse	Prof. Zafar Ali Ch. Volume I	Dr. Areej
Week:24	7	7	Tutorial	Cardiac arrythemias	CV _P 006	Discuss the sign and symptoms and management of arrhythmias Explain the causes of, physiological basis , features and ECG changes of Atrial fibrillation Explain the causes of, physiological basis , features and ECG changes of Atrial flutter Compare Flutter and fibrillation	Guyton & Hall 14th edition Ch 13 pg no: 159	Dr. Tahir
Week:24	Anatomy							
Week:24	8	1	Embryology	Development of Heart	CV-A-005	Describe the development of various chambers of heart with emphasis on their partitioning	Langman embry pg 185-190	Dr Naheed
Week:24	9	2	Histology	Heart & Cardiac Muscle	CV-A-011	Describe the microscopic and ultramicroscopic structure of cardiac muscle emphasizing on Tubules, sarcoplasmic reticulum and intercalated discs. Identify, draw and label histological structure of	L.H chp 8	Dr Fatima

						cardiac muscle		
Week:24	10	3	Embryology	Development of Heart	CV-A-005	Describe the development of various chambers of heart with emphasis on their partitioning	Langman embry pg 185-190	Dr Naheed
Week:24	11	4	Anatomy	Mediastinum	CV-A-001	Describe formation, course and tributaries of azygous, hemizygous and accessory hemizygous veins. Describe the course, relations, and distribution of vagus and thoracic splanchnic nerves in relation to nerve supply of heart	KLM 166-171	Dr Ahmed
Week:24	12	5	Anatomy	Mediastinum	CV-A-001	Describe formation, course and tributaries of azygous, hemizygous and accessory hemizygous veins. Describe the course, relations, and distribution of vagus and thoracic splanchnic nerves in relation to nerve supply of heart	KLM 166-171	Dr Ahmed

Week:24	13	6	Practical	Mediastinum	CV-A-001	Describe the formation, branches, and relations of ascending aorta, aortic arch and descending thoracic aorta. Discuss the distribution of ascending aorta, aortic arch and descending thoracic aorta in reference to their branches	KLM 166-170	Dr Sadia
Week:24	14	7	Tutorial	Mediastinum	CV-A-001	Describe the formation, branches, and relations of ascending aorta, aortic arch and descending thoracic aorta.Discuss the distribution of ascending aorta, aortic arch and descending thoracic aorta in reference totheir branches	KLM 166-170	Dr Sadia
Week:24	Biochemistry							
Week:24	15	1	Lecture	Vitamins	CV-B-009	Diseases associated with metabolism of lipoproteins	Lippincott's Ch: 28	Prof. Dr. Sadia Amir
Week:24	16	2	Lecture	Vitamins	CV-B-009+CV-B-0010	Vitamin A	Lippincott's Ch: 28	Prof. Dr. Sadia Amir
Week:24	19	3	Practical	Performance and interpretation	CV-B-012	revision	copy	Monday: Dr. Saba Tuesday: Dr. Misbah Wednesday: Dr.

								Asad Thursday: Dr. Hamza
Week:24	20	4	Tutorial	Vitamins	CV-B-009+CV-B-0010	Vitamin A	Lippincott's Ch: 28	Monday: Dr. Saba Tuesday: Dr. Misbah Wednesday: Dr. Asad Thursday: Dr. Hamza
Week:24	Pathology							
Week:24	21	1	Lecture	Inflammation	CV-Pa-001	Describe general concept of vascular & cellular events of inflammation. Enumerate chemical mediators of inflammation along with their principal functions	Robbins and Cotran	Dr Ujala
Week:24	Pharmacology							
Week:24	22	1	Lecture	Antihypertensives	CV-Ph-001	discuss briefly therapeutic effects of anti htn drugs	katzung,ch11	PROF.ASMA
Week:24	23	1	Lecture	Antihypertensives	CV-Ph-001	discuss briefly therapeutic effects of anti htn drugs	katzung,ch11	PROF.ASMA
Week:24	SDL							
Week:24	24	1	Self Directed Learning					
Week:24	25	2	Self Directed Learning					

Week:24	**26**	**3**	**Self Directed Learning**			
Week:24	**Clinical Skill**					
Week:24	**27**	**1**	**Clinical skills**	**Identification of pneumonic patch on chest x-ray.**	**LOG BOOK**	**Medical Faculty**
Week:24	**28**	**2**	**Clinical skills**	**Identification of pneumonic patch on chest x-ray.**	**LOG BOOK**	**Medical Faculty**
Week:24	**29**	**3**	**Clinical skills**	**Identification of pneumonic patch on chest x-ray.**	**LOG BOOK**	**Medical Faculty**
Week:24	**Assessment**					
Week:24	**30**	**1**	**Module**			
Week:24	**31**	**2**				
Week:24	**32**	**3**	**Key.Dicussion**			
Week:24	**33**	**4**	**OSPE/Viva**			
Week:24	**34**	**5**				

Week:25	Total Hours	No.	Mode of Teaching	Topic	Code	Learning Objective	Reference	Facilator
Week:25	Physiology							
Week:25	1	1	Physiology lecture	Role of kidney in long term regulation of	CV _P 012	Make a flow chart to show the regulation of blood pressure in response to increase in ECF volume.	Guyton & Hall 14th edition Ch 18 pg no: 232	Prof: Dr Sadia
Week:25	2	2	Physiology lecture	Role of kidney in long term regulation of	CV _P 012	Make a flow chart to show the regulation of blood pressure in response to increase in salt intake.	Guyton & Hall 14th edition Ch 18 pg no: 238	Prof:Dr shaheena
Week:25	3	3	Physiology lecture	Cardiac output	CV _P 013	Define cardiac output, cardiac index and venous return with their normal values.	Guyton & Hall 14th edition Ch 20 pg no: 245	Dr Amna Ilyas
Week:25	4	4	Integration with Medicine	Circulatory Shock	CV-P-016	Treatment of Shock	Davidson Principles of Medicine	Dr Humaira
Week:25	5	5	Lecture	Cardiac output	CV _P 013	Define cardiac output, cardiac index and venous return with their normal values.	Guyton & Hall 14th edition Ch 20 pg no: 245	Prof: Dr Shaheena
Week:25	5	5	Practical	Arterial pulse	CV _P 021	Examine the arterial pulse to recognize normal characteristics of pulse	Prof. Zafar Ali Ch. Volume I	Dr Fahad
Week:25	6	6	Tutorial	Nervous control of Circulation	CV _P 010	Explain the role of autonomic nervous system for regulation of circulation , Explain the vasomotor center Explain the control of vasomotor center by higher nervous system ,Explain the emotional fainting / vasovagal syncope, Identify vessel constituting micro capillaries.	Guyton & Hall 14th edition Ch 17 pg no: 209	Dr. Areej
Week:25	Anatomy							

Week:25	**7**	**1**	**Embrology**	**Development of Heart**	**CV-A-005**	**Identify various parts of developing heart tube and structures derived from them during embryonic and fetal life (Models and specimens)**	**Langman embryo pg 185-190**	**Dr Naheed**
Week:25	**8**	**2**	**Embrology**	**Development of Heart and Development of Lymphatic System**	**CV-A-006**	**Describe the embryological basis of dextrocardia and ectopia cordis. Describe the partitioning of primordial heart: atrioventricular canal and atrium**	**Langman embryo pg 191-195**	**Dr Naheed**
Week:25	**9**	**3**	**Histology**	**Heart & Cardiac Muscle**	**CV-A-011**	**Describe the microscopic and ultramicroscopic structure of cardiac muscle emphasizing on Tubules, sarcoplasmic reticulum and intercalated discs. Identify, draw and label histological structure of cardiac muscle**	**L.H chp 8**	**Dr Fatima**
Week:25	**10**	**4**	**Anatomy**	**Mediastinum**	**CV-A-001**	**Describe formation, course and tributaries of azygous, hemizygous and accessory hemizygous veins. Describe the course, relations, and distribution of vagus and thoracic splanchnic nerves in relation to nerve supply of heart**	**KLM 166-171**	**Dr Ahmed**
Week:25	**11**	**5**	**Practical**	**Histological features of Cardiac Muscle**	**CV-A-018**	**Identify, draw and label histological structure of cardiac muscle**	**Histology Practical book**	**Dr Sadia**

Week:25	12	6	Practical	Histological features of Cardiac Muscle	CV-A-018	Identify, draw and label histological structure of cardiac muscle	Histology Practical book	Dr Sadia
Week:25	13	7	Tutorial	Mediastinum	CV-A-001	Describe formation, course and tributaries of azygous, hemizygous and accessory hemizygous veins. Describe the course, relations, and distribution of vagus and thoracic splanchnic nerves in relation to nerve supply of heart	KLM 166-171	Dr Ahmed
Week:25	14	8	Tutorial	Development of Heart	CV-A-005	Identify various parts of developing heart tube and structures derived from them during embryonic and fetal life (Models and specimens)	Langman embryo page 185-190	Dr Sadia
Week:25	Biochemistry							
Week:25	15	1	Lecture	Vitamins	CV-B-010	Vitamin D	Lippincott's Ch: 28	Prof. Dr. Sadia Amir
Week:25	16	2	Lecture	Vitamins	CV-B-010	Vitamin E, K, C	Lippincott's Ch: 28	Prof. Dr. Sadia Amir
Week:25	17	3	Practical	Performance and interpretation	CV-B-012	Estimation of CK	copy	Monday: Dr. Saba Tuesday: Dr. Misbah Wednesday: Dr. Asad Thursday: Dr. Hamza

Week:25	**18**	**4**	**Tutorial**	**Vitamin**	**CV-B-010**	**Vitamin E, K, C**	**Lippincott's Ch: 28**	**Monday: Dr. Saba Tuesday: Dr. Misbah Wednesday: Dr. Asad Thursday: Dr. Hamza**
Week:25	**Pathology**							
Week:25	**19**	**1**	**Lecture**	**Atherosclerosis**	**CV-Pa-002**	**Classify types of thrombosis, embolism, and infarction. Discuss the pathophysiology of thrombosis, embolism, and infarction**	**Robbins and Cotran**	**Dr Ujala**
Week:25	**Com.Medicine**							
Week:25	**20**	**1**	**Lecture**	**PRIMORDIAL PREVENTION, Health promotion and behavioural change intervention**	**CV-CM-002, 03, & 04**	**Describe primordial prevention and its application to preventing CVS diseases. Depict the concept of primary prevention in the context of CVS and be able to apply it to CVS diseases. Discuss the basic concept of health promotion and its application to CVS.**	**K.PARK & Notes**	**Dr Sana Noor**
Week:25	**PERLs**							
Week:25	**21**	**1**	**Lecture**	**Seeking help**	**1_20**	**Identify and seek help as and when required to achieve the set goals**	**Lecture Presentation**	**Dr. Javaid**
Week:25	**Quran**							
Week:25	**22**	**1**	**Lecture**	**. Fasting (Roza)**		**i. Discuss the importance and significance of fasting ii. Relate the Holy Quran and the month of Ramadan**	**Islamiyat Notes**	**Amna Syed**

						iii. Role of fasting in building personal qualities like self-control, piety and soft corner for the poor and needy persons		
Week:25	**SDL**							
Week:25	**23**	**1**	**Self Directed Learning**					
Week:25	**24**	**2**	**Self Directed Learning**					
Week:25	**25**	**3**	**Self Directed Learning**					
Week:25	**Clinical Skill**							
Week:25	**26**	**1**	**Clinical skills**			**Revision of Demonstrate steps of hand washing**	**LOG BOOK**	**Medical Faculty**
Week:25	**27**	**2**	**Clinical skills**			**Revision of Demonstrate steps of hand washing**	**LOG BOOK**	**Medical Faculty**
Week:25	**28**	**3**	**Clinical skills**			**Revision of Demonstrate steps of hand washing**	**LOG BOOK**	**Medical Faculty**
Week:25	**Assessment**							
Week:25	**29**	**1**	**Block:2**					
Week:25	**30**	**2**						
Week:25	**31**	**3**						
Week:25	**32**	**4**	**Key.Dicussion**					
Week:25	**33**	**5**	**OSPE/Viva**					
Week:25	**34**	**3**						

Week:26	Total Hours	No.	Mode of Teaching	Topic	Code	Learning Objective	Reference	Facilator
Week:26	Physiology							
Week:26	1	1	Physiology lecture	Cardiac output	CV _P 013	Explain the pathologic causes of high and low cardiac output.	Guyton & Hall 14th edition Ch 20 pg no: 249	Dr Amna Ilyas
Week:26	2	2	Physiology lecture	Cardiac output	CV _P 013	Discuss the factors regulating venous return	Guyton & Hall 14th edition Ch 20 pg no: 255	Prof: Dr SADIA
Week:26	3	3	Physiology lecture	Coronary circulation	CV _P 015	Explain the physiological anatomy of coronary circulation. Explain the regulation of coronary blood flow	Guyton & Hall 14th edition Ch 21 pg no: 263	Dr Amna Rizvi
Week:26	4	4	Physiology lecture	Coronary circulation	CV _P 015	Explain the physiological basis of angina, myocardial infarction and subendocardial infarction	Guyton & Hall 14th edition Ch 21 pg no: 263	Dr Nida
Week:26	5	5	Integration with Medicine	Heart sounds	CV-P-017	Abnormal heart sounds and their physiological basis	Davidson Principles of Medicine	Dr Naresh Khurana
Week:26	6	6	Practical	Thrombosis & Infarction	CV -Pa- 008	Identify the pathological changes of infarction and thrombosis	Practical manual Pathology	Pathology lab, 1st floor Medical college/ Demonstrators
Week:26	7	7	Tutorial	Nervous control of Circulation	CV _P 010	Explain the role of autonomic nervous system for regulation of circulation , Explain the vasomotor center Explain the control of vasomotor center by higher nervous system ,Explain the emotional fainting / vasovagal	Guyton & Hall 14th edition Ch 17 pg no: 209	Dr. Fahad

						syncope, Identify vessel constituting micro capillaries. Enumerate the hydrostatic and osmatic factors that underline Starling hypothesis		
Week:26	**Anatomy**							
Week:26	**8**	**1**	**Embryology**	**Development of Heart and Development of Lymphatic System**	**CV-A-006**	**Describe the development of sinus venosus+Describe the partitioning of truncus arteriosus and bulbus cordis. Describe the development of cardiac valves and conducting system**	**KLM**	**Dr Naheed**
Week:26	**9**	**2**	**Anatomy**	**Pericardium**	**CV-A-002+CV-A-012**	**Describe the pericardial cavity mentioning transverse and oblique sinuses. Discuss their clinical significance+Describe the anatomical correlates of various**	**KLM**	**Dr Ahmed**
Week:26	**10**	**3**	**Histology**	**Blood vessels**	**CV-A-012**	**Describe general histological organization of blood vessels: Tunica intima, media and adventitia. Identify, draw and label histological sections of elastic artery, muscular artery, arterioles, vein, capillaries and sinusoids**	**Laeeq hussain**	**Dr FAtima**

Week:26	**11**	**4**	**Anatomy**	**Pericardium**	**CV-A-002+CV-A-012**	**Describe the pericardial cavity mentioning transverse and oblique sinuses. Discuss their clinical significance+Describe the anatomical correlates of various**	**KLM**	**Dr Ahmed**
Week:26	**12**	**5**	**Anatomy**	**Pericardium**	**CV-A-002+CV-A-012**	**Describe the pericardial cavity mentioning transverse and oblique sinuses. Discuss their clinical significance+Describe the anatomical correlates of various**	**KLM**	**Dr Ahmed**
Week:26	**13**	**6**	**Practical**	**Histological features of Blood Vessels**	**CV-A-019**	**Identify, draw and label histological sections of elastic artery, muscular artery, arterioles, vein, capillaries and sinusoids**	**Histology Practical book**	**Dr sadia**
Week:26	**14**	**7**	**Practical**	**Histological features of Blood Vessels**	**CV-A-019**	**Identify, draw and label histological sections of elastic artery, muscular artery, arterioles, vein, capillaries and sinusoids**	**Histology Practical book**	**Dr sadia**
Week:26	**15**	**8**	**Tutorial**	**Development of Heart and Development of Lymphatic System**	**CV-A-006**	**Describe the partitioning of truncus arteriosus and bulbus cordis. Describe the development of cardiac valves and conducting system**	**KLM**	**Dr Sadia**

Week:26	16	9	Tutorial	Development of Heart and Development of Lymphatic System	CV-A-006	Describe the partitioning of truncus arteriosus and bulbus cordis. Describe the development of cardiac valves and conducting system	KLM	Dr Sadia
Week:26	Biochemistry							
Week:26	17	1	Lecture	Vitamin	CV-B-010	Vitamin B	Lippincott's Ch: 28	Prof. Dr. Haroon Habib
Week:26	18	2	Lecture	Vitamins	CV-B-010	Vitamin B (cont.)	Lippincott's Ch: 28	Prof. Dr. Haroon Habib
Week:26	19	3	Biochemistry	Minerals	CV-B-010	Vitamin B (cont.)	Lippincott's Ch: 29	Dr. Sadia Khalil
Week:26	20	4	Practical	Performance and interpretation	CV-B-012	Estimation of LDH	copy	Monday: Dr. Saba Tuesday: Dr. Misbah Wednesday: Dr. Asad Thursday: Dr. Hamza
Week:26	21	5	Tutorial	Minerals	CV-B-010	Vitamin B (cont.)	Lippincott's Ch: 29	Monday: Dr. Saba Tuesday: Dr. Misbah Wednesday: Dr. Asad Thursday: Dr. Hamza

Week:26	**Pathology**							
Week:26	**22**	**1**	**Lecture**	**Hypertension**	**CV-Pa-003**	**Identify the types and causes of hypertension. Discuss the clinical consequences of hypertension and atherosclerosis**	**Robbins and Cotran**	**Dr Munazza**
Week:26	**Pharmacology**							
Week:26	**23**	**1**	**Lecture**	**Antihypertensives**	**CV-Ph-001**	**discuss therapeutic effects of anti HTN drugs**	**katzung ch -11**	**PROF.ASMA**
Week:26	**Bh.Sciences**							
Week:26	**24**	**1**	**Lecture**	**Personal, Psychosocial and vocational issues**	**CV-BhS-001**	**psychosocial aspects of Cardiovascular conditions**	**MR**	**Dr.Farhat**
Week:26	**SDL**							
Week:26	**25**	**1**	**Self Directed Learning**					
Week:26	**26**	**2**	**Self Directed Learning**					
Week:26	**27**	**3**	**Self Directed Learning**					
Week:26	**Clinical Skill**							
Week:26	**28**	**1**	**Clinical skills**	**Revision of Measure body temperature using a mercury and digital thermometer.**			**LOG BOOK**	**Medical Faculty**

Week:26	**29**	**2**	**Clinical skills**	**Revision of Measure body temperature using a mercury and digital thermometer.**	**LOG BOOK**	**Medical Faculty**
Week:26	**30**	**3**	**Clinical skills**	**Revision of Measure body temperature using a mercury and digital thermometer.**	**LOG BOOK**	**Medical Faculty**
Week:26	**Assessment**					
Week:26	**31**	**1**	**Grand Test**			
Week:26	**32**	**2**				
Week:26	**33**	**4**	**OSPE/Viva**			
Week:26	**34**	**5**				

Week:27	Total Hours	No.	Mode of Teaching	Topic	Code	Learning Objective	Reference	Facilator
Week:27	Physiology							
Week:27	1	1	Physiology lecture	Circulatory shock	CV-P 016	Define and enlist different types of shock. Explain the causes, features and pathophysiology of hypovolemic hemorrhagic shock.	Guyton & Hall 14th edition Ch 24 pg no: 293	Dr. Amna Ilyas
Week:27	2	2	Physiology lecture	Circulatory shock	CV-P 016	Explain the causes, features and pathophysiology of neurogenic shock. Explain the causes, features and pathophysiology of anaphylactic shock. Explain different stages of shock	Guyton & Hall 14th edition Ch 24pg no: 299	Prof: Dr Sadia
Week:27	3	3	Physiology lecture	Circulatory shock	CV-P 016	Explain the mechanism that maintains the cardiac output & arterial blood pressure in non-progressive shock.	Guyton & Hall 14th edition Ch 24 pg no: 298	Dr Amna Rizvi
Week:27	4	4	Physiology lecture	Circulatory shock	CV-P 016	Enlist different types of positive feedback mechanisms that can lead to the progression of shock.	"Guyton & Hall 14th edition Ch 24 pg no: 298 "	Prof: Dr sadia
Week:27	5	5	Integration with Pathology	Circulatory shock	CV-P-016	Explain the causes, features, pathophysiology of Hypovolemic, Septic, neurogenic and anaphylactic shock	Robbins and Cotran	Dr Munazza
Week:27	6	6	Practical	Arterial pulse	CV _P 022	Examine the Neck veins to determine JVP	Prof. Zafar Ali Ch. Volume I	Dr. Fahad
Week:27	7	7	Tutorial	Role of kidney in long term regulation of	CV _P 012	Make a flow chart to show the regulation of blood pressure in response to increase in ECF volume.	Guyton & Hall 14th edition Ch 18 pg no: 232	Dr. Tahir
Week:27	Anatomy							

Week:27	**8**	**1**	**Anatomy**	**Pericardium**	**CV-A-002**	**Describe the pericardial cavity mentioning transverse and oblique sinuses. Discuss their clinical significance+Describe the anatomical correlates of various pericardial conditions like pericardial rub, pericardial pain, pericarditis, pericardial effusion**	**KLM**	**Dr Ahmed**
Week:27	**9**	**2**	**Anatomy**	**Pericardium**	**CV-A-002**	**Describe the pericardial cavity mentioning transverse and oblique sinuses. Discuss their clinical significance+Describe the anatomical correlates of various pericardial conditions like pericardial rub, pericardial pain, pericarditis**	**KLM**	**Dr Ahmed**
Week:27	**10**	**3**	**Embryology+ Histology**	**Development of Arteries+Blood Vessels Organization**	**CV-A-007**	**Describe the formation and fate of pharyngeal arch arteries+Identify,**	**KLM**	**Dr Naheed**
Week:27	**11**	**4**	**Embryology+ Histology**	**Development of Arteries+Blood Vessels Organization**	**CV-A-007**	**Describe the formation and fate of pharyngeal arch arteries**	**KLM**	**Dr naheed**
Week:27	**Extra Slote**	**5**	**Embryology+ Histology**	**Development of Arteries+Blood Vessels Organization**	**CV-A-012**	**draw and label histological sections of elastic artery, muscular artery, arterioles, vein, capillaries and sinusoids**	**KLM**	**Dr Fatima**
Week:27	**12**	**5**	**Practical**	**Pericardium**	**CV-A-002**	**Describe the pericardial cavity mentioning transverse**	**Practical book**	**Dr Fatima**

						and oblique sinuses. Discuss their clinical significance		
Week:27	13	6	Practical	Pericardium	CV-A-002	Describe the pericardial cavity mentioning transverse and oblique sinuses. Discuss their clinical significance	Practical book	Dr Fatima
Week:27	14	7	Tutorial	Development of Arteries	CV-A-007	Describe the formation and fate of pharyngeal arch arteries	KLM	Dr Sadia
Week:27	15	8	Tutorial	Development of Arteries	CV-A-007	Describe the formation and fate of pharyngeal arch arteries	KLM	Dr Sadia
Week:27	Biochemistry							
Week:27	16	1	Lecture	Minerals	Re-B-003	Vitamin B (cont.)	Lippincott's Ch: 29	Dr. Sadia Khalil
Week:27	17	2	Lecture	Minerals	Re-B-004	Vitamin B (cont.)	Lippincott's Ch: 29	Dr. Sadia Khalil
Week:27	18	3	Biochemistry	Minerals	CV-B-011	Minerals	Lippincott's Ch: 29	Dr. Sadia Khalil
Week:27	19	4	Practical	Performance and interpretation	CV-B-012	Revision	copy	Monday: Dr. Saba Tuesday: Dr. Misbah Wednesday: Dr. Asad Thursday: Dr. Hamza

Week:27	**20**	**5**	**Tutorial**	**Minerals**	**Re-B-004**	**Vitamin B (cont.)**	**Lippincott's Ch: 29**	**Monday: Dr. Saba Tuesday: Dr. Misbah Wednesday: Dr. Asad Thursday: Dr. Hamza**
Week:27	**Pathology**							
Week:27	**21**	**1**	**Lecture**	**Heart failure**	**CV-Pa-005**	**Classify the types of heart failure. Identify the causes leading to heart failure.**	**Robbins and Cotran**	**Dr Munazza**
Week:27	**Pharmacology**							
Week:27	**22**	**1**	**Lecture**	**Antinginal Drugs**	**CV-Ph-002**	**discuss therapeutic effects of antianginal drugs**	**katzung ch 12**	**Prof.ASMA**
Week:27	**Com.Medicine**							
Week:27	**23**	**1**	**Lecture**	**SECONDARY & TERTIRAY INTERVENTION. NCDs, Risk Factors assesment of CVS diseases**	**CV-CM-005, 006 &007**	**To apply secondary and tertiary preventions on CVS diseases (coronary heart disease, ischemic heart disease, hypertension). Describe the concept of CVS as NCDs.**	**K.Park & Notes**	**Dr Usman Sheikh**
Week:27	**Quran**							

Week:27	**24**	**1**	**Lecture**	**. Fasting (Roza)**		**i. Discuss the importance and significance of fasting ii. Relate the Holy Quran and the month of Ramadan iii. Role of fasting in building personal qualities like self-control, piety and soft corner for the poor and needy persons iv. Identify the applications of "Taqwa" through fasting**	**Islamiyat Notes**	**Amna Syed**
Week:27	**SDL**							
Week:27	**25**	**1**	**Self Directed Learning**					
Week:27	**26**	**2**	**Self Directed Learning**					
Week:27	**27**	**3**	**Self Directed Learning**					
Week:27	**Clinical Skill**							
Week:27	**28**	**1**	**Clinical skills**	**Revision of Measure body temperature using a mercury and digital thermometer.**			**LOG BOOK**	**Medical Faculty**
Week:27	**29**	**2**	**Clinical skills**	**Revision of Measure body temperature using a mercury and digital thermometer.**			**LOG BOOK**	**Medical Faculty**
Week:27	**30**	**3**	**Clinical skills**	**Revision of Measure body temperature using a mercury and digital thermometer.**			**LOG BOOK**	**Medical Faculty**
Week:27	**Assessment**							
Week:27	**31**	**1**	**Grand Test**					
Week:27	**32**	**2**						
Week:27	**33**	**4**	**OSPE/Viva**					
Week:27	**34**	**5**						

Week:28	Total Hours	No.	Mode of Teaching	Topic	Code	Learning Objective	Reference	Facilator
Week:28	Physiology							
Week:28	1	1	Physiology lecture	Heart sounds	CV-P 017	Enlist the different types of heart sounds and explain the physiological basis of each.	Guyton & Hall 14th edition Ch 23 pg no: 283	Dr Hafsa
Week:28	2	2	Physiology lecture	Heart sounds	CV-P 017	Enlist the causes of 3rd and 4th heart sounds. Explain the causes & physiological basis of	Guyton & Hall 14th edition Ch 23 pg no:284	Prof: Dr Sadia
Week:28	3	3	Physiology lecture	Heart sounds	CV-P 017	Enumerate abnormal heart sounds and describe the physiological basis of each.	Guyton & Hall 14th edition Ch 23 pg no: 285	Dr Amna Rizvi
Week:28	4	4	Physiology lecture	Heart sounds	CV-P 017	Enumerate abnormal heart sounds and describe the physiological basis of each.	Guyton & Hall 14th edition Ch 23 pg no: 285	Prof: Dr Sadia
Week:28	5	5	Integration with Medicine	Lung Volumes and Capacities	Re-P-003	FEV1/FVC in Asthma, COPD and Pulmonary Embolism	Davidson Principles of Medicine	Dr Shamshad
Week:28	6	6	Practical	Arterial pulse	CV _P 022	Examine the Neck veins to determine JVP	Prof. Zafar Ali Ch. Volume I	Dr. Areej
Week:28	7	7	Tutorial	Skeletal muscle circulation	CV _P 014	Explain the regulation of skeletal muscle blood flow at rest and during exercise.	Guyton & Hall 14th edition Ch 21 pg no: 259	Dr. Fahad
Week:28	Anatomy							
Week:28	8	1	Anatomy	Heart	CV-A-003	Describe the external features of heart. List various chambers of heart mentioning their salient features and openings.	KLM	Dr Ahmed

Week:28	**9**	**2**	**Embryology**	**Development of Veins**	**CV-A-008**	**Describe the development of embryonic veins associated with developing heart: Vitelline veins, Umbilical Veins and Common cardinal vein and their fate**	**KLM**	**Dr Naheed**
Week:28	**10**	**3**	**Anatomy**	**Heart**	**CV-A-003**	**Describe the external features of heart. List various chambers of heart mentioning their salient features and openings.**	**KLM**	**Dr Ahmed**
Week:28	**11**	**4**	**Embryology**	**Development of Veins**	**CV-A-008**	**Describe the development of embryonic veins associated with developing heart: Vitelline veins, Umbilical Veins and Common cardinal vein and their fate**	**KLM**	**Dr Naheed**
Week:28	**12**	**5**	**Histology**	**Veins**	**CV-A-014**	**Describe histological features of veins and exchange vessels: large veins, medium sized veins, venules, Capillaries, and sinusoids** **Compare and contrast the light microscopic structure of arteries and veins**	**L.H**	**Dr Fatima**

Week:28	**13**	**6**	**Practical**	**Histological features of Blood Vessels**	**CV-A-019**	**Identify, draw and label histological sections of elastic artery, muscular artery, arterioles, vein, capillaries and sinusoids**	**Histology Practical book**	**Dr Sadia**
Week:28	**14**		**Practical**	**Histological features of Blood Vessels**	**CV-A-019**	**Identify, draw and label histological sections of elastic artery, muscular artery, arterioles, vein, capillaries and sinusoids**	**Histology Practical book**	**Dr Sadia**
Week:28	**15**		**Tutorial**	**Heart**	**CV-A-003**	**Describe the external features of heart. List various chambers of heart mentioning their salient features and openings.**	**KLM**	**Dr Sadia**
Week:28	**16**	**7**	**Tutorial**	**Heart**	**CV-A-003**	**Describe the external features of heart. List various chambers of heart mentioning their salient features and openings.**	**KLM**	**Dr Sadia**
Week:28	**Biochemistry**							
Week:28	**17**	**1**	**Biochemistry**	**Acid Base Balance**	**Re-B-008**	**Minerals (cont.)**	**Chatterjea Ch: 41**	**Dr. Yusra**
Week:28	**18**	**2**	**Lecture**	**Acid Base Balance**	**Re-B-008**	**Ionization of water, water and electrolyte balance**	**Chatterjea Ch: 41**	**Dr. Yusra**

Week:28	19	4	Practical	ph determination	Re-B-005	Interpret Lab reports based on enzymes	copy	Monday: Dr. Maryam Tuesday: Dr. Seemal Wednesday: Dr. Zahra Thursday: Dr. Aleena
Week:28	20	5	Tutorial	Acid Base Balance	Re-B-008	Ionization of water, water and electrolyte balance	Chatterjea Ch: 41	Monday: Dr. Maryam Tuesday: Dr. Seemal Wednesday: Dr. Zahra Thursday: Dr. Aleena
Week:28	Pathology							
Week:28	21	1	Lecture	Ischemic Heart disease	CV-Pa-006	Identify the types of ischemic heart disease. Discuss the pathophysiology of different types of ischemic heart disease.	Robbins and Cotran	Dr Munazza
Week:28	Bh.Sciences							
Week:28	22	1	Lecture	Emotional fainting	CV-BhS-002	Psychological basis of emotional fainting & its impact	MR	Dr.Farhat
Week:28	Pharmacology							
Week:28	23	1	Lecture	Antiarrhtyhmic drugs	CV-Ph-003	discuss therapeutic effects of antiarrhythmic drugs	katzung ch-12	PROF.ASMA
Week:28	Pathology							
Week:28	24	1	Lecture	Cardiac output	CV-Pa-007	Explain the pathological causes of high & low cardiac output.	Robbins and Cotran	Dr Munazza

Week:28	**SDL**					
Week:28	**25**	**1**	**Self Directed Learning**			
Week:28	**26**	**2**	**Self Directed Learning**			
Week:28	**27**	**3**	**Self Directed Learning**			
Week:28	**Clinical Skill**					
Week:28	**28**	**1**	**Clinical skills**	**Revision of Osculation of heart sound**	**LOG BOOK**	**Medical Faculty**
Week:28	**29**	**2**	**Clinical skills**	**Revision of Osculation of heart sound**	**LOG BOOK**	**Medical Faculty**
Week:28	**30**	**3**	**Clinical skills**	**Revision of Osculation of heart sound**	**LOG BOOK**	**Medical Faculty**
Week:28	**Assessment**					
Week:28	**31**	**1**	**Grand Test**			
Week:28	**32**	**2**				
Week:28	**33**	**4**	**OSPE/Viva**			
Week:28	**34**	**5**				

Week:29	Total Hours	No.	Mode of Teaching	Topic	Code	Learning Objective	Reference	Facilator
Week:29	Physiology							
Week:29	1	1	Physiology lecture	Breathing	Re-P-001	Enlist the muscles of inspiration and expiration in quiet breathing Enlist the muscles of inspiration and expiration in labored breathing Explain the components of the work of breathing	Guyton & Hall 14th edition Ch 38 pg. 497	Prof: DR Shaheena
Week:29	2	2	Physiology lecture	Compliance	Re-P-002	Explain the causes and pathophysiology of sleep apnea Define lung compliance Enlist the factors that affect lung compliance Draw the compliance diagram of air filled and saline filled lungs Enlist the components of surfactant	Guyton & Hall 14th edition Ch 38 pg. 499	Prof: Dr Sadia
Week:29	3	3	Physiology lecture	Lung volume and capacities	Re-P-003	Define the different lung volumes and capacities and their clinical significance Discuss fev1/ FVC ratio and its clinical significance Enlist the lung volumes and capacities that cannot be measured by spirometer. Define dead space & explain its / Enlist the respiratory & non-respiratory functions of lungs.	Guyton & Hall 14th edition Ch 38 pg. 503	Dr Nida

Week:29	4	4	Physiology lecture	Lung volume and capacities / Pulmonary ventilation/ Protective reflexes	Re-P-003-004- 012	Discuss FEV1/FVC ratio in relation to Bronchial Asthma. Discuss FEV1/FVC ratio in relation to Chronic Obstructive Pulmonary disease/restrictive lung diseases	Guyton & Hall 14th edition Ch 38 pg. 506	Prof: Dr Shaheena
Week:29	5	5	Integration with Medicine	Cyanosis, CO poisoning	Re-P-009, 015	Causes of Cyanosis, Pathophysiology, Treatment of CO poisoning	Davidson's Principles of Medicine	Dr Shamshad
Week:29	6	6	Practical	Clinical examination of Chest	Re-P-039	Perform the clinical examination of chest for the respiratory system (inspection, palpation, percussion, Auscultation)	Prof. Zafar Ali Ch. Volume I	Dr. Fahad
Week:29	7	7	Tutorial	Breathing	Re-P-001	Enlist the muscles of inspiration and expiration in quiet breathing Enlist the muscles of inspiration and expiration in labored breathing	Guyton & Hall 14th edition Ch 38 pg. 497	Dr. Areej
Week:29	Anatomy							
Week:29	8	1	Anatomy	Heart	CV-A-003	Describe the sites of anastomosis between right and left coronary arteries with the participating vessels.Describe the venous drainage of heart.	KLM	Dr Ahmed
Week:29	9	2	Embryology	Development of Veins	CV-A-008	Describe the formation of superior & inferior vena	KLM	Dr Naheed

						cava and portal vein with their congenital anomalies		
Week:29	10	3	Embryology	Development of Veins+Fetal Vessels & Circulation	CV-A-008+CV-A-009	With the help of diagrams illustrate the development of superior vena cava, inferior vena cava and portal vein+ Describe Fetal and neonatal circulation mentioning transitional neonatal circulation with its clinical implication	KLM	Dr Naheed
Week:29	11	4	Histology	Arteriosclerosis atherosclerosis Hypertension+ Describe Fetal and neonatal circulation mentioning transitional neonatal circulation with its clinical implication	CV-A-016+CV-A-017	Explain the histological basis of arteriosclerosis and atherosclerosis. Describe role of arterioles in hypertension+Describe histological features of Lymph vascular system (Lymph capillaries, Lymph vessels & Lymphatic duct)	KLM	Dr FAtima
Week:29	Extra Slote	5	Anatomy	Heart	CV-A-003	Describe components and significance of fibrous skeleton of heart Describe the cardiac valves.	KLM	Dr. Ahmed
Week:29	12	5	Practical	Histological features of Cardiac Muscle	CV-A-018	Identify, draw and label histological structure of cardiac muscle	Histology Practical book	Dr Sadia

Week:29	13	6	Practical	Histological features of Cardiac Muscle	CV-A-018	Identify, draw and label histological structure of cardiac muscle	Histology Practical book	Dr Sadia
Week:29	14	7	Tutorial	Mediastinum	CV-A-001	Describe the formation, branches, and relations of ascending aorta, aortic arch and descending thoracic aorta.	KLM 166-170	Dr Sadia
Week:29	15	8	Tutorial	Mediastinum	CV-A-001	Describe the formation, branches, and relations of ascending aorta, aortic arch and descending thoracic aorta. Discuss the distribution of ascending aorta, aortic arch and descending thoracic aorta in reference to their branches	KLM 166-170	Dr Sadia
Week:29	Biochemistry							
Week:29	16	1	Lecture	Acid Base Balance	Re-B-001	pH, pKa, weak acids and conjugated bases	Chatterjea Ch: 41	Dr. Yusra
Week:29	17	2	Lecture	Acid Base Balance	Re-B-002	HH equation & application. Titration curve	Chatterjea Ch: 41	Dr. Yusra
Week:29	18	3	Lecture	Acid Base Balance	Re-B-002	Buffers	Chatterjea Ch: 41	Dr. Yusra
Week:29	19	4	Practical	pH determination	Re-B-005	Revison	copy	Monday: Dr. Saba Tuesday: Dr. Misbah Wednesday: Dr. Asad

								Thursday: Dr. Hamza
Week:29	20	5	Tutorial	Acid Base Balance	Re-B-002	Buffers	Chatterjea Ch: 41	Dr. Yusra
Week:29	PERLs							
Week:29	21	1	Lecture	Seeking help	1_20	Identify and seek help as and when required to achieve the set goals	Lecture Presentation	Dr. Javaid
Week:29	Quran							
Week:29	22	1	Lecture	. Fasting (Roza)	i. Discuss the importance and significance of fasting ii. Relate the Holy Quran and the month of Ramadan iii. Role of fasting in building personal qualities like self-control, piety and soft corner for the poor and needy persons iv. Identify the applications of "Taqwa" through fasting		Islamiyat Notes	Amna Syed
Week:29	Pharmacology							
Week:29	23	1	Lecture	Drugs used in cardiac failure	CV-Ph-003	discuss therapeutic effects of drugs used in cardiac failure	katzung-ch -13	DR.AZKA
Week:29	24	1	Lecture	Drugs used in cardiac failure	CV-Ph-003	discuss therapeutic effects of drugs used in cardiac failure	katzung-ch -13	DR.AZKA
Week:29	SDL							
Week:29	25	1	Self Directed Learning					
Week:29	26	2	Self Directed Learning					

Week:29	**27**	**3**	**Self Directed Learning**			
Week:29	**Clinical Skill**					
Week:29	**28**	**1**	**Clinical skills**	**Revision of Examine the wrist joint for functionality**	**LOG BOOK**	**Medical Faculty**
Week:29	**29**	**2**	**Clinical skills**	**Revision of Examine the wrist joint for functionality**	**LOG BOOK**	**Medical Faculty**
Week:29	**30**	**3**	**Clinical skills**	**Revision of Examine the wrist joint for functionality**	**LOG BOOK**	**Medical Faculty**
Week:29	**Assessment**					
Week:29	**31**	**1**	**Grand Test**			
Week:29	**32**	**2**				
Week:29	**33**	**4**	**OSPE/Viva**			
Week:29	**34**	**5**				

Week:30	Total Hours	No.	Mode of Teaching	Topic	Code	Learning Objective	Reference	Facilator
Week:30	Physiology							
Week:30	1	1	Physiology Lecture	Pulmonary circulation	Re-P-005	Describe the blood volume of the lung dexcribe the distribution and regulation of blood flow in the lung, mechanics of blood flow in three zones of lung,	Guyton & Hall 14th edition Ch 39 pg. 509	Dr Amna Ilyas
Week:30	2	2	Physiology Lecture	Pulmonary circulation	Re-P-005	Effect of heavy excersice on pulmonary arterial pressure	Guyton & Hall 14th edition Ch 39 pg. 507	Prof: Dr Sadia
Week:30	3	3	Pulmonary circulation	Pulmonary circulation	Re-P-005	Descirbe the function of pulmonary circulation when left atrial pressure rises as a result of left sided heart failure explain pulmonary cappilary dynamics	Guyton & Hall 14th edition Ch 38 pg. 503	Prof: Dr Shaheena
Week:30	4	4	Physiology Lecture	Pulmonary edema, pleural fluid	Re-P-006	Discuss the pathophysiology and common causes of pulmonary edema explain the safety factors that prevant pulmonary edema physiological pressence of fluid in pleural cavity Define pleural effusion and its causes	Guyton & Hall 14th edition Ch 38 pg. 506	Prof: Dr Sadia

Week:30	5	5	Integration with Medicine	Hypoxia & Dysponea	Re-P-019, 022	Types of Hypoxia, Types and causes of dysopnea, management strategies of Dyspnea	Davidson Principles of Medicine	Dr Usman
Week:30	6	6	Practical	Clinical examination of Chest	Re-P-039	Perform the clinical examination of chest for the respiratory system (inspection, palpation, percussion, Auscultation)	Prof. Zafar Ali Ch. Volume I	Dr. Areej
Week:30	7	7	Tutorial	Breathing	Re-P-001	Enlist the muscles of inspiration and expiration in quiet breathing Enlist the muscles of inspiration and expiration in labored breathing	Guyton & Hall 14th edition Ch 38 pg. 497	Dr. Tahir
Week:30	Anatomy							
Week:30	8	1	Anatomy	Upper Respiratory tract+trachea	Re-A-001+002	Describe the anatomical features and neurovascular supply of nasal cavity+ pharynx+larynx+Describe the anatomical	KLM	Dr Ahmed
Week:30	9	2	Histology	Organization of respiratory system+Re-A-019	Re-A-019	Describe the development of ribs, sternum, and thoracic vertebrae+Give the general histological organization of respiratory system.	KLM	Dr Fatima

Week:30	**10**	**3**	**Anatomy**	**Thoracic Cavity+Ribcage**	**Re-A-003+004**	**Give the boundaries of thoracic cavity, superior and inferior thoracic apertures and list the structures contained/ traversing them.+Identify and differentiate the typical from atypical ribs.**	**KLM**	**Dr Ahmed**
Week:30	**11**	**4**	**Embryology**	**Bony components of Thoracic cavity**	**Re-A-015**	**Give the associated congenital malformations**	**KLM**	**Dr Naheed**
Week:30	**12**	**5**	**Anatomy**	**Intercostal space**	**Re-A-005**	**Define the attachments, relations, nerve supply and space actions of intercostal muscles+Define an intercostal space and give details of its contents**	**KLM**	**Dr Ahmed**
Week:30	**13**	**6**	**Lectura**	**Intercostal space**	**Re-A-005**	**Define the attachments, relations, nerve supply and space actions of intercostal muscles+Define an intercostal space and give details of its contents**	**KLM**	**Dr Ahmed**
Week:30	**14**	**7**	**Practical**	**Trachea & Organization of Respiratory System**	**Re-A-026**	**Trachea & Organization of Respiratory System**	**Practical book**	**Dr Sumaira**
Week:30	**15**	**8**	**Tutorial**	**Intercostal space**	**Re-A-005**	**Describe the histological features of bronchial tree: trachea, bronchi, bronchioles, alveoli**	**KLM**	**Dr Sadia**

Week:30	**Biochemistry**							
Week:30	**16**	**1**	**Lecture**	**Respiratory Diseases**	**Re-B-002**	**Role of kidneys in regulating acid base balance**	**Harper's Ch: 48**	**Dr. Yusra**
Week:30	**17**	**2**	**Lecture**	**Respiratory Diseases**	**Re-B-002**	**Concept of acid base balance**	**Harper's Ch: 48**	**Dr. Yusra**
Week:30	**18**	**3**	**Practical**	**pH determination**	**Re-B-005**	**pH Meter**	**copy**	**Monday: Dr. Saba Tuesday: Dr. Misbah Wednesday: Dr. Asad Thursday: Dr. Hamza**
Week:30	**19**	**4**	**Tutorial**	**Respiratory Diseases**	**Re-B-002**	**Concept of acid base balance**	**Harper's Ch: 48**	**Monday: Dr. Saba Tuesday: Dr. Misbah Wednesday: Dr. Asad Thursday: Dr. Hamza**
Week:30	**Pathology**							
Week:30	**20**	**1**	**Lecture**	**ARDS**	**Re-Pa-001**	**Describe the pathophysiology of acute respiratory distress syndrome. Describe the pathophysiology, histology of Pneumonia**	**Robbins and Cotran**	**Dr Naeem**

Week:30	**Com.Medicine**							
Week:30	**21**	**1**	**Lecture**	**Prevention of Acute respiratory infections and interaction of environment and respratory system**	**Re-CM-001 & 02**	**"Identify the common risk factors of acute respiratory infections with an emphasis on smoking. Discuss preventive strategies for different problems related to the respiratory system**	**K.Park & Notes**	**Dr Sana Noor**
Week:30	**Pharmacology**							
Week:30	**22**	**1**	**Lecture**	**COUGH SUPPRESSANTS**	**Re-Ph-001**	**COUGH SUPPRESSANTS**	**katzung ch 31**	**PROF.ASMA**
Week:30	**Bh.Sciences**							
Week:30	**23**	**1**	**Lecture**	**Dyspnea**	**Re-BhS-001+002**	**Identify the psychosocial factors leading to psychogenic cough. Identify and deal with the various psychosocial aspects of Respiratory conditions**	**MR**	**Dr.Farhat**
Week:30	**SDL**							
Week:30	**24**	**1**	**Self Directed Learning**					
Week:30	**25**	**2**	**Self Directed Learning**					
Week:30	**26**	**3**	**Self Directed Learning**					
Week:30	**Clinical Skill**							

Week:30	**27**	**1**	**Clinical skills**	**Revision Detection of ankle swelling, edema petting and non-pitting.**	**LOG BOOK**	**Medical Faculty**
Week:30	**28**	**2**	**Clinical skills**	**Revision Detection of ankle swelling, edema petting and non-pitting.**	**LOG BOOK**	**Medical Faculty**
Week:30	**29**	**3**	**Clinical skills**	**Revision Detection of ankle swelling, edema petting and non-pitting.**	**LOG BOOK**	**Medical Faculty**
Week:30	**Assessment**					
Week:30	**30**	**1**	**Module:4**			
Week:30	**31**	**2**				
Week:30	**32**	**3**	**Key.Dicussion**			
Week:30	**33**	**4**	**OSPE/Viva**			
Week:30	**34**	**5**				

Week:31	Total Hours	No.	Mode of Teaching	Topic	Code	Learning Objective	Reference	Facilator
Week:31	Physiology							
Week:31	1	1	Physiology Lecture	Principles of Gaseous Exchange	Re-P-007	Explain the ultrastructure of respiratory membrane Explain the diffusion capacity of respiratory membrane for oxygen and carbon dioxide	Guyton & Hall 14th edition Ch 40 pg 517	Dr Nida
Week:31	2	2	Physiology Lecture	Principles of Gaseous Exchange	Re-P-007	Discuss the factors affecting diffusion of gases across the respiratory membrane Define alveolar, pleural and transpulmonary pressure.Explain differences in the partial pressures of atmospheric, humidified, alveolar air and explain physiological basis of change in each pressure	Guyton & Hall 14th edition Ch 40 pg 520	Prof: Dr sadia
Week:31	3	3	Physiology Lecture	Principles of Gaseous Exchange/ VA/Q CO poisoning	Re-P-007, 011, 015	CO poisoning Explain the alveolar oxygen and carbon dioxide pressure when VA/Q = infinity, zero and normal Explain the concept of physiological shunt when VAQ ratio is less than normal Explain the concept of physiological dead space when VA/Q ratio is above normal	Guyton & Hall 14th edition Ch 40 pg 523	Prof: Dr Shaheena

Week:31	4	4	Physiology Lecture	Transport of oxygen in the blood	Re-P-008	Explain the different forms of transport of oxygen in the blood	Guyton & Hall 14th edition Ch 41 pg 527	Dr Shaheena
Week:31	5	5	Integration with Paeds	Lung Compliance	Re-P-002	Explain the role of surfactant in lung compliance	Guyton & Hall 14th edition Ch 41 pg 527	Dr. Beenish
Week:31	6	6	Practical	CPR	Re-P-044	Perform cardiopulmonary resuscitation (CPR) on adult and infant	Prof. Zafar Ali Ch. Volume I	Dr. Fahad
Week:31	7	9	Tutorial	Principles of Gaseous Exchange	Re-P-007	Discuss the factors affecting diffusion of gases across the respiratory membrane Define alveolar, pleural and transpulmonary pressure.	Guyton & Hall 14th edition Ch 40 pg 520	Dr. Areej
Week:31	Anatomy							
Week:31	8	1	Anatomy	Thoracic Vertebrae	Re-A-006	Describe the anatomical features of typical & atypical thoracic vertebrae.	KLM	Dr Ahmed
Week:31	9	2	Embryology	Diaphragm & Thoracic cavity	Re-A-016	List the embryological sources of the diaphragm. Describe the events taking place in the development and descent of the diaphragm	KLM	Dr Naheed
Week:31	10	3	Histology	Respiratory epithelium	Re-A-020	Describe the microscopic features of respiratory epithelium & Olfactory epithelium	KLM	Dr FAtima
Week:31	11	4	Forensic Integrated with Anatomy	Lungs	Re-A-014	Anatomical basis for medicolegal significance of determining the viability f newborn	Parikh 7th Ed.	Prof.Dr. Zainab

Week:31	12	5	Medicine int with Anatomy	Neurovascular supply of Thorax	Re-A-011	Describe the cutaneous nerve supply and dermatomes of thorax. Discuss anatomical correlates of intercostal nerve block	Davidsons	Dr.Imran
Week:31	13	6	Paeds int with Anatomy	Diaphragm & Thoracic cavity	Re-A-016+17+18	Describe congenital anomalies of Trachea- Tracheoesophageal fistulas of different types / respiratory distress syndrome/Hyaline membrane disease	1	Dr.Beenish
Week:31	14	7	Practical	Trachea & Organization of Respiratory System	Re-A-026	Trachea & Organization of Respiratory System	Practical book	Dr Sumaira
Week:31	15	8	Practical	Trachea & Organization of Respiratory System	Re-A-026	Trachea & Organization of Respiratory System	Practical book	Dr Sumaira
Week:31	16	9	Tutorial	Intercostal space	Re-A-005	Describe the histological features of bronchial tree: trachea, bronchi, bronchioles, alveoli	KLM	Dr Sadia
Week:31	17	10	Tutorial	Intercostal space	Re-A-005	Describe the histological features of bronchial tree: trachea, bronchi, bronchioles, alveoli	KLM	Dr Sadia
Week:31	Biochemistry							

Week:31	18	1	Lecture	Respiratory Diseases	Re-B-002	Cystic fibrosis & RDS	Harper's Ch: 48	Dr. Yusra
Week:31	19	2	Biochemistry	Genetic Defects	Re-B-001	Emphysema & COPD	Harper's Ch: 48	Dr. Yusra
Week:31	20	3	Practical	pH determination	Re-B-005	Inerpret Metabolic & Resp Acid & Alkl	copy	Monday: Dr. Saba Tuesday: Dr. Misbah Wednesday: Dr. Asad Thursday: Dr. Hamza
Week:31	21	4	Tutorial	Genetic Defects	Re-B-001	Emphysema & COPD	Harper's Ch: 48	Monday: Dr. Saba Tuesday: Dr. Misbah Wednesday: Dr. Asad Thursday: Dr. Hamza
Week:31	Com.Medicine							
Week:31	22	1	Lecture	Epidemiology of respiratory diseases	Re-CM-003	Describe the burden of respiratory diseases	K.Park & Notes	Dr Usman Sheikh
Week:31	Pathology							
Week:31	23	1	Lecture	Obstructive lung disease	Re-Pa-002	Describe the pathophysiology of obstructive lung disease. Discuss the pathophysiology of Emphysema	Robbins and Cotran	Dr Naeem

Week:31	**Pharmacology**							
Week:31	**24**	**1**	**Lecture**	**Antihistamines**	**Re-Ph-002**	**Antihistamines-explain MOA and adverse effects**	**katzung ch-16**	**DR.AZKA**
Week:31	**SDL**							
Week:31	**25**	**1**	**Self Directed Learning**					
Week:31	**26**	**2**	**Self Directed Learning**					
Week:31	**27**	**3**	**Self Directed Learning**					
Week:31	**Clinical Skill**							
Week:31	**28**	**1**	**Clinical skills**	**Revision Auscultation of chest.**			**LOG BOOK**	**Medical Faculty**
Week:31	**29**	**2**	**Clinical skills**	**Revision Auscultation of chest.**			**LOG BOOK**	**Medical Faculty**
Week:31	**30**	**3**	**Clinical skills**	**Revision Auscultation of chest.**			**LOG BOOK**	**Medical Faculty**
Week:31	**Assessment**							
Week:31	**31**	**1**	**Grand Test**					
Week:31	**32**	**2**						
Week:31	**33**	**4**	**OSPE/Viva**					
Week:31	**34**	**5**						

Week:32	Total Hours	No.	Mode of Teaching	Topic	Code	Learning Objective	Reference	Facilator
Week:32	Physiology							
Week:32	1	1	Physiology Lecture	Oxy-hemoglobin dissociation/ Bohr's effect/ Cynosis	Re-P-009	Draw and explain oxy-hemoglobin dissociation Curve Enlist the factors that cause rightward shift of Oxyhemoglobin dissociation curve.	Guyton & Hall 14th edition Chap 41 Pg 531	Dr Amna Rizvi
Week:32	2	2	Physiology Lecture	Transport of CO2 in the blood	Re-P-010	Enlist different forms in which C02 is transported in the blood. Explain the Carboxyhemoglobin dissociation Curve. Explain the Haldane effect. Explain the chloride shift/Hamburger phenomenon. Define the respiratory exchange ratio (RER)	Guyton & Hall 14th edition Chap 41 Pg 535	Prof: Dr Sadia
Week:32	3	3	Physiology Lecture	Nervous regulation of respiration	Re-P-016	Enumerate the components of respiratory centers and explain their functions. Explain the inspiratory RAMP signal Explain the Herring Breuer reflexlung inflalion reflex and its clinical significance	Guyton & Hall 14th edition Chap 42 Pg 539	Prof: Dr Shaheena
Week:32	4	4	Physiology Lecture	Chemical control of respiration	Re-P-017-18	Explain the location of chemo sensitive area (central chemoreceptors) and peripheral chemoreceptors Explain the effect of hydrogen ions	Guyton & Hall 14th edition Chap 42 Pg 541	Dr Nida

						& carbon dioxide on the chemo-sensitive area Explain the role of oxygen in the control of respiration/peripheral chemoreceptors		
Week:32	5	5	Integration with Pathology	Tuberculosis & Pneumonia	Re-P-017-18	Describe the pathophysiology of Tuberculosis and pneumonia	Robbins and Cotran	Dr Majid Rauf
Week:32	6	6	Practical	CPR	Re-P-044	Perform cardiopulmonary resuscitation (CPR) on adult and infant	Prof. Zafar Ali Ch. Volume I	Dr. Areej
Week:32	7	7	Tutorial	Transport of CO2 in the blood	Re-P-010	Enlist different forms in which C02 is transported in the blood. Explain the Carboxyhemoglobin dissociation Curve. Explain the Haldane effect. Explain the chloride shift/Hamburger phenomenon.	Guyton & Hall 14th edition Chap 41 Pg 535	Dr. Fahad
Week:32	Anatomy							
Week:32	8	1	Anatomy	Thoracic Vertebrae	Re-A-006+Re-A-007	Differentiate between typical and atypical vertebrae+Explain the thoracic part of the vertebral column (normal curvature, intervertebral joints & fascia of the back, blood supply, lymphatic drainage, nerve supply of back)	KLM	Dr Ahmed
Week:32	9	2	Anat.Int Surg	Lungs	Re-A-014	Describe the anatomical correlates of chest tube intubation	B&L	Dr.Halima Mashadi (Sur-1)

						Describe the anatomical correlates of thoracentesis		
Week:32	10	3	Anatomy	Connective tissue of Thorax	Re-A-008+009	Define endo thoracic fascia. Describe the supra-pleural membrane with its attachments+Classify the joints of the thorax mentioning their articulations, movements with the muscle producing them.	KLM	Dr Ahmed
Week:32	11	4	Embryology	Upper Respiratory Tract	Re-A-017	Describe the development of upper respiratory tract: larynx and trachea	KLM	Dr Fatima
Week:32	12	5	Embryology	Upper Respiratory Tract	Re-A-017	Describe congenital anomalies of Trachea- Tracheoesophageal fistulas of different types	KLM	Dr Fatima
Week:32	13	6	Anatomy	Neurovascular supply of Thorax	Re-A-010+11	Describe the origin, course, relations and distribution of intercostal nerves and vessels Neurovascular supply of Thorax Describe the alternate routes of venous drainage in blockage of superior/ inferior vena cava	KLM	Dr Ahmed

Week:32	14	7	Practical	Trachea & Organization of Respiratory System	Re-A-026	Describe the histological features of bronchial tree: trachea, bronchi, bronchioles, alveoli	Histology Practical book	Dr Sadia
Week:32	15	7	Practical	Trachea & Organization of Respiratory System	Re-A-026	Describe the histological features of bronchial tree: trachea, bronchi, bronchioles, alveoli	Histology Practical book	Dr Sadia
Week:32	16	8	Tutorial	Thoracic Vertebrae	Re-A-006	Differentiate between typical and atypical vertebrae	KLM	Dr Sadia
Week:32	Biochemistry							
Week:32	17	1	Lecture	Genetic Defects	Re-B-001	Revision	Harper's Ch: 48	Dr. Yusra
Week:32	18	2	Biochemistry	Respiratory Diseases	Re-B-002	Revision	Harper's Ch: 48	Dr. Yusra
Week:32	19	3	Practical	pH determination	Re-B-005	pH determination	Interpret ABGs	Monday: Dr. Maryam Tuesday: Dr. Seemal Wednesday: Dr. Zahra Thursday: Dr. Aleena
Week:32	20	4	Tutorial	Respiratory Diseases	Re-B-002	Revision	Harper's Ch: 48	Monday: Dr. Maryam Tuesday: Dr. Seemal Wednesday: Dr. Zahra

								Thursday: Dr. Aleena
Week:32	Pathology							
Week:32	21	1	Lecture	Restrictive lung diseases	Re-Pa-003	Describe the pathophysiology of Restrictive Lung Disease	Robbins and Cotran	Dr Naeem
Week:32	Com.Medicine							
Week:32	22	1	Lecture	occupational lung diseases	Re-CM-004	Enlist the common respiratory diseases related to occupation	K.Park & Notes	Dr Usman Sheikh
Week:32	23	1	Lecture	occupational lung diseases	Re-CM-004	Enlist the common respiratory diseases related to occupation	K.Park & Notes	Dr Usman Sheikh
Week:32	Pharmacology							
Week:32	24	1	Lecture	Antiasthmatics	Re-Ph-003	explain MOA and adverse effects of Antiasthmatics	katzung,ch-20	DR.AZKA
Week:32	SDL							
Week:32	25	1	Self Directed Learning					
Week:32	26	2	Self Directed Learning					
Week:32	27	3	Self Directed Learning					
Week:32	Clinical Skill							
Week:32	28	1	Clinical skills	Revision of Detection of clubbing.			LOG BOOK	Medical Faculty
Week:32	29	2	Clinical skills	Revision of Detection of clubbing.			LOG BOOK	Medical Faculty
Week:32	30	3	Clinical skills	Revision of Detection of clubbing.			LOG BOOK	Medical Faculty
Week:32	Assessment							

Week:32	**31**	**1**	**Grand Test**
Week:32	**32**	**2**	
Week:32	**33**	**4**	**OSPE/Viva**
Week:32	**34**	**5**	

Week:33	Total Hours	No.	Mode of Teaching	Topic	Code	Learning Objective	Reference	Facilator
Week:33	**Physiology**							
Week:33	**1**	**1**	**Physiology Lecture**	**Aviation and space**	**Re-P-013**	**Explain the principal means by which acclimatization occurs**	**Guyton & Hall 14th edition Ch 44 Pg 561**	**Dr Amna ILyas**
Week:33	**2**	**2**	**Physiology Lecture**	**Aviation and space**	**Re-P-013**	**Explain the events that occur during acute mountain sickness** **Enlist the features of chronic mountain sickness**	**Guyton & Hall 14th edition Ch 44 Pg 565**	**Prof: Dr Shaheena**
Week:33			**Physiology Lecture**	**Deep sea diving**	**Re-P-014**	**Explain the pathophysiology, features, prevention and treatment of decompression sickness**	**Guyton & Hall 14th edition Ch 45 Pg 571**	**Dr Hafsa**
Week:33	**3**	**3**	**Physiology Lecture**	**Deep sea diving**	**Re-P-014**	**Explain the pathophysiology, features, prevention and treatment of decompression sickness**	**Guyton & Hall 14th edition Ch 45 Pg 571**	**Dr Nida**
Week:33	**4**	**4**	**Integration with Pulmonology**	**Bronchitis, Pneumonia,**	**Re-P-025,026**	**sign, symptoms and management of**	**Davidson Principles of Medicine**	**Dr Shamshad**

				Asthma and TB	,027,028	bronchitis, asthma, TB and Pneumonia		
Week:33	5	5	Integration with surgery	First Aid in Surgical Patients	Re-P-031	Describe ABC in a trauma Patient		
Week:33	6	6	Practical	Peak expiratory flow rate measurement	Re-P-040	Determine the lung volume and capacities with spirometer	Prof. Zafar Ali Ch. Volume I	Dr Fahad
Week:33	7	7	Tutorial	Aviation and space	Re-P-013	Explain the events that occur during acute mountain sickness Enlist the features of chronic mountain sickness	Guyton & Hall 14th edition Ch 44 Pg 565	Dr. Tahir
Week:33	Anatomy							
Week:33	8	1	Anatomy	Diaphragm	Re-A-012	Name the parts of diaphragm mentioning their attachments and neurovascular supply.Explain the role of diaphragm in respiration Enumerate the diaphragmatic apertures with their vertebral levels, mentioning the structures traversing them.	KLM	Dr Ahmed
Week:33	9	2	Embryology	Lungs	Re-A-018	Describe the embryological basis of respiratory Lungs	KLM	Dr Naheed

						distress syndrome/Hyaline membrane disease, Ectopic Lung lobes, Congenital cysts of Lung		
Week:33	10	3	Anatomy	Pleural cavity	Re-A-013	Describe the pleura giving its parts, layers, neurovascular supply, and lymphatic drainage. Describe the pleural cavity giving its recesses and the lines of pleural reflection	KLM	Dr Ahmed
Week:33	11	4	Histology	Epiglottis & larynx+ Trachea & lungs blood-air barrier	Re-A-022+ Re-A-023	Describe the histological features of epiglottis and larynx.Describe the histological features of trachea and lungs Describe histology of blood-air barrier	KLM	Dr Fatima
Week:33	12	5	Anatomy	Lungs	Re-A-014	Describe the neurovascular supply and lymphatic drainage of lungs. Compare and contrast the anatomical features and relations of right and left lung Describe the root of the lung and pulmonary ligament	KLM	Dr Ahmed

						with arrangement of structures at the hilum.		
Week:33	13	6	Anatomy	Lungs	Re-A-014	Define Bronchopulmonary segments. Give their vascular supply, lymphatic drainage and clinical significance	KLM	Dr Ahmed
Week:33	14	7	Practical	Bronchial tree & Lung	Re-A-027	Describe the mucosal changes encountered in the trachea-bronchial tree Compare and contrast the histological features of various components of bronchial tree: trachea, bronchi, bronchioles, alveoli.	Histology Practical book	Dr Sadia
Week:33	15	8	Practical	Bronchial tree & Lung	Re-A-027	Describe the mucosal changes encountered in the trachea-bronchial tree Compare and contrast the histological features of various components of bronchial tree:	Histology Practical book	Dr Sadia

Week:33	**16**	**9**	**Tutorial**	**Neurovascular supply of Thorax**	**Re-A-010**	**Describe the origin, course, relations and distribution of intercostal nerves and vessels Neurovascular supply of Thorax**	**KLM**	**Dr Sadia**
Week:33	**Biochemistry**							
Week:33	**17**	**1**	**Lecture**	**Hyperbillirub-inemias**	**HL-B-005**	**Revision**	**Lippincott's Ch: 3, 21**	**Dr. Sadia Khalil**
Week:33	**18**	**2**	**Biochemistry**	**Iron Metabolism**	**HL-B-003**	**Revision**	**Lippincott's Ch: 28, 29**	**Dr. Sadia Khalil**
Week:33	**19**	**3**	**Practical**	**pH determination**	**Re-B-005**	**Revision**	**copy**	**Monday: Dr. Saba Tuesday: Dr. Misbah Wednesday: Dr. Asad Thursday: Dr. Hamza**

Week:33	**20**	**4**	**Tutorial**	**Iron** **Metabolism**	**HL-B-003**	**Revision**	**Lippincott's** **Ch: 28, 29**	**Monday: Dr. Saba** **Tuesday: Dr. Misbah** **Wednesday: Dr. Asad** **Thursday: Dr. Hamza**
Week:33	**PERLs**							
Week:33	**21**	**1**	**Lecture**	**Rules for internet resources** **+Scientific Evidence**	**1_16**	**Professional Profile on Linkedin+Scientific Evidence**	**Lecture Presentation**	**Dr. Salar**
Week:33	**Quran**							
Week:33	**22**	**1**	**Lecture**	**. Pilgrimage (Hajj)**		**i. Discuss the importance and significance of Hajj** **ii. Identify the conditions in which Hajj becomes an obligation** **iii. Role of manasik-e-Hajj in producing discipline and complete submission**	**Islamiyat Notes**	**Amna Syed**
Week:33	**Bh.Sciences**							

Week:33	**23**	**1**	**Lecture**	**Psychogenic Cough**	**Re-BhS-002**	**Identify and deal with the various psychosocial aspects of Respiratory conditions**	**M.R**	**Dr.Farhat**
Week:33	**Pharmacology**							
Week:33	**24**	**1**	**Lecture**	**Antiasthmatics**	**Re-Ph-003**	**Antiasthmatics**	**katzung,ch-20**	**DR.AZKA**
Week:33	**SDL**							
Week:33	**25**	**1**	**Self Directed Learning**					
Week:33	**Clinical Skill**							
Week:33	**26**	**1**	**Clinical skills**	**Administrating inhaler to a patient.**			**LOG BOOK**	**Medical Faculty**
Week:33	**27**	**2**	**Clinical skills**	**Administrating inhaler to a patient.**			**LOG BOOK**	**Medical Faculty**
Week:33	**28**	**3**	**Clinical skills**	**Administrating inhaler to a patient.**			**LOG BOOK**	**Medical Faculty**
Week:33	**Assessment**							
Week:33	**29**	**1**	**Block Exam**					
Week:33	**30**	**2**						
Week:33	**31**	**3**						
Week:33	**32**	**4**	**OSPE/Viva**					
Week:33	**33**	**5**						
Week:33	**34**	**6**						

Operational Definitions

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

Internal Assessment Policy

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-3					
Week	**Date**	**Day**	**Subject**	**Test**	**Theme**
31st	**29-Sep-25**	**Mon**	**Physiology**	**Grand Test** **OSPE+VIVA**	**Heart 1**
32nd	**6-Oct-25**	**Mon**	**Biochemistry**	**Grand Test** **OSPE+VIVA**	**Chemistry of Lipids & Fatty Acids ,Metabolism of Lipoproteins ,Vitamins**
33rd	**13-Oct-25**	**Mon**	**Anatomy**	**Grand Test** **OSPE+VIVA**	**All the covered topics**
34th	**20-Oct-25**	**Mon**	**Physiology**	**Grand Test** **OSPE+VIVA**	**Circulation**
35th	**27-Oct-25**	**Mon**	**Integrated**	**Module Exam: 4** **OSPE+VIVA**	**Whole Syllabus of Module-4**
36th	**3-Nov-25**	**Mon**	**Biochemistry**	**Grand Test** **OSPE+VIVA**	**Vitamins,Minerals.Water,pH, Buffers, Acid Base Regulation**
37th	**10-Nov-25**	**Mon**	**Anatomy**	**Grand Test** **OSPE+VIVA**	**All the covered topics**
38th	**17-Nov-25**	**Mon**	**Physiology**	**Grand Test** **OSPE+VIVA**	**Respiration 1**
39th	**24-Nov-25**	**Mon**	**Integrated**	**Module Exam: 5** **OSPE+VIVA**	**Whole Syllabus of Module-5**
39th	**27-Nov-25**	**Thus**	**Allied Subjects**	**Allied Test-3**	**Whole Syllabus of Module- 4 & 5**

40th	1-Dec-25	Mon	Integrated	Block-3 Exam OSPE+VIVA	Whole Syllabus of Module-4 & 5
End Of Block-3					
LSE/Send-Up Exam: 8th Dec,2025- 19th Dec,2025					
41st	8-Dec-25	Mon	Block-1 Exam	LSE/Send-Up	Whole Syllabus of Module-1 & 2
41st	9-Dec-25	Tue	SDL		
41st	10-Dec-25	Wed	SDL		
41st	11-Dec-25	Thu	SDL		
41st	12-Dec-25	Fri	Block-2 Exam	LSE/Send-Up	Whole Syllabus of Module-3 (A+B)
41st	13-Dec-25	Sat	Day Off		
42nd	14-Dec-25	Sun	Day Off		
42nd	15-Dec-25	Mon	SDL		
42nd	16-Dec-25	Tue	Block-3 Exam	LSE/Send-Up	Whole Syllabus of Module-4 & 5
42nd	17-Dec-25	Wed	Block-1	OSPE/ VIVA	
42nd	18-Dec-25	Thu	Block-2	OSPE/ VIVA	
42nd	19-Dec-25	Fri	Block-3	OSPE/ VIVA	

Table of Specification

MBBS 1st Professional

Block-3

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	17	03	32	03	-	01	38
Normal Function	Physiology applied/clinical	31	04	51	04	-	01	46
	Biochemistry applied/clinical	19	02	29	02	-	01	30
Disease Burden & Prevention	Community Medicine & Public Health	06	-	06	-	-	-	-
	Behavioral Sciences	02	-	02	-	-	-	-
Pathophysiology & pharmacotherapeutics	Pathology	10	01	15	01	-	-	08
	Pharmacology	05	-	05	01	-	-	08
CFRC	CF-I	-	-	-	-	01	-	05
PERLs	PERLs-I	-	-	-	-	01	-	05
Total		**90**	**10x5=50**	**140**	**011 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 College

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.