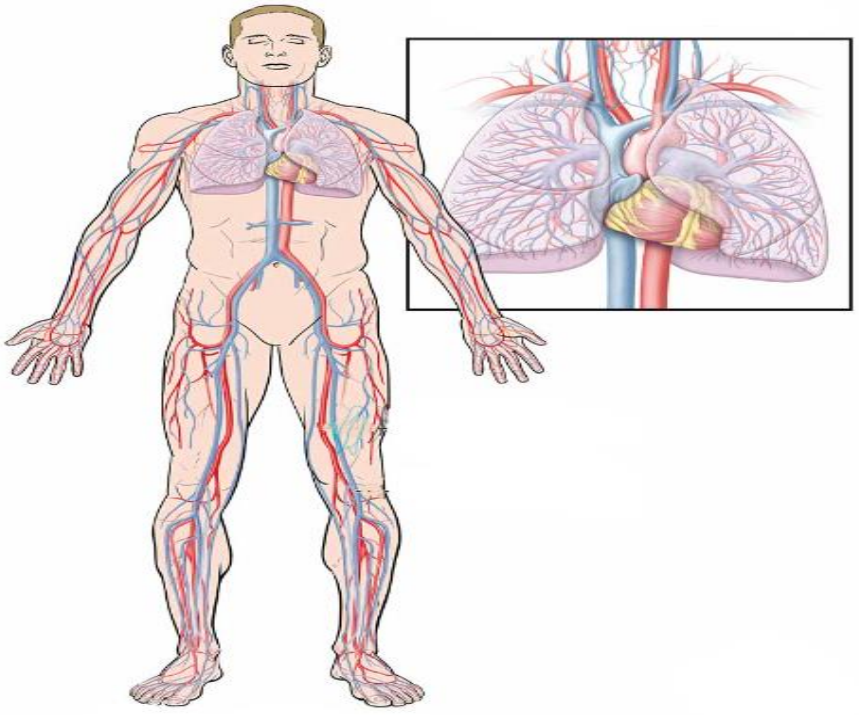
STUDY GUIDE

1ST YEAR MBBS
CARDIOVASCULAR & RESPIRATORY MODULE



LAHORE MEDICAL AND DENTAL COLLEGE

MISSION OF LMDC

The Lahore Medical and Dental College is committed in its pursuit of excellence to providing the best academic facilities and atmosphere to its students.

Our mission is to: “Train future leaders of medicine who set new standards in knowledge, care and compassion”.

The well qualified and committed faculty of LMDC provides combination of nurturing support and challenge to the students to reach their maximum potential.

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INTRODUCTION

Medical education is a life-long process and MBBS curriculum is a part of the continuum of education from pre-medical education, MBBS, proceeding to house job, and post-graduation. PMDC and UHS outlines the guiding principles for undergraduate medical curriculum and has defined the generic competencies and desired outcomes for a medical graduate to provide optimal health care, leading to better health outcomes for patients and societies.

Level of Student: 1ST Year MBBS
Duration of Session: September 2023 – December 2023

CARDIOVASCULAR MODULE
OUTCOMES

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

THEMES

- Heart
- Circulation

CLINICAL RELEVANCE

- Cardiac Failure
- Arrhythmias
- Atherosclerosis and Ischemic heart diseases
- Hypertension
- Shock
- Congenital Heart diseases
- Peripheral arterial diseases

LEARNING OBJECTIVES AND COURSE CONTENT OF INDIVIDUAL SUBJECTS

NORMAL STRUCTURE			
Theory			
CODE	SPECIFIC LEARNING OUTCOMES	DISCIPLINE	TOPIC
	GROSS ANATOMY	TOTAL HOURS = 14	
CV-A-001	Define mediastinum giving its boundaries and compartments. List the contents of its various compartments.	Human Anatomy	Mediastinum
	Justify the clinical picture of superior mediastinum syndrome anatomically	Integrate with Surgery	
	Describe the formation, tributaries, and termination of superior vena cava	Human Anatomy	
	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		
	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.		
CV-A-002	Describe Pericardium and its parts with emphasis on their neurovascular supply and lymphatic drainage	Human Anatomy	Pericardium
	Describe the pericardial cavity mentioning transverse and oblique sinuses. Discuss their clinical significance		
	Describe the surgical significance of pericardial sinus	Integrate with Surgery	

	Describe the anatomical correlates of pericardial rub, pericardial pain, pericarditis, pericardial effusion, and cardiac tamponade.	Integrate with Medicine	
	Describe the anatomical basis for pericardiocentesis.		
CV-A-003	Describe the external features of heart.	Human Anatomy	Heart
	List various chambers of heart mentioning their salient features and openings.		
	Describe the arterial supply of heart: coronary arteries and their distribution with special emphasis on collaterals established during ischemia.		
	Describe the sites of anastomosis between right and left coronary arteries with the participating vessels.		
	Discuss the anatomical correlates of cardiac arterial supply	Integrate with cardiology/ Medicine	
	Describe the anatomical basis for cardiac catheterization		
	Describe the anatomical correlates of electrocardiography, heart block, atrial fibrillation, artificial cardiac pacemaker, cardiac referred pain	Integrate with Medicine	
	Describe the anatomical basis for echocardiography, coronary angiography, angioplasty, and coronary grafts	Integrate with Cardiology/ Medicine	Heart
	Describe the features of angina pectoris and myocardial infarction and correlate them anatomically		
	Describe the venous drainage of heart.	Human Anatomy	
	Describe the alternative venous routes to the heart		
	Identify the vessels supplying the heart with their origins/terminations		
	Describe the Lymphatics of heart		

	Describe the formation, relations, and distribution of cardiac plexus.		
	Describe components and significance of fibrous skeleton of heart		
	Describe the cardiac valves		
	Explain the anatomical basis for valvular heart diseases	Integrate with Cardiology/ Medicine	
	Perform surface marking of various anatomical landmarks of heart and great vessels	Human Anatomy	
	Perform percussion and auscultation of heart	Integrate with Medicine	
	Identify the salient features of heart and great vessels on CT/ MRI	Integrate with Radiology	
CV-A-004	Describe the surgical importance of pericardial sinus	Surgery	Pericardial sinus
CV-A-005	Discuss the anatomical principles of Varicose Veins	Surgery	Varicose Veins
CODE	**SPECIFIC LEARNING OBJECTIVES**	**DISCIPLINE**	**TOPIC**
	EMBRYOLOGY & POST-NATAL DEVELOPMENT	**TOTAL HOURS = 14**	
CV-A-006	Describe the early development of heart and blood vessels	Human Embryology	Introduction
CV-A-007	Define parts of primitive heart tube and give its folding	Human Embryology	Development of Heart
	Describe the development of various chambers of heart with emphasis on their partitioning		
	Identify various parts of developing heart tube and structures derived from them during embryonic and fetal life (Models and specimens)		
CV-A-7a	Describe the embryological basis of dextrocardia and ectopia cordis		Development of Heart and Development of Lymphatic System
	Describe the partitioning of primordial heart: atrioventricular canal and atrium		
	Describe the development of sinus venosus		

	List clinically significant types of atrial septal defects along with their embryological basis and features. Describe probe patent foramen ovale	Integrate with Pediatrics	
	Describe the partitioning of truncus arteriosus and bulbus cordis	Human Embryology	
	Describe the formation of ventricles and interventricular septum		
CV-A-008	Describe the clinical features and embryological basis of ventricular septal defects	Integrate with Pediatrics	
	Describe the development of cardiac valves and conducting system.	Human Embryology	
	Describe the development of lymphatic system	Human Embryology	
CV-A-009	Describe the embryological correlates and clinical presentation of developmental defects of heart: Tetralogy of Fallot, Patent ductus arteriosus, Unequal division of arterial trunks, Transposition of great vessels and Valvular stenosis, Coarctation of aorta	Integrate with Pediatrics	Development of Arteries
	Describe the formation and fate of pharyngeal arch arteries	Human Embryology	
	Describe the anomalies of great arteries emerging from heart: Coarctation of aorta, anomalous arteries	Integrate with Cardiology/ Medicine	
CV-A-010	Describe the development of embryonic veins associated with developing heart: Vitelline veins, Umbilical Veins and Common cardinal vein and their fate	Human Embryology	Development of Veins
	Describe the formation of superior & inferior vena cava and portal vein with their congenital anomalies		

	With the help of diagrams illustrate the development of superior vena cava, inferior vena cava and portal vein		
CV-A-011	List the derivatives of fetal vessels and structures: Umbilical vein, ductus venosus, umbilical artery, foramen ovale, ductus arteriosus	Human Embryology	Fetal Vessels & Circulation
	Describe Fetal and neonatal circulation mentioning transitional neonatal circulation with its clinical implication	Integrate with Pediatrics/ Obgyn	
CV-A-012	List clinically significant types of atrial septal defects along with their embryological basis and features. Describe patent foramen ovale.	Pediatrics	Congenital Heart defects
	Describe the embryological correlates and clinical presentation of developmental defects of heart: Tetralogy of Fallot, Persistent ductus arteriosus, Unequal division of arterial trunks, Transposition of great vessels and Valvular stenosis		
CODE	**SPECIFIC LEARNING OBJECTIVES**	**DISCIPLINE**	TOPIC
	MICROSCOPIC ANATOMY (HISTOLOGY & PATHOLOGY)	Total Hours = 4	
CV-A-013	Describe the microscopic and ultramicroscopic structure of cardiac muscle emphasizing on T-tubules, sarcoplasmic reticulum and intercalated discs.	Histology	Cardiac Muscle
	Identify, draw and label histological structure of cardiac muscle		
CV-A-014	Describe general histological organization of blood vessels: Tunica intima, media and adventitia.	Histology	Blood Vessels Organization
	Identify, draw and label histological sections of elastic artery, muscular artery, arterioles, vein, capillaries and sinusoids		
CV-A-015	Describe histological features of arteries: Muscular arteries, elastic arteries, Arterioles	Histology	Arteries

CV-A-016	Describe histological features of veins and exchange vessels: large veins, medium sized veins, venules, Capillaries, and sinusoids	Histology	Veins
	Compare and contrast the light microscopic structure of arteries and veins		
CV-A-017	Describe the histopathological basis of thrombus and embolus formation.	Integrate with Pathology	Thrombus/ Embolus formation
CV-A-018	Explain the histological basis of arteriosclerosis and atherosclerosis	Histology	Arteriosclerosis atherosclerosis
CV-A-019	Describe role of arterioles in hypertension		Hypertension

PRACTICAL			
CODE	**SPECIFIC LEARNING OBJECTIVES**	**DISCIPLINE**	**TOPIC**
	Histology	**Total Hours = 3**	
CV-A-020	Identify, draw and label histological structure of cardiac muscle	Histology	Histological features of Cardiac Muscle
CV-A-021	Identify, draw and label histological sections of elastic artery, muscular artery, arterioles, vein, capillaries and sinusoids	Histology	Histological features of Blood Vessels

NORMAL FUNCTION			
Theory			
CODE	**MEDICAL PHYSIOLOGY**	**Total Hours = 75**	
	SPECIFIC LEARNING OBJECTIVES	**DISCIPLINE**	**TOPIC**
CV-P-001	Explain the physiological anatomy of cardiac muscle.		
	Explain the functional importance of intercalated discs.		
	Discuss the properties of cardiac muscles.		
	Describe and draw the phases of action potential of ventricle.		

	Describe and draw the phases of action potential of SA node along with explanation of the mechanism of self –excitation/ Auto rhythmicity of SA node.	Physiology	Cardiac Muscle
	Define and give the duration of the Absolute and relative refractory period in cardiac muscle.		
	Draw & explain pressure & volume changes of left ventricle during cardiac cycle.		
	Explain & draw relationship of ECG with cardiac cycle.		
	Explain & draw the relationship of heart sounds with cardiac cycle.		
	Enlist, draw, and explain the physiological basis of atrial pressure waves in relation to cardiac cycle.		
	Define & give the normal values of the cardiac output, stroke volume, end diastolic volume & end systolic volume	Integrate with Medicine	
CV-P-002	Describe the Frank starling mechanism.	Physiology	Regulation of heart pumping
	Describe the autonomic regulation of heart pumping.		
	Describe the effect of potassium, calcium ions & temperature on heart function.		
	Define chronotropic effect- positive and negative.		
	Define the inotropic effect: positive and negative.		
	Define dromotropic effect: positive and negative		
	Describe the location of adrenergic & cholinergic receptors in heart.		
	Name the receptors present in coronary arterioles.		
	Explain sympathetic & parasympathetic effects on heart rate & conduction velocity		
CV-P-003	Draw and explain the conducting system of heart	Physiology	Conducting system of heart
	Describe the physiological basis and significance of AV nodal delay.		

	Explain the ectopic pacemaker.	Integrate with Cardiology/ Medicine	
CV-P-004	Enlist, draw, and explain the physiological basis & give durations of waves, intervals, and segments of normal ECG.	Physiology	Fundamentals of ECG
	Describe the standard limb leads, Augmented limb leads & precordial leads.		
	Define Einthoven's Triangle & Einthoven's law.		
	Explain the physiological basis of upright T wave in normal ECG.		
	Describe the location and significance of J point in ECG.		
	Explain the physiological basis of current of injury.		
	Enlist the ECG changes in angina pectoris.	Integrate with Medicine	
	Enlist the ECG changes in myocardial infarction.		
	Plot the mean cardiac axis.	Physiology	
	Enlist the physiological & pathological causes of right axis deviation of heart.		
	Enlist the physiological & pathological causes of left axis deviation of heart		
	Describe the abnormalities of T wave and their causes.	Integrate with Medicine	
CV-P-005	Describe the effect of hypokalemia and hyperkalemia on ECG	Integrate with Biochemistry	Effect of electrolyte on ECG
	Describe the effect of hypocalcemia and hypercalcemia on ECG.		
CV-P-006	Define tachycardia and enlist its causes.	Integrate with Medicine	
	Define bradycardia and enlist its causes.		

	Classify arrhythmias	Physiology	Cardiac arrhythmia
	Explain the physiological basis of sinus arrythmia.		
	Explain the physiological basis of reflex bradycardia in Athletes.		
	Explain the carotid sinus syndrome.		
	Enlist the causes of atrioventricular block.	Integrate with Cardiology/ Medicine	
	Explain the types of atrioventricular blocks.		
	Explain the ECG changes in 1st, 2nd & 3rd degree heart block.		
	Explain the cause, physiological basis & ECG changes in Stokes Adam syndrome/ventricular escape.	Physiology	
	Enlist the causes of premature contractions.	Integrate with Cardiology/ Medicine	
	Explain the causes and ECG changes of premature atrial contractions.		
	Explain the physiological basis of pulses deficit.	Physiology	
	Explain the causes and ECG changes in PVC.	Integrate with Cardiology/ Medicine	
	Enlist the causes and ECG findings in Long QT syndrome.		
	Explain the causes, physiological basis, features, ECG changes & management of ventricular fibrillation.		
	Explain the causes, physiological basis, features & ECG changes of atrial fibrillation.		
	Explain the physiological basis, features & ECG changes of atrial flutter.	Physiology	
	Compare Flutter and Fibrillations	Physiology	
CV-P-007	Explain the functional parts of circulation (arteries, arterioles, capillaries, veins, venules).	Physiology	Organization of Circulation
CV-P-008	Explain the pressures in systemic & pulmonary circulation.	Physiology	Blood flow

	Explain the types of Blood flow and significance of Reynolds number.		
CV-P-009	Discuss acute local control of local blood flow.	Physiology	Local & Humoral Control of Blood flow
	Discuss acute humoral control of local blood flow.		
	Explain long term control of local blood flow.		
	Name the organs in which auto regulation of blood flow occurs during changes in arterial pressure (metabolic & myogenic mechanisms).		
CV-P-010	Explain the role of autonomic nervous system for regulating the circulation.	Physiology	Nervous Regulation of circulation
	Explain the vasomotor center.		
	Explain the control of vasomotor center by higher nervous centers.		
	Explain emotional fainting/vasovagal syncope.		
	Identify vessels constituting micro-capillaries. Enumerate hydrostatic and osmotic factors that underlie Starling's Hypothesis for capillary function,		
CV-P-011	Explain the role of nervous system in rapid control of arterial blood pressure.	Physiology	Rapid control of arterial blood pressure
	Explain the regulation of arterial blood pressure during exercise.		
	Enlist different mechanisms for short term regulation of arterial blood pressure.		
	Explain the role of baroreceptors in regulation of arterial blood pressure.		
	Explain the role of chemoreceptors in regulation of arterial blood pressure.		
	Make a flow chart to discuss the role of Atrial volume reflexes/ Bainbridge reflex in control of blood pressure.		
	Make a flow chart to show the reflex responses to increased blood volume which increase blood pressure and atrial stretch.		

	Describe the role of CNS ischemic response in regulation of the blood pressure.		
	Explain the Cushing reflex		
	Explain the role of abdominal compression reflex to increase the arterial blood pressure.		
CV-P-012	Make a flow chart to discuss the role of renin angiotensin system for long term control of blood pressure.	Physiology	Role of kidneys in long term Regulation of Arterial Blood Pressure
	Make a flow chart to show the regulation of blood pressure in response to increase in ECF volume.		
	Make a flow chart to show the regulation of blood pressure in response to increase in salt intake.		
CV-P-013	Define cardiac output, cardiac index & venous return with their normal values.	Integrate with Cardiology/ Medicine	Cardiac output
	Explain the pathological causes of high & low cardiac output.		
	Discuss the factors regulating cardiac output		
	Discuss factors regulating venous return	Physiology	
CV-P-014	Explain the regulation of skeletal muscle blood flow at rest & during exercise.	Physiology	Skeletal muscle circulation
CV-P-015	Explain the physiological anatomy of coronary circulation.	Physiology	Coronary circulation
	Explain the regulation of coronary blood flow.		
	Explain the physiological basis of angina, myocardial & subendocardial infarction		
CV-P-016	Define & enlist different types of shock.	Physiology	
	Explain the causes, features, and pathophysiology of hypovolemic/hemorrhagic shock.		
	Explain the causes, features, and pathophysiology of septic shock.		

	Explain the causes, features, and pathophysiology of neurogenic shock.	Integrate with Pathology	Circulatory shock
	Explain the causes, features, and pathophysiology of anaphylactic shock.		
	Discuss the treatment of different types of shock.	Integrate with Medicine	
	Explain the different stages of shock.	Physiology	
	Explain the mechanisms that maintain the cardiac output & arterial blood pressure in non-progressive shock.		
	Enlist different types of positive feedback mechanisms that can lead to the progression of shock.		
CV-P-017	Enlist the different types of heart sounds and explain the physiological basis of each.	Physiology	Heart Sounds
	Enlist the causes of 3rd and 4th heart sounds.		
	Explain the causes & physiological basis of murmurs caused by valvular lesions.		
	Enumerate abnormal heart sounds and describe the physiological basis of each.	Integrate with Medicine	
CV-P-018	Classify different types of heart failure	General Medicine/ Cardiology	Heart Failure
	Discuss the signs and symptoms of Heart failure.		
	Discuss the management of Heart failure.		
CV-P-019	Discuss the signs and symptoms of: Arrhythmias.		Arrhythmias
	Discuss the management of Arrhythmias.		
CV-P-020	Enlist various categories of ischemic heart diseases		Ischemic Heart Disease (IHD)
	Discuss the signs and symptoms of ischemic heart diseases		
	Discuss the management of ischemic heart diseases.		
	Discuss the signs and symptoms of: Hypertension.		

CV-P-021	Discuss the management of Hypertension.		Hypertension
CV-P-022	Enlist various valvular heart diseases Identify presentations and signs and symptoms of valvular heart diseases Outline management strategies		Valvular Heart Diseases
CV-P-023	Identify various pericardial diseases Identify presentations and signs and symptoms Outline management strategies	General Medicine/ Cardiology	Pericardial Diseases
CV-P-024	Identify various endocardial and myocardial diseases Identify presentations and signs and symptoms Outline management strategies	General Medicine/ Cardiology	Endocardial and myocardial diseases
CV-P-025	Define Peripheral arterial diseases Identify symptoms and signs of PAD Outline management strategies	General Medicine	Peripheral Arterial Diseases (PAD)
CV-P-026	Enlist various sites of venous thromboembolism Identify various symptoms and signs of DVT Identify various symptoms and signs of pulmonary embolism Outline management strategies	General Medicine, Surgery	Venous thrombo-embolism
CV-P-027	Identify the salient features of heart and great vessels on CT/ MRI Discuss the principles of cardiac catheterization	Radiology	Imaging in CVS disorders
CV-P-028	Justify the clinical picture of superior mediastinum syndrome anatomically	Surgery	Superior mediastinum Syndrome
CV-P-029	Describe Fetal and neonatal circulation mentioning transitional neonatal circulation with it clinical implication	Pediatrics, Obgyn	Fetal circulation at Birth

CV-P-030	Psychological basis of emotional fainting and its impact	Behavioral Sciences	Emotional fainting
CODE	**SPECIFIC LEARNING OBJECTIVES**	**DISCIPLINE**	**TOPIC**
	MEDICAL BIOCHEMISTRY	**Total Hours = 30**	
CV-B-001	Classify lipids.	Biochemistry	Classification of lipids
CV-B-002	Discuss the biomedical functions & properties of lipids.	Biochemistry	Functions of lipids & Properties of lipids
CV-B-003	Classify fatty acids. Discuss the role of trans saturated, saturated, poly- and mono-unsaturated fatty acids in diet on lipid profile. Discuss lipid peroxidation and its significance	Biochemistry	Classification of fatty acids
CV-B-004	Explain the biochemical and therapeutic roles of eicosanoids (prostaglandins, leukotrienes, thromboxane, and prostacyclin)	Biochemistry	Eicosanoids
CV-B-005	Describe the types, structure, biomedical importance of Lipoproteins Discuss the synthesis, transport and fate of Lipoproteins	Biochemistry	Circulation Lipoproteins
CV-B-006	Interpret the disorders associated with impairment of lipoprotein metabolism especially atherosclerosis and LDL oxidized	Biochemistry	Hyperlipidemias
CV-B-007	Explain the sources, properties, and biomedical role of cholesterol Describe the reactions of cholesterol biosynthesis and its regulation & fate. Discuss Genetic basis of the Hypercholesterolemia	Biochemistry	Cholesterol

CV-B-008	Describe enzymes with reference to: • Active sites • Specificity • Catalytic efficiency •Cofactor • Coenzyme • Holoenzyme • Apoenzyme • Prosthetic group • Zymogens • Location	Biochemistry	Hypercholesterolemia
CV-B-009	Classify enzymes according to the reaction they catalyze.	Biochemistry	Enzymes
	Explain the mechanism of enzyme action from reactants to products (catalysis). a) Illustrate enzyme kinetics in relation to MM Equation & Lineweaver- Burke plot		
	Discuss the effect of various factors (with special reference to Km/V max) on enzymatic activity. • Substrate concentration • Temperature • PH • Enzyme concentration		
	Explain the regulation of enzymatic activity. a) Compare allosteric regulation with regulation by covalent modification. b) Discuss the effect of inhibitors on enzymatic activity which includes: • Competitive inhibition • Uncompetitive inhibition c) Interpret the effect of organophosphorus poisoning on enzyme activity on basis of given data		

	Explain the application of enzyme in clinical diagnosis and therapeutic use	Integrate with Medicine/ Cardiology	
CV-B-010	Discuss the signs and symptoms of hyperlipidemia Interpret data related to hyperlipidemia	Biochemistry / Medicine	Type I to V hyperlipidemias

PRACTICAL			
CODE	SPECIFIC LEARNING OBJECTIVES	Total Hours = 10+08=18	
		DISCIPLINE	TOPIC
CV-P-031	Record an electrocardiogram by correct lead placement and connections.	Physiology	ECG
CV-P-032	Perform auscultation of chest to recognize normal heart sounds.		Heart Sounds
CV-P-033	Examine neck veins to determine Jugular Venous Pulse.		JVP
CV-P-034	Examine arterial pulse to recognize normal characteristics of pulse.		Arterial Pulse
CV-B-011	Perform estimation of Cholesterol by kit method	Biochemistry	Cholesterol Estimation
CV-B-012	Perform estimation of HDL, LDL		HDL, LDL Estimation
CV-B-013	Estimation of cardiac markers		Cardiac Marker Estimation
CV-B-014	Interpret lab reports based on enzymes for diseases like cardiac disorders and hyperlipidemias		Interpretation of Lab report

AGING			
CODE	SPECIFIC LEARNING OBJECTIVES	Total Hours = 5	
		DISCIPLINE	TOPIC
CV-Ag-001	Discuss the effect of age on blood vessels with reference to hypertension	Physiology/ Geriatrics/ Medicine	Hypertension
CV-Ag-002	Discuss the risk of cardiac attack in old age and weather conditions		Cardiac Attack
CV-Ag-003	Discuss the effect of age on valvular system of the heart.		Valvular diseases
CV-Ag-004	Discuss the effect of age on neural conduction of the heart in relation to arrythmia.		Arrythmia
CV-Ag-005	Discuss the protective role of female hormone against CVS diseases in women of reproductive age group	Physiology/ Obstetrics and Gynecology	Role of female hormone on CVS disease

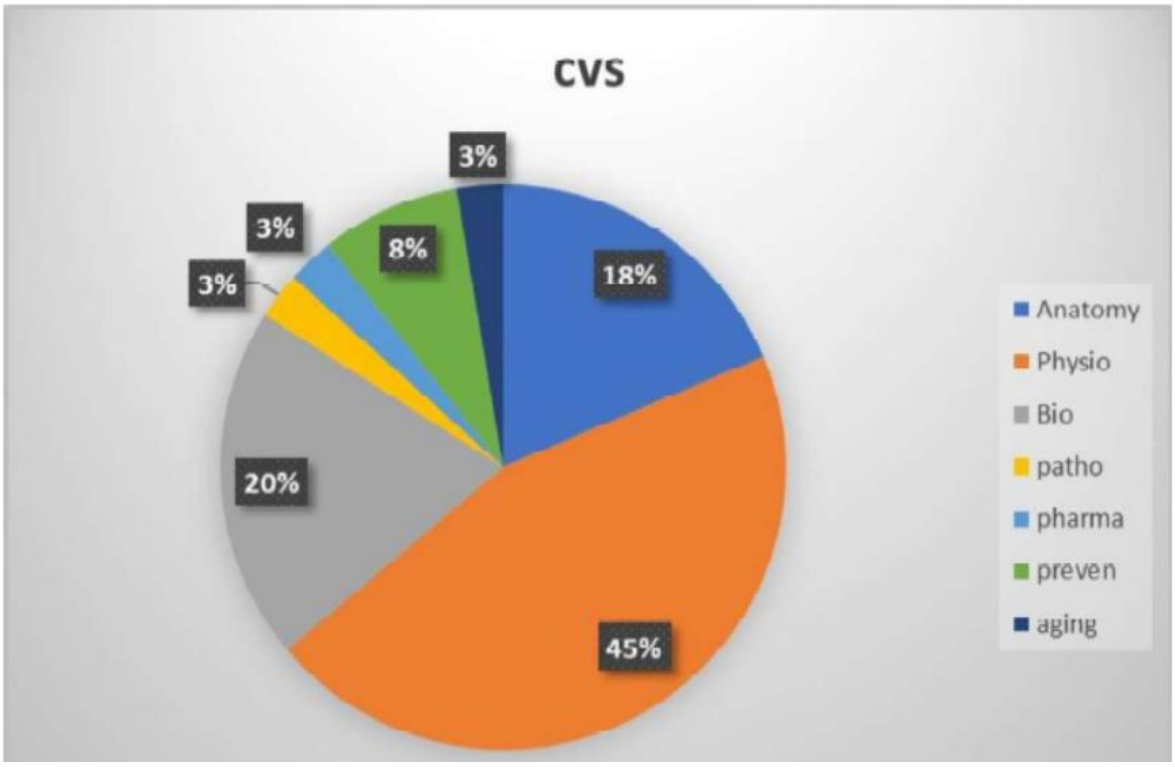
PATHOPHYSIOLOGY AND PHARMACOTHERAPEUTICS			
		Total Hours = 5+5= 10	
CODE	SPECIFIC LEARNING OBJECTIVES	DISCIPLINE	TOPIC
CV-Pa-001	Classify types of thrombosis, embolism, and infarction	Pathology	Hemodynamics and CVS
CV-Pa-002	Discuss the pathophysiology of thrombosis, embolism, and infarction		Atherosclerosis
CV-Pa-003	Identify the types and causes of hypertension		Hypertension
CV-Pa-004	Discuss the pathophysiology of atherosclerosis, hypertension, and shock		Shock
CV-Pa-005	Discuss the clinical consequences of hypertension and atherosclerosis		Cardiac Failure
	Classify the types of heart failure		
	Identify the causes leading to heart failure		

CV-Pa-006	Identify the types of ischemic heart disease Discuss the pathophysiology of different types of ischemic heart disease		Ischemic Heart Disease
CV-Ph-001	Outline the pharmacological concepts of drugs used in hypertension.	Pharmacology	Antihypertensive drugs
CV-Ph-002	Outline the pharmacological concepts of drugs used in angina.		Antianginal drugs
CV-Ph-003	Outline the pharmacological concepts of drugs used in arrythmias.		Antiarrhythmics drugs
CV-Ph-004	Outline the pharmacological concepts of drugs used in cardiac failure.		Drugs for cardiac failure
CV-Ph-005	Outline the pharmacological concepts of drugs used in peripheral vascular diseases.		Drugs for peripheral vascular diseases

DISEASE PREVENTION & IMPACT			
CODE		Total Hours = 15	
	SPECIFIC LEARNING OBJECTIVES	DISCIPLINE	TOPIC
CV-CM-001	Describe the various strategies and models to prevent diseases.	Community Medicine and Public Health	Disease Prevention Models
CV-CM-002	Describe primordial prevention and its application to preventing CVS diseases. Depict the concept of primary prevention in context to CVS and able to apply on CVS diseases.		Primordial Prevention
CV-CM-003	Discuss the basic concept of health promotion and its application to CVS.		Health Promotion
CV-CM-004	Discuss various methods of behavioral change interventions at community level.		Behavioral Change Intervention
CV-CM-005	To apply secondary and tertiary preventions on CVS diseases (coronary heart disease, ischemic heart disease, hypertension)		Secondary & Tertiary Prevention

CV-CM-006	Describe the concept of cardiovascular diseases as non-communicable diseases		Non-communicable disease
CV-CM-007	Identify the risk factors in the community for CVS diseases.		Risk factor assessment of CVS diseases
	Learn and apply interventions to prevent the risk factors in community.		
CV-BhS-001	Identify and deal with the various psychosocial aspects of Cardiovascular conditions (such as Hypertension, Coronary artery disease, Heart failure, Arrythmias, and other cardiovascular conditions) on Individual, Family and Society.	Behavioral Sciences	Personal, Psychosocial and vocational issues

Module Weeks	7
Recommended Minimum Hours	188



RESPIRATORY MODULE

OUTCOME

At the end of this module the students will be able to:

1. Apply respiratory problems.
2. Explain the pathogenesis of respiratory diseases.
3. Enlist the main investigations relevant to respiratory disorders.
4. Recognize risk factors and preventive measures of main respiratory diseases.

THEMES

1. Rib cage
2. Thoracic vertebrae
3. Upper respiratory system
4. Lower Respiratory system

CLINICAL RELEVANCE

1. Acute Respiratory Distress Syndrome
2. Bronchial Asthma
3. Tuberculosis
4. Pneumonia

LEARNING OBJECTIVES AND COURSE CONTENT OF INDIVIDUAL SUBJECTS

NORMAL STRUCTURE			
Theory			
CODE	**SPECIFIC LEARNING OUTCOMES**	**DISCIPLINE**	**TOPIC**
	GROSS ANATOMY	**TOTAL HOURS =30**	
Re-A-001	Describe the anatomical features and neurovascular supply of nasal cavity	Human Anatomy	upper respiratory tract
	Describe the anatomical features and neurovascular supply of pharynx	Human Anatomy	
	Describe the anatomical features and neurovascular supply of larynx	Human Anatomy	

Re-A-002	Describe the anatomical features of the Trachea with its extent, relations, neurovascular supply and lymphatics.	Human Anatomy	Trachea
Re-A-003	Give the boundaries of thoracic cavity, superior and inferior thoracic apertures and list the structures contained/ traversing them.	Human Anatomy	Thoracic Cavity
	Describe the anatomical correlates of Thoracic inlet syndrome & Thoracic outlet syndrome	Integrate with Surgery	
Re-A-004	Identify and differentiate the typical from atypical ribs.	Human Anatomy	Rib Cage
	Describe the anatomical features of ribs and give their attachments.		
	Describe the anatomical correlates of supernumerary cervical rib.	Integrate with Surgery	
	Classify the articulations of the ribs.	Human Anatomy	
	Describe the anatomical features of these articulations.		
	Describe the movements with the muscles producing articulations.	Human Anatomy	
	Describe the effects of fracture to the neck of rib and give its anatomical justification	Integrate with Orthopedics	
	Describe the anatomical correlates of Flail Chest.		
Re-A-005	Describe the anatomical correlates of Thoracotomy	Integrate with Surgery	Intercostal space
	Define the attachments, relations, nerve supply and actions of intercostal muscles	Human Anatomy	
	Define an intercostal space and give details of its contents		
	Describe the anatomical correlates of intercostal incisions	Integrate with Surgery	

Re-A-006	Describe the anatomical features and attachments on typical & atypical thoracic vertebrae.	Human Anatomy	Thoracic Vertebrae
	Differentiate between typical and atypical vertebrae		
	Explain the thoracic part of vertebral column (normal curvature, intervertebral joints, muscles & fascia of the back, blood supply, lymphatic drainage, nerve supply of back) Associated Clinical conditions -Kyphosis, Scoliosis		
Re-A-007	Describe the bony features and attachments on the sternum	Human Anatomy	Sternum
	Describe the anatomical correlates of median sternotomy.	Integrate with Surgery	
	Describe the anatomical correlates of sternal biopsy.		
	Describe the presentation of sternal fractures and correlate it anatomically	Integrate with Orthopedics	
Re-A-008	Describe the endo thoracic fascia with its attachments.	Human Anatomy	Connective tissue of thorax
	Describe the supra-pleural membrane with its attachments.		
Re-A-009	Classify the joints of the thorax mentioning their articulations, movements with the muscle producing them.	Human Anatomy	Joints of thorax
	Describe the mechanism of thorax: pump handle and bucket handle movements.		
Re-A-010	Describe the origin, course, relations and distribution of intercostal nerves and vessels	Human Anatomy	Neurovascular supply of thorax
	Describe the course and relations of Internal thoracic vessels.		

	Describe the alternate routes of venous drainage in blockage of superior/ inferior vena cava	Integrate with medicine	
Re-A-011	Describe the cutaneous nerve supply and dermatomes of thorax.	Human Anatomy	Cutaneous nerve supply of thorax
	Give anatomical justification of the manifestations of herpes zoster infection on thoracic wall.	Integrate with medicine	
	Discuss anatomical correlates of intercostal nerve block	Integrate with Anesthesia	
Re-A-012	Name the parts of diaphragm mentioning their attachments and neurovascular supply	Human Anatomy	Diaphragm
	Explain the role of diaphragm in respiration		
	Enumerate the diaphragmatic apertures with their vertebral levels, mentioning the structures traversing them.		
Re-A-013	Describe the pleura giving its parts, layers, neurovascular supply, and lymphatic drainage	Human Anatomy	Pleural cavity
	Describe the pleural cavity giving its recesses and the lines of pleural reflection		
	Describe the anatomical correlates of pleural pain pleurisy, pneumothorax, pleural effusion	Integrate with Medicine	
	Describe the anatomical features, relations of lungs	Human 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 with arrangement of structures at the hilum		

	Define Bronchopulmonary segments. Give their vascular supply, lymphatic drainage and clinical significance		
	Describe the anatomical correlates of chest tube intubation	Integrate with surgery	
	Describe the anatomical correlates of thoracentesis		
	Explain the pathophysiology of Atelectasis.	Integrate with pulmonology	
	Describe the anatomical correlates of bronchoscopy	Integrate with pulmonology	
	Describe the anatomical basis for medico-legal significance of lungs in determining the viability of newborn	Integrate with Forensic Medicine	
	Identify various anatomical landmarks on chest X-Rays, CT and MRI	Integrate with Radiology	
	EMBRYOLOGY & POST-NATAL DEVELOPMENT	**TOTAL HOURS = 6**	
Re-A-015	Describe the development of ribs, sternum, and thoracic vertebrae. Give the associated congenital malformations	Human Embryology	Bony components of 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	Human Embryology	Diaphragm
	Describe the embryological basis of congenital anomalies of the diaphragm: diaphragmatic hernias, eventuation of diaphragm, epigastric hernia, hiatal hernia, retrosternal hernia	Integrate with Pediatrics	
Re-A-017	Describe the development of upper respiratory tract: larynx and trachea	Human Embryology	

	Describe congenital anomalies of larynx and trachea: laryngeal web, laryngeal atresia, tracheal stenosis and atresia.	Integrate with Pediatrics	Upper respiratory tract
	List the types of tracheo-esophageal fistulas. Describe their embryological basis and clinical presentation	Integrated with Surgery	
Re-A-018	List the phases of lung development with their time periods. Describe the events taking place in each phase	Human Embryology	Lungs
	Describe the embryological basis and clinical presentation of respiratory distress syndrome/Hyaline membrane disease.	Integrate with Pediatrics	
	MICROSCOPIC STRUCTURE	**Total Hours = 4**	
Re-A-019	Give the general histological organization of respiratory system.	Histology	Organization of respiratory system
Re-A-020	Describe the microscopic and ultra-microscopic structure of respiratory epithelium	Histology	Respiratory epithelium
Re-A-021	Describe the histology of blood-air barrier	Histology	blood-air barrier
Re-A-022	Describe the histological features of epiglottis and larynx	Histology	Epiglottis & larynx
Re-A-023	Describe the histological features of trachea and lungs	histology	trachea and lungs
Re-A-024	Explain the histological basis of: Coughing Atelectasis Infant respiratory distress syndrome Diffuse alveolar damage Lung carcinoma	Integrate with pathology	Clinical correlates

Practical			
CODE	**SPECIFIC LEARNING OBJECTIVES**	**DISCIPLINE**	**TOPIC**
	Histology	**Total Hours = 5**	
Re-A-025	Identify, draw and label the histologic sections of epiglottis and larynx.	Histology	Epiglottis& larynx
Re-A-026	Describe the histological features of bronchial tree: trachea, bronchi, bronchioles, alveoli		Trachea & Organization of respiratory system
Re-A-027	Identify, draw and label the histological sections of bronchial tree: trachea, bronchi, bronchioles, alveoli, Lung		Bronchial tree & Lung
	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.		
Re-A-028	Describe, compare and contrast the light and electron microscopic features of type I and type II pneumocytes		Pneumocytes

NORMAL ORGAN FUNCTION			
Theory			
	MEDICAL PHYSIOLOGY	**Total Hours = 45**	
CODE	**SPECIFIC LEARNING OBJECTIVES**	**DISCIPLINE**	**TOPIC**
Re-P-001	Enlist the muscles of inspiration and expiration in quiet breathing	Integrate with Anatomy	Breathing
	Enlist the muscles of inspiration and expiration in labored breathing		
	Explain the components of the work of breathing	Medical Physiology	
	Discuss the mechanics of pulmonary ventilation		
	Explain periodic breathing		
	Explain the causes and pathophysiology of sleep apnea	Integrate with medicine	
Re-P-002	Define lung compliance		Lung Compliance
	Enlist the factors that affect lung compliance		

	Draw the compliance diagram of air filled and saline filled lungs	Medical Physiology	
	Enlist the components of surfactant		
	Describe the role of surfactant in lung compliance		
	Explain the role of surfactant in premature babies	Integrate with Pediatrics	
Re-P-003	Define the different lung volumes and capacities and their clinical significance	Medical Physiology	Lung volumes and Capacities
	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 types		
	Discuss FEV1/FVC ratio in relation to Bronchial Asthma.	Integrate with Pulmonology	
	Discuss FEV1/FVC ratio in relation to Chronic Obstructive Pulmonary disease/restrictive lung diseases		
	Discuss FEV1/FVC ratio in relation to pulmonary embolism	Integrate with medicine	
Re-P-004	Define alveolar ventilation.	Medical Physiology	Alveolar ventilation
	Define minute respiratory volume		
Re-P-005	Explain the ultrastructure of respiratory membrane	Medical Physiology	Principles of gaseous exchange
	Discuss the factors affecting diffusion of gases across the respiratory membrane		
	Explain the diffusion capacity of respiratory membrane for oxygen and carbon dioxide		
	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		
Re-P-006	Explain the different forms of transport of oxygen in the blood	Medical Physiology	Transport of oxygen in the blood

	Draw and explain oxyhemoglobin dissociation curve		
	Enlist the factors that cause rightward shift of oxyhemoglobin dissociation curve.		
	Enlist the factors that cause leftward shift of oxyhemoglobin dissociation curve		
	Explain the Bohr's effect		
	Define; enlist the types, and causes of cyanosis	Integrate with Medicine	
Re-P-007	Enlist different forms in which CO_2 is transported in the blood.	Medical Physiology	Transport of CO_2 in blood
	Explain the Carboxyhemoglobin dissociation curve.		
	Explain the Haldane effect.		
	Explain the chloride shift/Hamburger phenomenon.		
	Define the respiratory exchange ratio (RER)		
Re-P-008	Explain the alveolar oxygen and carbon dioxide pressure when VA/Q = infinity, zero and normal	Medical Physiology	VA/Q (Ventilation Perfusion Ratio)
	Explain the concept of physiological shunt when VA/Q ratio is less than normal		
	Explain the concept of physiological dead space when VA/Q ratio is above normal		
Re-P-009	Enlist the respiratory & non-respiratory functions of lungs.	Medical Physiology	Protective Reflexes
	Explain the nervous control of bronchiolar musculature		
	Trace the reflex arc of cough reflex and sneeze reflex		
Re-P-010	Explain the principal means by which acclimatization occurs	Medical Physiology	Aviation and Space
	Explain the events that occur during acute mountain sickness		
	Enlist the features of chronic mountain sickness		

Re-P-011	Explain the pathophysiology, features, prevention and treatment of decompression sickness.	Medical Physiology	Deep sea diving
Re-P-012	Draw and explain the effect of CO poisoning on oxyhemoglobin dissociation curve	Medical Physiology	CO poisoning
	Explain the pathophysiology, features, and treatment of CO poisoning.	Integrate with medicine	
Re-P-013	Enumerate the components of respiratory centers and explain their functions.	Medical Physiology	Nervous regulation of respiration
	Explain the inspiratory RAMP signal		
	Explain the Herring Breuer reflex/lung inflation reflex and its clinical significance		
Re-P-014	Explain the location of chemo sensitive area (central chemoreceptors) and peripheral chemoreceptors	Medical Physiology	Chemical control of respiration
	Explain the effect of hydrogen ions & carbon dioxide on the chemo- sensitive area		
	Explain the role of oxygen in the control of respiration/peripheral chemoreceptors		
Re-P-015	Explain the regulation of Respiration during Exercise	Medical Physiology	Exercise and respiration
Re-P-016	Enlist the effects of acute hypoxia	Medical Physiology	Hypoxia
	Explain the hypoxia inducible factor a master switch for body response to hypoxia		
	Define and explain different types of hypoxias	Integrate with Medicine	
Re-P-017	Explain the pathophysiology of Tuberculosis.	Integrate with pathology	Tuberculosis
Re-P-018	Describe the pathophysiology of Pneumonia	Integrate with pathology	Pneumonia
Re-P-019	Define Dyspnea	General Medicine	Dyspnea
	Enlist different causes of dyspnea		
	Differentiate between cardiac and respiratory dyspnea		

	Outline management strategies for dyspnea		
Re-P-020	Enlist the causes of Pneumothorax	Surgery	Pneumothorax
	Describe the signs and symptoms of Pneumothorax		
Re-P-021	Enlist the causes of Pleuritis		Pleuritis
	Describe the signs and symptoms of Pleuritis		
	Discuss the management of Pleuritis		
Re-P-022	Enlist the causes of Bronchitis	General Medicine	Bronchitis
	Discuss the signs and symptoms of Bronchitis		
	Discuss the management of Bronchitis		
Re-P-023	Classify different types of pneumonia		Pneumonia
	Discuss the sign symptoms of pneumonia		
	Discuss the management of pneumonia		
Re-P-024	Classify different types of asthma		Asthma
	Discuss the signs and symptoms of asthma		
	Discuss the management of asthma		
Re-P-025	Classify different types of Tuberculosis		Tuberculosis
	Discuss the signs and symptoms of tuberculosis		
	Discuss the management of Tuberculosis		
Re-P-026	Classify different types of acute respiratory distress syndrome	General Medicine	Acute respiratory distress syndrome
	Discuss the signs and symptoms of acute respiratory distress syndrome		
	Discuss the management of acute respiratory distress syndrome		
Re-P-027	Define respiratory failure	General Medicine	Respiratory Failure
	Describe various types of respiratory failure		
	Enlist various causes of respiratory failure		
	Outline management strategies of respiratory failure		
Re-P-028	Describe ABC in a trauma patient	Surgery	First Aid in Surgical Patients

MEDICAL BIOCHEMISTRY		Total Hours = 15	
Re-B-001	Explain and interpret the pedigree of single gene defect i.e., Emphysema and cystic fibrosis (autosomal recessive)	Medical Biochemistry	Genetic defects
Re-B-002	Explain the biochemical significance of phospholipids	Medical Biochemistry	Phospholipids
	Interpret Respiratory Distress syndrome on the basis of given data	Integrate with Physiology	
Re-B-003	Describe the structure, synthesis, degradation and functions of Elastin	Medical Biochemistry	Elastin
	Discuss the pathophysiology of Emphysema.	Integrate with Pathology	
Re-B-004	Discuss the concept of acid base balance	Medical Biochemistry	Acid base balance
	Interpret metabolic and respiratory disorders of acid base balance on the basis of sign, symptoms and ABG findings		
	Describe the Clinical interpretation of acid base balance	Integrate with Medicine	

Practical			
CODE	PRACTICAL	Total Hours = 10	
	SPECIFIC LEARNING OBJECTIVES	DISCIPLINE	TOPIC
Re-P-029	Perform the clinical examination of chest for the respiratory system (inspection, palpation, percussion, Auscultation)	Medical Physiology	Clinical Examination of Chest
Re-P-030	Determine Peak Expiratory Flow rate with Peak Flow Meter		Peak Expiratory Flow rate measurement
Re-P-031	Determine Blood Oxygen Saturation with finger Pulse Oximeter		Oxygen Saturation

Re-P-032	Determine Respiratory Volumes & Capacities with Spirometer/ Spiro lab. (FEV1/FVC ratio)		Spirometry
Re-P-033	Student should be able to Record the movements of chest by stethograph		Chest movements
Re-B-005	Determine the pH of the solution by pH meter	Medical Biochemistry	Determination of pH

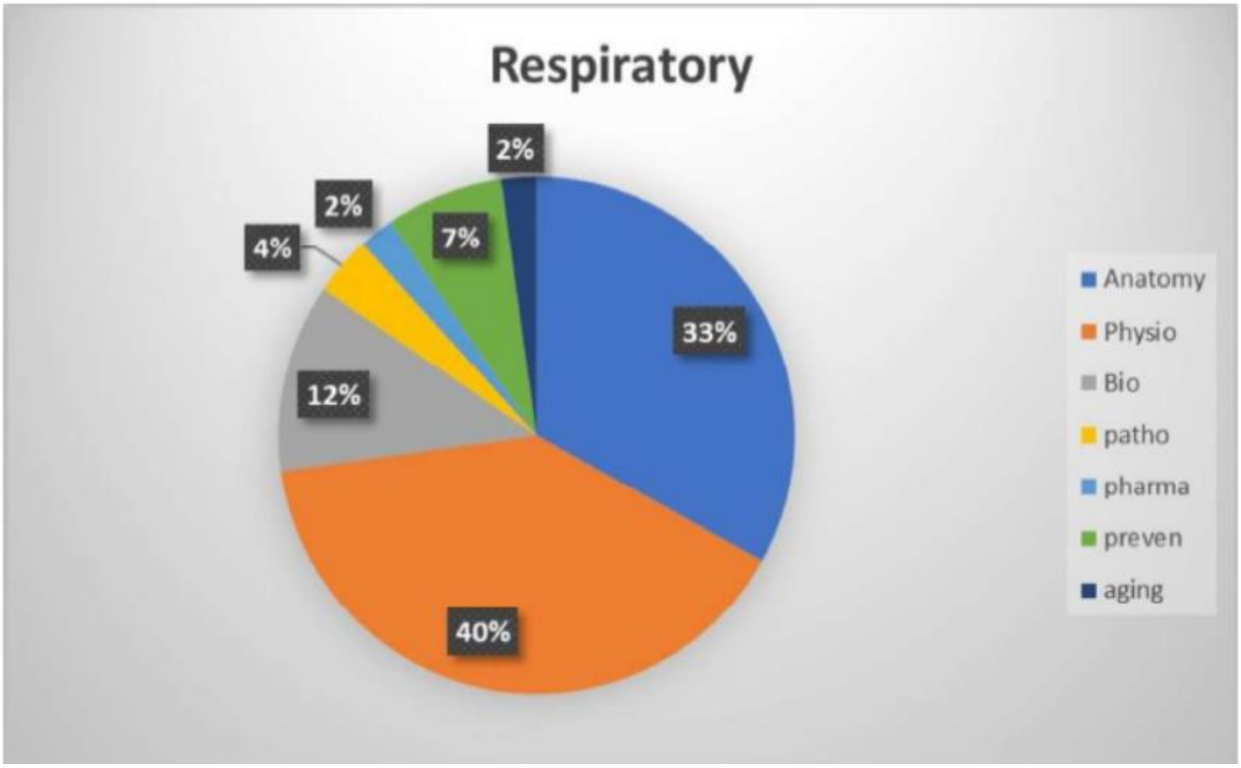
PATHOPHYSIOLOGY AND PHARMACOTHERAPEUTICS			
		Total Hours = 5+3	
CODE	SPECIFIC LEARNING OBJECTIVES	DISCIPLINE	TOPIC
Re-Ph-001	Identify the drugs for cough suppression & expectoration	Pharmacology & Therapeutics	Cough Suppressants
	Explain the mechanism of action and adverse effects of cough suppressants		
Re-Ph-002	Explain the mechanism of action and adverse effects of anti-histamines		Anti-histamines
Re-Ph-003	Explain the mechanism of action and adverse effects of anti-asthmatics		Anti-asthmatics
Re-Pa-001	Describe the pathophysiology of acute respiratory distress syndrome	Pathology	Acute Respiratory Distress Syndrome
Re-Pa-002	Describe the pathophysiology of obstructive lung disease		Obstructive lung Disease
Re-Pa-003	Describe the pathophysiology of Restrictive Lung Disease		Restrictive Lung Disease

AGING			
CODE	Aging theory	Total Hours = 3	
	SPECIFIC LEARNING OBJECTIVES	DISCIPLINE	TOPIC
Re-Ag-001	Discuss the effect of age on decreased lung compliance	Pathology	Age-induced lung fibrosis
Re-Ag-002	Discuss the role of age on respiratory clearance leading to recurrent inflammatory processes at the ciliated respiratory epithelium		Increased vulnerability to infection & neoplasia

DISEASE PREVENTION & IMPACT			
CODE		Total Hours = 10	
	SPECIFIC LEARNING OBJECTIVES	DISCIPLINE	TOPIC
Re-CM-001	Identify the common risk factors of acute respiratory infections with emphasis on smoking	Community Medicine and Public Health	Prevention of acute respiratory infections (ARI)
	Discuss preventive strategies of different problems related to respiratory system		
	Enlist the common vaccines used for the prevention of ARI		
	Explain the role of vitamins in the respiratory tract infections	Integrate with Biochemistry	
Re-CM-002	Explain the effect of air pollutants on the respiratory system		Interaction of environment &

		Community Medicine and Public Health	Respiratory system
Re-CM-003	Describe the burden of respiratory diseases		Epidemiology of respiratory Diseases
Re-CM-004	Enlist the common respiratory diseases related to occupation		Occupational Lung Diseases
Re-BhS -001	identify the psychosocial factors leading to dyspnea.	Behavioral sciences	Dyspnea
Re-BhS-002	Identify the psychosocial factors leading to psychogenic cough.		Psychogenic cough
Re-BhS-003	Identify and deal with the various psychosocial aspects of Respiratory conditions (such as Asthma, COPD, Tuberculosis, Cystic Fibrosis, Sleep Apnea) on Individual, Family and Society.		Personal, Psychosocial and vocational issues

Module Weeks	**4**
Recommended Minimum Hours	**136**



CURRICULUM OF THE HOLY QURAN

SECTION ONE: FAITH (Aqaid)

LEARNING OUTCOMES

a. **Oneness of Allah (SWT) (Tawheed)**

   i. Describe Unity of Allah in being

   ii. Describe Unity of Allah in attributes

   iii. Describe concept of Shirk

   iv. Impact of Tawheed in human life

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b. Prophethood (Risalat)

   i. Explain Significance of Risalat

   ii. Identify Prophets as role models

   iii. Recognize finality of Prophethood – Prophet Muhammad (PBUH)

c. Belief in Hereafter (Aakhirat)

   i. Appraise continuity of life beyond material world

   ii. Concept of Doomsday and its various stages

   iii. Concept of Day of Judgment and accountability in the Hereafter

   iv. Concept of "Meezan"

d. Divine Revelations (Holy Books)

   i. Explain the divine decree in sending the Holy Books

   ii. Identify the Holy Quran as the only preserved & authenticated divine revelation to date

   iii. Interpret Quran as Furqan

e. Angels

   i. Discuss belief in angels and its significance

   ii. Describe the universal role of angels (their specific duties)

f. Qadr

   i. Identify Taqdeer as Knowledge of Allah

   ii. Explain the concept of Faith in Good and Evil

Topic Areas:

1. Oneness of Allah subhan wa taala (Tawheed)
2. Prophethood (Risalat)
3. Belief in Hereafter (Akhirat)
4. Devine revelations (Holy Books)

SECTION TWO: WORSHIP (IBADAAT)

LEARNING OUTCOMES

a. **Prayer (Namaz)**

i. Recognize the importance of physical purity (Taharah)

ii. Discuss the philosophy of prayer and its role in purification of soul

iii. Recognize the importance of prayer in building personal character – sense of duty, patience, perseverance, punctuality and self/social discipline

iv. Spiritual, moral and social impact of prayer in building of righteous community

v. Role in creating brotherhood, equality and unity in ummah

vi. Identify the conditions in which relaxation in prayer is allowed e.g. during operation, travelling etc.

b. Obligatory Charity (Zakat)

i. Identify obligatory importance of Zakat and other items as outlined under the title of 'Infaq-fee-sabilillah'

ii. Categorize the people who can be the beneficiaries of Zakat

iii. Role of zakat in eradication of greed and love of material world

iv. Effect of Zakat and sadaqat in circulation of wealth and alleviation of poverty

v. Explain the essence of zakat and sadaqat in building just communities

vi. Describe the role of state in collection and disbursement of zakat

c. 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

d. 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

   iv. Recognize the importance of Hajj in uniting the ummah

   v. Sacrifice for Allah subhan wa taala (essence of qurbani)

Topic Areas:

1. Prayer (Salah/Namaz)
2. Obligatory charity (Zakat)
3. Fasting (Saum/Roza)
4. Pilgrimage (Hajj)

CURRICULUM OF CIVICS

Topics	Intended Learning Outcomes
Civics-Meaning & Nature	Define civics Describe how civics can improve the citizenship Illustrate the scope of civics Discuss the nature of civics Give examples how civics can help in the national development
Significance and Utility	Examine the significance of civics Explain how civics is important to know the problems of daily life Discuss how civics can help to bring improvements in the civics life of citizens Evaluate how civics can improve the sense of love and respect for human relationship Discuss that studying civics can develop a sense of gratitude Give examples how civics is important to develop the global unity
Relationship with Social Sciences	Compare civics with political science, history, economics, sociology and ethics
Harmonic Relationship	Describe the term harmonic relationship Explain the harmonic relationship among different members of society. (Women, children and senior citizens) Explain how harmonic relationship develop for respect of religion
Individual and state	Define the term individual in relation to civics Define the term state Explain the relation between an individual and a state Describe the importance of an individual in a state Enlist the responsibilities of an individual in a state

Family	Identify the basic unit of social institution Discuss and characterize the different types of family Give the importance of basic unit of social institution in the development of a state Enlist the responsibilities of family in general Analyze your role for the betterment of the family Compare and contrast the impact of the deterioration of family in the western society and give examples
Community	Define community Explain the nature and significance of community Discuss the role of a family in community Analyze the role of an individual for the betterment of the community
Society	Define society Elaborate the relation between an individual and society and society and state Analyze the role of an individual for the betterment of society
Nation, Nationality	define the term nation, nationality and ummah differentiate between nation and nationality distinguish between nation and ummah analyze the value, behavior and the pattern of society based on religions evaluate the characteristics of society developed by religions
Origin and elements of State	Trace the origin of state with reference to the theories of Divine Origin, Force and Social Contract (Hobbs, Lock, Rousseau) Describe the elements of a state (sovereignty, population, territory, Government) Compare and distinguish the role of state, society and government
Functions of state. (Defense, law and order, welfare etc.)	Describe the functions of state Describe the factors which are necessary for proper functioning of state Analyze the situation when a state does not function properly Describe the characteristics of a welfare state Analyze how a welfare state guarantees the equity and justice on the issues of gender, religion, and social classes
Sovereignty	Define the concept of sovereignty in west Discuss different kinds of sovereignty Explain Austin's concept of sovereignty Analyze critically Austin's concept of sovereignty

CURRICULUM OF ISLAMIAT AND PAKISTAN STUDIES

ISLAMIYAT

A short course on Islamic Studies will be completed in First and Second year with an exam at the end of second year,

Course Content

1. Understand the basic principles of Islam.
2. Explain the concept of the Islamic state.
3. Explain the Quran as a guide for modern society and scientific development,
4. Describe the life of the Holy Prophet Peace be upon him as an example to follow.
5. Explain ethics in the Islamic prospective.
6. Describe the rights of the individual in Islam,
7. Describe the rights of women and children in Islam.
8. Explain the contribution of Islamic scholars to science and medicine.
9. Understand Islam in terms of modern scientific development.
10. Explain the concept of Rizk-e-Hilal.
11. Explain the concept of Hukook-ul-Ibad.

PAKISTAN STUDIES

A short course on Pakistan Studies will be completed in First and Second year with an exam at the end of second year,

Course Content

1. Describe brief the salient features of the Pakistan movement.
2. Explain the basis for the creation of Pakistan.
3. Give a brief account of the history of Pakistan.

ISLAMIYAT

A short course on Islamic Studies will be completed in First and Second year with an exam at the end of second year.

Course Content

1. Understand the basic principles of Islam.
2. Explain the concept of the Islamic state.
3. Explain the Quran as a guide for modern society and scientific development.
4. Describe the life of the Holy Prophet Peace be upon him as an example to follow.
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PAKISTAN STUDIES

A short course on Pakistan Studies will be completed in First and Second year with an exam at the end of second year.

Course Content

1. Describe brief the salient features of the Pakistan movement.
2. Explain the basis for the creation of Pakistan.
3. Give a brief account of the history of Pakistan.

4. Explain the ethnic and cultural distribution of the population of Pakistan.
5. Describe the Provinces and resources available in Pakistan.
6. Explain current problems faced by Pakistan.
7. Describe the social, economic and health problems of the rural population of Pakistan.

Islamiyat/Pakistan studies Books

- Standard Islamiyat (Compulsory) for B.A, B.Sc., M.A, M.Sc., MBBS by Prof. M. Sharif Islahi Ilmi Islamiyat (Compulsory) for B.A. B.Sc., & equivalent.
- Pakistan studies (Compulsory) for B.A. B.Sc., B.Com., Medical/Engineering by Prof. Shah Jahan Kahlun
- Pakistan studies (Compulsory) for B.A, B.Sc., B.Com., B.Ed., Medical/Engineering by Prof. Shah Jahan Kahlun

RESPIRATORY SYSTEM MODULE

Objectives	Skill	Miller's Pyramid Level reflected
Auscultation of Chest	Chest sounds	Shows
Detection of clubbing	Clubbing	Shows
Identification of pneumonic patch on chest x ray	Pneumonia CXR	Shows
Administering inhaler to a patient	Inhaler use	Shows

CARDOVASCULAR SYSTEM MODULE

Objectives	Skill	Miller's Pyramid Level reflected
Auscultation of heart sounds	**Heart sounds**	**Shows**
Detection of ankle swelling/edema – pitting /non-pitting	**Edema**	**Shows**
Abdominal jugular reflex	**JVP**	**Shows**
Identify main organs of the thorax on CXR	**CXR**	**Shows**
Perform detection of pedal and carotid pulses	**Pedal and carotid pulse**	**Shows**
Perform cervical and axillary lymph node examination	**Lymph node Examination**	**Shows**

PROFESSIONALISM, ETHICS, RESEARCH, LEADERSHIP SKILLS

ATTRIBUTES	COMPETENCIES
	PROFESSIONALISM
Communicator	1. Demonstrate non-verbal, verbal, written and electronic communication skills with peers and teachers
	2. Develop an argument
Caring & Empathic	3. Demonstrate respect of diversity in gender, age, culture, race, religion, disabilities, and sexual orientation for peers
Responsible & Accountable	4. Follow the dress code and rules and regulation of the institution
	5. Demonstrate punctuality
	6. Discuss professional code of conduct
	7. Take responsibility of one's actions and be accountable to oneself
	8. Engage in orientation, co-curricular and extracurricular activities
Team Player	9. Work respectfully and effectively with their peers and participate in different team roles
Self-Aware	10. Identify personal strengths and areas of improvement
ETHICS SKILLS	
Digital Citizen	11. Keep personal and professional data and information safe
	12. Understand cyberbullying, harassing, sexting.
	13. Design a professional digital footprint and use appropriate online etiquette and follow rules for every Internet resource
RESEARCH SKILLS	
Evidence Based Practitioner	14. Locate credible scientific data
LEADERSHIP SKILLS	
Resilient & Adaptable	15. Demonstrate healthy coping mechanisms to respond to stress
	16. Demonstrate patience and tolerance
Self-directed Learner	17. Manage time effectively
	18. Identify the gap in own learning
	19. Set and track learning and improvement goals
	20. Identify and seek help as and when required to achieve the set goals

TEACHING AND LEARNING METHODOLOGIES

- Large Group Interactive Session
- Problem Based Learning (PBL)
- Tutorials
- Skill Laboratories
- Laboratory Practical
- Demonstrations
- Self-Directed Learning

RESOURCE BOOKS

Anatomy

- Langman's Medical Embryology
- Snell's Clinical Anatomy
- Snell's Clinical Neuroanatomy, Walter Kluwer
- Laiq H.S. Medical Histology. Paramount Books.
- Laiq H.S. General Anatomy. Paramount Books.

Physiology

- Guyton AC and Hall JE. Textbook of Medical Physiology. W. B. Sunders & Co., Philadelphia.
- Essentials of Medical Physiology by Mushtaq Ahmad

Biochemistry

- Harper's Biochemistry by Robert K. Murray, Daryl K. Granner, Peter A. Mayes, Victor W. Rodwell. McGraw-Hill latest ed.
- Lippincott's Illustrated Reviews Biochemistry Champe, P.C. & Harvey, E.A latest ed. Published by Lippincott Williams and Wilkins.
- ABC of clinical genetics by H.M.Kingston

Pathology

- Vinary Kumar, Abul K. Abbas and Nelson Fausto Robbins and Cotran, Pathologic basis of disease, WB Saunders,
- Richard Mitchall, Vinary Kumar, Abul K. Abbas and Nelson Fausto Robbins and Cotran, Pocket Companion to Pathologic basis of diseases. Saunder Harcourt.

- Walter and Israel. General Pathology. Churchill Livingstone.

Pharmacology

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

Behavioral Sciences

- Handbook of Behavioural Sciences by Prof. Mowadat H.Rana, 3rd Edition ,
- Medical and Psychosocial Aspects of Chronic Illness and Disability SIXTH EDITION Donna R. Falvo, PhD Beverley E. Holland, PhD, RN,

Community medicine

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

Surgery

- Bailey & Love' Short practice of Surgery

Medicine

- Davidson's Principles and Practice of Medicine

Islamiyat

- Standard Islamiyat (compulsory) for B.A, BSc, MA,MSc, MBBS by Prof M Sharif Islahi.
- Ilmi Islamiyat (compulsory) for BA, BSc, & equivalent.

ASSESSMENT METHODOLOGY

FORMATIVE:

Theory: Single best multiple choice question and short essay tests will be conducted according to the schedule given

1ST YEAR MBBS TEST SCHEDULE:

DATE	TEST
06/10/23	Biochemistry and Physiology
12/10/23	Anatomy
20/10/23	Biochemistry and Physiology
27/10/23	Pharmacology and Pathology
10/11/23	Biochemistry and Physiology
01/12/23	Biochemistry and Physiology
20/11/23	Anatomy
5/12/23	Block Examination (Written)
6-8/12/23	Block Examination (Viva/Practical)

SUMMATIVE (To be held at the end of 1st Year MBBS)

Every candidate shall take the examination in the following Blocks/subjects in First Professional MBBS Examination: -

A. Block 1 (Foundation + Hematopoietic & Lymphatic Modules) 300 Marks
B. Block 2 (Musculoskeletal & Locomotion Module) 300 Marks
C. Block 3 (Cardiovascular System + Respiratory Modules) 300 Marks
D. Islamic Studies/Ethics and Pakistan Studies 100 Marks

The Examination in Cardiovascular and respiratory Module shall be as follows:

C. Block 3 (Cardiovascular System + Respiratory Modules)

The examination in Block 3 shall be as follows:-

I. One written paper of 120 marks having two parts:
   v. Part I shall have eighty five Multiple Choice Questions (MCQs) of 85 marks and the time allotted shall be 110 minutes.
   vi. Part II shall have seven Structured Essay Questions (SEQs) of 35 marks and the time allotted shall be 70 minutes.
II. Oral/Practical/Clinical examination shall have 120 marks.
III. The continuous internal assessment through 'Block Examination' conducted by the college of enrollment shall carry 60 marks, i.e., 20% of the total allocated marks for the block. The score will be equally distributed to the Written and Oral/Practical/Clinical Examinations.

Marks Distribution in each subject is as follows:

Block 3 (CVS & Respiratory)	Part I MCQs Part II SEQS	85 Marks 35Marks	Oral and Practical / Clinical Examination	120 Marks	**300**
	Internal Assessment	30 Marks	Internal Assessment	30 Marks	
		150		**150**	

Regulations

1. This examination shall be open to any student who:-
   a. has been enrolled/registered and completed one academic year preceding the first professional examination in a constituent/affiliated College of the University.
   b. has his/her name submitted to the Controller of Examinations, for the purpose of examination, by the Principal of the College in which he / she is enrolled & is eligible as per all prerequisites of the examination.
   c. has his/her marks of internal assessment in all the Blocks sent to the Controller of Examinations by the Principal of the College alongwith the admission forms.
   d. produces the following certificates duly verified by the Principal of his / her College:
      (i) of good character;
      (ii) of having attended not less than three-fourth (75%) of the full course of lectures delivered and practical conducted in the particular academic session.
      (iii) Certificate of having passed the Block Examinations conducted by the college of enrolment with at least 50 % cumulative percentage in aggregate of blocks 1, 2 and 3.

      Candidates falling short of lectures or practical shall not be admitted to the examination but may be permitted to appear at the next examination if they attend 75% of the lectures delivered and practical conducted up to the commencement of the next examination by remaining on the rolls of a College as regular student.

2. The minimum number of marks required to pass this examination for each paper shall be fifty percent (50%) in Written and fifty percent (50%) in the Oral/Practical/Clinical examinations and fifty percent (50%) in aggregate, independently and concomitantly at one and the same time.
   However, the minimum number of marks required to pass the examination for Islamic Studies/Ethics and Pakistan Studies shall be thirty three percent (33%) in aggregate.

   ***Note:**

   i. Islamic Studies/Ethics and Pakistan Studies can be cleared any time before passing the Final Professional Examination.
   ii. The marks of Islamic Studies/Ethics and Pakistan Studies shall not contribute towards the total marks of the Professional Examination and determination of position.

3. If there is a discrimination of > 50 % marks awarded by the Internal and External Examiners in any segment then the University holds the right to review and or re-examine the individual case.
4. Candidates who secure eighty five percent (85%) or above marks in any of the papers in Blocks 1, 2 and 3 shall be declared to have passed **"with distinction"** in that Block, subject to having at least 80 % marks in the Written component of that paper, concomitantly. However, no candidate who does not pass in all the papers of the First Professional Examination as a whole at one and the same time, shall be declared to have passed "with distinction" in any paper.

5. A candidate failing in one or more paper of the annual examination shall be provisionally allowed to join second professional class till the commencement of supplementary examinations. The candidate, however, shall have to pass the failed paper in this supplementary examination, within 04 weeks, failing which he / she shall be detained in the first professional. Under no circumstances, a candidate shall be promoted to the second professional class till he / she has previously passed all the papers in the First Professional MBBS Examination.

   If a student appears in the supplementary examination for the first time as he/she did not appear in the annual examination and failed in any paper in the Supplementary Examination, he/she will be detained in the same class and will not be promoted to the next class.

6. Any student who fails to clear First Professional Examination in four consecutive attempts, inclusive of both availed as well as un-availed, after becoming eligible for the examination, and has been expelled on that account shall not be eligible for continuation of medical/dental studies for MBBS or BDS and shall not be eligible for fresh admission as a fresh candidate in either MBBS or BDS.

7. Every candidate shall forward his / her application for admission to the examination to the Controller of Examination, through the Principal of the College as per notified schedule, before the commencement of the examination accompanied by the prescribed fee.

8. The marks of internal assessment and the attendance , shall be submitted to Controller of Examinations three times, within two weeks of completion of each of Blocks 1, 2 and 3 examinations. Internal assessment received after commencement of the examination shall not be accepted.

9. A parent-teacher meeting should be scheduled by all institutes to inform the parents and subsequently the university about the attendance and internal assessment, after every block exam.

10. It is emphasized that fresh internal assessment or a revision of assessment for supplementary examination shall not be permissible. However, a revised internal assessment for the detained students can be submitted. The internal assessment award in a particular year will not be decreased subsequently detrimental to the detainee candidate. A proper record of the continuous internal assessment shall be maintained by the respective departments of Medical Colleges.

11. Whenever completed admission form or the fee is received after the last date prescribed above, the candidate shall pay double the normal fee, as per schedule notified by the controller of examination before the commencement of the examination. A fine of Rs. 50000/- will also have to be deposited by the respective college.

12. The candidates shall pay their fee through the principals of their respective Colleges who shall forward a bank draft / pay order / crossed cheque in favour of Treasurer, University of Health Sciences Lahore, along with Admission Forms.

TABLE OF SPECIFICATIONS

Theme		Written Exam			Oral/Practical/Clinical Exam			
	Subject	MCQ (1 mark)	SEQ (5 mark each)	Marks	OSPE/OSCE/Viva Stations			Marks
					OSPE (08 marks each) Observed	OSCE (08 marks each) Observed	Structured Viva (16 marks each)	
Normal Structure	Anatomy & applied/clinical	16	2	26	1	-	1	24
Normal Function	Physiology & applied/clinical	31	4	51	4	-	1	48
	Biochemistry & applied/clinical	18	1	23	2	-	1	32
Disease Burden & Prevention	Community Medicine & Public Health	06		06	-	-	-	-
	Behavioral Sciences	02	-	02	-	-	-	-
Pathophysiology and Pharmacotherapeutics	Pathology	07	-	07	-	-	-	-
	Pharmacology	05	-	05	-	-	-	-
CFRC	CFRC-1-3	-	-	-	-	1	-	08
PERLs	PERLs-1-3	-	-	-	-	1	-	08
		85	7x5=35	**120**	7 Stations x 08 = 56	2 Stations x 08 = 16	3 Vivas x 16 = 48	**120**

TIME TABLE/ PLANNER
CARDIOVASCULAR MODULE

Lahore Medical & Dental College
Canal Bank North, Tulspura, Lahore
Phone No. 0346-4418891-98

1st YEAR M.B.B.S TIMETABLE SESSION 2022-2023 w.e.f. 11.09.2023 till 15.09.2023

DAY & TIME	08:00 a.m. to 09:30 a.m.	09:30 a.m. to 10:15 a.m.	10:15 a.m. to 11:00 a.m.	11:00 a.m. to 11:15 a.m.	11:15 a.m. to 12:00 Noon	12:00 Noon to 01:00 p.m.	01:00 p.m. to 01:45 p.m.	01:45 p.m. to 02:30 p.m.
MONDAY	Physio. Practical A+B Dr. Bilal & Dr. Talha (CVP-031) Physio. Tutorial C+D Dr. Najia & Dr. Ume Farwa (CVP-01) Biochem. Tutorial E+F (Dr. Abdullah & Dr. M. Zain) (CVB07) Biochem. Practical/ G+H Dr. Zahra & Dr. Maryam S(CVB11) Histo. Practical [1] CSF/ Biochem. Practical [2] I+J (Dr. M Ali & Dr. M Ali Ayub) Heart sounds, JVP	Physiology Lecture Theater No. 11 Prof. Anser, Prof Zaima (CVP)	Biochemistry Lecture Theater No. 11 Prof. Rubina Bashir ECM/Elastin	**Break**	Anatomy / Aging[4] Lecture Theater No. 2 Prof. Iffat Badar CVS development	Physiology Lecture Theater No. 2 Prof. Anser, Prof Zaima (CVP)	Disease Prevention & Impact(Community Medicine)/(Behavior sciences) [6]Lecture Theater No. 2. Dr. Humayun Mirza Disease prevention models	Physiology (Dr. Attiqa, Prof Zaima Ali- CVP)/ Pathology [7] Lecture Theater No. 2
TUESDAY	Physio. Practical C+D Dr. Bilal & Dr. Talha (CVP-031) Physio. Tutorial E+F Dr. Najia & Dr. Ume Farwa (CVP-01) Biochem. Tutorial G+H (Dr. Abdullah & Dr. M. Zain) (CVB 07) Biochem. Practical/I+J(Dr. Zahra & Dr. Maryam S) (CVB-11) Histo. Practical [1]CSF/ Biochem. Practical [2] A+B Dr. M Ali (Heart sounds, JVP)	Physiology Lecture Theater No. 2 Prof. Anser, Prof Zaima (CVP)	Biochemistry Lecture Theater No. 2 Prof. Rubina Bashir MSB 007		Anatomy / Aging[4] Lecture Theater No. 2 Prof. Iffat Badar CVS development	Physiology Lecture Theater No. 2 Prof. Anser, Prof Zaima (CVP)	Pharmacology Lecture Theater No. 2 Prof. Ajaz Fatima Anti-hypertensive drugs	Disease Prevention & Impact(Community Medicine)/(Behavior sciences) [6]Lecture Theater No2 Dr. Humayun Mirza (Primordial and primary prevention)
WEDNESDAY	Physio. Practical E+F Dr. Bilal & Dr. Talha (CVP-031) Physio. Tutorial G+H Dr. Najia & Dr. Ume Farwa (CVP-01) Biochem. Tutorial I+J (Dr. Abdullah & Dr. M. Zain) (CVB-07) Biochem. Practical/ A+B (Dr. Zahra & Dr. Maryam S) (CVB-11) Histo. Practical [1] CSF/ Biochem. Practical [2] C+D (Dr. M Ali & Dr. M Ali Ayub) Heart sounds, JVP	Physiology Lecture Theater No. 2 Prof. Anser, Prof Zaima (CVP)	Biochemistry Lecture Theater No. 2 Prof. Rubina Bashir MSB 007		Anatomy / Aging[4] Lecture Theater No. 2 Prof. Iffat Badar CVS development	Physiology Lecture Theater No. 2 Dr. Attiqa, Prof Zaima Ali (CVP)	Disease Prevention & Impact / Aging (Community Medicine)/ (Behavior sciences) [5+6] Lecture Theater No. 2 Dr. Humayun Mirza Disease prevention models Primary and Primordial prevention quiz	Islamic studies Lecture Theater No. 2 Ms. Tehmeena Javed
THURSDAY	Physio. Practical G+H Dr. Bilal & Dr. Talha (CVP-031) Physio. Tutorial I+J Dr. Najia & Dr. Ume Farwa (CVP-01) Biochem. Tutorial A+B(Dr. Abdullah & Dr. M. Zain) (CVB-07) Biochem. Practical/ C+D(Dr. Zahra & Dr. Maryam S) (CVB-11) Histo. Practical [1]CSF/ Biochem. Practical [2] E+F (Dr. M Ali & Dr. M Ali Ayub) Heart sounds, JVP	Physiology Lecture Theater No. 1 Prof. Anser, Prof Zaima (CVP)	Biochemistry / Aging [3] Lecture Theater No. 1 Prof. Rubina Bashir MSB 005		Anatomy / Aging[4] Lecture Theater No. 1 Prof. Iffat Badar CVS development	Anatomy Dissection Dissection Hall Dr. Anam, Dr. Maham, Dr. Hafiza, Dr. Hasana Mediastinum 1	Physiology -Prof. Anser, Prof Zaima- (CVP)/ Pathology [7] Lecture Theater No. 2	PERL/Mentoring/ Biochemistry [8] Lecture Theater No. 2
FRIDAY	Physio. Practical I+JDr. Bilal & Dr. Talha (CVP-031) Physio. Tutorial A+B Dr. Najia & Dr. Ume Farwa (CVP-01) Biochem. Tutorial C+D (Dr. Abdullah & Dr. M. Zain) (CVB-07) Biochem. Practical/ E+F (Dr. Zahra & Dr. Maryam S) (CVB-11) Histo. Practical [1]CSF/ Biochem. Practical [2] G+H (Dr. M Ali & Dr. M Ali Ayub) Heart sounds, JVP	Physiology Lecture Theater No. 1 Prof. Anser, Prof Zaima (CVP)	Physiology Lecture Theater No. 1 Prof. Anser, Prof Zaima (CVP)	**11:00a.m. to 12:00 Noon** Anatomy Dissection Dissection Hall Dr. Anam, Dr. Maham, Dr. Hafiza, Dr. Hasana Mediastinum 2	**12:00 Noon to 01:00p.m.** Physiology Lecture Theater No. 1 (Dr. Attiqa, Prof Zaima Ali- CVP)			

Lahore Medical & Dental College
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1st YEAR M.B.B.S TIMETABLE SESSION 2022-2023 w.e.f. 18.09.2023 till 22.09.2023

DAY & TIME	08:00 a.m. to 09:30 a.m.	09:30 a.m. to 10:15 a.m.	10:15 a.m. to 11:00 a.m.	11:00 a.m. to 11:15 a.m.	11:15 a.m. to 12:00 Noon	12:00 Noon to 01:00 p.m.	01:00 p.m. to 01:45 p.m.	01:45 p.m. to 02:30 p.m.
MONDAY	Physio. Practical A+B Dr. Bilal & Dr. Talha (CVP032) Physio. Tutorial C+D Dr. Najia & Dr. Ume Farwa (CVP-02) Biochem. Tutorial E+F (Dr. Abdullah & Dr. M. Zain) ECM Lipids Biochem. Practical/ G+H (Dr. Zahra & Dr. Maryam S) (CVB-12) Histo. Practical [1] CSF/ Biochem. Practical [2] I+J	Physiology Lecture Theater No. 11 Prof. Anser, Prof Zaima (CVP)	Biochemistry Lecture Theater No. 11 Prof. Rubina Bashir CVB 008	**Break**	Anatomy / Aging[4] Lecture Theater No. 2 Prof. Iffat Badar CVS development	Physiology Lecture Theater No. 2 Prof. Anser, Prof Zaima (CVP)	Disease Prevention & Impact (Community Medicine)/ (Behavior sciences) [6] Lecture Theater No. 2 Prof. Seema Daud Health promotion, Education and Behavior change	Physiology (Dr. Attiqa, Prof Zaima (CVP)/ Pathology [7] Lecture Theater No. 2
TUESDAY	Physio. Practical C+D Dr. Bilal & Dr. Talha (CVP-032) Physio. Tutorial E+F Dr. Najia & Dr. Ume Farwa (CVP-02) Biochem. Tutorial G+H Biochem. Practical/ I+J Histo. Practical [1] CSF/ Biochem. Practical [2] A+B Dr. M Ali (Heart sounds)	Physiology Lecture Theater No. 2 Prof. Anser, Prof Zaima (CVP)	Biochemistry Lecture Theater No. 2 Prof. Rubina Bashir CVB 009		Anatomy / Aging[4] Lecture Theater No. 2 Prof. Iffat Badar CVS development	Physiology Lecture Theater No. 2 Prof. Anser, Prof Zaima (CVP)	Pharmacology Lecture Theater No. 2 Dr. Asia Firdous Anti Anginal Drugs	Disease Prevention & Impact (Community Medicine)/ (Behavior sciences) [6] Lecture Theater No. 2 Prof. Seema Daud Health Education
WEDNESDAY	Physio. Practical E+F Dr. Bilal & Dr. Talha (CVP-032) Physio. Tutorial G+H Dr. Najia & Dr. Ume Farwa (CVP-02) Biochem. Tutorial I+J (Dr. Abdullah & Dr. M. Zain) ECM Lipids Biochem. Practical/ A+B (Dr. Zahra & Dr. Maryam S) (CVB-12) Histo. Practical [1] CSF/ Biochem. Practical [2] C+D Dr. M Ali (Heart sounds)	Physiology Lecture Theater No. 2 Prof. Anser, Prof Zaima (CVP)	Biochemistry Lecture Theater No. 2 Prof. Rubina Bashir CVB 009		Anatomy / Aging[4] Lecture Theater No. 2 Prof. Iffat Badar CVS development	Physiology Lecture Theater No. 2 Dr. Attiqa, Prof Zaima (CVP)	Disease Prevention & Impact / Aging (Community Medicine)/ (Behavior sciences) [5+6] Lecture Theater No. 2 Prof. Seema Daud Health Promotion for behavioral changes	Islamic studies Lecture Theater No. 2 Ms. Tehmeena Javed
THURSDAY	Physio. Practical G+H Dr. Bilal & Dr. Talha (CVP-032) Physio. Tutorial I+J Dr. Najia & Dr. Ume Farwa (CVP-02) Biochem. Tutorial A+B (Dr. Abdullah & Dr. M. Zain) ECM Lipids Biochem. Practical/ C+D Histo. Practical [1] CSF/ Biochem. Practical [2] E+F Dr. M Ali (Heart sounds)	Physiology Lecture Theater No. 1 Prof. Anser, Prof Zaima (CVP)	Biochemistry / Aging [3] Lecture Theater No. 1 Prof. Rubina Bashir CVB 009		Anatomy / Aging[4] Lecture Theater No. 1 Prof. Iffat Badar CVS development	Anatomy Dissection Dissection Hall Dr. Anam, Dr. Maham, Dr. Hafiza, Dr. Hasana Aorta	Physiology (Prof. Anser, Prof Zaima (CVP)/ Pathology [7] Lecture Theater No. 2	PERL/Mentoring/ Biochemistry [8] Lecture Theater No. 2 Prof. Sobia Imtiaz Lipids
FRIDAY	Physio. Practical I+J Dr. Bilal & Dr. Talha (CVP-032) Physio. Tutorial A+B Dr. Najia & Dr. Ume Farwa (CVP-02) Biochem. Tutorial C+D (Dr. Abdullah & Dr. M. Zain) ECM Lipids Biochem. Practical/ E+F (Dr. Zahra & Dr. Maryam S) (CVB-12) Histo. Practical [1] CSF/ Biochem. Practical [2] G+H Dr. M Ali (Heart sounds)	Physiology Lecture Theater No. 1 Prof. Anser, Prof Zaima (CVP)	Physiology Lecture Theater No. 1 Prof. Anser, Prof Zaima (CVP)	**11:00a.m. to 12:00 Noon** Anatomy Dissection Dissection Hall Dr. Anam, Dr. Maham, Dr. Hafiza, Dr. Hasana SVC. Azygous system of veins	**12:00 Noon to 01:00p.m.** Physiology Lecture Theater No. 1 Dr. Attiqa, Prof Zaima (CVP)			

Lahore Medical & Dental College
Canal Bank North, Tulspura, Lahore
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1st YEAR M.B.B.S TIMETABLE SESSION 2022-2023 w.e.f. 25.09.2023 till 29.09.2023

DAY & TIME	08:00 a.m. to 09:30 a.m.	09:30 a.m. to 10:15 a.m.	10:15 a.m. to 11:00 a.m.	11:00 a.m. to 11:15 a.m.	11:15 a.m. to 12:00 Noon	12:00 Noon to 01:00 p.m.	01:00 p.m. to 01:45 p.m.	01:45 p.m. to 02:30 p.m.
MONDAY	Physio. Practical A+B Dr. Bilal & Dr. Talha (CVP-033) Physio. Tutorial C+D Dr. Najia & Dr. Ume Farwa (CVP) Biochem. Tutorial E+F Dr. Maryam Saeed & Dr. Momina(Enzymes classification,properties) Biochem. Practical/ G+H Dr. M.Zain & Dr Zahra(ECM,Proteins misfolding) Histo. Practical [1] CSF/ Biochem. Practical [2] I+J Dr. M Ali(JVP)	Physiology Lecture Theater No. 11 Prof. Anser, Prof Zaima (CVP)	Biochemistry Lecture Theater No. 11 Prof. Rubina Bashir Enzymes ways of catalysis	**Break**	Anatomy / Aging[4] Lecture Theater No. 2 Prof. Iffat Badar CVS development	Physiology Lecture Theater No. 2 Dr. Attiqa, Prof Zaima (CVP)	Disease Prevention & Impact (Community Medicine)/ (Behavior sciences) [6] Lecture Theater No. 2 Prof. Seema Daud Quiz 2-Health promotion, Education and Behavior change	Physiology/ Pathology [7] Lecture Theater No. 2 Dr. Muhammad Ali CVP-027
TUESDAY	Physio. Practical C+D Dr. Bilal & Dr. Talha (CVP-033) Physio. Tutorial E+F Dr. Najia & Dr. Ume Farwa (CVP) Biochem. Tutorial G+H Dr. Abdullah & Dr. Zahra Enzyme classification Biochem. Practical/ I+J Dr. M.Zain & Dr Zahra(ECM,Proteins misfolding) Histo. Practical [1] CSF/ Biochem. Practical [2] A+B M. Ali - JVP	Physiology Lecture Theater No. 2 Prof. Anser, Prof Zaima (CVP)	Biochemistry Lecture Theater No. 2 Prof. Rubina Bashir Enzymes ways of catalysis		Anatomy / Aging[4] Lecture Theater No. 2 Prof. Iffat Badar CVS development	Physiology Lecture Theater No. 2 Dr. Attiqa, Prof Anser (CVP)	Pharmacology Lecture Theater No. 2 Dr. Shazia Asim Anti Arrhythmic drugs	Disease Prevention & Impact (Community Medicine)/ (Behavior sciences) [6] Lecture Theater No. 2 Dr. Sadia Maqbool Sec. Prevention and screening of CVS diseases
WEDNESDAY	Physio. Practical E+F Dr. Bilal & Dr. Talha (CVP-033) Physio. Tutorial G+H Dr. Najia & Dr. Ume Farwa (CVP) Biochem. Tutorial I+J Dr. Abdullah & Dr. Maryam(Enzymes classification,properties) Biochem. Practical/ A+B Dr. M.Zain & Dr Zahra(ECM,Proteins misfolding) Histo. Practical [1] CSF/ Biochem. Practical [2] C+D	Physiology Lecture Theater No. 2 Prof. Anser, Prof Zaima (CVP)	Biochemistry Lecture Theater No. 2 Prof. Sobia Imtiaz Chemistry of Lipids		Anatomy / Aging[4] Lecture Theater No. 2 Prof. Iffat Badar CVS development	Physiology Lecture Theater No. 2 Dr. Attiqa, Prof Zaima (CVP)	Disease Prevention & Impact / Aging (Community Medicine)/ (Behavior sciences) [5+6] Lecture Theater No. 2 Dr. Sadia Maqbool Tertiary prevention of CVS diseases	Islamic studies Lecture Theater No. 2 Ms Tahmina Sajid Holy Quran
THURSDAY	Physio. Practical G+H Dr. Bilal & Dr. Talha (CVP-033) Physio. Tutorial I+J Dr. Najia & Dr. Ume Farwa (CVP) Biochem. Tutorial A+B Dr. Abdullah & Dr. Maryam(Enzymes classification,properties) Biochem. Practical/ C+D Dr. M.Zain & Dr Zahra(ECM,Proteins misfolding) Histo. Practical [1]CSF/ Biochem. Practical [2] E+FDr. M Ali - JVP	Physiology Lecture Theater No. 1 Prof. Anser, Prof Zaima (CVP)	Biochemistry / Aging [3] Lecture Theater No. 1 Prof. Sobia Imtiaz Chemistry of Lipids		Anatomy / Aging[4] Lecture Theater No. 1 Prof. Iffat Badar CVS development	Anatomy Dissection Dissection Hall Dr. Anam, Dr. Maham, Dr. Hafiza, Dr. Hasana Pericardium	Physiology (Prof. Anser, Prof Zaima (CVP)/ Pathology [7] Lecture Theater No. 2	PERL/Mentoring/ Biochemistry [8] Lecture Theater No. 2 Ms Alia Asad Alam Professionalism/ communicator
FRIDAY	Physio. Practical I+J Dr. Bilal & Dr. Talha (CVP-033) Physio. Tutorial A+B Dr. Najia & Dr. Ume Farwa (CVP) Biochem. Tutorial C+D Dr. Abdullah & Dr. Maryam(Enzymes classification,properties) Biochem. Practical/ E+F Dr. M.Zain & Dr Zahra(ECM,Proteins misfolding) Histo. Practical [1]CSF/ Biochem. Practical [2] G+H	Physiology Lecture Theater No. 1 Prof. Anser, Prof Zaima (CVP)	Physiology Lecture Theater No. 1	**11:00a.m. to 12:00 Noon** Anatomy Dissection Dissection Hall	**12:00 Noon to 01:00p.m.** Physiology Lecture Theater No. 1 Prof. Anser, Prof Zaima (CVP)			

Lahore Medical & Dental College
Canal Bank North, Tulspura, Lahore
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1st YEAR M.B.B.S TIMETABLE SESSION 2022-2023 w.e.f. 02.10.2023 till 06.10.2023

DAY & TIME	08:00 a.m. to 09:30 a.m.	09:30 a.m. to 10:15 a.m.	10:15 a.m. to 11:00 a.m.	11:00 a.m. to 11:15 a.m.	11:15 a.m. to 12:00 Noon	12:00 Noon to 01:00 p.m.	01:00 p.m. to 01:45 p.m.	01:45 p.m. to 02:30 p.m.
MONDAY	Physio. Practical A+B Dr. Hamza & Dr. Noor ul Huda (CVP-034) Physio. Tutorial C+D Dr. Hajra & Dr. Ume Farwa (Test topic discussion) Biochem. Tutorial E+F Dr. Abdullah & Dr. M Zain Atta Enzymes, Chemistry of lipids Biochem. Practical/ G+H Dr. Maryam & Dr Zahra Estimation of cardiac markers, CK, LDH Histo. Practical [1]CSF/ Biochem. Practical [2] I+J Dr. M Ali – Identification of main organs of thorax on CXR	Physiology Lecture Theater No. 11 Dr. Attiqa, Prof Zaima (CVP)	Biochemistry Lecture Theater No. 11 Prof. Sobia Imtiaz Chemistry of Lipids	**Break**	Anatomy / Aging[4] Lecture Theater No. 2 Prof. Sarah Shoaib Investigations and Anomalies of CVS	Physiology Lecture Theater No. 2 Prof. Anser, Prof Zaima (CVP)	Disease Prevention & Impact (Community Medicine)/ (Behavior sciences) [6] Lecture Theater No. 2 Dr. Sadia Maqbool Quiz 3 (secondary and tertiary prevention)	Physiology (Dr. Attiqa, Prof Anser– (CVP)/ Pathology [7] Lecture Theater No. 2
TUESDAY	Physio. Practical C+D Dr. Hamza & Dr. Noor ul Huda (CVP-034) Physio. Tutorial E+F Dr. Hajra & Dr. Ume Farwa (test topic discussion) Biochem. Tutorial G+H Dr. Abdullah & Dr. M Zain Atta Enzymes, Chemistry of lipids Biochem. Practical/ I+JDr. Maryam & Dr Zahra Estimation of cardiac markers, CK, LDH Histo. Practical [1]CSF/ Biochem. Practical [2] A+B Dr. M Ali – Identification of main organs of thorax on CXR	Physiology Lecture Theater No. 2 Prof. Anser, Prof Zaima (CVP)	Biochemistry Lecture Theater No. 2 Prof. Sobia Imtiaz Chemistry of Lipids		Anatomy / Aging[4] Lecture Theater No. 2 Prof. Sarah Shoaib Investigations and Anomalies of CVS	Physiology Lecture Theater No. 2 Dr. Attiqa, Prof Zaima (CVP)	Pharmacology Lecture Theater No. 2 Prof. Ajaz Fatima Drugs of Heart Failure	Disease Prevention & Impact (Community Medicine)/ (Behavior sciences) [6] Lecture Theater No. 2 Dr. Umbreen Naveed Concept of CVS disease as non communicable diseases
WEDNESDAY	Physio. Practical E+F Dr. Hamza & Dr. Noor ul Huda (CVP-034) Physio. Tutorial G+H Dr. Hajra & Dr. Ume Farwa (Test topic discussion) Biochem. Tutorial I+J Dr. Abdullah & Dr. M Zain Atta Enzymes, Chemistry of lipids Biochem. Practical/ A+BDr. Maryam & Dr Zahra Estimation of cardiac markers, CK, LDH Histo. Practical [1]CSF/ Biochem. Practical [2] C+D Dr. M Ali – Identification of main organs of thorax on CXR	Physiology Lecture Theater No. 2 Dr. Sadia, Dr. Madiha Iqbal (CVP)	Biochemistry Lecture Theater No. 2 Prof. Rubina Bashir Enzymes effects of PH and substrate conc.		Anatomy / Aging[4] Lecture Theater No. 2 Dr. Madiha Iqbal Investigations and Anomalies of CVS	Physiology Lecture Theater No. 2 Prof. Anser, Prof Zaima (CVP)	Disease Prevention & Impact / Aging (Community Medicine)/ (Behavior sciences) [5+6] Lecture Theater No. 2 Umbreen Naveed Risk factors for CVS diseases	Islamic studies Lecture Theater No. 2 Ms Tahmina Javed Holy Quran
THURSDAY	Physio. Practical G+H Dr. Hamza & Dr. Noor ul Huda (CVP-034) Physio. Tutorial I+J Dr. Hajra & Dr. Ume Farwa (Test topic discussion) Biochem. Tutorial A+B Dr. Abdullah & Dr. M Zain Atta Enzymes, Chemistry of lipids Biochem. Practical/ C+D Dr. Maryam & Dr Zahra Estimation of cardiac markers, CK, LDH Histo. Practical [1]CSF/ Biochem. Practical [2] E+F Dr. M Ali – Identification of main organs of thorax on CXR	Physiology Lecture Theater No. 1 Prof. Anser, Prof Zaima (CVP)	Biochemistry / Aging [3] Lecture Theater No. 1 Prof. Rubina Bashir Enzymes Kinetics		Anatomy / Aging[4] Lecture Theater No. 1 Abdul Kamil Ghuman Investigations and Anomalies of CVS	Anatomy Dissection Dissection Hall Dr. Anam, Dr. Maham, Dr. Hafiza, Dr. Hasana Pericardium General Features of Heart	Physiology/ Pathology [7] Lecture Theater No. 2 Dr. Nazia Ahmad Thrombosis, Embolism	PERL/Mentoring/ Biochemistry [8] Lecture Theater No. 2 Mentoring
FRIDAY	Physio. Practical I+J Dr. Hamza & Dr. Noor ul Huda (CVP-034) Physio. Tutorial A+B Dr. Hajra & Dr. Ume Farwa (Test topic discussion) Biochem. Tutorial C+D Dr. Abdullah & Dr. M Zain Atta Enzymes, Chemistry of lipids Biochem. Practical/ E+FDr. Maryam & Dr Zahra Estimation of cardiac markers, CK, LDH Histo. Practical [1]CSF/ Biochem. Practical [2] G+H Dr. M Ali – Identification of main organs of thorax on CXR	Physiology Lecture Theater No. 1 Dr. Attiqa, Dr. Sadia (TEST)	Physiology Lecture Theater No. 1 Biochemistry Prof Rubina Bashir/ Prof. Sobia Imtiaz ECM, Enzyme and chemistry of lipids	**11:00a.m. to 12:00 Noon** Anatomy Dissection Dissection Hall Dr. Anam, Dr. Maham, Dr. Hafiza, Dr. Hasana Pericardium General Features of Heart	**12:00 Noon to 01:00p.m.** Physiology Lecture Theater No. 1 Dr. Attiqa, Prof. Zaima (CVP)			

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1st YEAR M.B.B.S TIMETABLE SESSION 2022-2023 w.e.f. 09.10.2023 till 13.10.2023

DAY & TIME	08:00 a.m. to 09:30 a.m.	09:30 a.m. to 10:15 a.m.	10:15 a.m. to 11:00 a.m.	11:00 a.m. to 11:15 a.m.	11:15 a.m. to 12:00 Noon	12:00 Noon to 01:00 p.m.	01:00 p.m. to 01:45 p.m.	01:45 p.m. to 02:30 p.m.
MONDAY	Physio. Practical A+B Dr. Hamza & Dr. Noor ul Huda (CVP) Physio. Tutorial C+D Dr. Hajra & Dr. Ume Farwa (CVP) Biochem. Tutorial E+F Dr. Abdullah & Dr. M Zain Atta Lipoprotein metabolism Biochem. Practical/ G+H Dr. Maryam & Dr Zahra Estimation of cardiac markers,LDH Histo. Practical [1] CSF/ Biochem. Practical [2] I+J	Physiology Lecture Theater No. 11 Surgery	Biochemistry Lecture Theater No. 11 Prof. Rubina Bashir Enzymes kinetics	**Break**	Anatomy / Aging[4] Lecture Theater No. 2 Prof. Sarah Shoaib Investigations and Anomalies of CVS	Physiology Lecture Theater No. 2 Prof. Anser, Prof. Zaima (CVP)	Disease Prevention & Impact (Community Medicine)/ (Behavior sciences) [6] Lecture Theater No. 2 Dr. Umbreen Naveed Assessment of risk factors for CVS diseases	Physiology/ Pathology [7] Lecture Theater No. 2 Dr. Nazia Ahmad Infarction
TUESDAY	Physio. Practical C+D Dr. Hamza & Dr. Noor ul Huda (CVP) Physio. Tutorial E+F Dr. Hajra & Dr. Ume Farwa (CVP) Biochem. Tutorial G+H Dr. Abdullah & Dr. M Zain Atta Lipoprotein metabolism Biochem. Practical/ I+J Dr. Maryam & Dr Zahra Estimation of cardiac markers,LDH Histo. Practical [1] CSF/ Biochem. Practical [2] A+B Dr. Abrar, Dr. Urooj, Dr.Mehrin, Dr. M Ali, Dr. M Ali Ayub, prof Asadullah, Prof Wasim Amer, Prof Hasnat, Prof Imran	Physiology Lecture Theater No. 2 All staff Test	Biochemistry Lecture Theater No. 2 Prof. Rubina Bashir Enzymes kinetics		Anatomy / Aging[4] Lecture Theater No. 2 Prof. Aruna Bashir Vascular system	Physiology Lecture Theater No. 2 Dr. Attiqa, Prof. Zaima (CVP)	Pharmacology Lecture Theater No. 2 Dr. Amina Zubair Drugs for PVDs	Disease Prevention & Impact (Community Medicine)/ (Behavior sciences) [6] Lecture Theater No. 2 Dr. Umbreen Naveed Investigations for prevention of CVS diseases
WEDNESDAY	Physio. Practical E+FDr. Hamza & Dr. Noor ul Huda (CVP) Physio. Tutorial G+H Dr. Hajra & Dr. Ume Farwa (CVP) Biochem. Tutorial I+J Dr. Abdullah & Dr. M Zain Atta Lipoprotein metabolism Biochem. Practical/ A+B Dr. Maryam & Dr Zahra Estimation of cardiac markers,LDH Histo. Practical [1] CSF/ Biochem. Practical [2] C+D Dr. Abdul Kamil Ghummon ,Examination of cervical lymph nodes	Physiology Lecture Theater No. 2 Prof. Anser, Prof Zaima (CVP)	Biochemistry Lecture Theater No. 2 Prof. Rubina Bashir Enzymes kinetics		Anatomy / Aging[4] Lecture Theater No. 2 Prof Iffat Badar CVS development	Physiology Lecture Theater No. 2 Dr. Attiqa, Prof. Zaima (CVP)	Disease Prevention & Impact / Aging (Community Medicine)/ (Behavior sciences) [5+6] Lecture Theater No. 2 Dr. Umbreen Naveed Quiz4/ Risk factor assessment and interventions to prevent CVS diseases	Physiology Lecture Theater No. 2 Dr. Attiqa CVP
THURSDAY	Physio. Practical G+H Dr. Hamza & Dr. Noor ul Huda (CVP) Physio. Tutorial I+J Dr. Hajra & Dr. Ume Farwa (CVP)Biochem. Tutorial A+B Dr. Abdullah & Dr. M Zain Atta Lipoprotein metabolism Biochem. Practical/ C+D Dr. Maryam & Dr Zahra Estimation of cardiac markers,LDH Histo. Practical [1] CSF/ Biochem. Practical [2] E+F Dr. Abdul Kamil Ghummon , Examination of cervical lymph nodes	Physiology Lecture Theater No. 1 Prof. Anser, Prof Zaima (CVP	Biochemistry / Aging [3] Lecture Theater No. 1 Prof. Sobia Imtiaz Lipoprotein Metabolism		Anatomy / Aging[4] Lecture Theater No. 1 Prof Iffat Badar Embrology test	Anatomy Dissection Dissection Hall All staff + Medicine Department	Physiology/ Pathology [7] Lecture Theater No. 2 Prof Shazia Nilofar Atherosclerosis	PERL/Mentoring/ Biochemistry [8] Lecture Theater No. 2 Ms Alia Asad Alam Leadership and self directed learning
FRIDAY	Physio. PracticalI+J Dr. Hamza & Dr. Noor ul Huda (CVP) Physio. Tutorial A+BDr. Hajra & Dr. Ume Farwa (CVP) Biochem. Tutorial C+D Dr. Abdullah & Dr. M Zain Atta Lipoprotein metabolism Biochem. Practical/ E+F Dr. Maryam & Dr Zahra Estimation of cardiac markers,LDH Histo. Practical [1] CSF/ Biochem. Practical [2] G+H Dr. Abdul Kamil Ghummon , Examination of cervical lymph nodes	Physiology Lecture Theater No. 1 Prof. Anser, Prof Zaima (CVP	Physiology Lecture Theater No. 1 Prof. Anser, Prof Zaima (CVP	**11:00a.m. to 12:00 Noon** Anatomy Dissection Dissection Hall Dr. Anam, Dr. Maham, Dr. Hafiza, Dr. Hasana Pericardium Blood Supply of Heart	**12:00 Noon to 01:00p.m.** Physiology Lecture Theater No. 1 Dr. Attiqa, Prof. Zaima (CVP)			

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1st YEAR M.B.B.S TIMETABLE SESSION 2022-2023 w.e.f. 16.10.2023 till 20.10.2023

DAY & TIME	08:00 .m. to 09:30 a.m.	09:30 a.m. to 10:15 a.m.	10:15 a.m. to 11:00 a.m.	11:00 a.m. to 11:15 a.m.	11:15 a.m. to 12:00 Noon	12:00 Noon to 01:00 p.m.	01:00 p.m. to 01:45 p.m.	01:45 p.m. to 02:30 p.m.
MONDAY	Physio. Practical A+B Dr. Ume Habiba, Dr. Zulfiqar (CVP) Physio. Tutorial C+D Dr. Hamza & Dr. Hajra (CVP) Biochem. Tutorial E+F Biochem. Practical/ G+H Histo. Practical [1] Dr. Mishal Amjed – Arteries CSF/ Biochem. Practical [2] I+J	Physiology Lecture Theater No. 11 Dr. Attiqa Khalid CVP	Biochemistry Lecture Theater No. 11 Dr. Mahwish Shahzad Prof. Rubina Bashir Enzyme regulation	**Break**	Anatomy / Aging[4] Lecture Theater No. 2 Dr. Muhammad Ali Prof. Khalid Farooq Radiology	Physiology Lecture Theater No. 2 Dr. Attiqa, Prof Anser CVP	Disease Prevention & Impact (Community Medicine)/ (Behavior sciences) [6] Lecture Theater No. 2 Dr. Humayun Mirza Dr. Sadia Maqbool Dr. Umbreen Naveed Discussion on Quiz 1,2,3	Physiology/ Pathology [7] Lecture Theater No. 2 Prof Shazia Nilofar Atherosclerosis & Hypertension
TUESDAY	Physio. Practical C+D Dr. Ume Habiba, Dr. Zulfiqar (CVP) Physio. Tutorial E+F Dr. Hamza & Dr. Hajra (CVP) Biochem. Tutorial G+H Dr. Abdullah & Dr. M Aadil Enzymes/Clinical Enzymology Biochem. Practical/ I+J Histo. Practical [1] Dr. Mishal Amjad – Arteries CSF/ Biochem. Practical [2] A+B	Physiology Lecture Theater No. 2 Dr. Attiqa, Prof Anser CVP	Biochemistry Lecture Theater No. 2 Prof Rubina Bashir Prof Sobia Imtiaz LDL/Lipid Metabolism		Anatomy / Aging[4] Lecture Theater No. 2 Prof Iffat Badar Embryology Models	Physiology Lecture Theater No. 2 Dr. Attiqa, Prof Anser CVP	Pharmacology Lecture Theater No. 2 Prof Ajaz Fatima Class test	Disease Prevention & Impact (Community Medicine)/ (Behavior sciences) [6] Lecture Theater No. 2 Prof Khalid Umar Dr. Naeem Aftab and All staff
WEDNESDAY	Physio. Practical E+F Dr. Bilal & Dr. Talha (CVP) Physio. Tutorial G+H Dr. Maha & Dr. Najia (CVP) Biochem. Tutorial I+J Dr. Abdullah & Dr. M Aadil Enzymes/Clinical Enzymology Biochem. Practical/ A+B Histo. Practical [1] Dr. Mishal Amjad – Arteries CSF/ Biochem. Practical [2] C+D	Physiology Lecture Theater No. 2 Dr. Attiqa, Prof Anser CVP	Biochemistry Lecture Theater No. 2 Prof Rubina Bashir Prof Sobia Imtiaz LDL/Lipid Metabolism		Anatomy / Aging[4] Lecture Theater No. 2 Prof Iffat Badar Embryology Models	Physiology Lecture Theater No. 2 Dr. Attiqa, Prof Anser CVP	Disease Prevention & Impact / Aging (Community Medicine)/ (Behavior sciences) [5+6] Lecture Theater No. 2 Prof Khalid Umar Dr. Naeem Aftab and All staff	Physiology Lecture Theater No. 2 Dr. Attiqa, Prof Anser CVP
THURSDAY	Physio. Practical G+H Dr. Bilal & Dr. Talha (CVP) Physio. Tutorial I+J Dr. Maha & Dr. Najia (CVP) Biochem. Tutorial A+B Dr. Abdullah & Dr. M Aadil Enzymes/Clinical Enzymology Biochem. Practical/ C+D Histo. Practical [1] Dr. Mishal Amjad - Arteries CSF/ Biochem. Practical [2] E+F Abdul Kamil Ghummon – Examination of Pedal Pulses	Physiology Lecture Theater No. 1 Dr. Attiqa, Prof Anser CVP	Biochemistry / Aging [3] Lecture Theater No. 1 Dr. Attiqa, Prof Anser CVP		Anatomy / Aging[4] Lecture Theater No. 1 Prof Iffat Badar Embryology Models	Anatomy Dissection Dissection Hall Dr. Anam, Dr. Maham, Dr. Hafiza, Dr. Hasana Pericardium Nerve Supply of Heart	Physiology / Pathology [7] Lecture Theater No. 2 Prof Shazia Nilofar Heart Failure, Causes and Types	PERL/Mentoring/ Biochemistry [8] Lecture Theater No. 2 Prof. Rubina Bashir Enzymes/Isoenzymes
FRIDAY	Physio. Practical I+JDr. Shazray & Dr. Zulfiqar (CVP) Physio. Tutorial A+B Dr. Najia & Dr. Ume Farwa (CVP) Biochem. Tutorial C+D Biochem. Practical/ E+F Dr. Abdullah & Dr. M Aadil Enzymes/Clinical Enzymology Histo. Practical [1] Dr. Mishal Amjad - Arteries CSF/ Biochem. Practical [2] G+H Abdul Kamil Ghummon – Examination of Pedal Pulses	Physiology Lecture Theater No. 1 Dr. Attiqa, Prof Anser Physiology Test	Physiology Lecture Theater No. 1 Biochemistry Test Prof Rubina Bashir	**11:00a.m. to 12:00 Noon** Anatomy Dissection Dissection Hall Dr. Anam, Dr. Maham, Dr. Hafiza, Dr. Hasana Pericardium Nerve Supply of Heart	**12:00 Noon to 01:00p.m.** Physiology Lecture Theater No. 1 Dr. Attiqa, Prof Anser CVP			

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1st YEAR M.B.B.S TIMETABLE SESSION 2022-2023 w.e.f. 23.10.2023 till 27.10.2023

DAY & TIME	08:00 a.m. to 09:30 a.m.	09:30 a.m. to 10:15 a.m.	10:15 a.m. to 11:00 a.m.	11:00 a.m. to 11:15 a.m.	11:15 a.m. to 12:00 Noon	12:00 Noon to 01:00 p.m.	01:00 p.m. to 01:45 p.m.	01:45 p.m. to 02:30 p.m.
MONDAY	Physio. Practical A+B Dr. Hamza & Dr. Hajra (CVP) Physio.Tutorial C+DDr. Ume Habiba, Dr. Zulfiqar (CVP) Biochem. Tutorial E+F Dr. M Zain & Prof Sobia Imtiaz Properties of fatty acids Biochem. Practical/G+H Histo. Practical [1] Dr. Mishal Amjad - Veins CSF/ Biochem. Practical [2] I+J Dr. Mahwish & Dr. Maryam S Fatty Acid classification	Physiology Lecture Theater No. 11 Dr. Attiqa, Prof Anser CVP	Biochemistry Lecture Theater No. 11 Dr. Khaulah Qureshi Prof Rubina Bashir Cholesterol Synthesis	**Break**	Anatomy / Aging[4] Lecture Theater No. 2 Dr. Attiqa, Dr. Sadia CVP-Ag	Physiology Lecture Theater No. 2 Dr. Attiqa, Prof Anser CVP	Disease Prevention & Impact (Community Medicine)/ (Behavior sciences) [6] Lecture Theater No. 2 Health belief model Dr. Faraz Miss Ramla	Physiology/ Pathology [7] Lecture Theater No. 2 Dr. Nazia Ahmad Shock
TUESDAY	Physio. Practical C+D Dr. Hamza & Dr. Hajra (CVP) Physio.Tutorial E+F Dr. Ume Habiba, Dr.Shazray (CVP) Biochem. Tutorial G+H Dr. M Zain & Prof Sobia Imtiaz Properties of fatty acids Biochem. Practical/ I+J Histo. Practical [1] Dr. Mishal Amjad - Veins CSF/ Biochem. Practical [2] A+B Dr. Mahwish & Dr. Maryam S Fatty Acid classification	Physiology Lecture Theater No. 2 Dr. Attiqa, Prof Anser CVP	Biochemistry Lecture Theater No. 2 Dr. Khaulah Qureshi Prof Rubina Bashir Cholesterol		Anatomy / Aging[4] Lecture Theater No. 2 Dr. Attiqa, Dr. Sadia CVP-Ag	Physiology Lecture Theater No. 2 Dr. Attiqa, Prof Anser CVP	Pharmacology Lecture Theater No. 2 Prof Ajaz Fatima Anti histamine drugs	Disease Prevention & Impact (Community Medicine)/ (Behavior sciences) [6] Lecture Theater No. 2 Dr. Faraz Miss Ramla Physiological effects of stress
WEDNESDAY	Physio. Practical E+F Dr. Maha & Dr. Najia (CVP) Physio. Tutorial G+HDr. Bilal & Dr. Talha (CVP) Biochem. Tutorial I+J Dr. M Zain & Prof Sobia Imtiaz Properties of fatty acids Biochem. Practical/ A+B Histo. Practical [1] Dr. Mishal Amjad - Veins CSF/ Biochem. Practical [2] C+D Dr. Mahwish & Dr. Maryam S Fatty Acid classification	Physiology Lecture Theater No. 2 Dr. Attiqa, Prof Anser CVP	Biochemistry Lecture Theater No. 2 Dr. Khaulah Qureshi Prof Rubina Bashir Cholesterol		Anatomy / Aging[4] Lecture Theater No. 2 Dr. Attiqa, Dr. Sadia CVP-Ag	Biochemistry Lecture Theater No. 2 Prof Rubina Bashir Prof Sobia Imtiaz Properties of TAGs	Disease Prevention & Impact / Aging (Community Medicine)/ (Behavior sciences) [5+6] Lecture Theater No. 2Abdul Kamil Ghummon Surgery	Physiology Lecture Theater No. 2 Dr. Attiqa, Dr. Sadia CVP-Ag
THURSDAY	Physio. Practical G+H Dr. Maha & Dr. Najia (CVP) Physio. Tutorial I+J Dr. Bilal & Dr. Talha (CVP) Biochem. Tutorial A+B Dr. M Zain & Prof Sobia Imtiaz Properties of fatty acids Biochem. Practical/C+D Histo. Practical [1] Dr. Mishal Amjad – Veins CSF/ Biochem. Practical [2] E+FDr. Mahwish & Dr. Maryam S Fatty Acid classification	Physiology Lecture Theater No. 1 Abdul Kamil Ghummon Surgery	Biochemistry / Aging [3] Lecture Theater No. 1 Dr. Attiqa, Dr. Sadia CVP-Ag		Anatomy / Aging[4] Lecture Theater No. 1 Dr. Attiqa, Dr. Sadia CVP-Ag	Anatomy Dissection Dissection Hall Dr. Anam, Dr. Maham, Dr. Hafiza, Dr. Hasana Sternum	Physiology/ Pathology [7] Lecture Theater No. 2 Dr. Nazia Ahmad Prof Shazia Nilofar Test	PERL/Mentoring/ Biochemistry [8] Lecture Theater No. 2 Miss Alia Asad Alam Professionalism and leadership
FRIDAY	Physio. Practical I+J Dr. Najia & Dr. Ume Farwa (CVP) Physio. Tutorial A+BDr. Shazray & Dr. Zulfiqar (CVP) Biochem. Tutorial C+D Dr. M Zain & Prof Sobia Imtiaz Properties of fatty acids Biochem. Practical/ E+F Histo. Practical [1] Dr. Mishal Amjad - VeinsCSF/ Biochem. Practical [2] G+H Dr. Mahwish & Dr. Maryam SFatty Acid classification	Physiology Lecture Theater No. 1 Dr. Attiqa, Prof Anser CVP	Physiology Lecture Theater No. 1 Biochemistry Prof Rubina Bashir Prof Sobia Imtiaz Cholesterol Disorders	**11:00a.m. to 12:00 Noon** Anatomy Dissection Dissection Hall Dr. Anam, Dr. Maham, Dr. Hafiza, Dr. Hasana Ribs	**12:00 Noon to 01:00p.m.** Physiology Lecture Theater No. 1 Test Patho/Pharma All staff			

RESPIRATORY MODULE

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1st YEAR M.B.B.S TIMETABLE SESSION 2022-2023 w.e.f. 30-10-2023 till 03-11-2023

DAY & TIME	08:00 a.m. to 09:30 a.m.	09:30 a.m. to 10:30 a.m.	10:30 a.m. to 11:30 a.m.	11:30 a.m. to 12:00 Noon	12:00 Noon to 01:00 p.m.	01:00 p.m. to 02:30 p.m.	02:30 p.m. to 03:30 p.m.
MONDAY	Physiology Tutorial A+BDr. Hamza & Dr. Hajra (REP) Physiology Practical C+D Dr. Ume Habiba & Dr. Zulfiqar (REP) Biochemistry Tutorial E+F Dr. Abdullah & Dr, Khaulah Cholesterol Metabolism CSF/ Histo./ Biochem. Pract. [1] G+H Mishal Amjad (Trachea& Epiglottis) Clinical Skills Foundation I+J Dr. Momina Muqaddas -Chest Auscultation	Physiology Lecture Theater No. 1 Dr. Sadia, Prof Anser REP	Anatomy Lecture Theater No. 1 Prof Aruna Bashir Respiratory system	**Break**	Physiology Lecture Theater No. 2 Dr. Sadia, Prof Anser REP	Anatomy Dissection Dissection Hall Dr. Anam, Dr. Maham, Dr. Hafiza, Dr. Hasana vertebrae	Physiology / Pathology / Aging [4] Lecture Theater No. 2 Dr. Sadia, Prof Anser REP
TUESDAY	Physiology Tutorial C+D Dr. Hamza & Dr. Hajra (REP) Physiology Practical E+F Dr. Zulfiqar & Dr. Shazray (REP) Biochemistry Tutorial G+H Dr. Abdullah & Dr, Khaulah Cholesterol Metabolism CSF/ Histo./ Biochem. Pract. [1] I+J Mishal Amjad (Trachea& Epiglottis) Clinical Skills FoundatioA+B Dr. Momina Muqaddas -Chest Auscultation	Physiology Lecture Theater No. 1 Dr. Sadia, Prof Anser REP	Anatomy Lecture Theater No. 1 Prof Iffat Badar Development of Diaphragm		Physiology / Pathology / Aging [4] Lecture Theater No. 2 Dr. Sadia, Prof Anser REP	Anatomy Dissection Dissection Hall Dr. Anam, Dr. Maham, Dr. Hafiza, Dr. Hasana Thoracic wall 1	Disease Prevention & Impact (Community Medicine / Behavioral Sciences) [5] Lecture Theater No. 2 Prof Khalid, Dr faraz, Miss Ramla
WEDNESDAY	Physiology Tutorial E+F Dr. Maha & Dr. Najia (REP) Physiology Practical G+HDr. Bilal & Dr. Talha (REP) Biochemistry Tutorial I+Dr. Abdullah & Dr, Khaulah Cholesterol Metabolism CSF/ Histo./ Biochem. Pract. [1] A+B Mishal Amjad (Trachea& Epiglottis) Clinical Skills Foundation C+D Dr. Momina Muqaddas -Chest Auscultation	Physiology Lecture Theater No. 1 Dr. Sadia, Prof Anser REP	Anatomy / Pathology / Disease Prevention & Impact (Community Medicine) [2] Lecture Theater No. 1 Prof Iffat Badar Development of Diaphragm		PERL / Physiology [6] Lecture Theater No. 2 Dr. Sadia, Prof Anser REP	Anatomy Dissection Dissection Hall Dr. Anam, Dr. Maham, Dr. Hafiza, Dr. Hasana Thoracic wall 2	Disease Prevention & Impact (Community Medicine) Lecture Theater No. 2 Dr. Umbreen Naveed Burden of disease and epidemiology of resp. diseases
THURSDAY	Physiology Tutorial G+H Dr. Maha & Dr. Najia (REP) Physiology Practical I+J Dr. Bilal & Dr. Talha (REP) Biochemistry Tutorial A+B Dr. Abdullah & Dr, Khaulah Cholesterol Metabolism CSF/ Histo./ Biochem. Pract. [1] C+D Mishal Amjad (Trachea& Epiglottis) Clinical Skills Foundation E+F Dr. Momina Muqaddas -Chest Auscultation	Physiology Lecture Theater No. 1 Dr. Sadia, Prof Anser REP	Biochemistry Lecture Theater No. 1 Prof Sobia Imtiaz Chemistry of Lipids/Tags		Pharmacology / Disease Prevention & Impact (Community Medicine) [3] Lecture Theater No. 2 Dr. Ghulam Owais Anti Tussive Drugs	Anatomy Dissection Dissection Hall Dr. Anam, Dr. Maham, Dr. Hafiza, Dr. Hasana Thoracic wall 3	Physiology / Pathology / Aging [4] Lecture Theater No. 2 Dr. Sadia, Prof Anser REP
FRIDAY	Physiology Tutorial I+J Dr. Najia & Dr. Ume Habiba (REP) Physiology Practical A+B Dr. Shazray & Dr. Zulfiqar (REP) Biochemistry Tutorial C+D Dr. Abdullah & Dr, Khaulah Cholesterol Metabolism CSF/ Histo./ Biochem. Pract. [1] E+F Mishal Amjad (Trachea& Epiglottis) Clinical Skills Foundation G+H Dr. Momina Muqaddas -Chest Auscultation	**09:30 a.m. to 10:15 a.m.**	**10:15 a.m. to 11:00 a.m.**	**11:00 a.m. to 11:15 a.m.**	**11:15a.m. to 12:00 Noon**	**12:00 Noon to 01:00 p.m.**	
		Physiology Lecture Theater No. 1 Dr. Sadia, Prof Anser REP	Biochemistry Lecture Theater No. 1 Prof Sobia Imtiaz Chemistry of Lipids/Tags	**Break**	Physiology Lecture Theater No. 2 Dr. Sadia, Prof Anser REP	Physiology / Pathology [7] Lecture Theater No. 2 Prof Aamir Bashir Professionalism/Diversity/Equity/Inclusion	

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1st YEAR M.B.B.S TIMETABLE SESSION 2022-2023 w.e.f. 06-11-2023 till 10-11-2023

DAY & TIME	08:00 a.m. to 09:30 a.m.	09:30 a.m. to 10:30 a.m.	10:30 a.m. to 11:30 a.m.	11:30 a.m. to 12:00 Noon	12:00 Noon to 01:00 p.m.	01:00 p.m. to 02:30 p.m.	02:30 p.m. to 03:30 p.m.
MONDAY	Physiology Tutorial A+B Dr. Ume Habiba & Dr. Zulfiqar (REP) Physiology Practical C+D Dr. Hamza & Dr. Hajra (REP) Biochemistry Tutorial E+F Dr. Khaulah & Dr. M Aadil Chemistry of Lipids CSF/ Histo./ Biochem. Pract. [1] G+H Dr. Mishal Amjed - Lung Clinical Skills Foundation I+J Dr. M. Ali – Clubbing, Inhaler use	Physiology Lecture Theater No. 1 Dr. Sadia, Prof Anser REP	Anatomy Lecture Theater No. 1 Prof Aruna Bashir Histology of Resp. System	**Break**	Physiology Lecture Theater No. 2 Dr. Sadia, Prof Anser REP	Anatomy Dissection Dissection Hall Dr. Anam, Dr. Maham, Dr. Hafiza, Dr. Hasana Muscle and Fascia of back	Physiology / Pathology / Aging [4] Lecture Theater No. 2 Dr. Sadia, Prof Anser REP
TUESDAY	Physiology Tutorial C+D Dr. Ume Habiba & Dr. Zulfiqar (REP) Physiology Practical E+F Dr. Hamza & Dr. Hajra (REP) Biochemistry Tutorial G+H CSF/ Histo./ Biochem. Pract. [1] I+J Dr. Mishal Amjed - Lung Clinical Skills Foundation A+B Dr. M. Ali – Clubbing, Inhaler use	Physiology Lecture Theater No. 1 Dr. Sadia, Prof Anser REP	Anatomy Lecture Theater No. 1 Prof Aruna Bashir Histology of Resp. System		Physiology / Pathology / Aging [4] Lecture Theater No. 2 Dr. Sadia, Prof Anser REP	Anatomy Dissection Dissection Hall Dr. Anam, Dr. Maham, Dr. Hafiza, Dr. Hasana Trachea	Disease Prevention & Impact (Community Medicine / Behavioural Sciences) [5] Lecture Theater No. 2
WEDNESDAY	Physiology Tutorial E+F Dr. Bilal & Dr. Talha (REP) Physiology Practical G+H Dr. Hamza & Dr. Maha (REP) Biochemistry Tutorial I+J Dr. Khaulah & Dr. M Aadil CSF/ Histo./ Biochem. Pract. [1] A+B Dr. Mishal Amjed - Lung Clinical Skills Foundation C+D Dr. M. Ali – Clubbing, Inhaler use	Physiology Lecture Theater No. 1 Dr. Sadia, Prof Anser REP	Anatomy / Pathology / Disease Prevention & Impact (Community Medicine) [2] Lecture Theater No. 1 Prof Aruna Bashir Histology of Resp. System		PERL / Physiology [6] Lecture Theater No. 2 Dr. Sadia, Prof Anser REP	Anatomy Dissection Dissection Hall Dr. Anam, Dr. Maham, Dr. Hafiza, Dr. Hasana Pleura	Disease Prevention & Impact (Community Medicine) Lecture Theater No. 2 Dr. Umbreen Naveed Quiz 1
THURSDAY	Physiology Tutorial G+H Dr. Bilal & Dr. Talha (REP) Physiology Practical Dr. Hajra & Dr. Maha - REP I+J Biochemistry Tutorial A+B Dr. Khaulah & Dr. M Aadil CSF/ Histo./ Biochem. Pract. [1] C+D Dr. Mishal Amjed - Lung Clinical Skills Foundation E+F Dr. M. Ali – Clubbing, Inhaler use	Physiology Lecture Theater No. 1 Dr. Sadia, Prof Anser REP	Biochemistry Lecture Theater No. 1 Prof Sobia Imtiaz Chemistry of Lipids and Eicosanoids		Pharmacology / Disease Prevention & Impact (Community Medicine) [3] Lecture Theater No. 2 Dr. Shazia Asim Anti Asthmatic Drugs	Anatomy Dissection Dissection Hall Dr. Anam, Dr. Maham, Dr. Hafiza, Dr. Hasana Lung 1	Physiology / Pathology / Aging [4] Lecture Theater No. 2 Dr. Sadia, Prof Anser REP
FRIDAY	Physiology Tutorial I+J Dr. Ume Habiba & Dr. Zulfiqar (REP) Physiology Practical A+B Dr. Bilal & Dr. Talha (REP) Biochemistry Tutorial C+D Dr. Khaulah & Dr. M Aadil CSF/ Histo./ Biochem. Pract. [1] E+F Dr. Mishal Amjed - Lung Clinical Skills Foundation G+H Dr. M. Ali – Clubbing, Inhaler use	**09:30 a.m. to 10:15 a.m.** Physiology Lecture Theater No. 1 Prof. anser & Dr, Sadia , Test; REP	**10:15 a.m. to 11:00 a.m.** Biochemistry Lecture Theater No. 1 Dr. Mashwish Prof Sobia Imtiaz Test 1 Chemistry of Lipids	**11:00 a.m. to 11:15 a.m.** **Break**	**11:15a.m. to 12:00 Noon** Physiology Lecture Theater No. 2 Prof. Anser & Dr, Sadia REP		**12:00 Noon to 01:00 p.m.** Physiology / Pathology [7] Lecture Theater No. 2 Prof Sobia Imtiaz Chemistry of Lipids

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1st YEAR M.B.B.S TIMETABLE SESSION 2022-2023 w.e.f. 13-11-2023 till 19-11-2023

DAY & TIME	08:00 a.m. to 09:30 a.m.	09:30 a.m. to 10:30 a.m.	10:30 a.m. to 11:30 a.m.	11:30 a.m. to 12:00 Noon	12:00 Noon to 01:00 p.m.	01:00 p.m. to 02:30 p.m.	02:30 p.m. to 03:30 p.m.
MONDAY	Physiology Tutorial A+B Dr. Hamza & Dr. Hajra - REP Physiology Practical C+D Dr. Zulfiqar, Dr.UmeHabiba REP Biochemistry Tutorial E+Dr. Maryam Saeed& Dr.Zahra Chemistry of lipids and fatty acids/TAGs CSF/ Histo./ Biochem. Pract. [1] G+H Dr. Mishal Amjed (ospe test) Clinical Skills Foundation I+J Dr. Seemad shahid ABG interpretation	Physiology Lecture Theater No. 1 Prof. Anser, Dr. Sadia REP	Anatomy Lecture Theater No. 1 Prof. Aruna Bashir Respiratory System		Physiology Lecture Theater No. 2 Prof. Anser, Dr. Sadia REP	Anatomy Dissection Dissection Hall Dr. Anam, Dr. Maham, Dr. Hafiza, Dr. Hasana Lung II	Physiology / Pathology / Aging [4] Lecture Theater No. 2 Prof. Sobia, Prof Rubina Test 1 – enzymes, Chemistry of lipids and cholesterol
TUESDAY	Physiology Tutorial C+D Dr. Hamza & Dr. Hajra - REP PhysiologyPractical E+Dr. Zulfiqar & Dr. Ume HabibaREP Biochemistry Tutorial G+Dr. Maryam Saeed& Dr.Zahra Chemistry of lipids and fatty acids/TAGs CSF/ Histo./ Biochem. Pract. [1] I+J Dr. Mishal Amjed (ospe test) Clinical Skills Foundation A+B Dr. Seemad shahid ABG interpretation	Physiology Lecture Theater No. 1 Prof. Anser, Dr. Sadia REP	Anatomy Lecture Theater No. 1 Dr. Muhammad Rizwan Pathological aspects of respiratory system		Physiology / Pathology / Aging [4] Lecture Theater No. 2 Prof. Anser, Dr. Sadia REP	Anatomy Dissection Dissection Hall Dr. Anam, Dr. Maham, Dr. Hafiza, Dr. Hasana Diaphragm	Disease Prevention & Impact (Community Medicine / Behavioral Sciences) [5] Lecture Theater No. 2
WEDNESDAY	Physiology Tutorial E+F Dr. Maha & Dr. Bilal- REP Physiology Practical G+H Dr. Talha & Dr. Shazray - REP Biochemistry Tutorial I+J Dr. Maryam Saeed& Dr.Zahra Baig Chemistry of lipids and fatty acids/TAGs CSF/ Histo./ Biochem. Pract. [1] A+B Dr. Mishal Amjed (ospe test) Clinical Skills Foundation C+D Dr. Seemad shahid ABG interpretation	Physiology Lecture Theater No. 1 Prof. Anser, Dr. Sadia REP	Anatomy / Pathology / Disease Prevention & Impact (Community Medicine) [2] Lecture Theater No. 1 Dr. Muhammad Fahad Iqbal Surgical aspects of Respiratory system	**Break**	PERL / Physiology [6] Lecture Theater No. 2 Prof. Aamir Bashir Professionalism/Equity/Diversity/Inclusion	Anatomy Dissection Dissection Hall Dr. Anam, Dr. Maham, Dr. Hafiza, Dr. Hasana Surface Marking	Disease Prevention & Impact (Community Medicine) Lecture Theater No. 2 Dr. Humayun Mirza Interaction of environment, smoking & air pollution on Respiratory System
THURSDAY	Physiology Tutorial G+H Dr. Maha & Dr. Bilal- REP Physiology Practical I+J Dr. Talha & Dr. Shazray - REP Biochemistry Tutorial A+B Dr. Maryam Saeed& Dr.Zahra Baig Chemistry of lipids and fatty acids/TAGs CSF/ Histo./ Biochem. Pract. [1] C+D Dr. Mishal Amjed (ospe test) Clinical Skills Foundation E+F Dr. Seemad shahid ABG interpretation	Physiology Lecture Theater No. 1 Prof. Anser, Dr. Sadia REP	Biochemistry Lecture Theater No. 1 Prof. Sobia Imtiaz Chemistry of lipids/Eicosanoids		Pharmacology / Disease Prevention & Impact (Community Medicine) [3] Lecture Theater No. 2 Dr. Shazia Asim Anti Asthamatic Drugs	Anatomy Dissection Dissection Hall Dr. Anam, Dr. Maham, Dr. Hafiza, Dr. Hasana Nose	Physiology / Pathology / Aging [4] Lecture Theater No. 2 Prof. Sobia Imtiaz Chemistry of lipids/Eicosanoids
FRIDAY	Physiology Tutorial I+J Dr. Maha & Dr. Bilal- REP Physiology Practical A+B Dr. Zulfiqar & Dr. Shazray -REP Biochemistry Tutorial C+D Dr. Maryam Saeed& Dr.Zahra Chemistry of lipids and fatty acids/TAGs CSF/ Histo./ Biochem. Pract. [1] E+F Dr. Mishal Amjed (ospe test) Clinical Skills Foundation G+H Dr. Seemad shahid ABG interpretation	**09:30 a.m. to 10:15 a.m.** Physiology Lecture Theater No. 1 Prof. Anser, Dr. Sadia REP	**10:15 a.m. to 11:00 a.m.** Biochemistry Lecture Theater No. 1 Prof. Sobia Imtiaz Acid-Base balance/Acid-Base concept	**11:00 a.m. to 11:15 a.m.** **Break**	**11:15a.m. to 12:00 Noon** Physiology Lecture Theater No. 2 Prof. Anser, Dr. Sadia REP		**12:00 Noon to 01:00 p.m.** Physiology / Pathology [7] Lecture Theater No. 2 Prof. Anser, Dr. Sadia REP

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1st YEAR M.B.B.S TIMETABLE SESSION 2022-2023 w.e.f. 20-11-2023 till 24-11-2023

DAY & TIME	08:00 a.m. to 09:30 a.m.	09:30 a.m. to 10:30 a.m.	10:30 a.m. to 11:30 a.m.	11:30 a.m. to 12:00 Noon	12:00 Noon to 01:00 p.m.	01:00 p.m. to 02:30 p.m.	02:30 p.m. to 03:30 p.m.
MONDAY	Physiology Tutorial A+B Dr. Ume Habiba,Dr. Zulfiqar (REP) Physiology Practical C+D Dr. Hajra,Dr. Hamza (REP) Biochemistry Tutorial E+F Prof. Sobia Imtiaz pH & acid-base balance/Basic concepts of buffers CSF/ Histo./ Biochem. Pract. [1] G+H Dr. Maryam Sajid,Dr. Zahra Baig pH metry/determination of pH of body fluids Clinical Skills Foundation I+J Dr. Muhammad Ali Respiratory Module - Identification Of Pneumonia on Xray	Physiology Lecture Theater No. 1 Dr. Sadia Nazir,Prof. Anser Asrar REP	Anatomy Lecture Theater No. 1 Dr. Madiha Iqbal Paeds related clinicals of respiratory system	**Break**	Physiology Lecture Theater No. 2 Dr. Sadia Nazir,Prof. Anser Asrar REP	Anatomy Dissection Dissection Hall Dr. Anam, Dr. Hafiza, Dr. Hasana TEST	Physiology / Pathology / Aging [4] Lecture Theater No. 2 Dr. Muhammad Rizwan,Prof. Shazia Nilofar RDS
TUESDAY	Physiology Tutorial C+D Dr. Ume Habiba,Dr. Zulfiqar (REP) Physiology Practical E+F Dr. Hajra,Dr. Hamza (REP) Biochemistry Tutorial G+H Prof. Sobia Imtiaz pH & acid-base balance/Basic concepts of buffers CSF/ Histo./ Biochem. Pract. [1] I+J Dr. Maryam Sajid,Dr. Zahra Baig pH metry/determination of pH of body fluids Clinical Skills Foundation A+B Dr. Muhammad Ali Respiratory Module - Identification Of Pneumonia on Xray	Physiology Lecture Theater No. 1 Dr. Sadia Nazir,Prof. Anser Asrar REP	Anatomy Lecture Theater No. 1 Prof. Asadullah Ijaz Clinicals of Respiratory System		Physiology / Pathology / Aging [4] Lecture Theater No. 2 Dr. Muhammad Rizwan,Prof. Shazia Nilofar Atelactasis	Anatomy Dissection Dissection Hall Dr. Anam, Dr. Hafiza, Dr. Hasana Pharynx	Disease Prevention & Impact (Community Medicine / Behavioural Sciences) [5] Lecture Theater No. 2 Dr. Naeem, Prof Khalid, Ramla Khalid
WEDNESDAY	Physiology Tutorial E+F Dr. Bilal & Dr. Shazray (REP) Physiology Practical G+H Dr. Maha & Dr. Talha (REP) Biochemistry Tutorial I+J Prof. Sobia Imtiaz pH & acid-base balance/Basic concepts of buffers CSF/ Histo./ Biochem. Pract. [1] A+B Clinical Skills Foundation C+D Dr. Muhammad Ali Respiratory Module - Identification of Pneumonia on Xray	Physiology Lecture Theater No. 1 Dr. Sadia Nazir,Prof. Anser Asrar REP	Anatomy / Pathology / Disease Prevention & Impact (Community Medicine) [2] Lecture Theater No. 1 Dr. Muhammad Rizwan,Prof. Shazia Nilofar Obstructive Lung Diseases		PERL / Physiology [6] Lecture Theater No. 2 Dr. Sadia Nazir,Prof. Anser Asrar REP	Anatomy Dissection Dissection Hall Dr. Anam, Dr. Hafiza, Dr. Maham larynx	Disease Prevention & Impact (Community Medicine) Lecture Theater No. 2 Dr. Humayun Mirza QUIZ II
THURSDAY	Physiology Tutorial G+H Dr. Bilal & Dr. Shazray (REP) Physiology Practical I+J Dr. Maha & Dr. Talha (REP) Biochemistry Tutorial A+B Prof. Sobia Imtiaz pH & acid-base balance/Basic concepts of buffers CSF/ Histo./ Biochem. Pract. [1] C+D Dr. Maryam Sajid,Dr. Zahra Baig pH metry/determination of pH of body fluids Clinical Skills Foundation E+F Dr. Muhammad Ali Respiratory Module - Identification of Pneumonia on Xray	Physiology Lecture Theater No. 1 Dr. Sadia Nazir,Prof. Anser Asrar REP	Biochemistry Lecture Theater No. 1 Prof. Sobia Imtiaz pH and Acid base balance		Pharmacology / Disease Prevention & Impact (Community Medicine) [3] Lecture Theater No. 2 Prof. Seema Daud Occupational Lung Disease	Anatomy Dissection Dissection Hall Dr. Hasana, Dr. Hafiza, Dr. Maham Revision	Physiology / Pathology / Aging [4] Lecture Theater No. 2 Dr. Muhammad Rizwan Restrictive Lung Disease
FRIDAY	Physiology Tutorial I+J Dr. Shazray & Dr. Zulfiqar (REP) Physiology Practical A+B Dr. Maha & Dr. Talha (REP) Biochemistry Tutorial C+D Prof. Sobia Imtiaz pH & acid-base balance/Basic concepts of buffers CSF/ Histo./ Biochem. Pract. [1] E+F Dr. Maryam Sajid,Dr. Zahra Baig pH metry/determination of pH of body fluids Clinical Skills Foundation G+H Dr. Muhammad Ali Respiratory Module - Identification of Pneumonia on Xray	**09:30 a.m. to 10:15 a.m.** Physiology Lecture Theater No. 1 Dr. Sadia Nazir,Prof. Anser Asrar REP	**10:15 a.m. to 11:00 a.m.** Biochemistry Lecture Theater No. 1 Prof. Sobia Imtiaz pH and Acid base balance	**11:00 a.m. to 11:15 a.m.** **Break**	**11:15a.m. to 12:00 Noon** Physiology Lecture Theater No. 2 Prof. Sobia Imtiaz pH and Acid base balance	**12:00 Noon to 01:00 p.m.** Physiology / Pathology [7] Lecture Theater No. 2 Dr. Sadia Nazir,Prof. Anser Asrar REP	

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1st YEAR M.B.B.S TIMETABLE SESSION 2022-2023 w.e.f. 27-11-2023 till 01-12-2023

DAY & TIME	08:00 a.m. to 09:30 a.m.	09:30 a.m. to 10:30 a.m.	10:30 a.m. to 11:30 a.m.	11:30 a.m. to 12:00 Noon	12:00 Noon to 01:00 p.m.	01:00 p.m. to 02:30 p.m.	02:30 p.m. to 03:30 p.m.
MONDAY	Physiology Tutorial A+B Dr. Hajra & Dr. Hamza (REP)Physiology Practical C+D Dr. Maha & Dr. Zulfiqar(REP) Biochemistry Tutorial E+F Dr. Mahwish Sajjad Pedigree of AR disorders CSF/ Histo./ Biochem. Pract. [1] G+H Dr. Awais & Dr. Zahra Ph metry Clinical Skills Foundation I+J Dr. Muhammad Ali Identification of COPD on Cxray	Physiology Lecture Theater No. 1	Anatomy Lecture Theater No. 1	**Break**	Physiology Lecture Theater No. 2	Anatomy Dissection Dissection Hall	Physiology / Pathology / Aging [4] Lecture Theater No. 2 Dr. Muhammad Rizwan, Prof Shazia Nilofar Lung Tumours
TUESDAY	Physiology Tutorial C+DDr. Hajra & Dr. Hamza (REP) Physiology Practical E+F Dr. Maha & Dr. Zulfiqar (REP) Dr. Mahwish Sajjad Pedigree of AR disorders CSF/ Histo./ Biochem. Pract. [1] G+H Dr. Awais & Dr. Zahra Ph metry Clinical Skills Foundation A+B Dr. Muhammad Ali Identification of COPD on Cxray	Physiology Lecture Theater No. 1 Dr. Fahad	Anatomy Lecture Theater No. 1 Dr. Madiha Iqbal Paediatric disease of Respiratory System		Physiology / Pathology / Aging [4] Lecture Theater No. 2 Dr. Muhammad Rizwan, Prof Shazia Nilofar Lung Tumours	Anatomy Dissection Dissection Hall Dr. Anam, Dr. Maham, Dr. Hafiza, Dr. Hasana Revision	Disease Prevention & Impact (Community Medicine / Behavioural Sciences) [5] Lecture Theater No. 2 Dr. Saadia Maqbool Acute Respiratory infections
WEDNESDAY	Physiology Tutorial E+F Dr. Hajra & Dr. Hamza (REP) Physiology Practical G+H Dr. Maha & Dr. Zulfiqar (REP) Biochemistry TutorialI+JDr. Mahwish Sajjad Pedigree of AR disorders CSF/ Histo./ Biochem. Pract. [1] A+B Dr. Awais & Dr. Zahra Ph metry Clinical Skills Foundation C+D Dr. Muhammad Ali Identification of COPD on Cxray	Physiology Lecture Theater No. 1 Dr. Sadia Nazir,Prof. Anser Asrar REP	Anatomy / Pathology / Disease Prevention & Impact (Community Medicine) [2] Lecture Theater No. 1 Dr. Humayun Mirza Prevention & Control of Environmental Hazards on Respiratory System		PERL / Physiology [6] Lecture Theater No. 2 Prof. Aamir Bashir Professionalism/Equity/Diversity/Inclusion	Anatomy Dissection Dissection Hall Prof. Sobia PH buffers	Disease Prevention & Impact (Community Medicine) Lecture Theater No. 2 Dr. Saadia Maqbool Prevention of Acute Respiratory infections
THURSDAY	Physiology Tutorial G+H Dr. Hamza & Dr. Maha (REP) Physiology Practical I+J Dr. Talha & Dr. Bilal (REP) Biochemistry Tutorial A+B CSF/ Histo./ Biochem. Pract. [1] C+D Clinical Skills Foundation E+F Dr. Muhammad Ali Identification of COPD on Cxray	Physiology Lecture Theater No. 1 Prof. Sarah	Biochemistry Lecture Theater No. 1 Prof. Sobia		Pharmacology / Disease Prevention & Impact (Community Medicine) [3] Lecture Theater No. 2 Dr. Saadia Maqbool Quiz 4	Anatomy Dissection Dissection Hall Dr. Anam, Dr. Maham, Dr. Hafiza, Dr. Hasana Revision	Physiology / Pathology / Aging [4] Lecture Theater No. 2 Prof. Shazia & Dr. Rizwan PBL aging
FRIDAY	Physiology Tutorial I+J Dr. Hajra & Dr. Maha (REP) Physiology Practical A+B Dr. Bilal & Dr. Talha (REP) Biochemistry Tutorial C+D CSF/ Histo./ Biochem. Pract. [1] E+F Clinical Skills Foundation G+H Dr. Muhammad Ali Identification of COPD on Cxray	**09:30 a.m. to 10:15 a.m.**	**10:15 a.m. to 11:00 a.m.**	**11:00 a.m. to 11:15 a.m.**	**11:15a.m. to 12:00 Noon**	**12:00 Noon to 01:00 p.m.**	
		Physiology Lecture Theater No. 1 Dr. Sadia Nazir,Prof. Anser Asrar Test; REP	Biochemistry Lecture Theater No. 1 Test	**Break**	Physiology Lecture Theater No. 2 Prof .Sarah	Physiology Prof. Shazia & Dr. Rizwan PBL aging / Pathology [7] Lecture Theater No. 2	

COUNSELLING

PHYCHOSOCIAL COUNSELLING: MS. ALIA ASAD ALAM