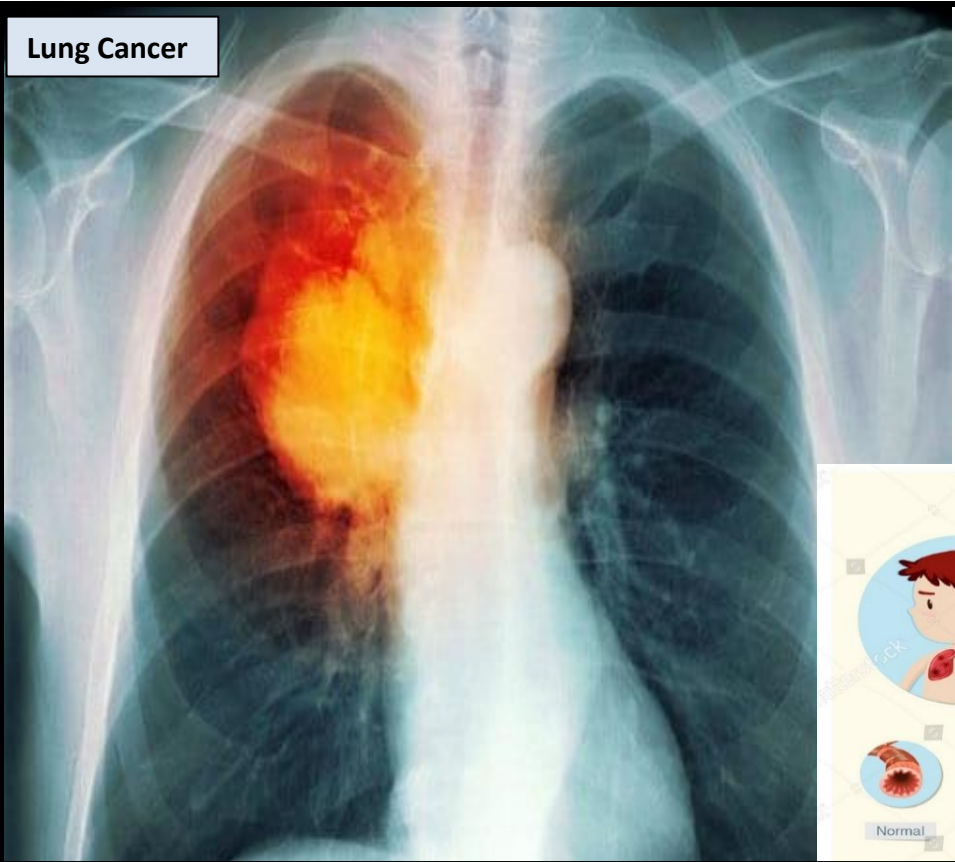


Lung Cancer



STUDY GUIDE

THIRD YEAR MBBS

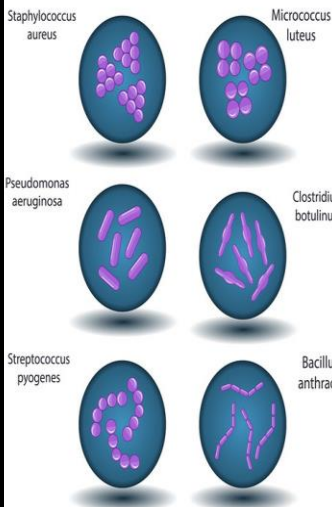
21ST JUNE- 17TH JULY 2021

DURATION: 4 WEEKS

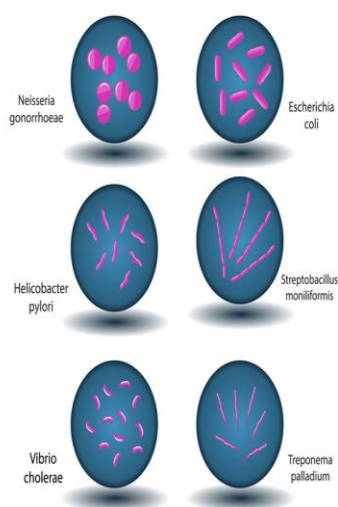


RESPIRATORY MODULE II

Gram positive bacteria



Gram negative bacteria



Acute Respiratory Distress Syndrome (ARDS)



LIAQUAT NATIONAL HOSPITAL AND MEDICAL COLLEGE
Institute for Postgraduate Medical Studies & Health Science



STUDY GUIDE FOR RESPIRATORY II MODULE

S.No	CONTENTS	Page No.
1	Overview	3
2	Introduction to Study Guide	4
3	Learning Methodologies	5
4	Module 4: Respiratory II	7
4.1	Introduction	7
4.2	Objectives and Strategies	8
5	Learning Resources	15
6	Assessment Methods	16
7	LNMC Examination Rules and Regulations	17
8	Schedule	18

Module name: **Respiratory II**Year: **Three**Duration: **4 weeks (June-July 2021)**

Timetable hours: Lectures, Case-Based Integrated Learning (CBIL), Clinical Rotations, learning experience in LNH outreach centers, Laboratory, Practical, Demonstrations, Skills, Self-Study

MODULE INTEGRATED COMMITTEE

MODULE COORDINATOR:	<ul style="list-style-type: none"> • Prof. Shaheen Sharafat (Microbiology)
CO-COORDINATORS:	<ul style="list-style-type: none"> • Dr. Amna Khurshid (Pathology) • Dr. M. Suleman Sadiq (DHPE)

DEPARTMENTS & RESOURCE PERSONS

BASIC HEALTH SCIENCES
COMMUNITY MEDICINE Dr. Saima Zainab
FORENSIC MEDICINE Professor Murad Zafar Marri
MICROBIOLOGY Professor Shaheen Sharafat
PATHOLOGY Professor Naveen Faridi
PHARMACOLOGY Professor Nazir Ahmad Solangi
DEPARTMENT of HEALTH PROFESSIONS EDUCATION
<ul style="list-style-type: none"> • Professor Nighat Huda • Professor Sobia Ali • Dr. Afifa Tabassum • Dr. Muhammad Suleman Sadiq
LNH&MC MANAGEMENT Professor K.U. Makki, Principal, LNH&MC Dr. Shaheena Akbani, Director A.A & R.T LNH&MC
STUDY GUIDE COMPILED BY: Department of Health Professions Education

INTRODUCTION

WHAT IS A STUDY GUIDE?

It is an aid to:

- Inform students how student learning program module has been organized
- Help students organize and manage their studies throughout the module
- Guide students on assessment methods, rules and regulations

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, clinical skills, demonstration, tutorial and case based learning that will be implemented to achieve the module objectives.
- Provides a list of learning resources such as books, computer assisted learning programs, web- links and journals for students to consult in order to maximize their learning.
- Highlights information on the contribution of continuous and Term examinations on the student's overall performance.
- Includes information on the assessment methods that will be held to determine every student's achievement of objectives.
- Focuses on information pertaining to examination policy, rules and regulations.

CURRICULUM FRAMEWORK

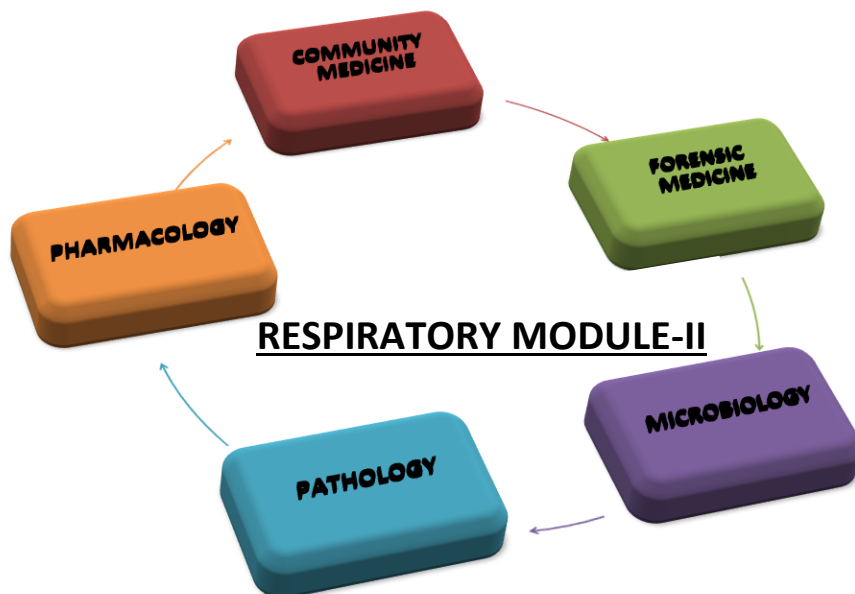
Students will experience integrated curriculum similar to previous modules.

INTEGRATED CURRICULUM comprises of system-based modules such as Foundation II, Blood-II, Locomotor II, Respiratory system-II, CVS-II and GIT Liver II which links basic science knowledge to clinical problems. 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.

LEARNING EXPERIENCES: Case based integrated discussions, skills acquisition in skills lab. Computer-based assignments, learning experiences in clinics, wards, and outreach centers

INTEGRATING DISCIPLINES OF RESPIRATORY MODULE-II

RESEARCH METHODOLOGY*



Note: *Research Methodology will run parallel in 3rd Year

LEARNING METHODOLOGIES

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

- Interactive Lectures
- Small Group Discussion
- Case- Based Integrated Learning (CBIL)
- Clinical Experiences
 - Clinical Rotations
 - Experience in LNH outreach centers
- Practicals
- Skills session
- Self-Directed Study

INTERACTIVE LECTURE: 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.

SMALL GROUP SESSION: 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.

CASE- BASED INTEGRATED LEARNING (CBIL): A small group discussion format where learning is focused around a series of questions based on a clinical scenario. Students' discuss and answer the questions applying relevant knowledge gained previously in clinical and basic health sciences during the module and construct new knowledge. The CBIL will be provided by the concern department. CBIL will be provided by the concern department.

CLINICAL LEARNING EXPERIENCES: In small groups, students observe patients with signs and symptoms in hospital wards, clinics and outreach centers. This helps students to relate knowledge of basic and clinical sciences of the module and prepare for future practice.

- **CLINICAL ROTATIONS:** In small groups, students rotate in different wards like Medicine, Pediatrics, Surgery, Obs & Gyne, ENT, Eye, Family Medicine clinics, outreach centers & Community Medicine experiences. Here students observe patients, take histories and perform supervised clinical examinations in outpatient and inpatient settings. They also get an opportunity to observe medical personnel working as a team. These rotations help students relate basic medical and clinical knowledge in diverse clinical areas.
- **EXPERIENCES IN LNH OUTREACH CENTERS:** Learning at outreach centers of LNH have been organized and incorporated as part of training of third year medical students. The objective of these visits is to provide clinical training experiences for students in primary care settings.

PRACTICAL: Basic science practicals related to pharmacology, microbiology, forensic medicine, and community medicine have been schedule for student learning.

SKILLS SESSION: Skills relevant to respective module are observed and practiced where applicable in skills laboratory.

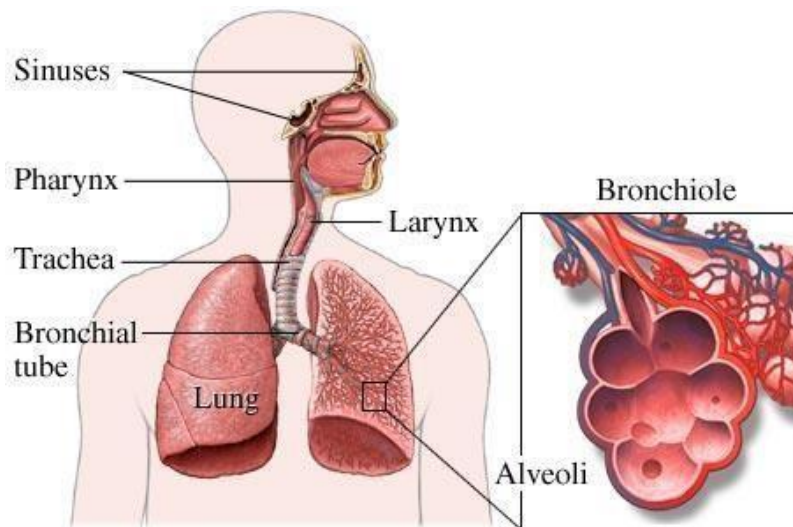
SELF DIRECTED STUDY: Students' assume responsibilities of their own learning through individual study, sharing and discussing with peers, seeking information from Learning Resource Center, teachers and resource persons within and outside the college. Students can utilize the time within the college scheduled hours of self-study.

MODULE 4: RESPIRATORY II**RATIONALE**

The Respiratory System II (RES II) module is designed to consolidate, and build on the First year Respiratory I module which covered basic medical sciences concepts for understanding the causes and treatment of diseases.

Tuberculosis is considered to be a major cause of ill health in Pakistan. The annual incidence rate of infectious Tuberculosis cases is estimated to be between 85-100/100,000 persons.¹The exact prevalence of COPD in Pakistan is not known, but a large number of patients attend outpatient and emergency departments across most of the country. The socio economic burden of COPD is considerable. A part from smoking, urban air pollution is an important cause of COPD.²Pakistan at present falls in to a low risk lung cancer region in females and a moderate risk region for males and the highest registered increase between 1995 and 2002 was observed in the older age groups (65+).³

RES (II) will focus on the respiratory system, its associated diseases, treatment options, and prevention of the diseases such as obstructive lung diseases, hypersensitivity related diseases, pulmonary infections, respiratory failure and restrictive lung diseases. The community medicine learning will aim at sessions on preventive medicine and various program such as TB, DOTS and National tuberculosis control program of Pakistan. The module will enable students to relate their theoretical knowledge to real practice through common clinical presentations, case-based discussions, interactive lectures, patient interactions and simulated-based learning.



1. DeMuyneckA, SiddiqiS, GhaffarA, SadiqH. Tuberculosis control in Pakistan: critical analysis of its implementation. JPak Med Assoc. 2001 Jan; 51(1):41-7.
2. AnwarSK, MehmoodN, NasimN, KhurshidM, KhurshidB. Sweeper's lung disease: a cross-sectional study of an overlooked illness among sweepers of Pakistan. International journal of chronic obstructive pulmonary disease. 2013; 8:193
3. BhurgriY, BhurgriA, UsmanA, SheikhN, FaridiN, MalikJ, AhmedR, KayaniN, PervezS, HasanSH. Patho-epidemiology of lung cancer in Karachi (1995-2002). Asian Pacific journal of cancer prevention. 2006 Jan 25; 7(1):60.

COURSE OBJECTIVES AND STRATEGIES

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

COMMUNITY MEDICINE

OBJECTIVES	TEACHING STRATEGY
1. Pneumoconiosis and its prevention	Interactive Lectures
• Define pneumoconiosis	
• List pneumoconiosis diseases	
• Discuss the control and prevention of pneumoconiosis	
2. Pulmonary tuberculosis and its prevention	
• Discuss the history & causative organism of tuberculosis	
• Discuss why Tuberculosis remains a world-wide problem	
• Discuss Tuberculosis situation in Pakistan	
• List epidemiological indices of tuberculosis	
• Explain TB-DOTS Therapy	
• Discuss the control and prevention of tuberculosis	
3. Asthma and its prevention	
• Define Asthma	
• Discuss the sign and symptoms of Asthma	
• Discuss the diagnosis criteria of Asthma	
• Discuss the control and prevention of Asthma	
4. Chicken pox and its prevention	
• Define Chicken pox disease	
• Discuss the sign and symptoms of Chicken pox	
• Discuss the diagnosis criteria of Chicken pox	
• Discuss the control and prevention of Chicken pox	
5. Influenza and its prevention	
• Define influenza	
• Discuss the sign and symptoms of influenza	
• Discuss the control and prevention of influenza	
6. Diphtheria and its prevention	
• Discuss the epidemiology of Diphtheria	
• Explain the risk factors and consequences of Diphtheria	
• Describe the signs and symptoms of Diphtheria	
• Discuss the control and prevention of Diphtheria	
7. Measles and its prevention	
• Describe the etiology of measles	
• Describe the epidemiology of measles	
• Describe the clinical features, assessment and diagnosis of measles	
• Discuss the role of immunization in prevention of measles	

8. Pertussis and its prevention	
• Describe the etiology of pertussis	
• Describe the epidemiology of pertussis	
• Explain the clinical features, assessment and diagnostic criteria of Pertussis	
• Discuss the process of control and prevention of Pertussis	
9. Air Pollution	
• Describe the situation of air Pollution	Small Group Discussion
• Identify the sources of air pollution	
• Explain the effects of air pollution on health	
• Discuss the concept of green house effects, global warming and ozone depletion	
• Discuss the methods to control air pollution	
10. Pneumonia, SARS, Covid	
• Define pneumonia	Interactive Lectures
• Classify different types of pneumonia	
• Explain the mode of transmission of pneumonia	
• List the predisposing factors of pneumonia	
• Describe the measures for prevention	
• Discuss the sign and symptoms, diagnostic criteria, control & prevention of Covid 19	

FORENSIC MEDICINE

OBJECTIVES	TEACHING STRATEGY
1. Asphyxia I	
• Define asphyxia	Interactive Lectures
• Summarize the etiology, pathophysiology and classic signs of asphyxia	
• Enumerate the different types of asphyxia and violent asphyxial deaths	
• Classify tissue anoxia according to Gordon's classification	
• List the different types of hanging	
• Explain the autopsy findings and medicolegal importance of hanging	
• Differentiate between ante-mortem and post-mortem hanging	
2. Asphyxia II	
• Diagnose strangulation, throttling, suffocation, smothering, gagging and choking based on postmortem findings	
• Discuss the mechanism, diagnostic features, and autopsy findings of traumatic asphyxia.	
3. Asphyxia III	
• Define the types, mechanism and postmortem findings of drowning.	
• Describe the causes of death due to drowning.	
• Highlight the importance of diatoms in deaths by drowning.	
• Define Sexual asphyxia (auto-erotic hanging).	

4. Toxicology– Organophosphate insecticides poisoning		
<ul style="list-style-type: none"> List commonly used insecticides Classify organophosphate compounds Describe the mode of action, signs and symptoms, treatment, postmortem findings and medico legal importance of organophosphate and Carbamate poisoning 		
5. Toxicology- Chloro group of insecticides (D.D.T.)		
<ul style="list-style-type: none"> Describe the mode of action, signs, symptoms, treatment and postmortem findings of DDT Poisoning 		
6. Toxicology- Irrespirable /Asphyxiants gases I (CO2 & Sewer gas poisoning)		
<ul style="list-style-type: none"> Describe the mode of action, signs and symptoms, treatment, postmortem findings and medico legal aspects of CO2 & sewer gas poisoning 		
7. Toxicology-Irrespirable/Asphyxiants gases II (Carbon monoxide, Hydrogen sulphide and War gases poisoning)		
<ul style="list-style-type: none"> List the sources of Carbon monoxide Describe the mode of action, signs and symptoms, treatment, postmortem findings and medico legal aspects of Carbon monoxide and hydrogen Sulphide poisoning Classify war gases Describe lacrimators and their treatment 	Small Group Discussion	
8. Toxicology Aluminum Phosphide & Paraquat poisoning		
<ul style="list-style-type: none"> List the sources of Aluminum phosphide and Paraquat Describe the mode of action, signs, symptoms, treatment, postmortem findings and medico legal aspects of Aluminum phosphide and Paraquat poisoning 		
9. Toxicology Naphthalene Poisoning		
<ul style="list-style-type: none"> Describe the mode of action, signs, symptoms, treatment, postmortem findings and medico legal aspects of Naphthalene poisoning 		

MICROBIOLOGY

OBJECTIVES	TEACHING STRATEGY	
1. Bacteria and fungi causing pneumonia		
<ul style="list-style-type: none"> Discuss the properties, transmission, epidemiology, & pathogenesis of Streptococcus pneumoniae Describe clinical findings and laboratory diagnosis of Streptococcus pneumoniae Discuss treatment and prevention of Streptococcus pneumoniae List the fungus causing pneumonia Briefly discuss Aspergillus 	Interactive Lectures & Small Group Discussion	
2. Mycobacterium tuberculosis		
<ul style="list-style-type: none"> Discuss the important properties, transmission, epidemiology, pathogenesis of M. Tuberculosis Describe clinical findings and laboratory diagnosis of M. Tuberculosis Discuss treatment and prevention of M. Tuberculosis Briefly describe Atypical mycobacteria 		

3. Gram positive rods (Corynebacterium diphtheriae and Listeria monocytogenes, Bacillus and clostridium)	Interactive Lectures
<ul style="list-style-type: none"> • Discuss the properties, transmission, epidemiology , pathogenesis of Gram positive rods 	
<ul style="list-style-type: none"> • Describe their clinical findings and laboratory diagnosis 	
<ul style="list-style-type: none"> • Discuss treatment and prevention of infections due to Corynebacterium diphtheriae and Listeria monocytogenes, Bacillus and Clostridium. 	
4. Gram negative rods (Haemophilus, Bordetella, Legionella)	
<ul style="list-style-type: none"> • Discuss the Important properties, Transmission, Epidemiology, pathogenesis of Gram negative rods 	
<ul style="list-style-type: none"> • Describe clinical findings and laboratory diagnosis of Gram-negative rods 	Interactive Lectures & Small Group Discussion
<ul style="list-style-type: none"> • Discuss treatment and prevention of Gram negative rods 	
5. Respiratory viruses [Influenza ,SARS AND SARS II (COVID 19)]	
<ul style="list-style-type: none"> • Discuss the Important properties, transmission, epidemiology , pathogenesis of Influenza virus . 	
<ul style="list-style-type: none"> • Describe replication cycle, clinical findings and laboratory diagnosis of Influenza virus 	
<ul style="list-style-type: none"> • Discuss treatment and prevention of Influenza virus. 	Interactive Lectures
<ul style="list-style-type: none"> • Discuss SARS ,SARS II (COVID 19) 	
6. Childhood viruses (Measles, Mumps, Rubella)	
<ul style="list-style-type: none"> • Discuss the important properties, transmission, epidemiology , pathogenesis of childhood viruses 	
<ul style="list-style-type: none"> • Describe replication cycle, clinical findings and laboratory diagnosis of childhood viruses 	
<ul style="list-style-type: none"> • Discuss treatment and prevention of childhood viruses 	
7. Respiratory virus Parainfluenza (Adeno, Corona, Rhino)	
<ul style="list-style-type: none"> • Discuss the important properties, transmission, epidemiology , pathogenesis of Parainfluenza virus 	
<ul style="list-style-type: none"> • Describe replication cycle, clinical findings and laboratory diagnosis of parainfluenza virus 	
<ul style="list-style-type: none"> • Discuss treatment and prevention of parainfluenza virus 	
8. Bacteria causing atypical pneumonia (Nocardia, Actinomycetes and Mycoplasma)	Interactive Lectures
<ul style="list-style-type: none"> • Define atypical pneumonia 	
<ul style="list-style-type: none"> • Discuss the important properties, pathogenesis of Actinomycetes and mycoplasma 	
<ul style="list-style-type: none"> • Describe clinical findings and laboratory diagnosis of Actinomycetes and mycoplasma 	
<ul style="list-style-type: none"> • Discuss treatment and prevention of Actinomycetes and mycoplasma 	

PATHOLOGY

OBJECTIVES	TEACHING STRATEGY
1. Congenital Anomalies of respiratory system, Atelectasis & Pulmonary edema	Interactive Lectures
<ul style="list-style-type: none"> • List the types of congenital anomalies of respiratory system 	
<ul style="list-style-type: none"> • Describe the embryologic pathology, microscopic, and clinical features of these congenital anomalies 	
<ul style="list-style-type: none"> • Define Atelectasis and Pulmonary edema 	
<ul style="list-style-type: none"> • Discuss the classification, pathogenesis, morphology, causes and clinical features of Atelectasis and Pulmonary edema 	
<ul style="list-style-type: none"> • Differentiate between pathogenesis of hemodynamic and micro vascular alveolar injury 	
2. Acute lung injury (ALI) and acute respiratory distress syndrome (ARDS)	
<ul style="list-style-type: none"> • Define ALI and ARDS 	
<ul style="list-style-type: none"> • List the conditions associated with development of ARDS 	
<ul style="list-style-type: none"> • Discuss pathogenesis, morphological and clinical features of ARDS / ALI 	
3. Obstructive lung diseases I (Emphysema, Chronic Bronchitis)	
<ul style="list-style-type: none"> • Define emphysema and chronic bronchitis 	
<ul style="list-style-type: none"> • Classify emphysema 	
<ul style="list-style-type: none"> • Describe the various clinical forms of emphysema • Discuss the etiology, pathogenesis, morphology and clinical features of emphysema and chronic bronchitis 	
4. Obstructive lung diseases II (Asthma, Bronchiectasis)	
<ul style="list-style-type: none"> • Define Asthma and Bronchiectasis 	
<ul style="list-style-type: none"> • Classify Asthma 	
<ul style="list-style-type: none"> • List the causes of Asthma, and Bronchiectasis 	
<ul style="list-style-type: none"> • Discuss the etiology, pathogenesis, morphology and clinical features of Asthma and Bronchiectasis 	
5. Chronic Interstitial restrictive lung diseases	
<ul style="list-style-type: none"> • Define restrictive diseases of lung 	
<ul style="list-style-type: none"> • Classify restrictive diseases of lung (Fibrosing, Granulomatous, Eosinophilic, Smoking Related) 	
<ul style="list-style-type: none"> • Discuss the etiopathogenesis, morphology and clinical features of chronic restrictive lung diseases 	
6. Pneumoconiosis	
<ul style="list-style-type: none"> • Define Pneumoconiosis 	
<ul style="list-style-type: none"> • List the causative agents of Pneumoconiosis 	
<ul style="list-style-type: none"> • Discuss the pathogenesis, morphology and clinical features of Pneumoconiosis 	
7. Granulomatous diseases	
<ul style="list-style-type: none"> • Define Granulomatous diseases (Sarcoidosis) 	
<ul style="list-style-type: none"> • Classify Granulomatous diseases 	
<ul style="list-style-type: none"> • Discuss the pathogenesis, morphology and clinical features of Granulomatous diseases 	

8. Pulmonary Infections (Pneumonia)		
<ul style="list-style-type: none"> Define Pneumonia 		
<ul style="list-style-type: none"> Classify Pneumonia 		
<ul style="list-style-type: none"> Discuss the morphology, pathogenesis, clinical, and diagnostic features of Pulmonary Infections 		
<ul style="list-style-type: none"> Briefly discuss aspiration pneumonia and lung abscess 		
9. Pulmonary tuberculosis		
<ul style="list-style-type: none"> Define Pulmonary tuberculosis 		
<ul style="list-style-type: none"> Discuss the morphology, pathogenesis, clinical features, laboratory investigations of pulmonary tuberculosis 		
10. Lung Tumors (Squamous cell carcinoma, small cell carcinoma, adenocarcinoma, large cell carcinoma)		
<ul style="list-style-type: none"> Describe lung tumors 		
<ul style="list-style-type: none"> Classify lung tumors according to WHO 		
<ul style="list-style-type: none"> Discuss the risk factors, pathogenesis, morphology, clinical features of lung tumors 	Interactive Lectures/ Small Group Discussion	
<ul style="list-style-type: none"> Briefly discuss the staging & grading of carcinoma 		
11. Pleural pathology (pleural effusion, Pneumothorax, pleural tumors)		
<ul style="list-style-type: none"> Briefly discuss pleural effusion and pneumothorax 		
<ul style="list-style-type: none"> Discuss the pathogenesis, morphology and clinical course of pleural tumors 		
12. Pulmonary vascular diseases		
<ul style="list-style-type: none"> Define Pulmonary vascular diseases 	Interactive Lectures	
<ul style="list-style-type: none"> List the risk factors of pulmonary vascular diseases 		
<ul style="list-style-type: none"> Discuss the pathogenesis, morphology and clinical features of pulmonary vascular diseases 		
13. Histopathology of Chronic Obstructive Pulmonary Disease (COPD)		
<ul style="list-style-type: none"> Discuss histopathology of Chronic Obstructive Pulmonary Disease 	Small Group Discussion	
14. Histopathology of pneumonia		
<ul style="list-style-type: none"> Discuss etiology and morphology of pneumonia 		
15. Histopathology of Pulmonary Tuberculosis		
<ul style="list-style-type: none"> Discuss detailed morphology and pathogenesis of Pulmonary Tuberculosis 		
16. Pathology of lung tumors		
<ul style="list-style-type: none"> Discuss etiology, morphology and manifestations of lung tumors 		

PHARMACOLOGY

OBJECTIVES	TEACHING STRATEGY
1. Drugs used to treat bronchial asthma & COPD- (I & II)	Interactive Lectures
<ul style="list-style-type: none"> Discuss classification, pharmacokinetic and dynamics of drugs used for the treatment & prevention of asthma & COPD 	
2. Drug used in Tuberculosis and leprosy (I & II)	
<ul style="list-style-type: none"> Classify anti-tuberculosis drugs (ATT) 	
<ul style="list-style-type: none"> Discuss the therapeutic classification of ATT according to WHO 	
<ul style="list-style-type: none"> Describe the mode of action, adverse effects & contraindications of ATT 	
<ul style="list-style-type: none"> Describe the drugs used in multidrug resistant tuberculosis 	
<ul style="list-style-type: none"> Explain the drug management of extensive multidrug resistant tuberculosis 	
3. Pharmacology of Histamine & Anti-histamines	Case- Based Integrated Learning
<ul style="list-style-type: none"> Discuss the properties and role of histamine Describe the classification, and the basic & clinical pharmacology of antihistamines 	
4. Drug used in Community Acquired Pneumonia	Interactive Lectures
<ul style="list-style-type: none"> Classify Drug used in Community Acquired Pneumonia Explain the basic and clinical pharmacology of these agents 	
5. Anti-Tussives & Mucolytics	Case- Based Integrated Learning
<ul style="list-style-type: none"> Describe Anti-tussive & Mucolytic drugs 	
<ul style="list-style-type: none"> Discuss their role in respiratory diseases Discuss their basic and clinical pharmacology 	
6. Treatment of bronchial-asthma / methods of administration of drugs	Practical
<ul style="list-style-type: none"> Demonstrate the different methods of administration of drugs used in treatment of bronchial-asthma 	
<ul style="list-style-type: none"> Describe their clinical importance 	

RESEARCH METHODOLOGY

OBJECTIVES	TEACHING STRATEGY
<ul style="list-style-type: none"> Introduction to SPSS 	Interactive Lectures
<ul style="list-style-type: none"> Application on SPSS - summarize data, Normal and skewed distribution of data, assessing normality on SPSS, Measure of central tendency and dispersion 	Small Group Discussion
<ul style="list-style-type: none"> Describe basic concept of inferential statistics (Calculation of confidence interval for means and proportion) 	
<ul style="list-style-type: none"> Discuss the development of synopsis 	

LEARNING RESOURCES

SUBJECT	RESOURCES
COMMUNITY MEDICINE	TEXT BOOKS <ol style="list-style-type: none"> 1. Community Medicine by Parikh 2. Community Medicine by M Illyas 3. <i>Basic Statistics</i> for the Health Sciences by Jan W Kuzma
FORENSIC MEDICINE	TEXT BOOKS <ol style="list-style-type: none"> 1. Nasib R. Awan. Principles and practice of Forensic Medicine 1st ed. 2002. 2. Parikh, C.K. Parikh's Textbook of Medical Jurisprudence, Forensic Medicine and Toxicology. 7th ed. 2005. REFERENCE BOOKS <ol style="list-style-type: none"> 3. Knight B. Simpson's Forensic Medicine. 11th ed. 1993. 4. Knight and Pekka. Principles of forensic medicine. 3rd ed. 2004 5. Krishan VIJ. Text book of forensic medicine and toxicology (principles and practice). 4th ed. 2007 6. Dikshit P.C. Text book of forensic medicine and toxicology. 1st ed. 2010 7. Polson. Polson's Essential of Forensic Medicine. 4th edition. 2010. 8. Rao. Atlas of Forensic Medicine (latest edition). 9. Rao. Practical Forensic Medicine 3rd ed, 2007. 10. Knight: Jimpson's Forensic Medicine 10th 1991, 11th ed. 1993 11. Taylor's Principles and Practice of Medical Jurisprudence. 15th ed. 1999 CDs: <ol style="list-style-type: none"> 1. Lectures on Forensic Medicine. 2. Atlas of Forensic Medicine. WEBSITES: <p>www.forensicmedicine.co.uk</p>
PATHOLOGY/MICROBIOLOGY	TEXT BOOKS <ol style="list-style-type: none"> 1. Robbins & Cotran, Pathologic Basis of Disease, 9th edition. 2. Rapid Review Pathology, 4th edition by Edward F. Goljan MD WEBSITES: <ol style="list-style-type: none"> 1. http://library.med.utah.edu/WebPath/webpath.html 2. http://www.pathologyatlas.ro/
PHARMACOLOGY	TEXT BOOKS <ol style="list-style-type: none"> 1. Lippincot Illustrated Pharmacology 2. Basic and Clinical Pharmacology by Katzung

ASSESSMENT METHODS:

- **Best Choice Questions(BCQs)** also known as MCQs (Multiple Choice Questions)
- **Objective Structured Practical/Clinical Examination (OSPE or OSCE)**

BCQs:

- A BCQ has a statement or clinical scenario of four options (likely answers).
- **Correct answer carries one mark, and incorrect 'zero mark'. There is NO negative marking.**
- Students mark their responses on specified computer-based sheet designed for LNHMC.

OSCE:

- All students rotate through the same series of stations in the same allocated time.
- At each station, a brief written statement includes the task. Student completes the given task at one given station in a specified time.
- Stations are observed, unobserved, interactive or rest stations.
- In unobserved stations, flowcharts, models, slide identification, lab reports, case scenarios may be used to cover knowledge component of the content.
- Observed station: Performance of skills /procedures is observed by assessor
- Interactive: Examiner/s ask questions related to the task within the time allocated.
- In Rest station, students in the given time not given any specific task but wait to move to the following station.

Internal Evaluation

- Students will be assessed comprehensively through multiple methods.
- 20% marks of internal evaluation will be added to JSMU final exam. That 20% may include class tests, assignment, practicals and the internal exam which will all have specific marks allocation.

Formative Assessment

Individual department may hold quiz or short answer questions to help students assess their own learning. The marks obtained are not included in the internal evaluation

For JSMU Examination Policy, please consult JSMU website!

**More than 75% attendance is needed
to sit for the internal and final
examinations**

LNH&MC EXAMINATION RULES & REGULATIONS

- Student must report to examination hall/venue, 30 minutes before the exam.
- **Exam will begin sharp at the given time.**
- No student will be allowed to enter the examination hall after 15 minutes of scheduled examination time.
- Students must sit according to their roll numbers mentioned on the seats.
- **Cell phones are strictly not allowed in examination hall.**
- If any student is found with cell phone in any mode (silent, switched off or on) he/she will be not be allowed to continue their exam.
- No students will be allowed to sit in exam without University Admit Card, LNMC College ID Card and Lab Coat
- Student must bring the following stationary items for the exam: Pen, Pencil, Eraser, and Sharpener.
- Indiscipline in the exam hall/venue is not acceptable. Students must not possess any written material or communicate with their fellow students.

SCHEDULE:

WEEKS	3RD YEAR	MONTH
WEEK 1-10	FOUNDATION II MODULE	8th February 2021
		15th April 2021
WEEK 1-4	BLOOD II MODULE	16th April 2021
		12th May 2021
MID TERM EXAMINATION 20TH MAY TO 22ND MAY 2021		
WEEK 1-4	LOCOMOTOR II MODULE	24th May 2021
		18th June 2021
WEEK 1-4	RESPIRATORY II MODULE	21st June 2021
		17th July 2021
WEEK 1-4	CVS II MODULE	19th July 2021
		14th August 2021
WEEK 1-6	GIT II MODULE	16th August 2021
		25th September 2021
PRE PROF. EXAMINATION*		

*Final dates will be announced later