

# AYUB MEDICAL COLLEGE ABBOTTABAD

DEPARTMENT OF MEDICAL EDUCATION



## CARDIOVASCULAR SYSTEM II MODULE

**3<sup>RD</sup> YEAR MBBS**

**BLOCK: I**

**DURATION: 4 WEEKS**

**SESSION: 2023**

**STUDENT NAME**

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**DISCLAIMER**

- Developing a study guide is a dynamic process and undergoes iteration according to the needs and priorities.
- This study guide is subjected to the change and modification over the whole academic year.
  - However, students are advised to use it as a guide for respective modules.
- It is to declare that the learning objectives (general and specific) and the distribution of assessment tools (both theory and practical) are obtained from Khyber Medical University, Peshawar. These can be obtained from:  
<https://kmu.edu.pk/examination/guidelines>
- The time tables are for guiding purpose. It is to advise that final timetables are always displayed over the notice boards of each lecture hall.
  - Students are encouraged to provide feedback via coordinator.

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## 1 Module Committee:

s.no	Name	Department	Role
1.	Prof. Dr. Umar Farooq		CEO & Dean
2.	Prof. Dr. Irfan U. Khattak		Director DME
<b>Module Team</b>			
3.	Dr. Salma Shazia.	Forensic medicine	Module Coordinator
4.	Dr. Anila Riyaz	Pathology	Member
5.	Dr. Foziya Jahangir.	Pathology.	Member
6.	Dr. Haq Nawaz	Pharmacology.	Member
7.	Dr. Fahim	Pharmacology.	Member
8.	Dr. Zainab Nazneen	Community medicine.	Member
9.	Dr. Rashid Ali	Medicine.	Member
10.	Dr. Saima Bibi.	Pediatrics.	Member
11.	Dr. Imran Shah	ENT.	Member
12.	Dr. Humera.	Anatomy	Member
13.	Dr. Sarwat Abbasi.	Biochemistry.	Member
14.	Dr. Sehar	Physiology.	Member
15.	Miss Ayesha Saleem	PRIME.	Member

## 2 What Is A Study Guide?

It is an aid to Inform students how student learning program of the module has been organized, to help students organize and manage their studies throughout the module and guide students on assessment methods, rules and regulations.

### 2.1 The study guide:

- Communicates information on organization and management of the module.
- This will help the student to contact the right person in case of any difficulty.
- Defines the objectives which are expected to be achieved at the end of the module.
- Identifies the learning strategies such as lectures, small group teachings.

### 2.2 Module objectives.

- Provides a list of learning resources such as books, computer-assisted learning programs, weblinks, and journals, for students to consult in order to maximize their learning.
- Highlights information on the contribution of continuous on the student's overall performance.
- Includes information on the assessment methods that will be held to determine every student's performance.

### 2.3 Achievement of objectives.

- ▶ Focuses on information pertaining to examination policy, rules and regulations.



### 3 Recommended ListOf Icons



**Introduction To Case**



**For Objectives**



**Critical Questions**



**Assessment**



## Resource Material

## 4 Organization of Module

### 4.1 Introduction:

This module is based on the cardiovascular system. It starts with the basics from anatomy, physiology, biochemistry, followed by the pathological changes, sign and symptoms, treatment, prevention and medicolegal implications. It improves professionalism, self-management and communication skills among the students of 3<sup>rd</sup> year MBBS.

### 4.2 Rational:

After studying this module a student would be able to know about the basic anatomy, physiology and biochemistry of the heart and its related structures which will help them in identifying various diseases related to the CVS in adults and children, their treatment and prevention.





## 5 Learning Objectives

### 5.1 General Learning Outcomes

By the end of this module the students would be able to;

**Knowledge:** To have basic and clinical knowledge along with practical skills to the 3<sup>rd</sup> year MBBS students. The module is aligned to the general outcomes required at the exit level, and includes sessions on pathological mechanisms, preventive medicine, pharmacological aspects, communication skills, professionalism, self-management, medicolegal aspects, clinical application of knowledge and skills. The purpose is to facilitate the student learning.

#### Themes

S. No.	Theme Title	Week No.
Theme 1	Chest Pain	2 (1)
Theme 2	blood pressure	1
Theme 3	Shortness of breath	2 (1)

### 5.2 Specific learning Objectives

Theme 1 (Chest pain)				
Subjects	Topics	Los	MI T	No. of hrs
Anatomy	Gross anatomy of heart, valves and coronary arteries	Describe surface anatomy of the heart and heart valves	LGF	1
		Describe the anatomy of coronary circulation		
		Enumerate heart valves and describe their gross morphology		

<b>Biochemistry</b>	<b>Lipoproteins and cholesterol</b>	Classify and Describe types of lipoproteins	LGF	1
		Summarize cholesterol synthesis		
<b>Pathology</b>	<b>Atherosclerosis</b>	Discuss the risk factors, Morphology, pathological changes and consequences of Atherosclerotic plaque	LGF	1
		<b>Ischemia and infarction</b>		
		Discuss Classification and pathophysiology of ischemic heart disease		
		Discuss pathophysiology of myocardial infarction		
<b>Pharmacology</b>	<b>Antianginal drugs</b>	Classify antianginal drugs	LGF	2
		Explain mechanism of action, pharmacokinetics and adverse effects of organic nitrates and calcium channel blockers		
		Explain the rationale for use of $\beta$ -adrenergic blockers and sodium channel blocker in the management of angina pectoris		
	<b>Lipid lowering drugs</b>	Briefly describe the types of dyslipidemias	LGF	2
		List the lipid lowering drug classes		
		Explain the mechanism of action, effect on serum lipid profile and adverse effects of each of the five drug classes		
		Discuss drug-drug interaction of lipid lowering drugs		
	<b>Anticoagulant drugs</b>	Classify anticoagulant drugs	LGF	2
		Discuss mechanism of action, uses of Unfractionated heparin		
		Compare low molecular weight and unfractionated heparin		
Describe adverse effects of heparin and treatment of heparin overdose				
Describe mechanism of action and uses of direct Xa and IIa				

		inhibitors		
		Describe mechanism of action and uses of warfarin		
		Describe adverse effects of warfarin and treatment of warfarin overdose		
		Compare heparin and warfarin in terms of mechanism and onset of action		
		Explain monitoring of anticoagulant therapy		
		Describe important diet and drug interactions of warfarin		
	<b>Antiplatelet and thrombolytic drugs</b>	Classify antiplatelet drugs	LGF	1
		List indications of antiplatelet therapy		
		Explain the mechanism of action and adverse effects of each antiplatelet drug group		
		Name thrombolytic drugs and explain their mechanism of action, uses and adverse effects		
<b>Forensic Medicine</b>	<b>Chest trauma</b>	Describe heart injuries caused by regional injuries	LGF	1
		Discuss chest wall injuries in general		
		Enumerate the complications of rib fracture		
	<b>Sudden death</b>	Define sudden death	LGF	1
Explain the causes of sudden death				
Describe autopsy findings in sudden death				
		Describe the medicolegal importance of sudden death		
<b>Community Medicine</b>	<b>Non-communicable diseases:</b>	Define Cardiovascular disease (CVD)	LGF	1
		<b>Cardiovascular diseases of public health importance</b>	Elaborate the concept of CVD risk stratification	
		Describe the epidemiology of cardiovascular diseases and explain cardiovascular diseases of Public Health importance globally and in Pakistan		

		Explain the known risk factors of CVD and cultural, racial and gender difference in CVD prevalence and incidence		
	<b>Hypertension</b>	Describe the epidemiology of hypertension and its public Health importance globally and in Pakistan	LGF	1
<b>General Medicine/Cardiology</b>	<b>Coronary Heart disease</b>	Discuss CAD risk factors and strategies to reduce them	LGF	1
		Discuss strategies for primary and secondary prevention of CHD in outpatient setting		
		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		
	<b>Acute coronary syndrome</b>	Define Acute coronary syndrome	LGF	1
		Explain the spectrum of illness in ACS and relevant management steps		
		Describe the clinical features and steps of the management of Myocardial infarction		
Describe risk stratification in myocardial infarction				
	Describe complications of acute MI			
<b>Hypertrophic cardiomyopathy</b>	Discuss clinical features, imaging protocols, risk stratification and short/long-term management of hypertrophic Cardiomyopathy			
<b>PRIME/MEDICAL EDUCATION</b>	<b>Informed consent</b>	Obtaining informed consent from a patient before an invasive procedure	LGF	2
<b>Theme II: Blood pressure</b>				
<b>Pathology</b>	<b>Blood pressure</b>	Describe the mechanisms of blood	LGF	1

		pressure regulation Classify shock		
	<b>Hypertension</b>	Describe the causes, Pathogenesis, morphology and complications of Hypertension		
	<b>Shock</b>	Describe the pathophysiology and types of shock	LGF	1
		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		
	<b>Aneurisms</b>	Discuss pathophysiology of hypertension in pregnancy	LGF	1
		Describe the etiology, morphology and manifestations of vascular aneurisms		
		Describe the causes, Pathogenesis and types of Aortic Aneurysm		
	<b>Aortic dissection</b>	Describe the pathogenesis, morphology and clinical features of Aortic Dissection		
	<b>Vasculitis</b>	Define vasculitis	LGF	1
		Classify vasculitides		
		Describe the immunological mechanisms of non-infectious vasculitis		
		Describe the morphology and clinical features of Giant cell arteritis		
		Describe the morphology and clinical features of Takayasu arteritis		

		Describe the morphology and clinical features of Polyarteritis nodosa		
		Describe the morphology and clinical features of Kawasaki disease		
		Describe the morphology, serological markers and clinical features of Wegener granulomatosis		
		Describe the morphology and clinical features of Thromboangitis obliterans		
	<b>Diseases of veins</b>	Differentiate between thrombophlebitis and Phlebothrombosis		
		Describe the etiology and clinical features of varicose veins		
		Enlist the benign and malignant tumors of the arteries and veins		
<b>Pharmacology</b>	<b>Antihypertensive drugs</b>	Classify antihypertensive drugs	LGF	5
		Discuss role of diuretics in the management of hypertension		
		Discuss the role of ACE inhibitors, Angiotensin receptor-blocking agents, Renin inhibitor in hypertension		
		Explain the rationale for the use of $\beta$ -blockers, $\alpha$ -adrenoceptor blocking agent, centrally acting sympatholytic drugs in Hypertension		
		Describe the direct vasodilators (mechanism of action and drug toxicity) in relation to antihypertensive drug therapy		
		Describe the role of Calcium channel blockers in hypertension		
<b>General Medicine/Cardiology</b>	<b>Hypertension</b>	Define and classify hypertension	LGF	1
		Discuss drug treatment protocols for hypertension		
		Describe the risk factors and		

		complications of hypertension		
		Describe the management of hypertensive emergencies and Urgencies		
<b>Forensic medicine</b>	<b>Cardiac poisons</b>	Classify Cardiac Poisons	LGF	2
		Describe the characteristic, clinical signs/symptoms, treatment and medicolegal aspects of cardiac glycosides		
		Discuss cardiac effects of methylphenidate, cocaine and Ice		
		Describe the characteristic, clinical signs/symptoms, treatment and medico legal aspects of Oleander		
<b>PRIME/MEDICAL EDUCATION</b>	<b>Counselling skills</b>	Develops counselling skills in professional life	LGF	2
<b>Theme III: Shortness of breath</b>				
<b>Physiology</b>	<b>Cardiac cycle</b>	Outline major events in cardiac cycle	LGF	1
		Discuss physiology of heart sounds and murmurs		
<b>Pathology</b>	<b>Congestive heart failure</b>	Describe the types, etiology, pathogenesis, and clinical features of congestive heart failure	LGF	1
	<b>Cardiomyopathies</b>	Describe the Pathological patterns, causes, morphological changes and clinical features of Cardiomyopathies	LGF	1
	<b>Congenital heart diseases</b>	Describe the Etiology, Pathogenesis and clinical features of Tetralogy of Fallots, ASD, VSD and pulmonary stenosis	LGF	1
	<b>Valvular heart diseases</b>	Describe the Etiology, pathogenesis and clinical features of Aortic stenosis, Aortic regurgitation, Mitral stenosis and Mitral Regurgitation	LGF	1
	<b>Rheumatic fever</b>	Discuss pathophysiology and laboratory findings in rheumatic Fever	LGF	1

	<b>Rheumatic heart disease</b>	Discuss pathological changes and morphology of rheumatic heart disease		
	<b>Thrombosis and Embolism</b>	Describe the mechanism and pathogenetic mechanisms of vascular thrombosis	LGF	1
		Enlist hypercoagulable states		
		Define embolism		
		Discuss types of embolism		
		Describe the etiology, pathogenesis, morphology and clinical features of pulmonary embolism		
	<b>Endocarditis</b>	Discuss Etiology, Pathogenesis, Morphology, diagnostic criteria, clinical features and complications of infective endocarditis	LGF	1
		Discuss the types of non-infected vegetation		
<b>Pharmacology</b>	<b>Drugs used in heart failure</b>	Define the different classes of the drug used in the treatment of heart failure	LGF	2
		Explain the pharmacological effects, clinical uses, adverse effects and drug interactions of digitalis glycosides		
		Explain the signs symptoms and treatment of digoxin overdose		
		Enlist positive inotropic drugs (other than digoxin) that are used in heart failure		
		Classify the five major groups of diuretic drugs and relate them to their site of action		
		Discuss the mechanism of action, clinical applications and adverse effects of carbonic anhydrase enzyme inhibitors, osmotic diuretics, thiazide diuretics, loop diuretics and potassium sparing diuretics		
		Enlist potassium sparing and potassium losing diuretics		
	<b>Antiarrhythmi</b>	Classify antiarrhythmic drugs	LGF	2



	<b>c drugs</b>	Describe the effect of different classes of antiarrhythmic drugs on membrane potential of cardiomyocytes		
		Explain the mechanism of action of all the classes of antiarrhythmic drugs		
		Discuss the adverse effects and clinical uses of antiarrhythmic drugs		
		Discuss workup and management of pulmonary edema		
<b>General Medicine/Cardiology</b>	<b>Heart failure</b>	Enlist and explain causes of heart failure	LGF	1
		Describe workup and management of heart failure		
	<b>Disorders of heart rate and rhythm</b>	Classify arrhythmias and heart blocks	LGF	1
		Describe the etiology, ECG findings and management of Atrial fibrillation		
		Discuss types, workup and management of ventricular arrhythmias		
	<b>Pulmonary embolism</b>	Describe the etiology, clinical features and diagnostic workup of pulmonary embolism	LGF	1
		Discuss risk stratification and management of pulmonary embolism		
	<b>Pulmonary hypertension</b>	Discuss cardiac causes of pulmonary hypertension and outline their management		
	<b>Myocarditis</b>	Discuss causes and management of myocarditis		
	<b>Pericardial diseases</b>	Define and classify pericarditis		
Discuss clinical findings and treatment of pericarditis				
Describe the etiology and management of pericardial effusion				
<b>Pediatrics</b>	<b>Cyanotic and acyanotic congenital heart disease</b>	Delineate the difference between the acyanotic and cyanotic heart disease conditions	LGF	1
		Enumerate the various defects, involving both conditions		
	<b>Rheumatic fever</b>	Describe the etiology of rheumatic	LGF	1

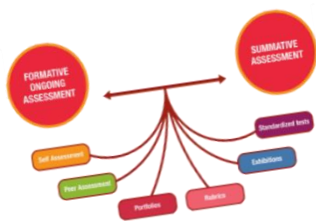
		fever		
		Describe Duckett Johns criteria for diagnosis of RF		
		Discuss about primary and secondary prophylaxis of rheumatic heart disease		
<b>PRIME/MEDICAL EDUCATION</b>	<b>SWOT Analysis</b>	Perform SWOT analysis for a particular task	LGF	1

Practical/ Small Group Discussions			
Subjects	Topics	Hours	Los
Pharmacology	Myocardial Infarction	02	Construct a prescription for a patient with Myocardial Infarction
	Hypertension	02	Construct a prescription for a patient with Hypertension
	Congestive Cardiac Failure	02	Construct a prescription for a patient with Congestive Cardiac Failure
Pathology	Lipid Profile	02	Demonstrate Estimation of total cholesterol
	Hemangioma	02	Identify the morphological changes occurring in hemangioma
Forensic medicine	Cardiac toxins	02	Identify the following cardiogenic toxins: <ul style="list-style-type: none"> <li>• Digitalis</li> <li>• Cannabis</li> <li>• Heroin</li> </ul>

MIT:mode of information transfer. E.g. lecture, SGD, DSL, Practical, skill lab etc

S. No	Subject	Hours needed
1.	Anatomy	01
2.	Physiology	01
3.	Biochemistry	01
4.	Pathology	13
5.	Pharmacology	16

6.	Forensic medicine	04
7.	Community medicine	02
8.	General medicine / cardiology	06
9.	Pediatrics	02
10.	PRIME/MEDICAL EDUCATION	05
	<b>Total</b>	
	<b>Practicals</b>	
	<b>Pharmacology</b>	<b>06</b>
	<b>Forensic Medicine</b>	<b>02</b>
	<b>Pathology</b>	<b>04</b>



## 6 Examination and Methods of Assessment:

The year-3 will be assessed in 3 blocks.

- 1) Block-1 (Foundation 2 and Infection and Inflammation modules) will be assessed in **paper-G**.
- 2) Block-2 (Multisystem, blood and MSK modules) will be assessed in **paper-H**.
- 3) Block-3 (CVS and Respiratory module) will be assessed in **paper-I**.
- 4) Each written paper consists of 120 MCQs.
- 5) Internal assessment will be added to final marks in KMU.
- 6) In OSPE, each station will be allotted 6 marks, and a total of 120 (+10% mark of internal assessment) marks are allocated for each OSPE/OSCE examination.
- 7) Practical assessment will be in the form of OSPE/OSCE which will also include embedded viva stations. The details of each section are given in the tables given below.

**Table-1: Total Marks Distribution 3<sup>rd</sup> Year MBBS**

<b>Assessment Plan of 3<sup>rd</sup> Year MBBS</b>						
<b>Theory paper</b>	<b>Modules</b>	<b>Theory marks</b>	<b>Internal assessment theory (10%)</b>	<b>OSPE/OSPE</b>	<b>Internal assessment OSPE/OSPE(10%)</b>	<b>Total Marks</b>
Paper G	Foundation-II	120	14	120	14	268
	Inf.&Inflamm.I					
Paper H	Multisystem I Blood II MSK-II	120	13	120	14	267
Paper I	CVS-II	120	13	120	12	265
	Respiratory-II					
<b>Total Marks</b>		360	40	360	40	800

## Paper-I (CVS and Respiratory Module)

### MCQs

Subject	CVS	Respiratory module	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)	1	0	1
Total	12	8	20

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



## 7 Learning Opportunities and Resources

### 7.1 Books:

#### 1. ANATOMY:

- K.L. Moore, Clinically Oriented Anatomy
- Snell's regional anatomy.
- R J Last.

#### 2. PHYSIOLOGY:

- Guyton.
- Hall ganong.

#### 3. Biochemistry: text books of :

- Harper.
- Lipponcott.
- Chatterjee.

#### 4. Pharmacology.

- Goodman and Gillman's, 13<sup>th</sup> edition.
- Katzung pharmacology. 14<sup>th</sup> edition.
- Kripathi 8<sup>th</sup> edition.
- Lipponcott. 6<sup>th</sup> edition.

#### 5. Forensic medicine and toxicology.

- Nasib R. Awan. Principles and practice of Forensic Medicine 1st ed. 2002.
- Parikh, C.K. Parikh's Textbook of Medical Jurisprudence, Forensic Medicine and Toxicology. 7<sup>th</sup> ed. 2005.
- Knight B. Simpson's Forensic Medicine. 11<sup>th</sup> ed. 1993.
- Knight and Pekka. Principles of forensic medicine. 3<sup>rd</sup> ed. 2004
- Krishan VIJ. Text book of forensic medicine and toxicology (principles and practice). 4<sup>th</sup> ed. 2007
- Dikshit P.C. Text book of forensic medicine and toxicology. 1<sup>st</sup> ed. 2010
- Polson. Polson's Essential of Forensic Medicine. 4<sup>th</sup> edition. 2010.
  - Rao. Atlas of Forensic Medicine (latest edition).

#### 6. Pathology.

- Robbins Basic Pathology

#### 7. Community medicine.

- Community Medicine by Parikh
- Community Medicine by M Illyas
- Basic Statistics for the Health Sciences by Jan W Kuzma
- Park K. Park's textbook for preventive and social medicine. 23<sup>rd</sup> ed. Bhanot publishers: Jabalpur; 2015

#### 8. Medicine.

- Davidson's Principles and practice of medicine.
- Kumar and Clarks, clinical medicine.

#### 9. Ent.

- Logan Turner's Diseases of Nose, Throat and ear. 10<sup>th</sup> edition.
- Diseases of ear, nose and throat and head and neck surgery, 7<sup>th</sup> edition by Dhingra.
- Oxford handbook of ENT and Head and Neck surgery 3<sup>RD</sup> Edition.

#### 10. Pediatrics

- Nelson's Textbook of pediatrics.

### 7.2 Website:

#### Community medicine.

**Link for free download PDF:**[https://medicalstudyzone.com/download-parks-textbook-of-preventive-and-social-medicine-25th-edition-pdf-free/#Download\\_Park8217s\\_Textbook\\_of\\_Preventive\\_and\\_Social\\_Medicine\\_PDF\\_free](https://medicalstudyzone.com/download-parks-textbook-of-preventive-and-social-medicine-25th-edition-pdf-free/#Download_Park8217s_Textbook_of_Preventive_and_Social_Medicine_PDF_free)

1. Ansari I. Textbook of Communtiy Medicine
2. WHO link for COVID 19: [https://www.who.int/emergencies/diseases/novel-coronavirus-2019?adgroupsurvey={adgroupsurvey}&gclid=Cj0KCQiA5OuNBhCRARIsACgaiqWRf0GVqPOJh4TfnsKjoLx9pTR0ThMqVVQl1eFaZWA2vxooqACgdMwaAtcmEALw\\_wcB](https://www.who.int/emergencies/diseases/novel-coronavirus-2019?adgroupsurvey={adgroupsurvey}&gclid=Cj0KCQiA5OuNBhCRARIsACgaiqWRf0GVqPOJh4TfnsKjoLx9pTR0ThMqVVQl1eFaZWA2vxooqACgdMwaAtcmEALw_wcB)
3. McIntosh K. <https://www.uptodate.com/contents/covid-19-epidemiology-virology-and-prevention>

#### FORENSIC MEDICINE.

- <https://worldofmedicalsaviours.com/textbook-of-forensic-medicine-and-toxicology-by-nagesh-kumar-rao-pdf-free-download/>



## 8 Timetables

**AYUB MEDICAL COLLEGE, ABBOTTABAD**  
Department of Medical Education  
Class Session 2023  
**CVS II, Week 01: Theme 01 (Chest Pain)**

Days/ Date	8 – 9 AM	9 – 10 AM	10 – 11 AM	11 AM – 12 PM	12 – 12.45 PM	PRACTICAL	
						1:15 – 2 PM	2 – 3 PM
<b>Mon</b>	Gross Anatomy of heart, valves & coronary arteries <b>Anatomy L1 (LH-3)</b> Dr. Gul-e-Shahwar	<b>Events in cardiac cycle &amp; physiology of heart sounds &amp; murmurs</b> <b>Physiology L-1</b> Dr. Muhammad Orakzai	<b>HOSPITAL/CLINICAL TEACHING</b>		Lipoproteins & Cholesterol <b>Biochemistry L1 (LH-3)</b> Dr. Asma Rafique	<b>A: Pathology</b> <b>B: Forensic Medicine</b> <b>C: Pharmacology</b> <b>D: Community Medicine</b>	
<b>Tue</b>	Chest trauma <b>Forensic Medicine L1 (LH-3)</b> Dr. Salma shazia	Atherosclerosis <b>Pathology L1 (LH-3)</b> Dr. Shabana	<b>HOSPITAL/CLINICAL TEACHING</b>		Antianginal drugs <b>Pharmacology L1 (LH-3)</b> Dr. Wajid Ali	<b>A: Community Medicine</b> <b>B: Pathology</b> <b>C: Forensic Medicine</b> <b>D: Pharmacology</b>	
<b>Wed</b>	Antianginal drugs <b>Pharmacology L2 (LH-3)</b> Dr. Wajid Ali	Anticoagulant drugs <b>Pharmacology L3 (LH-3)</b> Prof. Sumbal Tariq	<b>HOSPITAL/CLINICAL TEACHING</b>		Anticoagulants drugs <b>Pharmacology L4 (LH-3)</b> Prof. Sumbal Tariq	Communication/ counselling skills <b>PRIME (Surgery) L1, (LH-3)</b> Dr. Firdos	SDL
<b>Thurs</b>	<b>PRACTICAL</b> <b>A. Pharmacology</b> <b>B. Community Medicine</b> <b>C. Pathology</b> <b>Forensic Medicine</b>		<b>HOSPITAL/CLINICAL TEACHING</b>		Antiplatelet & Thrombolytic drugs <b>Pharmacology L5 (LH-3)</b> Prof. Sumbal Tariq	Informed Consent <b>PRIME (Surgery) L2, (LH-3)</b> Dr. Yousaf	Lipid lowering drugs <b>Pharmacology L6, (LH-3)</b> Dr. Faheem
<b>Fri</b>	<b>PRACTICAL</b> <b>A. Forensic Medicine</b> <b>B. Pharmacology</b> <b>C. Community Medicine</b> <b>D. Pathology</b>		Lipid lowering drugs <b>Pharmacology L7 (LH-3)</b> Dr. Faheem	Coronary Heart Disease <b>Medicine L1 (LH-3)</b> Dr. Fakhar	Acute Coronary syndrome <b>Medicine L2 (LH-3)</b> Dr. Salim Awan	<b>12:45 – 1:30</b>	<b>1:30 – 3:00</b>
						<b>Jumma Prayer</b>	SDL

**Practical Detail:**

Pharmacology: Construct a prescription for a patient with myocardial infarction

Pathology: Lipid profile

Forensic Medicine: Identify the following cardiogenic toxins : digitalis, oleander, cannabis, heroin

Community Medicine: copy checking, practice session, research

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 Module Coordinator

**AYUB MEDICAL COLLEGE, ABBOTTABAD**  
 Department of Medical Education  
 Class Session 2023  
**CVS II, Week 02: Theme 02 (Blood Pressure)**

Days / Date	8 – 9 AM	9 – 10 AM	10 – 11 AM	11 AM – 12 PM	12 – 12.45 PM	12:45 -1:15	PRACTICAL	
							1:15 – 2 PM	2 – 3 PM
Mon	Cardiovascular diseases of public health importance <b>Community Medicine L1</b> (LH-3) Dr. Awais	Sudden death <b>Forensic Medicine L2</b> (LH-3) Dr. Omair	<b>HOSPITAL/CLINICAL TEACHING</b>		Ischemia & infarction <b>Pathology L2,</b> (LH-3) Dr. Fozia	<b>PRAYER BREAK</b>	<b>A: Pathology</b> <b>B: Forensic Medicine</b> <b>C: Pharmacology</b> <b>D: Community Medicine</b>	
Tue	Blood pressure & hypertension <b>Pathology L3</b> (LH-3) Dr. Shabana	Antihypertensive drugs <b>Pharmacology L8</b> (LH-3) Dr. Adeel Alam	<b>HOSPITAL/CLINICAL TEACHING</b>		shock <b>Pathology L4,</b> (LH-3) Dr. Fozia		<b>A: Community Medicine</b> <b>B: Pathology</b> <b>C: Forensic Medicine</b> <b>D: Pharmacology</b>	
Wed	<b>Hypertension + Hypertrophic cardiomyopathy</b> <b>Medicine L3</b> (LH-3) Dr. Fakhar	Cardiac Poisons <b>Forensic Medicine L3</b> (LH-3) Dr. Sadia Habiba	<b>HOSPITAL/CLINICAL TEACHING</b>		Antihypertensive drugs <b>Pharmacology L9</b> (LH-3) Dr. Adeel Alam		<b>H-BLOCK EXAM</b>	
Thurs	<b>A. Pharmacology</b> <b>B. Community Medicine</b> <b>C. Pathology</b> <b>Forensic Medicine</b>		<b>HOSPITAL/CLINICAL TEACHING</b>		<b>Aneurysms &amp; aortic dissection</b> <b>Pathology L5</b> (LH-3) Dr. Fozia		Positive attitude process <b>PRIME (Surgery)</b> <b>L3</b> (LH-3) Dr. Fazale Junaid	SDL
Fri	<b>PRACTICAL</b> <b>A. Forensic Medicine</b> <b>B. Pharmacology</b> <b>C. Community Medicine</b> <b>D. Pathology</b>		Vasculitis, disease of veins <b>Pathology L6</b> (LH-3) Dr. Shabana	Antihypertensive drugs <b>Pharmacology L10</b> (LH-3) Dr. Adeel Alam	Cardiac Poisons <b>Forensic Medicine L4</b> (LH-3) Dr. Sadia Habiba		12:45 – 1:30 <b>JUMMA PRAYER</b>	1:30 – 3:00 SDL

**Practical Detail:**

Pharmacy: :Construct a prescription for a patient with angina pectoris

Pathology: Malaria

Forensic Medicine: Thanatology) + Injuries

Community Medicine: BHU + EPI center

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 Module Coordinator

**AYUB MEDICAL COLLEGE, ABBOTTABAD**

Department of Medical Education

Class Session 2023

**CVS II, Week 03: Theme 03 (Shortness of Breath)**

Days / Date	8 – 9 AM	9:00 – 10:00	10:00 – 11:00	11:00 – 12:00	12:00 – 12:45	12:45 -1:15	PRACTICAL	
							1:15 – 2:00	2:00 – 3:00
<b>Mon</b>	GANTT Chart Community Medicine L4 PRIME (LH-3) Dr. Rizwana	SWOT Analysis PRIME (C.Med)-L5 (LH-3) Dr. Sobia	HOSPITAL/CLINICAL TEACHING		Congestive heart failure Pathology L7 (LH-3) Dr. Fozia	PRAYER BREAK	A: Pathology B: Forensic Medicine C: Pharmacology D: Community Medicine	
<b>Tue</b>	Cyanotic & cyanotic congenital heart disease Peads-L1 (LH-3) Dr. Saima Bibi	Cardiomyopathies Pathology L8 (LH-3) Dr. Fozia	HOSPITAL/CLINICAL TEACHING		Drugs for heart failure Pharmacology L-11 (LH-3) Prof. Sumbal Tariq		A: Community Medicine B. Pathology C: Forensic Medicine D: Pharmacology	
<b>Wed</b>	Congenital heart disease Pathology L-9 (LH-3) Dr. Shabana	Valvular heart disease Pathology L-10 (LH-3) Dr. Shabana	HOSPITAL/CLINICAL TEACHING		Drugs for heart failure Pharmacology L12 (LH-3) Prof. Sumbal Tariq		Heart Failure Medicine L4 (LH-3) Dr. Nighat Jamal	SDL
<b>Thurs</b>	Pharmacology Community Medicine Pathology Forensic Medicine		HOSPITAL/CLINICAL TEACHING		Diuretics Pharmacology L-13 (LH-3) Dr. azfar kamal		Diuretics Pharmacology L-14 (LH-3) Dr. azfar kamal	SDL
<b>Fri</b>	PRACTICAL Forensic Medicine Pharmacology Community Medicine Pathology		Antiarrhythmic drugs Pharmacology L15 (LH-3) Dr. Saad Mufti	Rheumatic Fever Peads-L2 (LH-3) Dr. Tousif Ahmed	SDL		12:45 – 1:30	1:30 – 3:00
						Jumma Prayer	SDL	

**Practical Detail:**

Pharmacology: Construct a prescription for a patient with hyper tension (pharmacy lab)

Pathology: Hemangioma.

Forensic Medicine: Practice session/copy checking/presentations.

Community Medicine: Practice session/copy checking/ research

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Module Coordinator

**AYUB MEDICAL COLLEGE, ABBOTTABAD**

Department of Medical Education

Class Session 2023

**CVS II, Week 04: Theme 03 (Shortness of Breath) + Respiratory II, Week 01: Theme 01 (Cough with sputum, and fever)**

Days/ Date	8:00 – 9:00	9:00 – 10:00	10:00 – 11:00	11:00 – 12:00	12:00 – 12:45	12:45- 1:15	PRACTICAL	
							1:15 – 2:00	2:00 – 3:00
<b>Mon</b>	Rheumatic fever & Rheumatic heart disease Pathology L-11 (LH-3) Dr. Fozia	Disorders of heart rate and rhythm Medicine L5 (LH-3) Dr. Saleem Awan	<b>HOSPITAL/CLINICAL TEACHING</b>		Antiarrhythmic drugs Pharmacology L16 (LH-3) Dr. Saad Mufti	<b>PRAYER BREAK</b>	A: Pathology B: Forensic Medicine C: Pharmacology D: Community Medicine	
<b>Tue</b>	Anatomy of Respiratory System Anatomy L1 (LH-3) Dr. Obaid Kazmi	Mechanism of Ventilation Physiology L1 (LH-3) Dr. Izhar	<b>HOSPITAL/CLINICAL TEACHING</b>		Hypo/Hyperventilation Biochemistry L1 (LH-3) Dr. Maria		A: Community Medicine B: Pathology C: Forensic Medicine D: Pharmacology	
<b>Wed</b>	Thrombosis and embolism Pathology-L12 (LH-3) Dr. Shabana	Asphyxia Forensic Med L1 (LH-3) Dr. Salma Shazia	<b>HOSPITAL/CLINICAL TEACHING</b>		Endocarditis Pathology-L13 (LH-3) Dr. Fozia		SDL	
<b>Thurs</b>	A. Pharmacology B. Community Medicine C. Pathology Forensic Medicine		<b>HOSPITAL/CLINICAL TEACHING</b>		Hypertension Community Med: L-2 Dr. Awais (LH-3)		SDL	
<b>Fri</b>	<b>PRACTICAL</b> E. Forensic Medicine F. Pharmacology G. Community Medicine Pathology		Social determinants of health Community Med Family Medicine L-1 Dr. Ashfaq (LH-3)	Pulmonary embolism & hypertension, Myocarditis & <b>Pericarditis Medicine L6 (LH-3)</b> Dr. Adnan	SDL		12:45- 1:30  Jumma Prayer	1:30-3:00  SDL

**Practical Detail:**

Pharmacology: Construct a prescription for a patient suffering from CCF (Pharmacy Lab.)

Pathology: Cardiac enzymes.

Forensic Medicine: Copy checking.

Community Medicine: mask wearing.

## 9 For inquiry and troubleshooting



Please contact  
*To be added*

## 10 Course Feedback Form

CourseTitle: \_\_\_\_\_

Semester/Module \_\_\_\_\_ Dates: \_\_\_\_\_

Please fill the short questionnaire to make the course better.

Please respond below with 1, 2, 3, 4 or 5, where 1 and 5 are explained.

### THE DESIGN OF THE MOD/LUE

- |  |                            |                            |   |
|--|----------------------------|----------------------------|---|
| A. Were objectives of the course clear to you?           | Y <input type="checkbox"/> | N <input type="checkbox"/> |   |
| B. The course contents met with your expectations        |                            |                            | 5. Strongly agree <input type="checkbox"/>    |
| 1. Strongly disagree                                     |                            |                            |   |
| C. The lecture sequence was well-planned                 |                            |                            | 5. Strongly agree <input type="checkbox"/>    |
| 1. Strongly disagree                                     |                            |                            |   |
| D. The contents were illustrated with                    |                            |                            | 5. Adequate examples <input type="checkbox"/> |
| 1. Too few examples                                      |                            |                            |   |
| E. The level of the course was                           |                            |                            | 5. Too high <input type="checkbox"/>          |
| 1. Too low   |                            |                            |   |
| F. The course contents compared with your expectations   |                            |                            | 5. Too empirical <input type="checkbox"/>     |
| 1. Too theoretical                                       |                            |                            |   |
| G. The course exposed you to new knowledge and practices |                            |                            | 5. Strongly agree <input type="checkbox"/>    |
| 1. Strongly disagree                                     |                            |                            |   |
| H. Will you recommend this course to your colleagues?    |                            |                            | 5. Very strongly <input type="checkbox"/>     |
| 1. Not at all  |                            |                            |   |

### THE CONDUCT OF THE MOD/LUE

- |  |   |                          |  |
|--|---|--------------------------|--|
| A. The lectures were clear and easy to understand          |   |                          | 5. Strongly agree <input type="checkbox"/> |
| 1. Strongly disagree                                       |   |                          |  |
| B. The teaching aids were effectively used                 |   |                          | 5. Strongly agree <input type="checkbox"/> |
| 1. Strongly disagree                                       |   |                          |  |
| C. The course material handed out was adequate             |   |                          | 5. Strongly agree <input type="checkbox"/> |
| 1. Strongly disagree                                       |   |                          |  |
| D. The instructors encouraged interaction and were helpful |   |                          | 5. Strongly agree <input type="checkbox"/> |
| 1. Strongly disagree                                       |   |                          |  |
| E. Were objectives of the course realized? Y               | N | <input type="checkbox"/> | <input type="checkbox"/>                   |
| F. Please give overall rating of the course                |   |                          |  |

90% - 100% ( )	60% - 70% ( )
80% - 90% ( )	50% - 60% ( )
70% - 80% ( )	below 50% ( )

Please comment on the strengths of the course and the way it was conducted.

\_\_\_\_\_

Please comment on the weaknesses of the course and the way it was conducted.

\_\_\_\_\_

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Please give suggestions for the improvement of the course.

Optional - Your name and contact address:

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Thank you!!