AYUB MEDICAL COLLEGE ABBOTTABAD

DEPARTMENT OF MEDICAL EDUCATION

CVS I MODULE

1ST YEAR MBBS

BLOCK: C (CVS I)

DURATION:5 WEEKS

STUDENT NAME

_____

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1 Module Committee:

s.no	Name	Department	Role
1.	Prof. Dr. Umar Farooq	CEO & Dean	
2.	Prof. Dr. Irfan U. Khattak	DME	Director
3.	Dr. Junaid	DME	Coordinator
		Module Team	
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6.	Dr. Sahar Farhat	Asst. Prof. Physiology	Module Developer
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9.	Dr. Naureen Sultan	Professor Biochemistry	Member
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11.	Dr.Adeel Alam	Asst.Prof. Pharmacology	Member
12.	Dr. Adnan Rasheed	Asst Prof.Community med	Member
13.	Dr. Salma Shazia	Asso. Prof.Forensic Med	Member
14.	Dr.Syed Yasir Gillani	Asso. Prof.General Med	Member
15.	Dr.Shwana Asad	Asst.Prof General Surgery	Member

2 What Is A Study Guide?

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

2.1 The study guide:

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

2.2 Module objectives.

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

2.3 Achievement of objectives.

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

STUDENTS WILL EXPERIENCE INTEGRATED CURRICULUM.

2.4 Integrated curriculum:

An integrated curriculum is all about making connections, whether to real life or across the disciplines, about skills or aboutknowledge. An integrated curriculum fuses subject areas, experiences, and real-life knowledge together to make a more fulfilling and tangible learning environment for students. Integrated teaching means that subjects are presented as a meaningful whole. Students will be able to have better understanding of basic sciences when they repeatedly learn in relation to clinical examples. Case based discussions, computer-based assignments, early exposure to clinics, wards, and skills acquisition in skills lab are characteristics of integrated teaching program.

3 Recommended List Of Icons

Introduction To Case

For Objectives

Critical Questions

Assessment

Resource Material

4 Table Of Specification

S. No	Discipline CVS	Lectures (No. of hours)	LGD (No. of hours)	SGD/ Demonstration/ Dissection (No. of hours)	Practical (No. of hours)	Tutorials. No. of hours	%age distribution of hours, subject wise		No. of MCQs	%age for MCQs	No. of OSPE	Viva Station
1	Gross Anatomy	4	-	23	-	1 x 2	21.3 %	33 %	9	12.8%	4	1
2	Histology	4	-	-	4 x 2	-	8.8%		4	5.7%	3	
3	Embryology	4	-	-	-	-	2.9%		5	7.1%	0	
4	Physiology	34	3	6	6 x 2	1x2	42%		34	48.5%	7	1
5	Biochemistry	7	1	3	4 x 2	1 x 2	15.4%		14	20%	2	1
6	Pharmacology	2	-	-	-	-	1.5%		1	1.4%	-	-
7	Pathology	2	-	-	-	-	1.5%		1	1.4%	-	-
8	Community medicine	2	-	-	-	-	1.5%		1	1.4%	-	-
9	Forensic medicine	1	-	-	-	-	0.7%		1	1.4%	-	-
10	General Medicine	1	-	-	-	-	0.7%		0	-	-	-
11	Pediatrics	-	-	-	-	-	-		0	-	-	-
12	Surgery	-	-	-	-	-	-		0	-	-	-
13	Prime	7	-	-	-	-	5.1%		0	-	-	-
	Sub- Total	66	4	32	28	6	-		70	-	16	3
	Total	136							-	-	-	-
	Percentage distribution	48.5%	2.9 %	23.5%	20.5%	4.4%	-		-	-	-	-

5 Organization of Module

5.1 INTRODUCTION TO CVS MODULE

By the end of this module the student of Ayub Medical College Abbottabad should be able to **build** adequiate knowledge,attitude and skills to manage (Diagnose, Investigate, Treat, Refer, Prevent and Counsel) common cardiovascular diseases. The **Aim** Cardiovascular Module is to define the scope of Knowledge/ Skills/ Attitudes of a first year medical student of the Basic Medical Sciences i.e. Anatomy, Physiology and Biochemistry with the introduction to the Clinical Sciences and an **emphasis** of electrocardiographic understanding and abnormalities. Cardiovascular module is a 5 weeks' theme based module, followed by a block assessment. The contents of which will be taught in lectures, SGDs, DSLs and practical work. CVS module consists of the following themes:

1) Palpitations (Duration: 1 week)
2) Chest Pain (Duration: 1 week)
3) Blood Pressure (Duration: 1 week)
4) Breathlessness and Ankle Swelling (Duration: 2 weeks)

5.2 RATIONALE

CVS-MODULE is developed in order to assist students when they come in more frequent and prolonged contact with patients in the 3rd year of the MBBS curriculum. The students are expected to know the main concepts of CVS in all domains of learning and the skills gained in this module will help them deal with heart related conditions especially in the fields of Internal Medicine,Community medicine,Forensic aspects, Pharmacology of some important CVS related group of drugs, Paediatrics and Surgical Wards in tertiary care hospitals.

5.3 Teaching and learning strategies:

The following teaching / learning methods are used to promote better understanding:

1. Interactive Lectures
2. Hospital / Clinic visits
3. Small Group Discussion
4. Skills session
5. Self-Directed Study

- **Interactive lectures:**

An interactive lecture is an easy way for instructors to intellectually engage and involve students as active participants in a lecture - based class of any size.

- **Hospital / Clinic visits:**

In small groups, students observe patients with signs and symptoms in hospital or clinical settings. This helps students to relate knowledge of basic and clinical sciences of the relevant module.

- **Small group discussion (SGD):**

Students learn from each other. Everyone gets more practice at expressing their ideas. A two way discussion is almost always more creative than individual thoughts. Social skills are practiced in a 'safe' environment e.g. tolerance, cooperation.

- **Skills/Practical session:**

Skills relevant to respective module are observed and practiced where applicable in skills laboratory or Laboratories of various departments.

- **Self-Directed learning (SDL):**

Self-directed learning, which involves studying without direct supervision in a classroom/Library, is a valuable way to learn and is quickly growing in popularity among parents and students. Students' assume responsibilities of their own learning through individual study, sharing and discussing with peers, seeking information from Learning Resource Centre, teachers and resource persons wi thin and outside the college. Students can utilize the time within the college scheduled hours of self-study.

6 Learning Objectives

6.1 General Learning Outcomes

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

6.1.1 Knowledge

By the end of five weeks module AMC FIRST YEAR MBBS student should be able to;
1) Describe the structure and surface markings of the heart, valves and great
Vessels and utilize the basic knowledge of the gross and microscopic anatomy, the physiology and the relevant biochemical processes of CVS in order to comprehend how this system works and what hap[pens in disease process.
2) Describe the steps of development of the heart
3) Describe the steps of development of arterial, venous and lymphatic system
4) Describe the conduction system of the heart
5) Describe the anatomy of valves of the heart
6) Describe the microscopic structure of myocardium, and blood vessels
7) Describe the cardiac cycle
8) Discuss cardiac output, and venous return
9) Discuss blood pressure and its regulation
10) Discuss coronary circulation and diseases associated with it
11) Describe the mechanisms and types of circulatory shock and associated compensatory mechanisms
12) Describe the anatomy and common pericardial diseases
13) Describe the cardiac enzymes
14) Discuss the hyperlipidemias and the roles lipoproteins and cholesterol in the development of atherogenesis
15) Describe the mechanisms of impulse generation, conduction and excitation of myocardium
16) Discuss normal ECG and common ECG abnormalities
17) Enlist the drugs used in ischemic heart disease and hyperlipidemias
18) Describe preventive strategies of cardiovascular diseases
19) Describe the risk factors, and lab. Diagnosis of CAD
20) Define and Enlist the stages of atherosclerosis
21) Describe the medicolegal aspects of sudden death due to cardiovascular diseases
22) Describe primordial, primary, secondary and tertiary prevention of CV diseases in community
23) Identify the common CVS related medical emergencies.
24) Understand what medications are available for treatment.

6.1.2 Skill

By the end of FIVE weeks CVS module the AMC student should be able to;

1.Measure the blood pressure.
2. Measure the effect of posture and exercise on blood pressure.
3. Examine the arterial pulses.
4. Auscultate the heart sounds.
5. Perform systematic analysis of ECG
6. Identify normal cardiac shadow, borders and cardiomegaly on chest radiographs.
7. Identify the position of borders and valves of the heart by surface marking on model / simulator
8. Palpate and find apex beat, and auscultatory areas in the chest of the subject provided and describe their
significance.
9. Demonstrate the use of Stethoscope for Auscultation.
10. Differentiate between normal and displaced apex beat
11. Perform basic life support.
12. Interpretation of cardiac enzyme
13. Detection of lipids in a given sample
14. Demonstrate the ability to perform the disease specific relevant examination
15. Perform BLS

6.1.3 Attitude

By the end of five weeks CVS module the AMC student should be able to

1. Demonstrate ability to give and receive feedback, respect for self and peers.
2. Develop respect for the individuality and values of others - (including having respect for oneself) patients,
colleagues and other health professionals
3. Organize& distribute task
4. Exchange opinion & knowledge
5. Develop communication skills and etiquette with sense of responsibility.
6. To equip themselves for teamwork
7. Regularly attend the classes
8. Demonstrate ethical self-management
9. Display compassion with patient and colleagues

6.2 Specific learning objectives (THEME BASED)

1. THEME–I: CHEST PAIN (1 week)				
SUBJECT: ANATOMY			**Hours TOTAL**	**MIT**
TOPICS	**S. No**	**Learning Outcomes**	**09**	

1.SURFACE ANATOMY	1.	Describe the surface marking of the heart		lectures
	2.	Describe the surface marking of the heart valves		lectures
	3.	Illustrate the surface marking of the aorta on models / x-rays		lectures
	4.	Describe the surface marking of the superior vena cava		lectures
	5.	Describe the surface marking of the inferior vena cava		lectures
	6.	Describe the gross structure of the heart		lectures
2. Coronary circulation	7.	Enlist the branches of each main artery		lectures
	8.	Describe the anastomosis of coronaries		lectures
	9.	Identify the area of the heart supplied by a coronary artery and its branches		lectures
	10.	Identify the area of the heart supplied by a coronary artery and its branches		lectures
	11.	Describe the venous drainage of the heart		lectures
	12.	Describe the lymphatic drainage of the heart		lectures
3.Pericardium	13.	Define pericardium		lectures
	14	Describe different reflections of pericardium		lectures
	15	Identify entry & exit of vessels of heart via pericardium		lectures
	16	Define the following clinical condition; • pericarditis • pericardial effusion • cardiac Tamponade		lectures
HISTOLOGY			*04*	
Histology of heart muscles	17	Explain the characteristics of cardiac muscle cell		lectures
	18.	Explain the Structure of Intercalated disc		lectures
	19	Define the junctional specializations making up the intercalated disk		lectures
	20	Describe identification of different microscopic views of Cardiac muscle and its ultra-structures		lectures
	21.	Differentiate histologically between cardiac and skeletal muscle and smooth muscles		lectures

	22.	Enumerate histological layers of heart wall		lectures
PHYSIOLOGY			**34 TOTAL**	
1.CARDIAC MUSCLES	23	Explain the physiologic anatomy of the cardiac muscle		lectures
	24	Describe the properties of the cardiac muscle		lectures
2.Coronary circulation	25	Describe the physiologic basis coronary circulation		lectures
	26.	Describe the steps of coronary thrombosis		lectures
	27.	Describe the etiology of coronary thrombosis		lectures
BIOCHEMISTRY			**14+8=22 TOTAL**	
ENZYMES 1.Introduction,definition,mechanism of catalytic action	28.	Describe Cardiac enzymes and their pattern of elevation in ischemic heart diseases 1 .Enzymes terminology cofactors,coenzymes,Prosthetic group,terminology of regulation 2.Enzymes kinetics _Exogenic/Endogenic reactions _Ea _Reaction rates	**08**	lecture
LIPIDS AND CHOLESTEROL	29.	Describe the Chemical Structure and function of cholesterol	**14**	*Lecture*
	30.	Describe the fate of cholesterol in the body		*Lecture*
	31	Define and Classify lipids		*Lecture*
	32	Describe the functions of lipids in the body		*Lecture*
	33	Classify lipoproteins and their functions		*Lecture*
	34	Describe the role of Na, K, Ca and Mg in cardiac muscles contractility and their biochemical abnormalities		*Lecture*
	35	Describe the cardiac manifestations of vitamin B1 deficiency		*Lecture*
PHARMACOLOGY	36	Enlist the groups of drugs used in the treatment of CAD (angina and MI)	**TOTAL 02**	*Lecture*
	37	Enlist the groups of lipids lowering drugs		*Lecture*
PATHOLOGY	38	Describe the risk factors, and lab. Diagnosis of CAD	**02**	*Lecture*
	39	Define and Enlist the stages of atherosclerosis		*Lecture*
FORENSIC MEDICINE	40	Describe the medicolegal aspects of sudden death due to cardiovascular diseases	**01**	*Lecture*
COMMUNITY MEDICINE				

PREVENTION OF CVD	41	Describe primordial, primary, secondary and tertiary prevention of CV diseases in community	***01***	*Lecture*
THEME–II: 2- Breathlessness and ankle swelling (2 weeks)				
SUBJECT/TOPICS	**S.NO**	**LEARNING OUTCOMES**	**HOURS**	**MIT**
EMBRYOLOGY			**05**	
1. FETAL CIRCULATION	42.	Describe the physiological changes in circulation after birth		Lecture
2. CARDIAC DEVELOPMENTAL ANOMALIES	43.	Enlist the developmental anomalies of heart		Lecture
	44.	Describe the congenital anomalies of the heart. ASD VSD PDA Tetralogy of Fallot transposition of the great vessels Hemangiomas and Telangiectasia		Lectures
PHYSIOLOGY				
1.CARDIAC CYCLE	45.	Describe the Cardiac cycle		Lecture
	46	Describe the concept of systole and diastole,		Lecture
	47.	Describe the role of atria and ventricles as pumps,		Lecture
	48.	Describe the functions of heart valves,		Lecture
	49.	Correlate the cardiac cycle events with ECG		Lecture
	50.	Describe the mechanism of production of normal and abnormal heart sounds		Lecture
	51.	Relate heart sounds with cardiac cycle,		Lecture
	52.	Describe the metabolism and oxygen utilization of cardiac muscle		Lecture
	53.	Describe the regulation of cardiac cycle and heart pumping		Lecture
2.CARDIAC OUTPUT	54.	Describe pressure volume loop (end-systolic volume / end-diastolic volume / ejection fraction / systolic volume / systolic work output		Lecture
	55.	Explain the Frank-Starling mechanism of the heart for the control of cardiac output by venous return		Lectures
	56.	Describe the methods for measuring of cardiac		*Lecture*

		output		
	58.	Describe normal cardiac output and venous return during rest and during activity		*Lecture*
	59.	Enlist the causes of abnormally high and abnormally low cardiac output		*Lecture*
	60.	Explain the mechanisms of normal cardiac contractility and the role of calcium ion/ ATPase pumps		*Lecture*
	61.	Explain cardiac output (regulation/measurement) and peripheral resistance and its regulation		Lecture
	62.	Explain the factors regulating cardiac output and venous return		Lectures
3.BLOOD FLOW				
	63.	Describe the Biophysics and Interrelationships of Pressure, Flow, and Resistance in terms of Ohm's law and Poiseuille's Law		Lecture
	64.	Describe starling forces		Lecture
	65.	Describe regulation of blood flow		Lecture
	66.	Define basal tone.		Lecture
	67.	List several substances potentially involved in local and metabolic control of vascular tone.		Lecture
	68.	State the local metabolic vasodilator hypothesis.		Lecture
	69.	Describe physiological Vasodilators and Vasoconstrictors and their mechanisms		Lecture
	70.	Describe the factors affecting the local blood flow including auto-regulation		Lecture
	71.	Describe the function of capillaries		Lecture
	72.	Describe circulatory changes during exercise		Lecture
	73.	Describe blood flow to different organs like brain, heart, liver and skin during exercise		Lecture
4.FUNCTIONS OF HEART VALVES	74.	Describe the functions of mitral, tricuspid, aortic and pulmonic valves		Lecture
	75.	Describe the hemodynamics and sequel related to stenosis and regurgitation of heart valves		Lecture
5. LYMPHATIC SYSTEM	76	Describe the function of lymphatic system in the maintenance of interstitial fluid volume.		Lecture
	77.	Describe the effects of Interstitial Fluid Pressure on Lymph Flow		Lecture
	78.	Describe how changes in capillary hydrostatic		Lecture

		pressure, plasma oncotic pressure, capillary permeability, and lymphatic function can lead to tissue edema		
BIOCHEMISTRY				
ENZYMES	79	Iso enzymes and their clinical importance • LDH • CK • Transaminase • Phosphtases		Lecture
	80	Factors affecting enzymes activity • Michaelis menton equation • Line Weaver Burg plot		Lecture
MEDICINE			**TOTAL 02**	
1.CARDIAC FAILURE	81.	Define Heart failure		Lecture
	82.	Differentiate between right-sided Heart failure and left-sided heart failure		Lecture
2. THEME–III: BLOOD PRESSURE (1 week)				
ANATOMY				
1.HISTOLOGY OF BLOOD VESSELS	83.	Describe the histological composition of vessel		Lecture
	84.	Describe the microscopic structure of artery and vein		Lecture
	85.	Differentiate histologically between artery and vein under light microscope		Lecture
	86.	Describe the histological composition of lymphatic channels		Lecture
EMBRYOLOGY				
1.DEVELOPMENT OF ARTERIES AND VEINS	87.	Describe the development of arterial system		Lecture
	88.	Describe the development of venous system		Lecture
	89.	Describe the congenital abnormalities in in the vessels. - Coarctation of Aorta		Lecture
PHYSIOLOGY				
BOOD	90.	Define blood pressure		Lecture

PRESSURE				
	91.	Describe the causes of High / low BP		Lecture
	92.	Discuss the mechanisms for rapid and long term control of blood pressure (including Renin-Angiotensin system)		Lecture
	93.	Describe the effects of sympathetic and parasympathetic stimulation on the heart and circulation		Lecture
2.CIRCULATORY SHOCK	94.	Define Circulatory Shock		Lecture
	95.	Explain the physiologic causes of circulatory shock		Lecture
	97.	Explain the stages of circulatory shock		Lecture
		Explain the stages of circulatory shock		Lecture
	98.	Describe cardiogenic shock		Lecture
	99.	Describe Hemorrhagic Shock		Lecture
		Describe Anaphylactic Shock		Lecture
	100.	Describe of Neurogenic Shock		Lecture
	101.	Describe Septic Shock		Lecture
	102.	Explain the physiology of treatment in Shock		Lecture
BIOCHEMISTRY				Lecture
ENZYMES	103.	Enzymes inhibitors/Classification/Biomedical importance		Lecture
	104.	Clinical enzymology • Nomenclature • Classification • Enzyme units		Lecture
PHARMACOLOGY .				
	105.	Describe the mechanisms of drugs used in the treatment of Hypertension		Lecture
COMMUNITY MEDICINE	106.	Describe the preventive strategies of hypertension		Lecture
3. THEME–IV: PALPITATION (1 WEEK)				
ANATOMY				

1.CONDUCTION SYSTEM OF THE HEART	107.	Describe the different components of conduction system • SA Node • AV Node • Bundle of His • Purkenje Fibers • Bundle branches		Lecture
	108.	Describe the sympathetic innervation of heart		Lecture
	109.	Describe the parasympathetic innervation of the heart		Lectures
PHYSIOLOGY				
EXCITATION AND CONTRACTION OF CARDIAC MUSCLES	110.	118 Describe the excitation–contraction process in cardiac muscle.		Lectures
	111.	Describe Chronotropic, Inotropic and Dromotropic effects		Lecture
	112.	Differentiate excitation–contraction process in cardiac and skeletal muscle cells		Lecture
	113.	Describe gap junctions and the significance of functional syncytium		Lecture
		Explain phases of cardiac muscle action potential		*Lectures*
	114.	Describe the characteristics of cardiac action potentials and the role of “slow calcium” channels in causing plateau and its significance		*Lecture*
	115.	Describe the significance of AV nodal Delay		*Lecture*
	116.	Define Pacemaker and explain why SA node is the normal pacemaker of the heart		*Lecture*
	117.	Define Ectopic Pacemaker and describe its causes		*Lecture*
	118.	Describe the effects of sympathetic and parasympathetic stimulation on the heart rate and conduction of cardiac action potentials		*Lecture*
	119.	Define various types of refractory periods		Lecture
	120.	Differentiate the refractory period of cardiac muscle with that of skeletal muscle		Lecture
	121.	Describe the significance of prolonged action potential in cardiac muscle		Lecture
	122.	Describe the physiological anatomy of the sinus node		Lecture

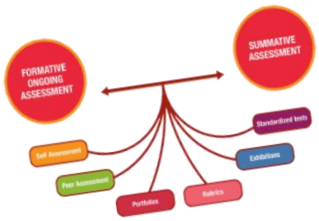
	123.	Define automaticity and rhythmicity and conductivity		Lecture
	124.	Describe the specialized excitatory and conductive pathway of the cardiac muscle tissue		Lecture
2. **ECG**	125.	Describe the characteristics of normal ECG, time duration of waves, segments and voltages State Einthoven's basic electrocardiographic conventions and Einthoven's law		Lecture
	126.	Explain how to record ECG.12 leads placements like I, II, III, aVR, aVL, and aVF, and Pectoral leads Define the following terms: Electrode, indifferent electrode, lead and Axis of the lead		Lecture
	127.	Describe the AV nodal, ventricular impulse conduction		Lecture
	128.	Interpret ECG paper and its calibration		Lecture
	129	Various cardiac abnormalities and their ECG interpretation		Lecture
3.CARDIAC VECTOR	130.	Cardiac vectorial analysis • List the rules for determining the direction of a vector of depolarization and repolarization relative to a given ECG lead. • Describe, in terms of vectors, how the QRS complex is generated • Define and describe mean electrical axis of the heart. • Describe different types of axis deviations and their causes.		Lecture
	131.	Cardiac arrhythmias		Lecture
	132.	Current of injury, circus movements and ventricular fibrillation		Lecture
	133.	Cardiac arrest		Lecture
COMMUNITY MEDICINE				
CVD PREVENTION	134.	Identify the major risk factors which contribute to common diseases of the cardiovascular system		Lecture
	135.	Enumerate modifiable and non-modifiable risk factors of CV diseases		Lecture

	136.	Apply primordial, primary, secondary and tertiary prevention of CV diseases in community		Lecture
BIOCHEMISTRY				
ENZYMES	137.	Application of enzymes in clinical diagnostics and therapeutics		Lecture
	138.	Profiles • Cardiac • Hepatic • Bone • GIT • Muscle • Tumours		Lecture

PSYCHOMOTOR DOMAINE		**MIT**
THEME–I: CHEST PAIN (1 week)		
ANATOMY	1- Identify the heart & its coverings in the model / dissected specimen 2- Identify the heart and major blood vessels in cadaver/dissected specimen 3- Identify the chambers of the heart. 4- Identify the internal structures of various chambers of the heart. 5- Identify the Cardiac Muscle under the microscope	Practical, skill lab etc
PHYSIOLOGY	6- Perform basic life support.	Practical, skill lab etc
THEME–II: 2- Breathlessness and ankle swelling (2 weeks)		
CLINICAL	7- Palpate and find apex beat, and auscultatory areas in the chest of the subject provided and describe their significance. 8- Demonstrate the use of Stethoscope for Auscultation. 9- Differentiate between normal and displaced apex beat	Practical, skill lab etc
ANATOMY	10- Identify normal cardiac shadow, borders and cardiomegaly on chest radiographs. 11- Identify the position of borders and valves of the heart by surface marking on model / simulator	Practical, skill lab etc
THEME–III: BLOOD PRESSURE (1 week)		
ANATOMY	12- Identify salient features of a medium sized artery & vein in a cross-section under microscope. 13- Identify the histological differences between medium size artery & vein under microscope. 14- Describe the histological differences between large size artery	Practical, skill lab etc

	& vein.	
PHYSIOLOGY	15- Measure the blood pressure. 16- Measure the effect of posture and exercise on blood pressure. 17- Examine the arterial pulses. 18- Auscultate the heart sounds.	Practical, skill lab etc
THEME–IV: PALPITATION (1 WEEK)		
PHYSIOLOGY	19- Perform systematic analysis of ECG	Practical, skill lab etc
AFFECTIVE DOMAIN		
PRIME	20- Demonstrate ability to give and receive feedback, respect for self and peers. 21- Carry out practical work as instructed in an organized and safe manner 22- Demonstrate empathy and care to patients. 23- Develop respect for the individuality and values of others - (including having respect for oneself) patients, colleagues and other health professionals 24- Organize& distribute tasks 25- Exchange opinion & knowledge 26- Develop communication skills and etiquette with sense of responsibility. 27- To equip themselves for teamwork 28- Regularly attend the classes 29- Role play for the counseling of patients with risk factors for coronary heart diseases on modification of life style 30- Role play for the counseling of patients with risk factors for coronary heart diseases on modification of life style	

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



7 Examination and Methods of Assessment:

7.1 Block Assessment

Block Assessment consists of

- Theory Paper(MCQs, SAQs) and
- Skill assessment (OSPE).

1. Non-Interactive/ Non-Observed Station:

2. Interactive/Observed Station

7.2 Attendance Requirement:

More than 75% attendance is mandatory to sit for the examinations.

Table-1: Total marks distribution for papers C of year-1 (MBBS)

Year 1 Professional Exam in System-based Curriculum

Theory paper	Modules	Theory marks	Internal assessment theory (10%)	OSPE/OSCE	Internal assessment OSPE/OSCE (10%)	TOTAL MARKS
Paper C	CVS	120	13	90	10	233

7.3 UNIVERSITY EXAM:

Exam has 90% (210) marks in total

7.4 INTERNAL EXAM:

Internal evaluation is a process of quality review undertaken within an institution for its own ends. It has 10% (23 marks) of total exam.

7.5 Assessment tools:

Theoretical knowledge is tested by a written examination system constituted by multiple choice questions (MCQ/SEQs).
The assessment of practical knowledge involves oral, spot, or objective structured practical examinations (OSPE).

7.5.1 Multiple Choice Questions (MCQ/SEQs):

- Multiple choice questions (MCQ/SEQs) are a form of assessment for which students are asked to select the best choice from a list of answers.
- MCQ/SEQ consists of a stem and a set of options. The stem is usually the first part of the assessment that presents the question as a problem to be solved; the question can be an incomplete statement which requires to be completed and can include a graph, a picture or any other relevant information.
- The block exam will comprise of 120 MCQ/SEQs and will be compiled according to the shared blueprint.

7.5.2 Short Essay Questions (SEQ)

Short answer questions generally ask for brief, text-based responses and may also be referred to as *fill-in-the-blank*; or *completion* questions.

7.5.3 Objective Structured Practical Examination (OSPE)

- The content may assess application of knowledge, or practical skills.
- Student will complete task in define time at one given station.
- All the students are assessed on the same content by the same examiner in the same allocated time.

A structured examination will have observed, unobserved, interactive and rest stations.
Observed and interactive stations will be assessed by internal or external examiners.
Unobserved will be static stations in which students will have to answer the questions related to the given pictures, models or specimens the provided response sheet.
Rest station is a station where there is no task given, and in this time student can organize his/her thoughts.
The Block OSPE will be comprise of 16 examined station and 6 rest stations. The stations will be assigned according to the shred blueprint.

Table 2. Distribution of 13 Marks for block C paper (internal Assesment)

THEORY PAPER	**INTERNAL ASSESSMAENT THEORY** (10%)		**INTERNAL ASSESSMAENT OSCE/OSPE(10%)**	
Paper c	Anatomy	(06)	Anatomy	03
	Physiology	(05)	Physiology	06
	Biochemistry	(2)	Biochemistry	01
	Total	13	Total	10

Paper-C (CVS) External Assesment

Table-3: MCQs

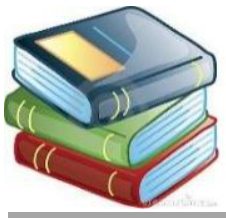
Subject	**CVS module**
GROSS ANATOMY	9
HISTOLOGY	4
EMBRYOLOGY	5
PHYSIOLOGY	34
BIOCHEMISTRY	14
PHARMACOLOGY	1
PATHOLOGY	1
COMMUNITY MEDICINE	1
FORENSIC MEDICINE	1
Total	**70**

Table-3: OSPE

Subject	**CVS module**	**Viva**	**Respiratory**	**Viva stations**	**Total OSPE**

		stations	module		stations (for final exam*)
GROSS ANATOMY	4	1	1	1	5
HISTOLOGY	3		3		
EMBRYOLOGY	0		0		
PHYSIOLOGY	7	1	3	1	5
BIOCHEMISTRY	2	1	0	1	2
TOTAL	16	3	7	3	12+6 (viva)=18

*out of total of 23 OSPE stations, 12 will be allocated for final exam plus 6 viva stations. A minimum of 18 stations will be used in final exams.



8 Learning Opportunities and Resources

8.1 Instruction

Apart from these resource learning ,students can consult books available in library or recommended by the specialty experts.

8.2 Books:

Gross Anatomy	1. Netter`s "Atlas of Human Anatomy-6th Edition 2. Gray`s Anatomy-4th Edition 3. Cunningam`s "Textbook of Anatomy'-12th Edition 4. Snell`s Clinical Anatomy by regions-9th Edition 5. Snell`s Clinical Neuroanatomy-7th Edition 6. Last`s Anatomy-10th Edition
Embryology	1. Langman`s Medical Embryology-14th Edition 2. The Developing Human "by Keith L Moore"-10th Edition
Histology	1. Textbook of Histology "by Leslie Gartner-3rd Edition 2. Basic Histology-Text and Atlas- "by Luiz Carlos-11th Edition
Physiology	1. Guyton`s "Textbook of Medical Physiology"-13th edition 2. Ganong`s "Review Of Medical Physiology"-25th Edition 3. "Human Physiology-From cell to system" *by Lauralee Sherwood*-8th Edition
Biochemistry	1. Harper`s Biochemistry-31st Edition 2. Principles of Medical Biochemistry-3rd Edition 3. Lippincot`s Biochemistry-6th Edition
Pharmacology	1. Katzung`s Basic and Clinical Pharmacology-12th Edition
Pathology	1. Robbin`s Basic Pathology-9th Edition
Community Medicine	1. Community medicin by Parikh 2. Community medicine by M Ilyas 3. Basic Statistics for the Health Sciences by Jan W Kuzma
Medicine	1. Davidson`s Principles and Practice of Medicine-22nd Edition
Clinical Examination	1. Talley and O'Connor's Clinical Examination-6th Edition
Forensic Medicine	1. Parikhstext book of Medical Jurisprudence and Toxicology

8.3 Website:

8.3.1 Anatomy:

1. http://files.readmedbooks.com/anatomy/netter-atlas-7.pdf
2. file:///C:/Users/dell/Desktop/Gray's%20Anatomy-The%20Anatomical%20Basis%20of%20Clinical%20Practice%2041st%20Edition%20-%202015%20[MSCambo].pdf
3. https://worldofmedicalsaviours.com/cunninghams-manual-of-practical-anatomy/
4. https://ia802606.us.archive.org/16/items/pdfy-d-PFUmAhPcw_n7EV/snell%20clinical%20anatomy%20by%20regions%209th%20ed%202012_2.pdf
5. http://med-mu.com/wp-content/uploads/2018/06/Snell-Neuroanatomy-7th-Edition.pdf
6. http://files.readmedbooks.com/anatomy/lasts-anatomy.pdf

8.3.2 Embryology

1. https://bhumikapalrocks.files.wordpress.com/2016/02/langmans-medical-embryology-12th-ed.pdf
2. https://mymedicallibrary.files.wordpress.com/2016/08/the-developing-human-edition-8th.pdf

8.3.3 Histology

1. file:///C:/Users/dell/Desktop/(Lib-Ebooks.com)150320212213%20(4).pdf
2. file:///C:/Users/dell/Desktop/pdfcoffee.com_2002-basic-histology-by-luis-carlos-junqueira-text-amp-atlas-10th-edition-mcgraw-hill-appleton-amp-lange-pdf-free.pdf

8.3.4 Physiology:

1. https://med-mu.com/wp-content/uploads/2018/06/Guyton-and-Hall-Textbook-of-Medical-Physiology-12th-Ed-PDFtahir99-VRG.pdf
2. https://medicostimes.com/guyton-medical-physiology-pdf/
3. https://ia903208.us.archive.org/23/items/GanongsReviewOfMedicalPhysiology25thEdition/Ganongs%20Review%20of%20Medical%20Physiology_%2025th%20Edition.pdf
4. https://worldofmedicalsaviours.com/medical-books/mbbs/physiology/sherwood-human-physiology.pdf

8.3.5 Biochemistry:

1. http://repository.stikesrspadgs.ac.id/69/1/Principles%20of%20Medical%20Biochemistry%20Meisenberg%20Simmons-635hlm.pdf
2. https://worldofmedicalsaviours.com/medical-books/mbbs/biochemistry/lippincotts-Illustrated-reviews-series.pdf

8.3.6 Pharmacology:

1. https://pharmacomedicale.org/images/cnpm/CNPM_2016/katzung-pharmacology.pdf

8.3.7 Community Medicine:

1. https://drive.google.com/file/d/1kG_04GUfxSOxsdRaucxJ-jykVgc-BZT0/view

2. https://barlybeltatimen.wixsite.com/charratttisri/post/ilyas-ansari-community-medicine-book-free-46
3. https://psebooks.club/-/reader-roman/#/flow=gHqRV5+cdn.bkfd4.club/q=Basic%20Statistics%20for%20the%20Health%20Sciences/

8.3.8 Forensic medicine:

1. https://www.ojp.gov/ncjrs/virtual-library/abstracts/parikhs-text-book-medical-jurisprudence-and-toxicology-classrooms

8.3.9 Medicine:

1. https://drive.google.com/file/d/0B8VbbFBwhaS8a2ZlaXllMGNwMmc/view?resourcekey=0-cJj3WGul40Avx4G5U1gX2A

8.3.10 Clinical Examination:

1. https://www.docdroid.net/mQ9vDWs/talley-and-oconnors-clinical-examination-8th-edition-pdfdrivecom-pdf

9 Timetables

AYUB MEDICAL COLLEGE, ABBOTTABAD

Department of Medical Education

TIME TABLE OF 1ST YEAR MBBS CLASS
CVS & RESPIRATION MODULE (Week-01)

Days	8:00 – 9:00	9:00 – 10:00	10:00 – 11:00	11:00 to 12:00	12:00 – 12:45	12:45 – 1:15	1: 15 – 3:00
	DISSECTION/ ANATOMY						**PRACTICAL**
Monday	Batch A: Batch B: Batch C: Batch D:		Physiology Dr. Shazia Heart	Biochemistry Dr. Ayesha Awan	PRIME Forensic Medicine Dr. Zartash Types of Ethics	PRAYER BREAK	Batch A: Anatomy Batch B: Physiology Batch C: Biochemistry Batch D: Tutorial
Tuesday	Batch A: Batch B: Batch C: Batch D:		Physiology Dr. Sahar CVS	Biochemistry Dr. Ayesha Awan Enzymes	Community Medicine Dr. Zainab		Batch A: Tutorial Batch B: Anatomy Batch C: Physiology Batch D: Biochemistry
Wednesday	Batch A: Batch B: Batch C: Batch D:		Physiology Dr. Sahar CVS	Embryology Dr. Robina	Pathology Dr. Saman		Batch A: Biochemistry Batch B: Tutorial Batch C: Anatomy Batch D: Physiology
Thursday	Batch A: Batch B: Batch C: Batch D:		Physiology Dr. Raisa Respiration	Biochemistry Dr. Noreen Lipids	Gross Anatomy Dr. Humaira		Batch A: Physiology Batch B: Biochemistry Batch C: Tutorial Batch D: Anatomy
Friday	Histology Dr. Sumera	Physiology Dr. Sahar CVS	Physiology Dr. Raisa Respiration	Physiology Dr. Shazia Heart	Islamiat		HALF DAY

This time table is tentative and subject to changes needed according to the situation at the commencement of module

AYUB MEDICAL COLLEGE ABBOTTABAD
TIME TABLE OF 1ST YEAR MBBS CLASS
CVS & RESPIRATION MODULE (Week-02)

Days	8:00 – 9:00	9:00 – 10:00	10:00 – 11:00	11:00 to 12:00	12:00 – 12:45	12:45 – 1:15	1: 15 – 3:00
	DISSECTION						**PRACTICAL**
Monday	Batch A: Batch B: Batch C: Batch D:		Physiology Dr. Shazia Heart	Biochemistry Dr. Ayesha Awan	PRIME Forensic Medicine Dr. Zartash Components of Ethics	PRAYER BREAK	Batch A: Anatomy Batch B: Physiology Batch C: Biochemistry Batch D: Tutorial
Tuesday	Batch A: Batch B: Batch C: Batch D:		Physiology Dr. Sahar CVS	Biochemistry Dr. Ayesha Awan	Community Medicine Dr. Zeeshan Haroon		Batch A: Tutorial Batch B: Anatomy Batch C: Physiology Batch D: Biochemistry
Wednesday	Batch A: Batch B: Batch C: Batch D:		Physiology Dr. Sahar CVS	Embryology Dr. Robina	Pathology Dr. Saman		Batch A: Biochemistry Batch B: Tutorial Batch C: Anatomy Batch D: Physiology
Thursday	Batch A: Batch B: Batch C: Batch D:		Physiology Dr. Sahar CVS	Biochemistry Dr. Noreen	Gross Anatomy Dr. Humaira		Batch A: Physiology Batch B: Biochemistry Batch C: Tutorial Batch D: Anatomy
Friday	Histology Dr. Sumera	Physiology Dr. Raisa Respiration	General Medicine Dr. Matiullah	Physiology Dr. Sahar CVS	Islamiat		HALF DAY

This time table is tentative and subject to changes needed according to the situation at the commencement of module

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Ayub Medical College Abbottabad

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Abbottabad

AYUB MEDICAL COLLEGE ABBOTTABAD
TIME TABLE OF 1ST YEAR MBBS CLASS
CVS & RESPIRATION MODULE (Week-03)

Days	8:00 – 9:00	9:00 – 10:00	10:00 – 11:00	11:00 to 12:00	12:00 – 12:45	12:45 – 1:15	1: 15 – 3:00
	DISSECTION						**PRACTICAL**
Monday	Batch A: Batch B: Batch C: Batch D:		Physiology Dr. Shazia Heart	Biochemistry Ayesha Awan	PRIME Surgery Dr. Yousaf	PRAYER BREAK	Batch A: Anatomy Batch B: Physiology Batch C: Biochemistry Batch D: Tutorial
Tuesday	Batch A: Batch B: Batch C: Batch D:		Physiology Dr. Sahar CVS	Pathology Dr. Saman	Forensic Medicine Dr. Inam		Batch A: Tutorial Batch B: Anatomy Batch C: Physiology Batch D: Biochemistry
Wednesday	Batch A: Batch B: Batch C: Batch D:		Physiology Dr. Sahar CVS	Embryology Dr. Robina	Pathology Dr. Noreen		Batch A: Biochemistry Batch B: Tutorial Batch C: Anatomy Batch D: Physiology
Thursday	Batch A: Batch B: Batch C: Batch D:		Physiology Dr. Sahar CVS	Biochemistry Dr. Noreen	Gross Anatomy Dr. Humaira		Batch A: Physiology Batch B: Biochemistry Batch C: Tutorial Batch D: Anatomy
Friday	Histology Dr. Sumera	Physiology Dr. Raisa Respiration	General Medicine Dr. Yaseen	Physiology Dr. Shazia Heart	Physiology Dr. Sahar CVS		HALF DAY

This time table is tentative and subject to changes needed according to the situation at the commencement of module

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AYUB MEDICAL COLLEGE ABBOTTABAD
TIME TABLE OF 1ST YEAR MBBS CLASS
CVS & RESPIRATION MODULE (Week-04)

Days	8:00 – 9:00	9:00 – 10:00	10:00 – 11:00	11:00 to 12:00	12:00 – 12:45	12:45 – 1:15	1: 15 – 3:00
	DISSECTION						**PRACTICAL**
Monday	Batch A: Batch B: Batch C: Batch D:		Physiology Dr. Shazia Heart	Biochemistry Dr. Ayesha Awan	Pakistan Study	PRAYER BREAK	Batch A: Anatomy Batch B: Physiology Batch C: Biochemistry Batch D: Tutorial
Tuesday	Batch A: Batch B: Batch C: Batch D:		Physiology Dr. Shazia Heart	Biochemistry Dr. Ayesha Awan	Islamiat		Batch A: Tutorial Batch B: Anatomy Batch C: Physiology Batch D: Biochemistry
Wednesday	Batch A: Batch B: Batch C: Batch D:		Physiology Dr. Shazia Heart	Biochemistry Dr. Ayesha Awan	Pak study		Batch A: Biochemistry Batch B: Tutorial Batch C: Anatomy Batch D: Physiology
Thursday	Batch A: Batch B: Batch C: Batch D:		Physiology Dr. Raisa Respiration	Biochemistry Dr. Noreen Sultan	Islamiat		Batch A: Physiology Batch B: Biochemistry Batch C: Tutorial Batch D: Anatomy
Friday	Histology Dr. Sumera	Physiology LGD	Physiology LGD	Islamiat	Pakistan Study		HALF DAY

This time table is tentative and subject to changes needed according to the situation at the commencement of module

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AYUB MEDICAL COLLEGE ABBOTTABAD
TIME TABLE OF 1ST YEAR MBBS CLASS
CVS & RESPIRATION MODULE (Week-05)

Days	8:00 – 9:00	9:00 – 10:00	10:00 – 11:00	11:00 to 12:00	12:00 – 12:45	12:45 – 1:15	1: 15 – 3:00
	DISSECTION						**PRACTICAL**
Monday	Batch A: Batch B: Batch C: Batch D:		Physiology Dr. Raisa Respiration	Biochemistry Dr. Ayesha Awan	PRIME Community Medicine Dr. Junaid	PRAYER BREAK	Batch A: Anatomy Batch B: Physiology Batch C: Biochemistry Batch D: Tutorial
Tuesday	Batch A: Batch B: Batch C: Batch D:		Physiology Dr. Sahar CVS	Pharmacology Dr. Saad Mufti	Forensic Medicine Dr. Inam		Batch A: Tutorial Batch B: Anatomy Batch C: Physiology Batch D: Biochemistry
Wednesday	Batch A: Batch B: Batch C: Batch D:		Physiology Dr. Sahar CVS	Embryology Dr. Robina	Surgery Dr. Zahid		Batch A: Biochemistry Batch B: Tutorial Batch C: Anatomy Batch D: Physiology
Thursday	Batch A: Batch B: Batch C: Batch D:		Physiology Dr. Sahar CVS	Biochemistry Dr. Noreen	Gross Anatomy Dr. Humaira		Batch A: Physiology Batch B: Biochemistry Batch C: Tutorial Batch D: Anatomy
Friday	Histology Dr. Sumera	Physiology Dr. Raisa Respiration	Physiology Dr. Shazia Heart	Physiology Dr. Sahar CVS	Islamiat		HALF DAY

This time table is tentative and subject to changes needed according to the situation at the commencement of module

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AYUB MEDICAL COLLEGE ABBOTTABAD
TIME TABLE OF 1ST YEAR MBBS CLASS
CVS & RESPIRATION MODULE (Week-06)

Days	8:00 – 9:00	9:00 – 10:00	10:00 – 11:00	11:00 to 12:00	12:00 – 12:45	12:45 – 1:15	1: 15 – 3:00
	DISSECTION						**PRACTICAL**
Monday	Batch A: Batch B: Batch C: Batch D:		Physiology Dr. Shazia Heart (LH-1)	Biochemistry Dr. Ayesha Awan (LH-1)	PRIME Surgery Dr. Amjad Farooq (LH-1)	PRAYER BREAK	Batch A: Anatomy Batch B: Physiology Batch C: Biochemistry Batch D: Tutorial
Tuesday	Batch A: Batch B: Batch C: Batch D:		Physiology Dr. Raisa Respiration (LH-1)	Pharmacology Dr. Nauman Iqbal (LH-1)	Physiology Dr. Sahar CVS (LH-1)		Batch A: Tutorial Batch B: Anatomy Batch C: Physiology Batch D: Biochemistry
Wednesday	Batch A: Batch B: Batch C: Batch D:		Physiology Dr. Sahar CVS (LH-1)	Embryology Dr. Robina (LH-1)	Pakistan Studies (LH-1)		Batch A: Biochemistry Batch B: Tutorial Batch C: Anatomy Batch D: Physiology
Thursday	Batch A: Batch B: Batch C: Batch D:		Physiology Dr. Sahar CVS (LH-1)	Biochemistry Dr. Noreen (LH-1)	Gross Anatomy Dr. Humaira (LH-1)		Batch A: Physiology Batch B: Biochemistry Batch C: Tutorial Batch D: Anatomy
Friday	Histology Dr. Sumera (LH-1)	Physiology Dr. Sahar CVS (LH-1)	Physiology Dr. Raisa Respiration (LH-1)	Physiology Dr. Shazia Heart (LH-1)	Islamiat (LH-1)		HALF DAY

This time table is tentative and subject to changes needed according to the situation at the commencement of module

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AYUB MEDICAL COLLEGE ABBOTTABAD
TIME TABLE OF 1ST YEAR MBBS CLASS
CVS & RESPIRATION MODULE (Week-07)

Days	8:00 – 9:00	9:00 – 10:00	10:00 – 11:00	11:00 to 12:00	12:00 – 12:45	12:45 – 1:15	1: 15 – 3:00
	DISSECTION						**PRACTICAL**
Monday	Batch A: Batch B: Batch C: Batch D:		Physiology Dr. Shazia Heart	Physiology Dr. Sahar CVS	PRIME Community Medicine Dr. Junaid	PRAYER BREAK	Batch A: Anatomy Batch B: Physiology Batch C: Biochemistry Batch D: Tutorial
Tuesday	Batch A: Batch B: Batch C: Batch D:		Physiology Dr. Sahar CVS	Pharmacology Dr. Mehwish Gul	Physiology LGD		Batch A: Tutorial Batch B: Anatomy Batch C: Physiology Batch D: Biochemistry
Wednesday	Batch A: Batch B: Batch C: Batch D:		Physiology Dr. Sahar CVS	Embryology Dr. Robina	Pakistan Studies		Batch A: Biochemistry Batch B: Tutorial Batch C: Anatomy Batch D: Physiology
Thursday	Batch A: Batch B: Batch C: Batch D:		Physiology Dr. Raisa Respiration	Biochemistry Dr. Noreen	Gross Anatomy Dr. Humaira		Batch A: Physiology Batch B: Biochemistry Batch C: Tutorial Batch D: Anatomy
Friday	Histology Dr. Sumera	Physiology Dr. Sahar CVS	Physiology Dr. Raisa Respiration	Physiology Dr. Shazia Heart	Islamiat		HALF DAY

This time table is tentative and subject to changes needed according to the situation at the commencement of module

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Ayub Medical College
Abbottabad

AYUB MEDICAL COLLEGE ABBOTTABAD
TIME TABLE OF 1ST YEAR MBBS CLASS FOR THE SESSION 2020
CVS & RESPIRATION MODULE (Week-08)

Days	8:00 – 9:00	9:00 – 10:00	10:00 – 11:00	11:00 to 12:00	12:00 – 12:45	12:45 – 1:15	1: 15 – 3:00
	DISSECTION						**PRACTICAL**
Monday	Batch A: Batch B: Batch C: Batch D:		Physiology Dr. Shazia Heart	Physiology Dr. Sahar CVS	PRIME Community Medicine Dr. Junaid	PRAYER BREAK	Batch A: Anatomy Batch B: Physiology Batch C: Biochemistry Batch D: Tutorial
Tuesday	Batch A: Batch B: Batch C: Batch D:		Physiology Dr. Raisa Respiration	Pharmacology Dr. Maha Aziz	Physiology LGD		Batch A: Tutorial Batch B: Anatomy Batch C: Physiology Batch D: Biochemistry
Wednesday	Batch A: Batch B: Batch C: Batch D:		Physiology Dr. Sahar CVS	Embryology Dr. Robina	Pakistan Studies		Batch A: Biochemistry Batch B: Tutorial Batch C: Anatomy Batch D: Physiology
Thursday	Batch A: Batch B: Batch C: Batch D:		Physiology Dr. Raisa Respiration	Biochemistry Dr. Noreen	Gross Anatomy Dr. Humaira		Batch A: Physiology Batch B: Biochemistry Batch C: Tutorial Batch D: Anatomy
Friday							HALF DAY

This time table is tentative and subject to changes needed according to the situation at the commencement of module

Dr. Shazia Tauqeer
Assistant Professor
Department of Physiology
Ayub Medical College Abbottabad

Associate Dean (UG)
Ayub Medical College
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10 For inquiry and troubleshooting

Please contact
Dr Shazia Tauqeer, Assistant Professor, Department of Physiology, Ayub Medical College, Abbottabad, Pakistan.

Cell: +92-3335286502

Email: shazia _tauqeer@hotmail.com

11 Course Feedback Form

Course Title: _____

Semester/Module _____ Dates:_____

Please fill the short questionnaire to make the course better.

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

THE DESIGN OF THE MODLUE

A. Were objectives of the course clear to you? Y ☐ N ☐

B. The course contents met with your expectations
l. Strongly disagree 5. Strongly agree ☐

C. The lecture sequence was well-planned
l. Strongly disagree 5. Strongly agree ☐

D. The contents were illustrated with
l. Too few examples 5. Adequate examples ☐

E. The level of the course was
l. Too low 5. Too high ☐

F. The course contents compared with your expectations
l. Too theoretical 5. Too empirical ☐

G. The course exposed you to new knowledge and practices
l. Strongly disagree 5. Strongly agree ☐

H. Will you recommend this course to your colleagues?
l. Not at all 5. Very strongly ☐

THE CONDUCT OF THE MODLUE

A. The lectures were clear and easy to understand
l. Strongly disagree 5. Strongly agree ☐

B. The teaching aids were effectively used
l. Strongly disagree 5. Strongly agree ☐

C. The course material handed out was adequate
l. Strongly disagree 5. Strongly agree ☐

D. The instructors encouraged interaction and were helpful
l. Strongly disagree 5. Strongly agree ☐

E. Were objectives of the course realized? Y N ☐ ☐

F. Please give overall rating of the course

90% - l00%	( )	60% - 70%	( )
80% - 90%	( )	50% - 60%	( )
70% - 80%	( )	below 50%	( )

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

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

Please give suggestions for the improvement of the course.

Optional – Your name and contact address:

Thank you!!