THIRD YEAR MBBS Module Name: CVS-II Session 2022-23









Abbottabad International Medical Institute, Abbottabad

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1. Overview

Program	MBBS
Year	Third Year MBBS
Module Name	CVS-II
Contact Hours	57 Hours
Pre-requisites of the course	 Anatomy Physiology Biochemistry
Infrastructure Requirements	 Lecture Halls Demo Room Museum Laboratory

Faculty Responsible for Module

Sr.	Faculty	Designation	Department
No			
	Block Coordinator		
	Prof/Dr. Shagufta Shafi	Head of Department	Forensic Medicine
	Module Coordinator		
	Dr. M. Huzaifa Aurangzeb	Demonstrator	Forensic Medicine
	Module Committee		
1.	Dr. Muhammad Qasim	Assistant Professor	Pathology
2.	Dr. Rehana Rasool	Assistant Professor	Community Medicine
3.	Dr. Najib	Demonstrator	Pharmacology
4.	Dr. Amber	Assistant Professor	Medicine
5.	Dr. Adnan	Assistant Professor	Pediatrics
6.	Dr. Atif Nawaz	Assistant Professor	Anatomy
7.	Dr. Asma Shams	Demonstrator	Physiology
8.	Dr. Osama Siddiqui	Demonstrator	Biochemistry

2. INTRODUCTION

What is Study Guide?

"An aid, usually in the form of printed notes designed to assist students with their learning." *

Role of Study Guide

Study guides have three roles in facilitating learning



*AMEE Medical Education Guide No 16: Study guides----their use and preparations

- **1.1** Helps students to plan their learning in line with the learning outcomes.
- **1.2** Facilitates students to make best use of the learning opportunities provided
- **1.3** Helps teacher to adopt appropriate learning strategies lectures, small group teachings, clinical skills, demonstration, tutorial and case-based learning that will be implemented to achieve the course objectives.
- 1.4 Provides knowledge about the content of the course
- **1.5** Helps students to prepare for the assessment which is part of the educational program.
- **1.6** Facilitates students to respond appropriately to the educational environment of the institution.
- **1.7** Assists students to contact the concerned faculty member in case of any difficulty.
- **1.8** Provides information about the learning resources such as Text books, reference books, web- links and journals for students to consult in order to maximize their learning.
- **1.9** Includes information on the assessment methods formative as well as summative that will be held to determine every student's achievement of objectives.
- 1.10 Provides information related to examination policy, rules and regulations.

3. CURRICULUM FRAMEWORK

Integrated Curriculum: Integrated curriculum is an educational approach that emphasizes interdisciplinary instruction, where students learn through the integration of knowledge from multiple subjects. This approach aims to create a more meaningful and engaging learning experience for students by connecting various subjects and disciplines into a unified curriculum.

S.	Subject	Lecture Topic	Topic Objectives	Teachig	Mode of	Assessme					
NO.	Theme 1: Chest pain										
4	Anotomy	Cross anatomy	Describe surface enotomy of the	1	LCD and	MCO'a					
1.	Anatomy	Gross anatomy	beart and beart values		LGD and Models	IVICQS					
		of neart, valves			WOUCIS						
		and coronary									
		arteries									
			Describe the anatomy of coronary								
			circulation								
			Enumerate heart valves and								
			describe their gross morphology								
2.	Biochemist	Lipoproteins and	1 Classify and Describe types of	1	LGD	MCQ's					
	ry	cholesterol	lipoproteins								
2			Summariza abalastaral aunthasia								
ა.			Summanze cholesteror synthesis								
4.	Pathology	Atherosclerosis	Discuss the risk factors,	1	LGD	MCQs					
			Morphology, pathological			And OSPE					
			changes and consequences of								
			Atherosclerotic plaque								
5.		Ischemiaandinfa	Define Ischemia and infarction, and		LGD	-					
		rction	differentiate it from infarction								
6.			Discuss Classification and								
			pathophysiology of ischemic								
			heart disease			-					
7.			Discuss pathophysiology of								
			myocardial infarction								
				4	1.00	1000					
8. 0	Pharmacol	Antianginal	Classify antianginal drugs	1	LGD	MCQS					
9.	ogy	arugs	Explain mechanism of action,								
			effects of organic nitrates and								
			calcium channel blockers								
10.	1		Explain the rationale for use of R_{-}	-							
			adrenergic blockers								

			andsodiumchannelblockerintheman			
			agementofanginapectoris			
			agementeranginapoeterie			
11.		Lipid	Briefly describe the types of	2	LGD	MCQS
		lowering	dyslipidemias			
12.		drugs	List the lipid lowering drug classes			
13.			Explain the mechanism of action.			
			effect on serum lipid profile and			
			adverse effects of each of the			
			five drug classes			
14.			Discuss drug-drug interaction of lipid			
			lowering drugs			
15.		Anticoagulantdru	Classify anticoagulant drugs	2	LGD	MCQS
16.		gs	Discuss mechanism of action, uses			
			of Unfractionated heparin			
17.			Compare low molecular weight and			
			Unfractionated heparin			
18.			Describe adverse effects of heparin			
			and treatment of heparin overdose			
19.			Describe mechanism of action and			
			uses of direct Xa and IIa inhibitors			
20.			Describe mechanism of action and			
			uses of warfarin			
21.			Describe adverse effects of warfarin			
			and treatment of warfarin overdose			
22.			Compare heparin and warfarin in			
			terms of mechanism and onset of			
			action			
23.			Explain monitoring of anticoagulant			
			therapy			
				4		
24.		Antiplatelet and	Classify antiplatelet drugs	1	LGD	MCQS
05		thrombolytic				
20.		arugs				
26			Evaluin the mechanism of			
20.			Explain the mechanism of			
			action and adverse effects of			
27			Nome thrombolytic drugs and			
Z 1.			avalue their mechanism of			
			explain their mechanism of-			
			action, uses and adverse effects			
28	ForensicMe	Chesttrauma	Describe heart injuries caused by	1	I GD	MCOS
20.	dicine	Shootaania	regional injuries	'		
29.			Discuss chest wall injuries in	1		
			general			

30.			Enumeratethecomplicationsofribfract			
			ure			
31.		Suddendeath	Define sudden death	1	LGD	MCQS
32.			Explain the causes of sudden death			
33.			Describe autopsy findings in sudden death			
34.			Describe the medico-legal			
			importance of sudden death			
35.	Community Medicine	Non communica ble diseases: Cardiovascular diseases of public health importance	Define Cardiovascular disease(CVD)	2	LGD	MCQS
36.			Elaborate the concept of CVD risk stratification			
37.			Describetheepidemiologyofcardiova sculardiseasesandexplaincardiovasc ulardiseasesofPublicHealthimportan ceglobally and in Pakistan			
38.			Explain the known risk factors of CVD and cultural, racial and gender difference in Prevalence and incidence			
39.		Hypertension	Describe the epidemiology of hypertension and its public Health importance globally and in Pakistan			
40.	GeneralMed icine/Cardio logy	Coronary Heart disease	Discuss CAD risk factors and strategies to reduce them	1	LGD and Case Based Discussion s	MCQS and OSCE
41.			Discussstrategiesforprimaryandseco ndarypreventionofCHDinoutpatients etting			
42.			Define chronic stable angina, its clinical signs and symptoms, laboratory findings, imaging techniques for assessment of it and management protocols Discuss coronary vasospasm and angina with normal coronary Angiograms Define Acute coronary syndrome			

44.		Acute coronary	Explain the spectrum of illness in	1	LGD and	MCQS
		syndrome	ACS and relevant management		Case	and OSCE
45	-		Describetheclinicalfeaturesandste	-	Based	
43.			psofthemanagementofMvocardiali		Discussion	
			nfarction		S	
46.	-		Describe risk stratification in	-		
			myocardial infarction			
47.			DescribecomplicationsofacuteMI			
48.		Hypertrophic	Discuss clinical features, imaging		LGD and	MCQ'S
		cardiomyopathy	protocols, risk stratification and		Case	
			short/long-term management of		Based	
			hypertrophic		Discussion	
			Cardiomyopathy		S	
49.	PRIME/	Informed	Obtaining informed consent from a	1	LGD	MCQ's
		consent	patient be for an invasive			
			procedure			
			l			
			Themell: Blood Pressure			
	T			1	Т	1
50.	Pathology	Bloodpressure	Describe the mechanisms of blood	2	LGD	MCQ'S
50.	Pathology	Bloodpressure	Describe the mechanisms of blood pressure regulation	2	LGD	MCQ'S and OSCE
50. 51.	Pathology	Bloodpressure	Describe the mechanisms of blood pressure regulation Classifyshock	2	LGD LGD	MCQ'S and OSCE
50. 51. 52.	Pathology	Bloodpressure	Describe the mechanisms of blood pressure regulation Classifyshock Describe the pathophysiology and	2	LGD LGD LGD	MCQ'S and OSCE MCQ'S
50. 51. 52.	Pathology	Bloodpressure Shock	Describe the mechanisms of blood pressure regulation Classifyshock Describe the pathophysiology and types of shock	2	LGD LGD LGD	MCQ'S and OSCE MCQ'S
50. 51. 52. 53.	Pathology	Bloodpressure	Describe the mechanisms of blood pressure regulation Classifyshock Describe the pathophysiology and types of shock Describe the stages of shock	2	LGD LGD LGD	MCQ'S and OSCE MCQ'S
50. 51. 52. 53. 54.	Pathology	Bloodpressure	Describe the mechanisms of blood pressure regulation Classifyshock Describe the pathophysiology and types of shock Describe the stages of shock Define sepsis and septic shock	2	LGD LGD LGD	MCQ'S and OSCE MCQ'S
50. 51. 52. 53. 54.	Pathology	Bloodpressure	Describe the mechanisms of blood pressure regulation Classifyshock Describe the pathophysiology and types of shock Describe the stages of shock Define sepsis and septic shock	2	LGD LGD LGD	MCQ'S and OSCE MCQ'S
50. 51. 52. 53. 54.	Pathology	Bloodpressure	Describe the mechanisms of blood pressure regulation Classifyshock Describe the pathophysiology and types of shock Describe the stages of shock Define sepsis and septic shock Discuss causes pathogenesis and	2	LGD LGD LGD	MCQ'S and OSCE MCQ'S
50. 51. 52. 53. 54. 55.	Pathology	Bloodpressure	Describe the mechanisms of blood pressure regulation Classifyshock Describe the pathophysiology and types of shock Describe the stages of shock Define sepsis and septic shock Discuss causes, pathogenesis, and laboratory findings in shock	2	LGD LGD LGD	MCQ'S and OSCE MCQ'S
50. 51. 52. 53. 54. 55. 56.	Pathology	Bloodpressure	Describe the mechanisms of blood pressure regulation Classifyshock Describe the pathophysiology and types of shock Describe the stages of shock Define sepsis and septic shock Discuss causes, pathogenesis, and laboratory findings in shock Discuss Disseminated intravascular	2	LGD LGD LGD	MCQ'S and OSCE MCQ'S
50. 51. 52. 53. 54. 55. 56.	Pathology	Bloodpressure	Describe the mechanisms of blood pressure regulation Classifyshock Describe the pathophysiology and types of shock Describe the stages of shock Define sepsis and septic shock Discuss causes, pathogenesis, and laboratory findings in shock Discuss Disseminated intravascular coagulation in the context of sepsis	2	LGD LGD LGD	MCQ'S and OSCE MCQ'S
50. 51. 52. 53. 54. 55. 56. 57.	Pathology	Bloodpressure	Describe the mechanisms of blood pressure regulation Classifyshock Describe the pathophysiology and types of shock Describe the stages of shock Define sepsis and septic shock Discuss causes, pathogenesis, and laboratory findings in shock Discuss Disseminated intravascular coagulation in the context of sepsis Describe classification and	2	LGD LGD LGD	MCQ'S and OSCE MCQ'S
50. 51. 52. 53. 54. 55. 56. 57.	Pathology	Bloodpressure	Describe the mechanisms of blood pressure regulation Classifyshock Describe the pathophysiology and types of shock Describe the stages of shock Define sepsis and septic shock Discuss causes, pathogenesis, and laboratory findings in shock Discuss Disseminated intravascular coagulation in the context of sepsis Describe classification and pathophysiology of Hemorrhage	2	LGD LGD LGD	MCQ'S and OSCE MCQ'S
50. 51. 52. 53. 54. 55. 56. 57. 58.	Pathology	Bloodpressure Shock Hypertension	Describe the mechanisms of blood pressure regulation Classifyshock Describe the pathophysiology and types of shock Describe the stages of shock Define sepsis and septic shock Discuss causes, pathogenesis, and laboratory findings in shock Discuss Disseminated intravascular coagulation in the context of sepsis Describe classification and pathophysiology of Hemorrhage Describethecauses, Pathogenesis, m	2	LGD LGD LGD	MCQ'S and OSCE MCQ'S MCQ'S
50. 51. 52. 53. 54. 55. 56. 57. 58.	Pathology	Bloodpressure Shock Hypertension	Describe the mechanisms of blood pressure regulation Classifyshock Describe the pathophysiology and types of shock Describe the stages of shock Define sepsis and septic shock Discuss causes, pathogenesis, and laboratory findings in shock Discuss Disseminated intravascular coagulation in the context of sepsis Describe classification and pathophysiology of Hemorrhage Describethecauses, Pathogenesis, m orphologyandcomplicationsofHypert	2	LGD LGD LGD	MCQ'S and OSCE MCQ'S MCQ'S
50. 51. 52. 53. 54. 55. 56. 57. 58.	Pathology	Bloodpressure Shock Hypertension	Describe the mechanisms of blood pressure regulation Classifyshock Describe the pathophysiology and types of shock Describe the stages of shock Define sepsis and septic shock Discuss causes, pathogenesis, and laboratory findings in shock Discuss Disseminated intravascular coagulation in the context of sepsis Describe classification and pathophysiology of Hemorrhage Describethecauses,Pathogenesis,m orphologyandcomplicationsofHypert ension	2	LGD LGD LGD	MCQ'S and OSCE MCQ'S MCQ'S
50. 51. 52. 53. 54. 55. 56. 57. 58.	Pathology	Bloodpressure Shock Hypertension	Describe the mechanisms of blood pressure regulation Classifyshock Describe the pathophysiology and types of shock Describe the stages of shock Define sepsis and septic shock Discuss causes, pathogenesis, and laboratory findings in shock Discuss Disseminated intravascular coagulation in the context of sepsis Describe classification and pathophysiology of Hemorrhage Describethecauses,Pathogenesis,m orphologyandcomplicationsofHypert ension	2	LGD LGD LGD	MCQ'S and OSCE MCQ'S MCQ'S
50. 51. 52. 53. 54. 55. 56. 57. 58.	Pathology	Bloodpressure Shock Hypertension	Describe the mechanisms of blood pressure regulation Classifyshock Describe the pathophysiology and types of shock Describe the stages of shock Define sepsis and septic shock Discuss causes, pathogenesis, and laboratory findings in shock Discuss Disseminated intravascular coagulation in the context of sepsis Describe classification and pathophysiology of Hemorrhage Describethecauses, Pathogenesis, m orphologyandcomplicationsofHypert ension	2	LGD LGD LGD LGD	MCQ'S and OSCE MCQ'S MCQ'S
50. 51. 52. 53. 54. 55. 56. 57. 58. 59.	Pathology	Bloodpressure Shock Hypertension Aneurisms	Describe the mechanisms of blood pressure regulation Classifyshock Describe the pathophysiology and types of shock Describe the stages of shock Define sepsis and septic shock Discuss causes, pathogenesis, and laboratory findings in shock Discuss Disseminated intravascular coagulation in the context of sepsis Describe classification and pathophysiology of Hemorrhage Describethecauses,Pathogenesis,m orphologyandcomplicationsofHypert ension Discuss pathophysiology of hemorrhage	2	LGD LGD LGD LGD	MCQ'S and OSCE MCQ'S MCQ'S MCQ'S

60			Describe the etiology morphology			
00.			and manifestations of vascular			
			and mannestations of vascular			
64			Describe the source Detheronoois			
01.			Describe the causes, Pathogenesis			
<u></u>		A autia	and types of Aonic Aneurysm	4		
62.		AORTIC	Describetnepatriogenesis,morpholo	I	LGD	MCQS
		dissection	gyandclinicalteaturesofAorticDissec			
			tion			
63.		Vasculitis	Define Vasculitis			
64.			Classify vascilitides			
65.			Describe the immunological			
			mechanisms of non-infectious			
			Vasculitis			
66.			Describe the morphology and			
			clinical features of Giant cell			
			arteritis			
67.			Describe the morphology and			
			clinical features of Takayasu			
			arteritis			
68.			Describe the morphology and			
			clinical features of			
			Polyarteritisnodosa			
69.			Describe the morphology and			
			clinical features of Kawasaki			
			disease			
70.			Describe the morphology,			
			serological markers and clinical			
			Features of Wegener			
			granulomatosis			
71.			Describe the morphology and			
			clinical features of Thromboangitis			
			Obliterans			
72.		Diseases of	Differentiate between	1	LGD	MCQ'S
		veins	thrombophlebitis and			
			Phlebothrombosis			
73.			Describe the etiology and clinical			
			features of varicose veins			
74.			Enlist the benign and malignant			
			tumors of the arteries and veins			
75.	Pharmacol	Antihypertens	Classify antihypertensive drugs	2	LGD	MCQ'S
76.	ogy	ive drugs	Discuss role of diuretics in the			
		-	management of hypertension			
77.			DiscusstheroleofACEinhibitors,Angi			
			otensinreceptor-blockingagents,			
			Renin inhibitor in hypertension			
78.			Explain the rationale for the use of	1		
			β-blockers, α-adrenoceptor			

				blocking agent, centrally acting sympatholytic drugs in			
				hypertension			
79.	-			Describethedirectvasodilators(mec	-		
				hanismofactionanddrugtoxicity)in			
				relation to antihypertensive drug			
				therapy			
80.							
				DescribetheroleofCalciumchannelbl			
				ockersinhypertension			
81.	General	Hypertens	sion	Define and classify hypertension	1	LGD	MCQ'S
	Medicine/						
	Cardiolog						
	У						
82.				Discuss drug treatment protocols			
				for hypertension			
83.				Describe the risk factors and			
04				complications of hypertension			
04.				Describe the management of			
				byportonsive emergencies and			
85.	Forensic	Cardiac		Classify Cardiac Poisons	1	I GD	MCQ's
86.	medicine	poisons		Describethecharacteristic.clinicalsi	1		and OSPE
				gns/symptoms,treatmentAndmedic			
				olegal aspects of cardiac			
				glycosides			
87.				Discusscardiaceffectsofmethylpheni			
				date,cocaineandIce			
	-				_		
88.				Describe the characteristic, clinical			
				signs/symptoms, treatment and			
00		Courselin	~	Develope severalize skills in	1	000	
69.		Counselin	g	professional life	I	SGD	MCQS
		51115					
	Anon			Thoma III: Shortnoss of broath			
	Dhuaistan	O a mallia a	0.4		4		M00'-
90.	Physiolog	Cardiac	Diag	ine major events in cardiac cycle.	I	LGD	MCQS
	У	cycle	DISC	nurs			
Q1	Pathology	Cong	Des	ribe the types, etiology	2		MCO's
51.	ratiology	estive	nath	ogenesis and clinical features of	2	LOD	MOQ 3
		boart	conc	restive heart failure			
		failuro	CON				
02	-	Cardiam	Deer	priho the Dathelegical	4		
52.		vonathia	Dea	natterns causes			
		s		morphological			

			Changes and clinical features of			
		0 1	Cardiomyopathies			
93.		Congenit	Describe the Etiology, Pathogenesis and			
		al heart	clinical features of Tetrology of Fallots,			
		diseases	ASD, VSD and pulmonary stenosis			
94.		Valvular	DescribetheEtiology,pathogenesisandclini			
		heart	calfeaturesofAorticstenosis,Aorticregurgita			
		diseases	tion,MitralstenosisandMitral			
			Regurgitation			
95.		Rheumati	Discuss pathophysiology and laboratory	1		MCQ's
		c fever	findings in rheumatic			and OSPE
			Fever			
96.		Rheumati	Discuss pathological changes and			
		c heart	morphology of rheumatic heart disease			
		disease				
97.		Thrombo	Describe the mechanism and			
		sis and	pathogenetic mechanisms of Vascular			
		Embolism	thrombosis			
98.			Enlist hypercoagulable states			
			Define embolism			
99.			Discuss types of embolism			
100.			Describe the etiology, pathogenesis,			
			morphology and clinical			
			Features of pulmonary embolism			
101.		Endocardi	Discuss Etiology, Pathogenesis,	1		MCQ's
		tis	Morphology, diagnostic criteria, Clinical			
			features and complications of infective			
400			Endocarditis			
102.			Discuss the types of non-infected			
102	Dharmaaal	Drugo	Vegetation	0		MCO'a
103.	Pharmacol	Drugs	Define the different classes of the drug	2	LGD	MCQS
104	ogy	used in	Explain the hearman logical			
104.		neart	explain the pharmacological			
		failure	offects and drug interactions of			
			digitalis glycosides			
105			Explain the signs symptoms and treatment			
100.			of diaoxin overdose			
106.			Enlist positive inotropic drugs			
			(other than digoxin) that are used in			
			heart failure			
107.			Classify the five major groups of diuretic	1		
			drugs and relate them to their site of			
			action			
108.			Discuss the mechanism of action,			
			clinical applications and adverse effects			
			of carbonicanhydrase enzyme			
			inhibitors, osmotic diuretics, thiazide			

			diuretics, loop diuretics and potassium			
			sparing diuretics			
109.			Enlist potassium sparing and potassium losing diuretics			
110.		-	Describe the effect of different classes of	2	LGD	
			antiarrhythmic drugs on membrane	-		
			potential of cardiomyocytes			
			Classify antiarrhythmic drugs			
111.	GeneralMed	Heart	Explain the mechanism of	1	LGD	MCQ's
	icine/Cardio	failure	action of all the classes of			and
	loav	landro	antiarrhythmic drugs			
112.			Discuss the adverse effects and clinical	-		USCES
			uses of anti arrhythmic drugs			
113.			Discuss work up and management of	-		
			pulmonary edema			
114.			Enlist and explain causes of heart failure			
115.			Describe workup and management of			
			heart failure			
116.		Disorders	Classify arrhythmias and heart blocks	1		MCQ's
		of heart				
		rate and				
		rhythm				
117.		,	Describe the etiology. ECG findings and	-		
			management of Atrial fibrillation			
			Discuss types, workup and			
			management of ventricular			
			arrhythmias			
118.		Pulmonary	Describe the etiology, clinical features and	1		MCQ's
		embolism	diagnostic workup of			
			Pulmonary embolism			
119.			Discuss risk stratification and			
			management of pulmonary			
			embolism			
120.		Myocarditi	Discuss cardiac causes of pulmonary	1		MCQ's
		S	hypertension and outline their			
		Pulmonary	management			
		hypertensi				
		on				
121.	1		Discuss causes and management of			
			myocarditis			
122.		Pericardial	Define and classify pericarditis	1		MCQ's
		diseases				
123.			Discuss clinical findings and treatment of			
			pericarditis			

124.	Pediatrics	Cyanotic and	Describe the etiology and management of pericardial effusion	1	LGD	MCQ's and OSCE
125.		Acyanotic congenial	Delineatethedifferencebetweentheacyanoti candcyanoticheartdiseaseconditions			
126.		heart disease	Enumerate the various defects, involving both conditions.			
127.		Rheumati	Describe the etiology of rheumatic fever	1		MCQ's
128.		c fever	Describe Duckett Johns criteria for diagnosis of RF			
129.	PRIME/MED ICALEDUC	SWOT Analysis	Discuss about primary and secondary prophylaxis of rheumatic heart disease	1	LGD	MCQ's
130.	ATION		Perform SWOT analysis for a particular task			

PRACTICAL ROTATION

S.No	Subjects	Topic's	Learning	Learning	Clinical
			Objectives	Modalities	Hours
1.	Pharmacolog y	Myocardial Infarction	Construct a prescription for a patient with Myocardial Infarction	LGD	1.5
2.		Hypertension	Construct a prescription for a patient with Hypertension	LGD	1.5
3.		Congestive Cardiac Failure	Construct a prescription for a patient with Congestive Cardiac Failure	LGD	1.5
4.	Pathology	Lipid Profile	Demonstrate Estimation of total cholesterol	LGD	1.5
5.		Hemangioma	Identify the morphological changes occurring in Hemangioma	Slide discussion and Interactive Lecture	1.5
6.	Forensic medicine	Cardiac toxins	Identify the following cardiogenic toxins: • Digitalis	LGD	1.5

	•	Cannabis	
	•	Heroin	

4. LEARNING METHODOLOGIES

- 1. Large Group Discussion (LGD)
- 2. Small Group Discussions (SGDs)
- 3. Case Based Discussions (CBDs)
- 4. Clinical Rotations
- 5. Self-Directed Learning (SDL)

4.1 Large Group Discussion

Large Group Discussion are different from conventional lectures. Lectures are made interactive when the teacher or instructor discusses the topic or common clinical scenario by using pictures, radiographs, videos of patient interaction etc. Students are actively involved in the learning process when they are asked questions, are given small tasks where they can apply knowledge gained during the session.

4.2 Small Group Discussions (SGDs)

SGD allows students to actively participate in learning process and enables them to clarify concepts and acquire psychomotor skills and attitude. Sessions are planned in a structured way by using clinical cases , patient interviews or discussion topics. Students are encouraged to share their concepts and are motivated to give opinions and apply basic knowledge gained from lectures and self study. Role play is an effective small group strategy to sensitize students with real life situations. Teacher asks ask probing questions, rephrase and summarize to help clear the concepts

4.3 Case- Based Discussions

Case-Based Discussion is a strategy in which learning is focused around a clinical scenario. List of questions is developed regarding the case under discussion and students are encouraged to discuss their ideas and answer the questions applying relevant basic or clinical knowledge acquired during the course. Usually, common clinical cases are selected for discussions.

4.4 Clinical Rotations

4.5 Self Directed Learning

Self-Directed Learning is process where student take initiative with or without the help of others. Students identify their learning needs and map out their

learning goals. They choose and follow learning strategies of their own choice and evaluate the learning outcomes by themselves.

5. OBJECTIVES & LEARNING STRATEGIES

Abbreviations & Acronyms

IL: Interactive Lectures SGD: Small Group Discussion MCQ: Multiple Choice Question SAQs: Short Answer Questions Demo: Demonstration

6. LEARNING RESOURCES

Sr. No	Subject	Text Books
1.	Community	1. Community Medicine by Park
	Medicine	2. Community Medicine by MIIIyas
		3. Basic Statistics for the Health Sciences by Jan W Kuzma

2.	Forensic	1. NasibR. Awan. Principles and practice of Forensic
	Medicine	Medicine 1st ed. 2002.
		2. Parikh, C.K. Parikh's Textbook of Medical
		Jurisprudence, Forensic Medicine and
		Toxicology.7thed.2005.
		3.Knight B. Simpson's Forensic Medicine. 11th ed.1993.
		4. KnightandPekka.Principlesofforensicmedicine.3rded.2004
		5. Krishan VIJ. Text book of forensic medicine and
1		toxicology (principles and practice). 4th ed.2007
		DikshitP.C. Text book of forensic medicine and toxicology. 1st ed. 2010
		 Polson.Polson'sEssentialofForensicMedicine.4thedition.2 010.
		8. Rao.Atlas of Forensic Medicine (latest edition).
		9. Rao.Practical Forensic Medicine 3rd ed ,2007.
		10. Knight: Jimpson's Forensic Medicine 10th 1991,11th ed.1993
		11. Taylor'sPrinciplesandPracticeofMedicalJurisprudence. 15thed.1999
3.	Pathology	1. Robbins&Cotran, Pathologic Basisof Disease, 9th edition.
		 RapidReview Pathology, 4th edition byEdward F. Goljan MD
4.	Pharmacol	1. LippincottIllustrated Pharmacology
	Jy	2. Basicand Clinical Pharmacology by Katzung
5.	Anatomy	K.L.Moore,ClinicallyOrientedAnatomy
		Reference Books
1.		
2.		

Additional Learning Resources

Hands on	Students will be involved in practical performance by						
	using models						
Skills Lab	Acquiring of skills in a simulated environment i.e. skills lab involving experiential learning ensures patient safety and confidence building in approaching and treating the patients.						
Videos	Students are encouraged to watch videos in order to familiarize theselves with the procedures and protocol which they can watch at any time as per their own convenience, as part of Self-Directed learning.						
Internet Resources	Students are encouraged to use accessible internet resources for clarity of their concepts and update their knowledge.						

7. ASSESSMENT METHODS

MCQs: Multiple Choice questions; Single best Type SAQs: Short Answer Questions OSPE/OSCE: Objective Structured Practical/Clinical examination DOPS: Directly Observed Procedural Skills Presentation: Quiz:

Multiple Choice Questions

- 1. Single best type MCQs having five options with one correct answer and four distracters are part of assessment.
- 2. Correct answer carries one mark, and incorrect will be marked zero.Rule of negative marking is not applicable.
- 3. Students mark their responses on specified computer-based sheet designed by Khyber Medical University.

Short Answer Questions

- 1. Short-answer questions are structured way of asking open-ended questions that require students to create their answers based on their knowledge.
- 2. Commonly used in examinations to assess the depth of knowledge and understanding.
- 3. SAQs will only be included in formative assessment.

Objective Structured Practical/Clinical Examination

- 1. Nine OSCE stations re used for formative as well as summative assessment.
- 2. Time allocated for each station is five minutes as per Examination rules of Khyber Medical University, Peshawar.
- 3. All students are rotated through the same stations.
- 4. Stations used areunobserved, observed, interactive and rest stations.
- 5. On unobserved stations, models, lab reports, radiographs, flowcharts, case scenarios may be used to assess cognitive domain.
- 6. On observed station, examiners don't interact with candidate and just observe the performance of skills /procedures.
- 7. On interactive station, examiner ask questions related to the task within the allocated time.
- 8. On rest station, students are not given any task. They just wait to move to the next station

Directly Observed Procedural Skills

The Direct observation of procedural skills (DOPS) is a tool used for workplacebased assessment. The aim of this strategy is to promote learning for students where teacher provides structured feedback on performance.

The purpose of the DOPS is to enable examiners to provide structured feedback. Few of the examples are: -

- 1. Communication skills
- 2. Demonstrate knowledge of procedure
- 3. Organisation, time management and documentation

Presentation

Students are given topics for presentation either individually or in groups. They are encouraged to prepare presentations on power point to enhance their understanding of the topic and IT Skills.

Quiz

To evaluate the knowledge of the students, well-tailored quiz is conducted.

8. INTERNAL ASSESSMENT CRITERIA

- 10% weightageof Internal Assessment in professional exam is policy of Khyber Medical University.
- The total marks for internal assessment in Paper I are12.
- 6 marks are given for theory and 6 marks for ospe.
- For theory portion, a block exam will be conducted at the end of block by the department. There will be a total of 120 MCQS in the exam each having one mark.
- These 120 marks would later on be converted to 6 marks.
- For ospe portion, an ospe will be conducted and there will be a total of 20 stations.
- These 20 station would have 12 ospe/osce stations and 8 viva stations each having 6 marks.
- Total Marks of the 20 stations i.e. 120 marks would be later converted to 6 marks.

Year	3 Professio	onal Ex	am in Syst	tem-based	d Curricul	um
Theory paper	Modules	Theory marks	Internal assessment theory (10%)	OSPE/OSPE	Internal assessment OSPE/OSPE (10%)	TOTAL MARKS
Paper G	Foundation-II	120	14	120	14	268
Paper H	Multisystem Blood MSK-II	120	13	120	14	267
Paper I	CVS-II Respiratory-II	120	13	120	12	265
тот	AL MARKS	360	40	360	40	800

Paper-I (CVS-II and Respiratory -II Module)

Subject	CVS-II	Respiratory - II	Total MCQs
Pharmacology	12	5	17
Pathology	20	22	42
Forensic medicine	4	9	13
Community medicine	2	6	8
ENT	0	6	6
PRIME	2	1	3
Research	1	1	2
Medicine	13	2	15
Pediatrics	3	5	8
Anatomy	1	1	2
Physiology	1	1	2
Biochemistry	1	1	2
Total	60	60	120

Table-6: OSPE

Subject	OSPE/OSCE	Viva stations	Total*
Pharmacology	5	2	7
Pathology	2	2	4
Forensic medicine	3	2	5
Community medicine	0	2	2
Medicine (history and physical examination)	1	0	1
Pediatrics (history and physical examination)	្ទា	0	12
Total	12	8	20

* A minimum of 20 stations will be used in final exams. Total marks will be 120 (6 marks for each station).

9. EXAMINATION RULES & REGULATIONS

- One class test of the subject will be held monthly, marks of which will be included in internal assessment. Marks for class test can vary according to syllabus and teachers' choice
- 2. One module and one Block exam will be taken after completion of module and block respectively.
- Pre-prof Exam comprising 120 MCQs will be conducted at the end of session before prep leaves.
- 4. The pattern of Pre-prof will be same as the Professional Exam taken by Khyber Medical University, Peshawar.
- 5. OSPE/OSCEs will be conducted at the end of block as well as pre-prof Exam.

Paper-I (CVS-II and Respiratory -II Module)

Subject	CVS-II	Respiratory - II	Total MCQs
Pharmacology	12	5	17
Pathology	20	22	42
Forensic medicine	4	9	13
Community medicine	2	6	8
ENT	0	6	6
PRIME	2	1	3
Research	1	1	2
Medicine	13	2	15
Pediatrics	3	5	8
Anatomy	1	1	2
Physiology	1	1	2
Biochemistry	1	1	2
Total	60	60	120

Table-5: MCQs

Table-6: OSPE

Subject	OSPE/OSCE	Viva stations	Total*
Pharmacology	5	2	7
Pathology	2	2	4
Forensic medicine	3	2	5
Community medicine	0	2	2
Medicine (history and physical examination)	1	0	1
Pediatrics (history and physical examination)	1	0	1
Total	12	8	20

* A minimum of 20 stations will be used in final exams. Total marks will be 120 (6 marks for each station).

11. FEEDBACK ON EXAMINATION

- 1. Students' feedback on assessment strategies will be taken in a preformed Performa for feedback after every i.e., block exam and pre-prof.
- 2. Feedback of theory as well as OSPE/OSCE & Viva will be taken.
- Department of Medical Education & Quality Enhancement Cell in collaboration with Exam Cell of AIMI is responsible to conduct this exercise.

12. ACADEMIC CALENDAR

ACADEMIC CALENDAR 2022-23 AIMC										
YEAR	MONTH	Mon	Tue	Wed	Thu	Fri	Sat	Sun	ACADEMIC EVENTS	PUBLIC HOLIDAYS
		5	6	7	1	2	3	4		20 th D
5	December	12	13	14	15	16	17	18	Institutional Management Committee (IMC) Meeting	25 December 2022 Quaid s Day
0		19	20	21	22	23	24	25		1
2		26	27	28	29	30	31		Commencement of Classes 2 ^{ne} Year MBBS	
~		2	3	4	5	6	7	1 8	Winter Vacations	
5		9	10	11	12	13	14	15		-
0	January	16	17	18	19	20	21	22		1
		23	24	25	26	27	28	29		4
		30	31	1	2	3	4	5		5 th February Kashmir Day
		6	7	8	9	10	11	12		
	February	13	14	15	16	17	18	19	Commentation of Classes (8) 211 411 8 First Vess MODE	
		20	21	22	23	24	20	20	Medical & Dental Examination 1 st year MBBS	
	6			1	2	3	4	5	modicul d Dontal Examination 1 For abbo	
		6	7	8	9	10	11	12]
	March	13	14	15	16	17	18	19		Debleme Dev 20 19 Manuals
		27	28	29	30	31	2.5	20		Pakisian Day 23 march
>				-		100.00	1	2	Exam Block N Final Year MBBS *	
Ŧ		3	4	5	6	7	8	9	Exam Block D 2 ^{rt} Year MBBS Theory & OSPE *	-
6	April	10	11	12	13	14	15	16	Exam Block A 1 st Year MBBS Theory & OSPE *	1
Ē		17	18	19	20	21	22	23	Exam Block G 3 rd Year MBBS Theory & OSPE *	
Ē		24	25	26	27	28	29	30	Exam Block J 4 th Year MBBS*	Eid ul Fitar 17 th to 29 th April
2		8	9	10	11	12	13	14	International Thalassaemia Dav	1 - May Labor Day
-	May	15	16	17	18	19	20	21	Exam Block E 2 nd Year MBBS *]
		22	23	24	25	26	27	28		
Ĕ		29	30	31	1	2	3	4	World No Tobacco Day Spring Festival	
e		5	6	7	8	9	10	11	Institutional Management Committee (IMC) Meeting	
0	June	12	13	14	15	16	17	18	World Blood Donor Day	
Ē		19	20	21	22	23	24	25	Exam Block O Final Year MBBS *	Eld al Arbs 2018 June to 181 July
5		20		20	-7	30	1	2	Exam Block B 1* Year MBBS *	
D D		3	4	5	6	7	8	9	Exam Block C 1 st Year MBBS *	1
t,	July	10	11	12	13	14	15	22	Exam Block F 2** Year MBBS *	
e e		24	18	26	20	21	29	30	Sports Week	Aashura
ž		31								
ø			1	2	3	4	5	6	Exam Block H 3rd Year MBBS *	
te	August	7	8	9	10	11	12	13	Exam Block K 4" Year MBBS *	14 th August National Day
L E	August	21	22	23	24	25	26	27		14 Magdan Relation Day
		28	29	30	31					
		4	5	6	7	1	2	3	Exam Block I Exam 3 rd Year MBBS *	
ŭ	Sentember	4	12	13	14	15	16	17		
Ē	September	18	19	20	21	22	23	24	Exam Block L Final Year MBBS *	
5		25	26	27	28	29	30		Exam Block P Final Year MBBS *	27th September Eid Milad-ul-Nabi
1								1		
5		2	3	4	5	6	7	8	Exam Block M1, M2 4 th Year MBBS*	
Ë	October	16	10	11	12	20	21	15		-
3		23	24	25	26	27	28	29		
0		30	31						Breast Cancer Awareness Day	
		6	7	1	2	3	4	5		1
	November	13	14	15	16	17	18	19		
		20	21	22	23	24	25	26	Exam Block Q Final Year MBBS *	1
		27	28	29	30	1	2	3	World AIDS Day	
		4	5	6	7	8	9	10	Wond AIDs Day	
	December	11	12	13	14	15	16	17	Institutional Management Committee (IMC) Meeting	
		18	19	20	21	22	23	24	* Exact Dates for all the block exams will be announced later	
		25	26	27	28	29	30	31		25 th December Quaid's Day

More than 75% attendance is mandatory as per Khyber Medical University Examination policy to sit in the pre-prof and Final Professional Examination

In case of Medical Leave or any other unforeseen situation, refer to Exam Policy.

13. MODEL QUSETIONS

Multiple Choice Questions

Question: Diatoms in bone marrow are seen in death due to :

- A. CO poisoning
- **B.** Drowning
- C. Electrocution
- D. Overlying
- E. Strangulation

KEY : B

OSCE

STATION

- Name the poison ?
- Mention its active substance?
- Enlist the symptoms the patient will present after ingestion of the poison?
- What is the antidote of the poison ?
- What are the post mortem changes seen after the death of the patient due to this poison ?