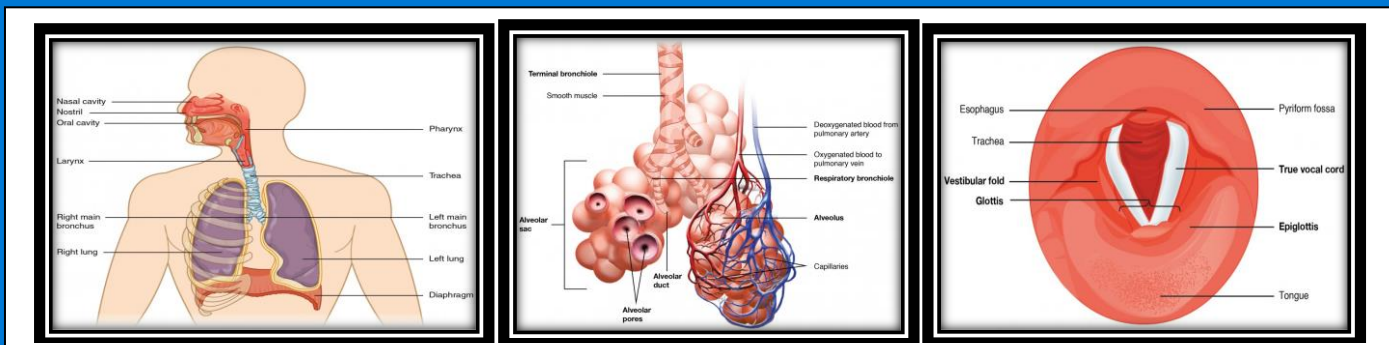


SWAT MEDICAL COLLEGE SWAT

DEPARTMENT OF MEDICAL EDUCATION



RESPIRATORY -I MODULE



1ST YEAR MBBS

BLOCK: C

CLASS OF 2023-28

DURATION: 4 WEEKS

FROM: 26 AUG TO 20 SEPTEMBER

STUDENT NAME _____

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1 Acaedemic Calendar



Tentative Annual Calendar MBBS – 2023-24 Swat Medical College, Swat						
Activity/ Events	Week	Date	1 st Year	2 nd Year	3 rd Year	4 th Year
Orientation Week	1	12 th to 16 th Feb	Foundation-I (6 weeks) 22 nd March, Module Exam	Neurosciences-IA (6 weeks) 22 nd March, Module Exam	Foundation II (5 weeks) 22 nd March, Module Exam	Neurosciences – II (6 weeks) 25 th and 26 th March Block J Exam
Regular Classes	2	19 th to 23 rd Feb				
Regular Classes	3	26 th Feb to 1 st March				
Regular Classes	4	4 th to 8 th March				
Regular Classes	5	11 th to 15 th March				
Regular Classes	6	18 th to 22 nd March	Blood & Immunology (5 weeks) 6 th & 7 th May Block A exam	Neurosciences-IB (5 weeks) 13 th & 14 th May Block D	Infection & Inflammation (6 weeks) 6 th May to 7 th May Block G exam	GIT and Hepatobiliary – II (9 weeks) 10 th and 11 th June Block K Exam
Regular Classes	7	25 th to 29 th March				
Regular Classes	8	1 st to 5 th April				
Spring Break/Eid ul Fitr	9	8 th to 12 th April				
Sports Week	10	15 th to 19 th April				
Regular Classes	11	22 nd to 26 th April	MSK-I (8 weeks) 1 st & 2 nd July Block-B Exam	GIT, Hepatobiliary & Metabolism- (8 weeks) 1 st & 2 nd July	Multisystem (5 weeks) Module Exam 31 st May	Renal – II Module (4 weeks) 1 st and 2 nd July Module Exam
Regular Classes	12	29 th to 3 rd May				
Regular Classes	13	6 th to 10 th May				
Regular Classes	14	13 th to 17 th May				
Regular Classes	15	20 th to 24 th May				
Regular Classes	16	27 th May to 31 st May	CVS-I (5 weeks) 23 rd August Module Exam	Renal (3 weeks) 12 th to 13 th August Block E	MSK-II (5 weeks) 2 nd Sep 3 rd Sep Block H exam	Endocrine and Reproduction – II (8 weeks) 16 th and 17 th September Block-L exam
Regular Classes	17	3 rd to 7 th June				
Regular Classes	18	10 th to 14 th June				
Eid-ul-Adha Holidays	19	17 th to 21 st June				
Regular Classes	20	24 th to 28 th June				
Summer Vacations	21-23	3 rd to 21 st July	Respiratory-I (4 weeks) 23 rd -24 th SEP Block-C Exam	Endocrine-I (4 weeks) 6 th Sep	CVS-II (3 weeks) 20 th September Module exam	EYE and ENT (6 weeks) 14 th to 18 th Oct Block M1 & M2 Exam
Regular Classes	24	22 nd to 26 th July				
Regular Classes	25	29 th July to 2 nd Aug				
Regular Classes	26	5 th to 9 th Aug				
Regular Classes	27	12 th to 16 th Aug				
Regular Classes	28	19 th 23 rd Aug	PREPARATORY LEAVES	REPRODUCTION-I (4 weeks) 30 th Sep 1 st Oct	RES-II (4 weeks) 21 st and 22 nd October Block L exam	PREPARATORY LEAVES
Regular Classes	29	26 th to 30 th Aug				
Regular Classes	30	2 nd to 6 th Sep				
Regular Classes	31	9 th to 13 th Sep				
Regular Classes	32	16 th to 20 th Sep				
Regular Classes/ Preparatory Leaves	33	23 rd to 27 th Sep	Annual Exam as per KMU schedule.	PREPARATORY LEAVES	PREPARATORY LEAVES	PREPARATORY LEAVES
Regular Classes/ Preparatory Leaves	34	30 th Sep to 4 th Oct				
Regular Classes/ Preparatory Leaves	35	7 th to 11 th Oct				
Regular Classes/ Preparatory Leaves	36	14 th to 18 th Oct				
Regular Classes/ Preparatory Leaves	37	21 st to 25 th Oct				
Regular Classes/ Preparatory Leaves	38	28 th Oct to 1 st Nov	Winter vacation	Winter vacation	Annual Exam as per KMU schedule.	Annual Exam as per KMU schedule.
Regular Classes/ Preparatory Leaves	39	4 th to 8 th Nov				
Regular Classes/ Preparatory Leaves	40	11 th to 15 th Nov				
Regular Classes/ Preparatory Leaves	41	18 th to 22 nd Nov				
Regular Classes/ Preparatory Leaves	42	25 th to 29 th Nov				
Regular Classes/ Preparatory Leaves	43	2 nd to 6 th Dec	Winter vacation	Winter vacation	Annual Exam as per KMU schedule.	Annual Exam as per KMU schedule.
Regular Classes/ Preparatory Leaves	44	9 th to 13 th Dec				
Regular Classes/ Preparatory Leaves	45	16 th to 20 th Dec				
Regular Classes/ Preparatory Leaves	46	23 rd to 27 th Dec				
Regular Classes/ Preparatory Leaves	47	30 th Dec to 3 rd Jan				
Regular Classes/ Preparatory Leaves	48	6 th to 10 th Jan	Winter vacation	Winter vacation	Annual Exam as per KMU schedule.	Annual Exam as per KMU schedule.
Regular Classes/ Preparatory Leaves	49	13 th to 17 th Jan				
Regular Classes/ Preparatory Leaves	50	20 th to 24 th Jan				
Regular Classes/ Preparatory Leaves	51	27 th to 31 st Jan				
Regular Classes/ Preparatory Leaves	52	3 rd to 7 th Feb				
Regular Classes/ Preparatory Leaves	53	10 th to 14 th Feb	February 2025	February 2025	February 2025	February 2025
Regular Classes/ Preparatory Leaves	54	17 th to 21 st Feb				
Regular Classes/ Preparatory Leaves	55	24 th to 28 th Feb				
Regular Classes/ Preparatory Leaves	56	3 rd to 7 th Mar				
Regular Classes/ Preparatory Leaves	57	10 th to 14 th Mar				
Regular Classes/ Preparatory Leaves	58	17 th to 21 st Mar	March 2025	March 2025	March 2025	March 2025
Regular Classes/ Preparatory Leaves	59	24 th to 28 th Mar				
Regular Classes/ Preparatory Leaves	60	31 st Mar to 4 th Apr				
Regular Classes/ Preparatory Leaves	61	11 th to 15 th Apr				
Regular Classes/ Preparatory Leaves	62	18 th to 22 nd Apr				

Note: The given dates are tentative and may be subject to change as needed/demanded. The KMU will share the annual exam schedule at the end of the current session.

2 List Of Abbrevation

Anat-SGD	Small Group Discussion in Anatomy	Med-L	Medicine Lecture
Bio-L	Biochemistry Lecture	OSPE	Objectively Structured Practical Examination
Bio-P	Biochemistry Practical	Paeds-L	Pediatrics Lecture
Bio-SGD	Small Group Discussion in Biochemistry	Patho-L	Pathology Lecture
C.Med-L	Community Medicine Lecture	Phar-L	Pharmacology Lecture
DSL	Directed Self Learning	Phy-L	Physiology Lecture
FDT	Film/Demonstration/Tutorial	Phy-P	Physiology Practical
F.Med-L	Forensic Medicine Lecture	Phy-SGD	Small Group Discussion in Physiology
G.Anat-L	Gross Anatomy Lecture	PBL	Problem Based Learning
Histo-P	Histology Practical	SDL	Self-Directed learning
LGIS	Large Group Interactive Session.	SAQs	Short Answer Questions
MCQs	Multiple Choice Questions	SEQs	Short Essay Questions
Med.Edu-L	Medical Education Lecture	SGDs	Small Group Discussions
PRIME	Professionalism and communication skills, Research, Identity formation, Management and leadership, Ethics		



3 Module Committee:

s.no	Name	Department	Role
1.	Prof. Dr. Aziz Ahmad	Dean / principal	
2.	Dr. M Junaid Khan	DME	Director
Module Team			
3.	Prof. Dr. Rashid Ahmad	Professor Physiology	MPC-I Chair man
4.	Dr. Fiza Iqbal	Lecturer Physiology	Block Co-ordinator
5.	Prof. Dr. Muhammad khan	Professor Anatomy	Member
6.	Dr. Amanullah	Assistant Professor Physiology	Member
7.	Dr. Humaira Ali	Associate Professor Anatomy	Member
8.	Dr. Obaid Ur Rahman	Assistant Professor Biochemistry	Member
9.	Dr. Sara Maryum	Assistant Professor Biochemistry	Member
10.	Dr. Ubaidullah	PRIME	Member
11.			
12.			
13.			



4 Recommended List Of Icons



Introduction To Case



For Objectives



Critical Questions



Assessment



Resource Material

5 Mission/ Vision of the College

5.1 Mission Statement of the Institution:

To train medical students as per international standards, thereby producing doctors who exhibit excellence as professionals, academicians, researchers and deeply fulfill healthcare needs through the application of ethical and evidence-based practices..

5.2 Vision Statement of the Institution:

To be a center of excellence in medical education, patient care and research globally.



6 Overview of the Module/ Preface

Welcome to the Respiratory I module V, where the overarching goal is to equip you with profound understanding of medical science and practice. Throughout the Respiratory I module V, emphasis is placed on integrating theoretical knowledge with practical applications, ensuring a comprehensive educational experience. The core themes of modules, including chest wall injury, cough and hemoptysis and breathlessness are meticulously designed to foster a deep understanding of Anatomy, Physiology, Biochemistry and Medicine. Students will gain hands-on experience through *clinical rotation* in diverse settings such as Long Interactive Group Session (LGIS), Small Group discussion (SGDs), Self Directed Learning (SDL), DSL and Skill/Practical providing a well-rounded education.

The study guide serves as a crucial reference for assessment and evaluation. It outlines the components that will be assessed, such as knowledge and basic sciences practical implications, and the corresponding assessment tools, which may include MCQs, SEQ and OSPE. This transparency enables students to align their efforts with the evaluation criteria, promoting a sense of accountability and preparation for success in their academic pursuits. As future medical professionals, graduates can look forward to diverse career pathways, from clinical practice to research, with opportunities in Anatomy, Physiology and Biochemistry.

In essence, the study guide acts as an indispensable tool for students, offering clarity on module contents, instructional methodologies, faculty guidance, and assessment criteria. By actively engaging with the information provided, students can navigate their academic journey with confidence and purpose, maximizing their learning experience in the MBBS program.



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7 Introduction/ Organization of Module

7.1 Introduction:

By the end of this module the student of Swat Medical College should be able to build adequate knowledge, attitude and skills to understand basic concepts of respiratory system along with different respiratory disorders.

Respiratory system consists of respiratory passageways (nose, larynx, pharynx, trachea, bronchi) and lungs and all these are related to breathing. The function of respiratory system is gaseous exchange, in bringing oxygen to body tissues and to get rid of carbon dioxide which is a waste product.

7.2 Rationale:

Respiratory module is combined with CVS and Respiration module (Total 9 weeks' duration) as defined by KMU and four weeks given to the Respiration module). Respiratory 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. By the end of this module the students are expected to know the main concepts of respiratory system in all domains of learning and the skills gained in this module will help them deal with chest related conditions especially in the fields of Internal Medicine, Community medicine, Forensic aspects, Pharmacology of some important medications related to respiratory disorders, and Surgical Wards in tertiary care hospitals

7.3 Organization of the Study guide:

The Respiratory Module is a 4 weeks' theme based module, the contents of which will be thought in Lectures, SGDs, DSLs and Practical.

Respiratory Module consists of the following themes:

Themes	Theme 1	Theme 2	Theme 3
<ul style="list-style-type: none"> • Respiratory System 	<ul style="list-style-type: none"> • Chest wall injury • 1 week 	<ul style="list-style-type: none"> • Cough and hemoptysis • 1 week 	<ul style="list-style-type: none"> • Breathlessness • 2 weeks

7.4 Teaching Strategies:

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

A. Large Group Formats:

- a. **Interactive Lectures:** In large group, the lecturer introduces a topic or common clinical conditions and explains the underlying phenomena through questions, pictures, videos of patients' interviews, exercises, etc. Students are actively involved in the learning process.
- b. **Directed Self Learning:** Directed self-learning is an active learning approach where the learners are provided with predefined learning objectives and some facilitation through the learning process in the form of guidance and supervision. It helps establish a strong foundation for autonomous and deep learning.
- c. **Self Directed Learning:** Students' assume responsibilities of their own learning through individual study, sharing and discussing with peers, seeking information from Learning Resource Center, teachers and resource persons within and outside the college. Students can utilize the time within the college scheduled hours of self-study.

B. Small Group Formats:

- a. **Small Group Discussions:** This format helps students to clarify concepts acquire skills or attitudes. Sessions are structured with the help of specific exercises such as patient case, interviews or discussion topics. Students exchange opinions and apply knowledge gained from lectures, tutorials and self study. The facilitator role is to ask probing questions, summarize, or rephrase to help clarify concepts.
- b. **Practical Demonstration:** Basic science practicals related to anatomy, biochemistry and physiology are scheduled for student learning.

7.1 Assessment strategies

Assessments within the MBBS program at STMC consist of both formative and summative evaluations. These assessments are integral to monitoring student progress and academic performance.

A. Formative Assessment:

Formative assessments, accounting for 10% of the total marks assigned to each block, serve as ongoing evaluations designed to provide feedback and facilitate learning. The allocation of this 10% can be determined in accordance with the blueprint of KMU and further distributed as per the academic council's recommendations at STMC. Formative assessments are conducted after the completion of each module, ensuring that students receive timely feedback to enhance their understanding and performance.

B. Summative Assessment:

Summative assessments, which comprise the majority of the assessment weighting (90% of all marks), are conducted and overseen by KMU, as part of the annual examination process. The

summative annual examination is organized and conducted by KMU, which carries out the evaluation and grading. This summative assessment evaluates students' comprehensive understanding of the curriculum and accounts for a significant portion of their final scores.

C. Assessment Tools:

Various assessment tools are employed to gauge students' knowledge and competencies. These tools include:

- **Written Examinations:** These encompass Multiple Choice Questions (MCQ) and Short Essay Questions (SEQ) that evaluate students' theoretical knowledge.
- **Performance Assessments:** Objective Structured Practical Examinations (OSPE) and Objective Structured Clinical Examinations (OSCE) are used to assess practical skills and clinical competence.
- **In-Training Assessments:** Clinical logbooks provide a comprehensive record of students' practical experiences and serve as a valuable tool for tracking their progress.
- **Assignments:** Presentations, projects, and self-reflection assignments are included in the assessment process to enhance students' critical thinking and research skills

7.2 Feedback mechanism and summary

At the end of each module a “**Module Evaluation Form**” will be provided to the students whether in hard copies or online and the students will give their opinion regarding the “Course Contents”, “Learning Resources”, “Teaching Methods”, “Engagement & Motivation” and “Assessment Methods”.

8 Table Of Specification

Subject	No. of Hours Allocated in Time table						Percent Distribution	Assessment	
	Large Group		Small Group Format			Total		MCQs	OSPE
	Lectures	DSLs	Practicals	Skill Lab	SGDs				
Gross Anatomy	08	03	06	04	06	35	33.0%	12	03
Histology	04							04	
Embryology	04							03	
Physiology	11	03	08	--	06	28	27.2%	20	03
Biochemistry	07	02	--	--	06	15	14.6%	08	--
PRIME	07	--	--	--	--	--	6.8%	--	--
Pharmacology	02	--	--	--	--	--	1.9%	--	--
Pathology	04	--	--	--	--	--	3.9%	01	--
Community Medicine	01	--	--	--	--	--	1.0%	01	--
General Medicine	04	--	--	--	--	--	3.9%	--	--
Forensic Medicine	01	--	--	--	--	--	1.0%	01	--
IT Skills	00	--	--	--	--	--	0%	--	--
Islamiyat	02	--	--	--	--	--	1.9%	--	--
SDL	05	--	--	--	--	--	4.9%	--	--
Total	60	08	14	04	18	78	100%	50	06



9 Learning Objectives

9.1 General Learning Outcomes

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

Knowledge

1. Describe the anatomy and abnormalities of thoracic cage
2. Describe the development and gross anatomy of the diaphragm
3. Describe the contents of mediastinum and their relations
4. Describe the anatomy of pleura and its reflections
5. Describe the gross and microscopic structure, development, nerve supply and blood supply of trachea, bronchi and lungs
6. Describe the epithelia and connective tissues lining the respiratory passageways.
7. Describe pulmonary ventilation
8. Discuss the mechanisms of gaseous exchange between alveoli, and blood and blood and tissues
9. Elaborate the transport of gases in the blood
10. Describe the mechanisms of regulation of respiration
11. Define hypoxia, and cyanosis
12. Describe the effect of aging on respiratory system
13. Describe the biochemical structure and functions of enzymes
14. Describe the mechanisms of O₂ and CO₂ transport in the blood
15. Classify anti-asthmatic and anti-tuberculous drugs
16. Describe the types and signs of asphyxia
17. Enlist the causes and signs of pneumonias, bronchial asthma, tuberculosis, Acute Respiratory Distress Syndrome (ARDS), and pulmonary edema
18. Describe the parameters of Pulmonary Function Tests (PFTs)

Skills

1. Take a focused history of patient with upper respiratory symptoms.
2. Examine the nose and throat of a given subject
3. Examine the lymph nodes of neck on given subject
4. Interpret the ABGs of the patient with chest wall trauma (Respiratory rate and blood pressure).
5. Demonstrate the Grading of pain severity.
6. Examine the respiratory system of patient with chest wall injury with special emphasis on respiratory rate and cyanosis.
7. Draw a normal spirogram, labeling the four lung volumes and four capacities.
8. Examine the chest.
9. Do the spirometry and plot the graph.
10. Demonstrate ABGS and compare the results

11. Demonstrate the use of inhaler to the subject.
12. Calculate the respiratory rate of the subject

Attitude

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 tasks
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

1 Specific Learning Outcomes

THEME-I: (Chest Wall Injuries)

This theme is one week long mostly emphasizing on the physiological and anatomical aspects of thoracic wall, mediastinum, lungs and diaphragm. It also includes the development of diaphragm & rib, physiological & biochemical aspects of mechanism of respiration and a brief account of developmental and surgical abnormalities related to it.

This theme consists of lectures, Practicals, SGDs, DSLs and SDLs.

S.No.	Subject	Learning Outcomes/Objectives	Hours	MIT
ANATOMY				
1	Gross anatomy of thorax	<ol style="list-style-type: none"> Describe main features of thoracic wall Describe the location and shape of the sternum Describe the parts of the sternum Describe the articulations and muscle attachments Describe the gross features of the thoracic vertebrae <ol style="list-style-type: none"> Vertebral body Intervertebral disc Laminae Pedicles Intervertebral foramina Processes Ligaments Differentiate between typical and atypical ribs. Describe different joints of thorax Discuss Intercostal muscles Discuss the contents of intercostal spaces Describe the origin of intercostal arteries Describe the origin, course and distribution of intercostal nerves Discuss branches and course of internal thoracic artery 	01	LGIS
2	Abnormalities of thoracic wall	<ol style="list-style-type: none"> Describe thoracic wall abnormalities and its clinical correlation 	01	LGIS
3	Diaphragm	<ol style="list-style-type: none"> Describe the origin, insertion, openings and nerve supply of the diaphragm and its clinical significance. 	01	LGIS
4	Mediastinum	<ol style="list-style-type: none"> Describe the contents of the Superior, Anterior & Posterior Mediastinum. Describe the relations of different contents in 	01	LGIS

S.No.	Subject	Learning Outcomes/Objectives	Hours	MIT
		Mediastinum. 3. Identify various anatomical landmarks on chest X-Rays, CT and MRI		
HISTOLOGY				
	Lungs	1. Histology of Lungs -I	01	LGIS
		1. Histology of Lungs -II	01	LGIS
EMBRYOLOGY				
5	Development of Diaphragm	1. Describe development of diaphragm 2. Describe diaphragmatic hernias and clinical significance	01	LGIS
6	Development of Ribs	1. Describe the development of ribs from costal elements of primitive vertebrae	01	LGIS
PHYSIOLOGY				
7	Mechanics of Respiration	1. Describe the mechanics of respiration 2. Describe the pressures that cause the movements of the air in and out of the lungs	01	LGIS
8	Lung compliance	1. Define compliance of the lung and elastic recoil 2. Identify two common clinical conditions in which lung compliance is higher or lower than normal.	01	LGIS
9	Lung volumes and capacities	1. Describe changes in the lung volume, alveolar pressure, pleural pressure, and trans-pulmonary pressure during normal breathing 2. Draw a normal pulmonary pressure-volume (compliance) curve (starting from residual volume to total lung capacity and back to residual volume), labeling the inflation and deflation limbs. 3. Explain the cause and significance of the hysteresis in the curves. 4. Draw the pressure-volume (compliance) curves for the lungs, chest wall, and respiratory system on the same set of axes. 5. Show and explain the significance of the resting positions for each of these three structures.	01	LGIS
SURGERY				
10	Pneumothorax	1. Describe pneumothorax 1. Define Hydro pneumothorax	01	LGIS
LAB WORK				
HISTOLOGY				
11	Histology of respiratory	1. Discuss the histology of respiratory epithelium. 2. Identify the various microscopic tissue types in the	02	Demonstration

S.No.	Subject	Learning Outcomes/Objectives	Hours	MIT
	epithelium	3. Respiratory system		/ Practical
PHYSIOLOGY				
12	Spirometry	1. Draw a normal spirogram, labeling the four lung volumes and four capacities. 2. List the volumes that comprise each of the four capacities. 3. Identify which volume and capacities cannot be measured by spirometry.	02	Demonstration / Practical
DISSECTION				
ANATOMY				
13	Mediastinum	1. Discuss the contents of superior, anterior & posterior mediastinum. 2. Discuss the relations of different contents in mediastinum	02	SGF Dissection
SMALL GROUP DISCUSSIONS				
ANATOMY				
14	Diaphragm	1. Describe the origin, insertion, openings & nerve supply of diaphragm and its clinical significance.	02	SGD
PHYSIOLOGY				
15	Lung Volumes and Capacities	1. Describe changes in the lung volume, alveolar pressure, pleural pressure, and trans-pulmonary pressure during normal breathing	02	SGD
BIOCHEMISTRY				
16	Role of enzymes as a diagnostic tool	1. Explain the role of enzymes as a diagnostic tool	02	SGD
DIRECTED SELF LEARNING				
ANATOMY				
17	Abnormalities of the thoracic wall	1. Describe thoracic wall abnormalities and its clinical correlation	01	DSL
PHYSIOLOGY				
18	Mechanics of Respiration	1. Briefly describe the mechanics of respiration. 2. Describe the pressures that cause the movements of the air in and out of the lungs	01	DSL
BIOCHEMISTRY				

S.No.	Subject	Learning Outcomes/Objectives	Hours	MIT
19	Transport of Oxygen	1. Explain the transport of oxygen in the blood	01	DSL

THEME-II COUGH AND HEMOPTYSIS

This theme is one week long consisting of developmental, gross and microscopic study of lungs and bronchial tree. Physiological and Pathological features along with preventive measures and treatment will also be the part of the module. This module includes lectures on asthma, pneumonia, pulmonary edema and tuberculosis by the department of pathology and anti-asthmatic and anti-tuberculous drugs by the department of pharmacology. Preventive strategies for smoking will be described and the relationship of smoking with lung diseases will be discussed. Preventive strategies of different problems related to respiratory system will also be discussed here. This module consists of lectures, Practicals, SGDs, DSLs and SDLs.

S.No.	Subject	Learning Outcomes/Objectives	Hours	MIT
ANATOMY				
1	Introduction	1. Describe the major components of the (upper and lower) respiratory system and describe their functions	01	LGIS
2	Trachea, bronchi and lungs	1. Describe trachea and bronchi with relations plus subdivisions 2. Describe the neurovascular supply of trachea and bronchi 3. Describe the surfaces anatomy of trachea and bronchi 4. Describe the lungs with their lobes and fissures, relations with surroundings and surfaces and compare between right and left lungs. 5. Describe Broncho-pulmonary segments and their clinical importance 6. Describe innervations, blood supply and lymphatic drainage of the lungs.	01	LGIS
EMBRYOLOGY				
3	Development of	1. Describe development of trachea, bronchial tree, pleura, lungs	01	LGIS

	Respiratory system	<ol style="list-style-type: none"> 2. Recognize the cephalo-caudal and transverse folding of embryonic disc 3. Describe the extent of intra embryonic coelom after folding and its divisions into three serous cavities 4. State the derivatives of visceral and parietal layers of mesoderm 5. State the pericardio-peritoneal canals and their final fate 6. Discuss the formation of Lung Bud 		
HISTOLOGY				
4	Respiratory epithelium and connective tissues	<ol style="list-style-type: none"> 1. Classify the types of epithelia lining the various parts of respiratory system 2. Differentiate between the histological differences among various parts of respiratory system 3. Describe the structure of trachea and its layer 4. Discuss the microscopic picture of respiratory bronchiole, alveolar ducts, alveolar sacs and alveoli. 5. Describe the different types of cells found in alveoli 	01	LGIS
PHYSIOLOGY				
5	Functions of respiratory passageways	<ol style="list-style-type: none"> 1. Describe the respiratory and non-respiratory functions of the respiratory passageways 2. Identify the mechanism by which particles are cleared from the airways. 	01	LGIS
PHARMACOLOGY				
6	Anti-Asthmatic drugs	<ol style="list-style-type: none"> 1. Enlist Anti-asthmatic drugs 	01	LGIS
7	Anti-Tuberculous drugs	<ol style="list-style-type: none"> 1. Classify Anti-tuberculous drugs 	01	LGIS
PATHOLOGY				
8	Pneumonias	<ol style="list-style-type: none"> 1. Define pneumonia and enlist the causative pathogens of pneumonia 	01	LGIS
9	Pulmonary Tuberculosis	<ol style="list-style-type: none"> 1. Define primary and secondary Tuberculosis and state its etiology 	01	LGIS
10	Bronchial Asthma	<ol style="list-style-type: none"> 1. Describe the etiology, pathogenesis and clinical features of asthma 	01	LGIS
11	Pulmonary	<ol style="list-style-type: none"> 1. Define pulmonary edema. 	01	LGIS

	Edema	2. Classify pulmonary edema according to underlying causes		
COMMUNITY MEDICINE				
12	Prevention of Respiratory disorders	1. Discuss preventive strategies of different problems related to respiratory system 2. Discuss the relationship of smoking with lung Diseases 3. Describe preventive strategies for smoking	01	LGIS
LAB WORK				
HISTOLOGY				
13	Microscopic structure of the Trachea and Bronchi	1. Identify the various microscopic tissue types in the Trachea	02	Demonstration / Practical
PHYSIOLOGY				
14	Peak expiratory flow determination	1. Determine the peak expiratory flow (PEF) by peak flow meter	02	Demonstration / Practical
DISSECTION				
ANATOMY				
15	Thorax, components of thoracic cavity and their relations	1. Describe the boundaries, components of thorax and their relations.	02	SGF Dissection
SMALL GROUP DISCUSSIONS				
PHYSIOLOGY				
16	Functions of respiratory passageways	1. Describe the respiratory functions of the respiratory passageways. 2. Describe the non-respiratory functions of the respiratory passageways. 3. Identify the mechanism by which particles are cleared from the airways.	02	SGD
BIOCHEMISTRY				
17	Role of enzymes as a diagnostic tool	1. Discuss the role of enzymes as a diagnostic tool.	02	SGD
ANATOMY				
18	Components of Respiratory System	1. Describe the major components of the upper and lower respiratory system and describe their functions	02	SGD
DIRECTED SELF LEARNING				

ANATOMY				
19	Lungs	<ol style="list-style-type: none"> 1. Describe the lungs with their lobes and fissures, relations with surroundings and surfaces and compare between right and left lungs. 2. Describe innervations, blood supply and lymphatic drainage of the lungs. 	01	DSL
PHYSIOLOGY				
20	Functions of respiratory passageways	<ol style="list-style-type: none"> 1. Describe the respiratory and non-respiratory functions of the respiratory passageways 2. Identify the mechanism by which particles are cleared from the airways. 	01	DSL

THEME-III BREATHLESSNESS

In this theme of the Respiratory Module-I, the anatomical features of pleura and pleural cavity will be discussed. Mechanics of respiration and development of pleural cavity will be described.

Histology of the respiratory tract will be discussed.

The physiological aspects of the module will include pulmonary ventilation, pulmonary circulation, gaseous exchange, and transport of oxygen & carbon dioxide in the blood. Regulation of respiration and common respiratory abnormalities will also be discussed.

The chemistry of enzymes will be discussed in detail in biochemistry. Forensic medicine department will explain asphyxia and the department of general medicine will give an account of respiratory symptomatology and discuss Acute Respiratory Distress Syndrome. Interpretation of the Pulmonary function tests is also part of this theme.

The contents of this theme will be taught in lectures, Practicals, SGDs, DSLs and SDL.

S.No.	Subject	Learning Outcomes/Objectives	Hours	MIT
ANATOMY				
1	Mechanics of respiration	1. Describe briefly mechanics of respiration	01	LGIS
2	Pleura	<ol style="list-style-type: none"> 1. Describe the gross features of pleura 2. Describe the pleural cavity and the pleural reflections 3. Describe the surface anatomy related to pleural reflections 	01	LGIS
EMBRYOLOGY				
3	Development of	1. Describe the development of	01	LGIS

	Pleural Cavity	pleural cavity		
HISTOLOGY				
4	Histology of respiratory tract	1. Discuss surfactant, alveolar septum, alveolar pores and alveolar macrophages	01	LGIS
PHYSIOLOGY				
5	Pulmonary ventilation I	1 Define respiration 2 Compare between the internal and external respiration 3 Enlist the steps of external respiration accomplished by the respiratory system and those carried out by the circulatory system 4 State the functions of Type I alveolar cells, Type II alveolar cells, and alveolar macrophages 5 Describe the forces that keep the alveoli open and those that promote alveolar collapse. 6 Define the following terms: anatomic dead space, physiologic dead space, wasted (dead space) ventilation, total minute ventilation and alveolar minute ventilation. 7 Compare anatomic and physiologic dead space 8 Describe the basic concept of measurement of dead space 9 Enlist the factors that changes the dead space	01	LGIS
	Pulmonary ventilation II	1 Define the following terms: hypoventilation, hyperventilation, hypercapnea, eupnea, hypopnea, and hyperpnea. 2 Define surface tension, surfactants, atelectasis 3 Describe the role of surfactants on the lung compliance. 4 Describe the composition of the pulmonary surfactants and its role 5 Describe the pathophysiology of respiratory distress syndrome of the newborn Discuss the work of breathing	01	LGIS

6	Pulmonary Circulation	<ol style="list-style-type: none"> 1. Explain the physiologic anatomy of the pulmonary circulatory system 2. Describe the pressures in the pulmonary circulatory system 3. Describe blood volume of the lungs 4. Describe blood flow through the lungs and its distribution 5. Compare the systemic and pulmonary circulations with respect to pressures, resistance to blood flow, and response to hypoxia. 6. Describe the regional differences in pulmonary blood flow in an erect position. 7. Describe the consequence of hypoxic pulmonary vasoconstriction on the distribution of pulmonary blood flow. 8. Describe the pulmonary capillary dynamics 9. Describe the development of pulmonary edema 	01	LGIS
7	Gas Exchange	<ol style="list-style-type: none"> 1. List the normal airway, alveolar, arterial, and mixed venous PO₂ and PCO₂ values. 2. List the normal arterial and mixed venous values for O₂ saturation, [HCO₃⁻] 3. List the factors that affect diffusive transport of a gas between alveolar gas and pulmonary capillary blood. 4. Describe respiratory unit 5. Describe the physiologic anatomy of the respiratory membrane and its significance 6. Describe the factors that affect the rate of gaseous diffusion through the respiratory membrane 7. Describe the diffusing capacity of respiratory membrane for O₂ and CO₂ at rest and exercise. 8. Describe the effect of ventilation/perfusion (V/Q) 	01	LGIS

		<p>ratio on alveolar gas concentrations.</p> <ol style="list-style-type: none"> Identify the average V/Q ratio in a normal lung. Explain the concept of physiologic shunt and physiologic dead space Describe the abnormalities of ventilation perfusion ratio in normal lung and chronic obstructive lung disease. Enlist common causes of hypoxemia 		
8	Transport of O ₂ and CO ₂ in the blood I	<ol style="list-style-type: none"> Define oxygen partial pressure (tension), oxygen content, and percent hemoglobin saturation as they pertain to blood. Describe Oxyhemoglobin dissociation curve (hemoglobin oxygen equilibrium curve) showing the relationships between oxygen partial pressure, hemoglobin saturation, and blood oxygen content. Describe the relative amounts of O₂ carried bound to hemoglobin with that carried in the dissolved form. State Henry's Law (the relationship between PO₂ and dissolved plasma O₂ content) Describe how the shape of the oxyhemoglobin dissociation curve influences the uptake and delivery of oxygen. 	01	LGIS
	Transport of O ₂ and CO ₂ in the blood II	<ol style="list-style-type: none"> Define P₅₀. Describe how the oxyhemoglobin dissociation curve is affected by changes in blood temperature, pH, PCO₂, and 2,3-DPG. Describe how anemia and carbon monoxide poisoning affect the shape of the oxyhemoglobin dissociation curve, PaO₂, and SaO₂. List the forms in which carbon dioxide is carried in the blood. Describe the percentage of total 	01	LGIS

		<p>CO₂ transported as each form.</p> <ol style="list-style-type: none"> Describe the chloride shift and its importance in the transport of CO₂ by the blood. Describe the enzyme that is essential to normal carbon dioxide transport by the blood and its location. Describe the carbon dioxide dissociation curves for oxy- and deoxyhemoglobin. Describe the interplay between CO₂ and O₂ binding on hemoglobin that causes the Haldane effect. 		
9	Regulation of Respiration	<ol style="list-style-type: none"> Describe the regions in the central nervous system that play important roles in the generation and control of cyclic breathing. Give three examples of reflexes involving pulmonary receptors that influence breathing frequency and tidal volume. Describe the receptors and neural pathways involved. List the anatomical locations of chemoreceptors sensitive to changes in arterial PO₂, PCO₂, and pH that participate in the control of ventilation. Identify the relative importance of each in sensing alterations in blood gases. Describe how changes in arterial PO₂ and PCO₂ alter alveolar ventilation, including the synergistic effects when PO₂ and PCO₂ both change. Describe the significance of the feedforward control of ventilation (central command) during exercise, and the effects of exercise on arterial and mixed venous PCO₂, PO₂, and pH. Describe voluntary control of respiration Describe the effect of irritant receptors, J-receptors, brain 	01	LGIS

		edema and anesthesia on breathing.		
MEDICINE				
10	Common Respiratory Abnormalities	<ol style="list-style-type: none"> 1. Describe periodic breathing and basic mechanism of Cheyne-Stokes breathing 2. Define sleep apnea 3. Describe the pathophysiology of Obstructive sleep apnea and central sleep apnea. 4. Describe the pathophysiology of specific pulmonary abnormalities: 5. Describe hypoxia and cyanosis 6. Describe the effect of aging on lung volumes, lung and chest wall compliance, blood gases, and respiratory control. 	01	LGIS
BIOCHEMISTRY				
11	Enzymes	<ol style="list-style-type: none"> 1. Define Enzymes 2. Explain the Principals for Nomenclature of enzymes 3. Classify Enzymes on the basis of functions 	01	LGIS
12	Structure of Enzymes	<ol style="list-style-type: none"> 1. Explain the general structure of enzymes 2. Define different parts and forms of enzymes 3. Describe the factors involved in structure of enzymes 4. Enlist the factors affecting the activity of enzymes 	01	LGIS
13	Co-Factors	<ol style="list-style-type: none"> 1. Define co-factors 2. Explain the function of co-factors 3. Enlist different types of co-factors 	01	LGIS
14	Catalysis	<ol style="list-style-type: none"> 1. Define catalysis 2. Explain different mechanism of catalysis 	01	LGIS
15	Enzyme Activity	<ol style="list-style-type: none"> 1. Define activation energy 2. Define Gibbs Free energy 3. Describe the mechanism of 	01	LGIS

		Enzyme activity 4. Describe roles of factors affecting enzyme activity		
16	Isozymes	1. Define Isoenzymes (Isozymes) 2. Explain Factors affecting the properties Explain the role of enzymes as a diagnostic tool	01	LGIS
17	Transport of O ₂ and CO ₂ in the blood		01	LGIS
FORENSIC MEDICINE				
18	Asphyxia	1. Define Asphyxia 2. Describe different types of Asphyxia 3. Identify classical signs of asphyxia	01	LGIS
MEDICINE				
19	Introduction to Respiratory symptomatology	1. Enumerate the various symptoms of respiratory disorders	01	LGIS
20	PFT's	1. Interpret the Pulmonary Function Tests	01	LGIS
21	ARDS	1. Discuss acute lung injury and its correlation Acute Respiratory Distress Syndrome 2. Describe the causes of Acute Respiratory Distress Syndrome 3. Discuss the morphology of Acute Respiratory Distress Syndrome	01	LGIS
LAB WORK				
ANATOMY				
22	Microscopic structure of the Bronchioles and Alveoli	1. Microscopic structure of Bronchioles and Alveoli	02	Demonstration / Practical
PHYSIOLOGY				
23	Chest Examination	1. Examine the chest of the subject 2. Calculate the respiratory rate of the subject	02	Demonstration / Practical / Skill lab
24	Use of Inhaler	1. Describe the use of inhaler 2. Demonstrate the use of inhaler to the subject	02	Demonstration / Practical / Skill lab
SMALL GROUP DISCUSSIONS				
ANATOMY				
25	Mechanics of respiration	1 Describe briefly mechanics of respiration	02	SGD

PHYSIOLOGY				
26	Regulation of Respiration	<ol style="list-style-type: none"> 1. Describe the regions in the central nervous system that play important roles in the generation and control of cyclic breathing. 2. Give three examples of reflexes involving pulmonary receptors that influence breathing frequency and tidal volume. 3. Describe the receptors and neural pathways involved. 	02	SGD
BIOCHEMISTRY				
27	Factors affecting enzyme activity	Enlist the factors affecting the activity of enzymes Describe roles of factors affecting enzyme activity	02	SGD
	ABGs		Demonstration / Practical	OSPE
DIRECTED SELF LEARNING				
ANATOMY				
28	Histology of respiratory system	1. Identify the various microscopic tissue types in the Respiratory system including epithelium of the respiratory system, trachea, bronchi, bronchioles and alveoli	01	DSL
PHYSIOLOGY				
29	Composition of pulmonary surfactants and its role	<ol style="list-style-type: none"> 1. Define surface tension, surfactants, atelectasis 2. Describe the role of surfactants on the lung compliance. 3. Describe the composition of the pulmonary surfactants and its role 4. Describe the pathophysiology of respiratory distress syndrome of the newborn 	01	DSL
BIOCHEMISTRY				
30	Isozymes	<ol style="list-style-type: none"> 1. Define Isozymes 2. Explain Factors affecting the properties of isozymes 3. Explain the role of enzymes as a diagnostic tool. 	01	DSL

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



10 Learning Opportunities and Resources

a. Instruction (if any)

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

Books:

Anatomy

- Clinical Anatomy by Regions by Richard S. Snell (Latest Edition)
- Gray's Anatomy for Students (Latest Edition)
- K.L. Moore, Clinically Oriented Anatomy (Latest Edition)
- Netter's "Atlas of Human Anatomy (Latest Edition)
- Last's Anatomy (Latest Edition)

Histology

- Textbook of Histology by Junqueira (Latest Edition)
- diFiore's ATLAS of Histology with Functional Correlations (Latest Edition)
- Atlas of Human Histology by Wheaters. (Latest Edition)
- Textbook of Histology by Laiq Hussain (Latest Edition)

Embryology

- Langman's Medical Embryology (Latest Edition)
- The Developing Human "by Keith L Moore" (Latest Edition)
-

Physiology

- Textbook of Medical Physiology by Guyton and Hall (Latest Edition)
- Ganong's "Review of Medical Physiology" (Latest Edition)

Biochemistry

- Harper's Illustrated Biochemistry (Latest Edition)
- Lippincott's Illustrated Review: Biochemistry (Latest Edition)

Pharmacology

- Katzung's Basic and Clinical Pharmacology (Latest Edition)

Pathology

- Robbin's Basic Pathology (Latest Edition)

Community Medicine

- Essential Community Medicine (Latest Edition)
- K Park Textbook of Preventive and Social Medicine (Latest Edition)

Forensic Medicine

- Parikh's Textbook of Medical Jurisprudence, Forensic Medicine & Toxicology (Latest Edition)

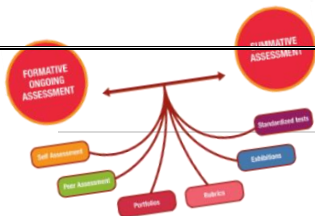
General Medicine

- Davidson's Principles and Practice of Medicine (Latest Edition)

Website:

- Anatomy:
 - <http://files.readmedbooks.com/anatomy/netter-atlas-7.pdf>

- file:///C:/Users/dell/Desktop/Gray's%20AnatomyThe%20Anatomical%20Basis%20of%20Clinical%20Practice%2041st%20Edition%20-%202015%20[MSCambo].pdf
- <https://worldofmedicalsaviours.com/cunninghams-manual-of-practical-anatomy/>
- https://ia802606.us.archive.org/16/items/pdfy-dPFUmAhPcw_n7EV/snell%20clinical%20anatomy%20by%20regions%209th%20ed%2012_2.pdf Page | 26
- <http://med-mu.com/wp-content/uploads/2018/06/Snell-Neuroanatomy-7th-Edition.pdf> 6.
- <http://files.readmedbooks.com/anatomy/lasts-anatomy.pdf>
- Embryology
 - <https://bhunikapalrocks.files.wordpress.com/2016/02/langmans-medical-embryology-12th-ed.pdf>
 - <https://mymedicallibrary.files.wordpress.com/2016/08/the-developing-human-edition-8th.pdf>
- Histology
 - [file:///C:/Users/dell/Desktop/\(Lib-Ebooks.com\)150320212213%20\(4\).pdf](file:///C:/Users/dell/Desktop/(Lib-Ebooks.com)150320212213%20(4).pdf)
 - file:///C:/Users/dell/Desktop/pdfcoffee.com_2002-basic-histology-by-luis-carlos-junqueira-textamp-atlas-10th-edition-mcgraw-hill-appleton-amp-lange-pdf-free.pdf
- Physiology:
 - <https://med-mu.com/wp-content/uploads/2018/06/Guyton-and-Hall-Textbook-of-MedicalPhysiology-12th-Ed-PDFtahir99-VRG.pdf>
 - <https://medicostimes.com/guyton-medical-physiology-pdf/>
 - https://ia903208.us.archive.org/23/items/GanongsReviewOfMedicalPhysiology25thEdition/Ganong%20Review%20of%20Medical%20Physiology_%2025th%20Edition.pdf
 - <https://worldofmedicalsaviours.com/medical-books/mbbs/physiology/sherwood-humanphysiology.pdf>
- Biochemistry:
 - <file:///C:/Users/dell/Desktop/harpers-illustrated-biochemistry-28th-edition.pdf>
 - <http://repository.stikesrpadgs.ac.id/69/1/Principles%20of%20Medical%20Biochemistry%20Meisnerberg%20Simmons-635hlm.pdf>
 - <https://worldofmedicalsaviours.com/medical-books/mbbs/biochemistry/lippincotts-Illustratedreviews-series.pdf>
- Pharmacology:
 - https://pharmacomedicale.org/images/cnpm/CNPM_2016/katzung-pharmacology.pdf
- Community Medicine:
 - https://drive.google.com/file/d/1kG_04GUfxSOxsdRaucxJ-jykVgc-BZT0/view
 - <https://barlybeltatimen.wixsite.com/charattisri/post/ilyas-ansari-community-medicine-bookfree-46>
 - <https://psebooks.club/-/readerroman/#/flow=gHqRV5+cdn.bkfd4.club/q=Basic%20Statistics%20for%20the%20Health%20Sciences/>
- Forensic medicine:
 - <https://www.ojp.gov/ncjrs/virtual-library/abstracts/parikhs-text-book-medical-jurisprudence-andtoxicology-classrooms> Page | 27
- Medicine:
 - 1. <https://drive.google.com/file/d/0B8VbbFBwhaS8a2ZlaXlIMGNwMmc/view?resourcekey=0-cJj3WGul40Avx4G5U1gX2A>



11 Examination and Methods of Assessment:

a. Instruction:

- Students must arrive the examination venue at least 15 minutes before the scheduled start time. Latecomers 15 minutes after the start of exam, will not be allowed to enter the examination hall after the start time, and if permitted, they will not receive extra time.
- Students without College ID Card and white Lab Coat will not be allowed to sit in exam.
- In case of an emergency such as a medical emergency, students should inform the examination supervisor.
- Students are required to submit prohibited items such as mobile phones, smartwatches, electronic devices, books, notes, or any unauthorized materials before entering the examination hall.
- Students must maintain complete silence within the examination hall. They should refrain from communicating with fellow students and strictly follow invigilator instructions.
- Students must mark their attendance properly.
- No student will be allowed to leave the examination hall before half the time is over and paper should be properly handed to the examiner.
- Violation of these guidelines may lead to disqualification from the examination.

b. The Distribution of Internal Assessment Score (10% Marks):

The distribution of Internal Assessment Score for 1st Year MBBS will be as follows:

- Total Marks for 1st Year MBBS= 700 & Internal Assessment Marks=70 (10%)
- 50 % of the Internal Assessment Marks may be given to Block Exams
- 50 % of the Internal Assessment marks may be given to Class Test/ End of Module Exam, Assignments and Presentations.
- Biochemistry department is responsible to maintain the attendance record for BLOCK –A in coordination with all the concerned departments.
- Anatomy department is responsible to maintain the attendance record for BLOCK –B in coordination with all the concerned departments.
- Physiology department is responsible to maintain the attendance record for BLOCK –C in coordination with all the concerned departments.

A. Distribution of 20 Marks for Block Papers for First Year MBBS will be as under:

Attendance Requirement:

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

Methods of assessment:

Block Assessment

Block Assessment consists of

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

1. Non-Interactive/ Non-Observed Station:
2. Interactive/Observed Station

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

UNIVERSITY EXAM:

Exam has 90% (210) marks in total

Blue Print for Block-C Assessment

Block C (Paper C) Theory Paper			
Subject	CVS Module-I	Respiratory Module-I	Total MCQs
Gross Anatomy	9	12	21
Histology	4	4	8
Embryology	5	3	8
Physiology	34	20	54
Biochemistry	14	8	22
Pharmacology	1	0	1
Pathology	1	1	2
Community Medicine	1	1	2
Forensic Medicine	1	1	2
Total	70	50	120

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.

Distribution of 13 Marks for block C paper (internal Assessment)

THEORY PAPER	INTERNAL ASSESSMENT 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

Block C (Paper C) OSPE		
Specialty	Practical	No. of Stations
CVS Anatomy	Surface Anatomy Internal features of the heart on models CVS Models Cardiac muscle under the microscope Medium sized artery under the microscope Histological features of veins	5
CVS Physiology	Recording of 12 lead ECG Interpretation of ECG Examination of arterial and venous pulses Recording of blood pressure Examination of the apex beat and heart sounds Demonstrate the effect of posture and exercise on Blood Pressure Basic Life Support	5
CVS Biochemistry	Detection of lipids in a given sample Interpretation of cardiac enzymes	1
CVS Radiology	Identify normal cardiac shadow, borders and cardiomegaly on chest radiographs	1
Respiratory Anatomy	Lung Models Microscopic structure of trachea Microscopic structure of bronchi Microscopic structure of lungs	3
Respiratory Physiology	Spirometry Vitalography Vitalography (Interpretation) Stethography	3
Total		18

12 Tentative Timetables

SWAT MEDICAL COLLEGE, SWAT

Department of Medical Education

Time Table 1st Year MBBS

Class Session 2024-25

Block-C: (Respiratory Module)

(Week-1)

THEME-1: Chest Wall Injury/ THEME-2: Cough & Hemoptysis

Days	8:00 to 10:00 am		10:00 to 11:00 am	11:00am to 12:00 pm	12:00 to 1:00 pm	P R A Y E R S B R E A K	1:30 to 2:30 pm
Monday 12/08/024	<u>PRACTICALS / SGD</u> Batch A: Phy Dr. Hamza Rashid Batch B: Anat Dr. Saad Hussain Batch C: SDL(SLRC/Library)		Physio-L1 Mechanics of Respiration Dr. Uzair	G. Med-L1 (Revised) Heart Failure Prof. Dr. Aziz Ahmad	G. Anat-L1 Anatomy of the thoracic wall Prof Dr. Liaqat Ali		G. Anat-L2 Respiratory Tract-I Dr. Nauman Khan
Tuesday 13/08/024	<u>PRACTICALS / SGD</u> Batch A: Anat Dr. Saad Hussain Batch B: SDL(SLRC/Library) Batch C: Phy Dr. Hamza Rashid		G. Anat-L3 Respiratory Tract-II Dr. Nauman Khan	Bio-L1 Enzymes (Definition, Nomenclature, Classification) Dr. Obaid Ur Rahman	G. Anat-L4 Mediastinum-I Dr. Sanya Hadi		Bio-DSL Transport of Oxygen & Carbon dioxide Dr. Salman Ibrahim
Wednesday 14/08/024	<u>PRACTICALS / SGD</u> Batch A: SDL(SLRC/Library) Batch B: Phy Dr. Hamza Rashid Batch C: Anat Dr. Saad Hussain		Physio-L2 Lung Compliance Dr. Rahman Ullah	G. Anat-L5 Mediastinum-II Dr. Sanya Hadi	Physio-L3 Lung Volumes and Capacities Dr. Asma Hadi		PRIME-L1 PIF Miss. Afroz Ahmad
Thursday 15/08/024	SDL (SLRC/Library)	G. Anat-L6 Pleura & Diaphragm Dr. Salman Yunas	Surgery-L1 Pneumothorax Hydro pneumothorax Prof Dr. Manzoor Ali	PRIME-L2 Medical Ethics Dr. Ubaidullah	Bio-L2 Structure of Enzyme Prof. Dr. Gulshan Abbas		SDL (SLRC/Library)
Friday 16/08/024	Islamiyat-L14 Responsibilities of a Doctor Mr. Qazi Obaid Ullah	Bio-L3 Factors affecting enzyme activity Prof. Dr. Gulshan Abbas	Histo-L1 Histology of trachea Prof Dr. Muhammad Khan	PRIME-L3 PDP Miss. Afroz Ahmad	Patho-L1 Pneumonia Pulmonary Tuberculosis Prof Dr. Shah Jehan		Phy-DSL Mechanics of Respiration Dr. Rahman Ullah

SWAT MEDICAL COLLEGE, SWAT

Department of Medical Education

Time Table 1st Year MBBS

Class Session 2024-25

Block-C: (Respiratory Module)

Week 2

THEME-2: Cough & Hemoptysis/ THEME-3: Breathlessness

Days	8:00 to 10:00 am		10:00 to 11:00 am	11:00am to 12:00 pm	12:00 to 1:00 pm	1:30 to 2:30 pm
Monday 19/08/024	PRACTICALS/SGDs: Batch A: Phy P Dr. Asma Hadi Batch B: Anat SGD Dr. Saad Hussain Batch C: Bio SGD Dr. Obaid Ur Rahman		Bio-L4 Characteristics and Mechanism of enzyme catalyzed reactions Dr. Sara Maryam	Emb-L1 Development of Respiratory System-I Dr. Humaira Ali	Emb-L2 Development of Respiratory System-II Dr. Humaira Ali	PRIME-L5 Use of social media Dr. Ubaid Ullah
Tuesday 20/08/024	PRACTICALS/SGD: Batch A: Bio SGD Dr. Obaid Ur Rahman Batch B: Phy Dr. Asma Hadi Batch C: Anat SGD Dr. Saad Hussain		Emb-L3 Development of Respiratory System-III Dr. Humaira Ali	Bio-L5 Enzyme Kinetics Dr. Sara Maryam	Physio-L4 Pulmonary Ventilation-I Dr. Amanullah	Phy-DSL Functions of respiratory passageways Dr. Asma Hadi
Wednesday 21/08/024	PRACTICALS/SGD: Batch A: Anat SGD Dr. Saad Hussain Batch B: Bio SGD Dr. Obaid Ur Rahman Batch C: Phy Dr. Asma Hadi		Histo-L2 Histology of Lungs-I Prof Dr. Muhammad Khan	11:00am to 1:00 pm Skill Lab: Batch A: Phy Dr. Uzair Batch B: Anat Dr. Nauman Khan Batch C: Bio Dr. Muhammad Saad		Feedback QEC
Thursday 22/08/024	8:00 to 9:00 am Pharma-L1 Classification of Anti-Asthmatic Drugs & Anti-tuberculous Drugs Dr. Jibran Khan	9:00 to 10:00 am Patho-L2 Bronchial Asthma Pulmonary Edema Dr. Ayaz Hussain	Histo-L3 Histology of Lungs-II Prof Dr. Muhammad Khan	Skill Lab: Batch A: Bio Dr. Muhammad Saad Batch B: Phy Dr. Uzair Batch C: Anat Dr. Nauman Khan		C. Med-L1 Prevention of respiratory disorders Dr. Rafiullah
Friday 23/08/024	SDL (SLRC/Library)	Physio-L5 Pulmonary Ventilation-II Dr. Alam Zeb	PRIME-L4 Leadership & Team Management Miss. Afroz Ahmad	Skill Lab: Batch A: Anat Dr. Nauman Khan Batch B: Bio Dr. Muhammad Saad Batch C: Phy Dr. Uzair		Islamiyat-L15 Doctor and Society Mr. Qazi Obaid Ullah

SWAT MEDICAL COLLEGE, SWAT

Department of Medical Education

Time Table 1st Year MBBS

Class Session 2024-25

Block-C: (Respiratory Module)**THEME 3: Breathlessness**

Days	8:00 to 09:00 am	09:00 to 10:00 am	10:00 to 11:00 am	11:00am to 12:00 pm	12:00 to 1:00 pm	1:30 to 2:30 pm
Monday 26/08/024	<u>PRACTICALS:</u> Batch A: Phy Dr. Asma Hadi Batch B: Anat Dr. Maleeha Ahmad Batch C: SDL (SLRC/Library)		Physio-L6 Transport of oxygen in the blood Prof Dr. Rashid Ahmad	PRIME-L6 Cultural Sensitivity Miss. Afroz Ahmad	Physio-L7 Pulmonary Circulation Dr. Alam Zeb	Bio-L6 Enzyme Kinetics Dr. Sara Maryam
Tuesday 27/08/024	<u>PRACTICALS:</u> Batch A: SDL (SLRC/Library) Batch B: Phy Dr. Asma Hadi Batch C: Anat Dr. Maleeha Ahmad		G. Med-L1 Respiratory symptoms / PFTs & Common Respiratory Abnormalities Dr. Fozan Khan	Physio-L8 Nervous Regulation of Respiration Prof Dr. Taj Muhammad Khan	F. Med-L1 Asphyxia Dr. Shahkar Ali Khan	Physio-L9 Chemical Regulation of Respiration Dr. Amanullah
Wednesday 28/08/024	<u>PRACTICALS:</u> Batch A: Anat Dr. Maleeha Ahmad Batch B: SDL (SLRC/Library) Batch C: Phy Dr. Asma Hadi		Research-L9 Title, Rational purpose Operational Definitions Prof Dr. Aziz Ahmad	<u>Skill Lab:</u> Batch A: Phy Dr. Uzair Batch B: Anat Dr. Nauman Khan Batch C: Bio Dr. Muhammad Saad		Physio-L10 Gas Exchange Dr. Fiza Iqbal
Thursday 29/08/024	<u>Skill Lab:</u> Batch A: Bio Dr. Muhammad Saad Batch B: Phy Dr. Uzair Batch C: Anat Dr. Nauman Khan		PRIME-L7 Social Accountability Dr. Ubaid Ullah	<u>Skill Lab:</u> Batch A: Anat Dr. Nauman Khan Batch B: Bio Dr. Muhammad Saad Batch C: Phy Dr. Uzair		SDL (SLRC/Library)
Friday 30/08/024	Introduction to BLS Workshop Dr. Imran Akhtar Iqbal	Batch A BLS workshop (1-25) Batch B Anatomy (26-50) Batch C Physiology (51-75) Batch D Bio Chemistry (76-101)	Batch B BLS workshop (26-50) Batch A Anatomy (1-25) Batch D Physiology (76-101) Batch C Bio Chemistry (51-75)	Batch C BLS workshop (51-75) Batch D Anatomy (76-101) Batch A Physiology (1-25) Batch B Bio Chemistry (26-50)	Batch D BLS workshop (76-101) Batch C Anatomy (51-75) Batch B Physiology (26-50) Batch A Bio Chemistry (1-25)	SDL (SLRC/Library)

13 For inquiry and troubleshooting



Please contact
Dr. Fiza Iqbal
Lecturer Physiology, Swat Medical College

Contact# 03409091120

Email: fiza.iqbal1430@gmail.com

14 Module Evaluation Form

MBBS Year: _____ Block: _____ Module: _____

Date: _____

1. (Unsatisfactory) 2 (Fair) 3 (Satisfactory) 4 (Good) 5 (Excellent)

Category: Course Contents

No.	Question	1	2	3	4	5
1	To what extent did the course contents align with the stated learning objectives of the module?					
2	How clear and comprehensive were the course materials provided in this module?					
3	Were the core topics adequately covered, ensuring a well-rounded understanding of the subject?					
4	How current and up-to-date were the course contents in reflecting recent advancements?					
5	Did the module incorporate real-world applications and case studies effectively?					
Category: Learning Resources						
6	Were the learning resources (e.g., textbooks, online materials, laboratory facilities) readily available and easily accessible?					
7	How helpful were additional learning resources such as supplementary readings or multimedia content?					
8	Did the module offer adequate support for research and independent study?					
9	Were digital resources and online platforms effectively utilized to enhance the learning experience?					
10	Were there sufficient opportunities for hands-on practice and practical application of knowledge?					
Category: Teaching Methods						
11	How well did instructors engage with students and create a supportive learning environment?					
12	Were diverse teaching methods (e.g., lectures, group discussions, simulations) effectively employed?					
13	How responsive were instructors to questions, concerns, and feedback from students?					
14	To what extent did instructors provide timely and constructive feedback on assignments and assessments?					
15	Were opportunities for collaborative learning and peer-to-peer interactions encouraged and facilitated?					
Category: Engagement and Motivation						
16	To what extent did the module use real-world examples and practical applications to engage students?					
17	How well were active learning techniques (e.g., problem-solving, case studies) integrated into the curriculum?					
18	Did the module provide opportunities for students to pursue their individual interests within the subject					

	matter?					
19	Were assessments designed to challenge and motivate students to excel in their studies?					
Category: Inclusivity and Diversity						
20	How well did the module accommodate different learning styles and preferences among students?					
21	Were efforts made to include diverse perspectives, cultures, and backgrounds in the curriculum?					
22	How effectively were accommodations provided for students with varying levels of prior knowledge?					
Category: Overall						
No.	Question	1 (Very Poor)	2 (Poor)	3 (Fair)	4 (Good)	5 (Excellent)
23	How would you rate the overall quality of this module?					

15 Students Diary/Notes

[illegible]

PROGRESS: _____

ACHIEVMENT: _____