WAH MEDICAL COLLEGE

2021-2025

Wah
Medical
College

Department of Medical Education

STUDY GUIDE
4th YEAR MBBS
Y4BX

2021-2025

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VISION

National University of Medical Sciences envisions a world with a better quality of life for all by enhancing our contribution to healthcare, education, innovation, and research.
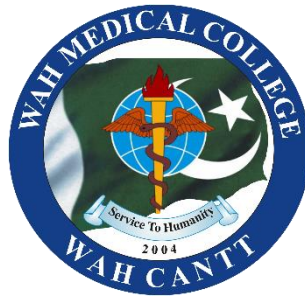
MISSION

To produce competent medical professional graduates equipped with sound knowledge & research capabilities based on scientific principles, imbued with ethics and moral values primed to serve the community through the profession and pursue research & advanced training in any branch of medicine".

1. Outcomes of WMC MBBS Program:

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| At the end of our five-year MBBS program, the graduates should be able to: |
| --- |
| 1. Independently manage common, non-critical clinical problems. |
| 2. Assist in the management of critically ill patients & demonstrate competency in life saving procedures. |
| 3. Exhibit the attributes of an ethical professional. |
| 4. Conduct research which brings relevance to health care practices. |
| 5. Act as an efficient community health promoter. |
| 6. Exhibit scientific knowledge in all professional activities. |
| 7. Demonstrate clear and efficient written & verbal communication skills. |
| 8. Exhibit the habits of a lifelong learner. |

2. Introduction to the Study Guide:

I. Objectives of the Study Guide

Dear Students,

We, at the Department of Medical Education, Wah Medical College, have developed this study guide especially for you. This study guide aims to:

- Inform you about the organization of learning programs in this block which will help you to contact the right person in case of any difficulty.
- Help you in organizing and managing your studies throughout the block
- Guide you on assessment methods, rules, and regulations.
- Define the outcomes which are expected to be achieved at the end of the block.
- Identify the learning strategies that will be implemented to achieve the block outcomes such as lectures, small group discussions, clinical skills, demonstration, tutorial, and case-based learning
- Provide a list of learning resources such as books, and journals for students to consult to maximize their learning.
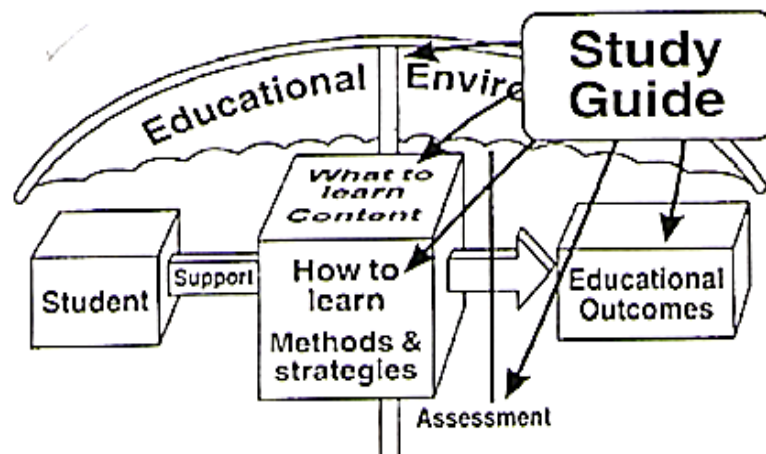
Figure 1. Objectives of the study Guide(HARDEN, J.M. LAIDLAW, E.A. HESKETH, 1999)
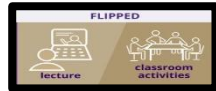
II. Commonly used abbreviations & Logos in the study guide

Learning Outcomes:

Learning outcomes are statements that define the expected goal of your course, lesson, or activity in terms of demonstrable skills or knowledge that will be acquired by you as a result of instruction. In simple words, these are the things that you must be able to tell or do with the required attitude after learning a particular topic.

1. Educational Strategies:

These are the methodologies through which you will be taught by your instructors. These can include.

Abbreviation	Logos
LGIS: Large Group interactive session/Lecture	
Flipped Classroom	
CBL: Case based learning.	
Practicals	
Demonstrations	
SGD: Small group discussions	
BST: BedSide Teaching	
Skill Lab	
Clinical Teaching (OPD/ OT/ IPD	

Large Group Interactive Sessions

In a large group, the lecturer introduces a topic or common clinical condition and explains the underlying phenomena through questions, pictures, videos of patient's interviews, exercises, etc. Students are actively involved in the learning process.

Flipped classroom

A pedagogical approach in which the conventional notion of classroom-based learning is inverted: students are introduced to the learning material before class with classroom time then being used to deepen understanding through discussion with peers and problem-solving activities facilitated by teachers.

Small Group Discussion

This format helps students to clarify concepts, acquired skills or attitudes. Sessions are structured with the help of specific exercises such as patient cases, interviews, or discussion topics. Students exchange opinions and apply knowledge gained from lectures, tutorials, and self-study. The facilitator's role is to ask probing questions, summarize, or rephrase to help clarify concepts.

Case-Based Learning

This is a small group discussion format where learning is focused around a series of questions based on a clinical scenario. Specifically, designed case scenarios and the learning outcomes to be achieved are shared with the student before the session. Students prepare for the CBL and during class they discuss and answer the questions applying relevant knowledge gained in clinical and basic health sciences during the block. Faculty members are present as a guide and an assessor.

Self-Directed Study

Students assume responsibilities of their own learning through individual study, sharing and discussing with peers, seeking information from the Learning Resource Center, teachers, and resource persons within and outside the college. Students can utilize the time within the college schedule hours for self-study under supervision.

Bedside teaching

Students learn clinical case scenarios/ patient examination firsthand at the patient's bedside with the help of the instructor in case of online teaching, the same cases will be shown to you online with the help of videos and live clinical teaching.

3. Assessment Map & Strategies
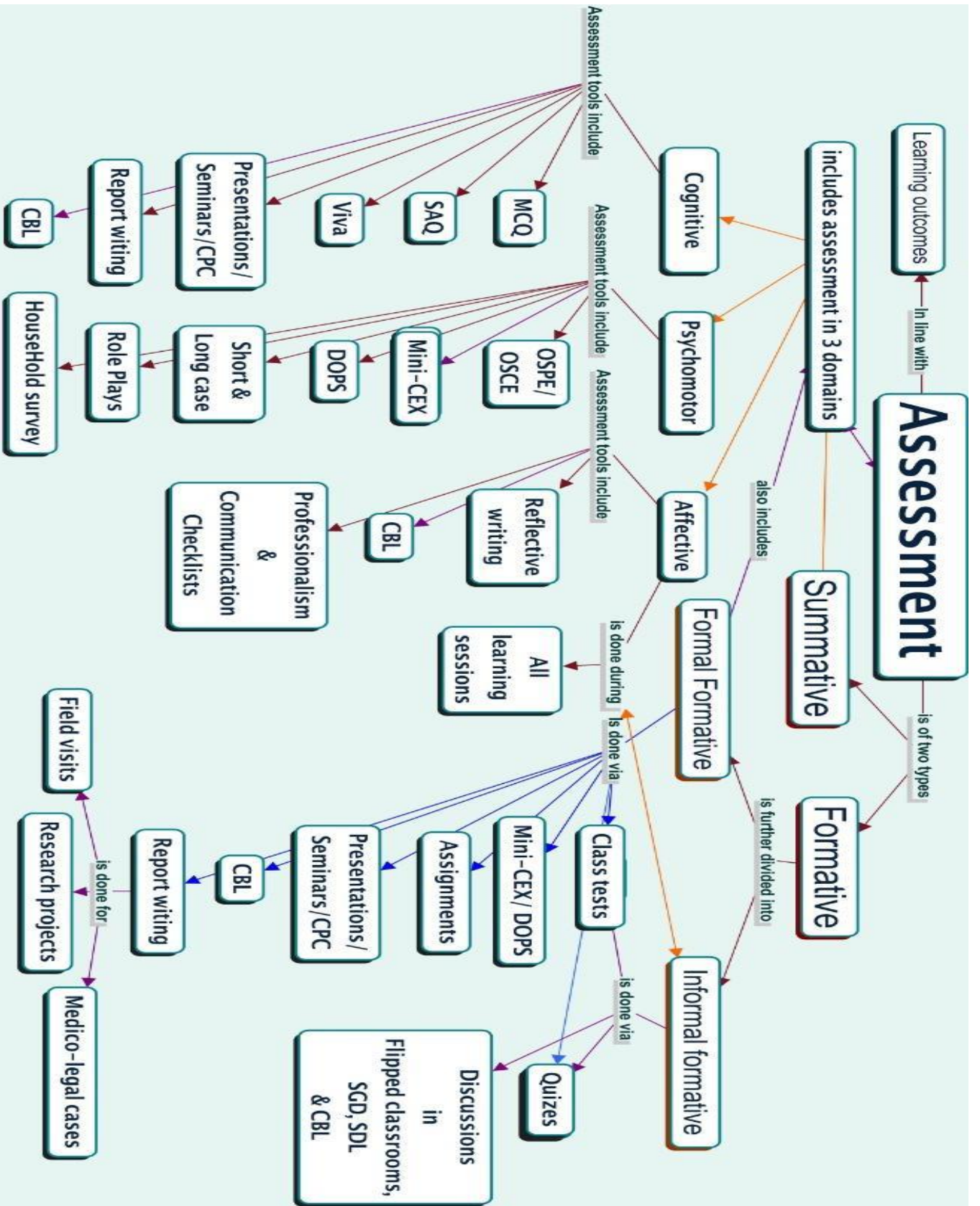
i. Internal Assessment.

During the block the students will be continually formatively assessed. The weightage of internal assessment will be 20 % in final professional MBBS Examination. There will be two EOB and one pre-annual examination. There will also be end of rotation exams at the end of each clinical rotation. The scores of the EOB assessment, clinical rotation assessment and pre-annual examination will be used for calculation of the internal assessment. It is mandatory for MBBS students to appear and pass the pre-annual exam with at least 33% marks in each subject as per PMC rules, failing which student is not eligible to appear in the university exam.

ii. Annual Professional Examination.

The University will take the 4th professional Examination as per PMC guidelines at the end of the academic year. Annual Theory & Practical Examination will be of 300 marks each in Special Pathology & Community Medicine & 200 marks each in ENT & Ophthalmology. The pass score will be 50% in theory and practical separately. However, in clinical subjects, students should pass in clinical exams / OSCE (with 50% marks) and unobserved stations (with 50% marks) separately.

Scheme of Assessment

SPECIAL PATHOLOGY, COMMUNITY MEDICINE

Marks of theory paper = 120
Time Allowed = 3 hours
Total Marks = MCQs:40% (60 marks) +SEQs:40% (60 Marks) +IA:20% (30 Marks) = 150
Pass Marks = 75
Paper-1:
80 MCQs, Time =80 min
*Marks of MCQ components shall be rationalized to 40% weightage out of 150.
*If a candidate obtains 70 marks is MCQs it will be rationalized as: (70/80*60=52.50)
Paper-2:
9x SEQs: 7 questions x 6 Marks each + 2 questions x9 Marks each= 60 Marks
Time = 100 min

ENT & EYE

Marks of theory paper = 80 marks, Internal Assessment = 20 marks
Time Allowed = 3 hours
Total Marks= MCQs:40% (40 marks) +SEQs:40% (40 marks) +IA:20%(20 marks)

Pass Marks = 50

Paper-1: 60 MCQs = 40 marks

Time = 60 min

*Marks of MCQ components shall be rationalized to 40% weightage. *If a candidate obtains 50 marks is MCQs it will be rationalized as: (50/60*40=33.33)

Paper-2:

Time = 120 min

8x SEQs = 05 Marks Each = 40 Marks

INTERNAL ASSESSMENT - THEORY	
INTERNAL ASSESSMENT WEIGHTING: 20%	
Exams	**Weightings**
Attendance in Lectures: a. ≥90% = 10% b. 80-89% = 7% c. 75-79% = 5%	10%
End of Block/ clinical rotation (theory) Examination	45%
Continuous assessment (average score of all tests attempted after every learning session during the academic year)	20%
Pre-Annual Exam	25%
Total	**100%**
INTERNAL ASSESSMENT STRUCTURE - PRACTICAL	
INTERNAL ASSESSMENT WEIGHTING: 20%	
Exams	**Weightings**
Attendance in Practicals: a. ≥90% = 10% b. 80-89% = 7% c. 75-79% = 5%	10%
*End of Block/ clinical rotation (OSCE) Examination	45%
*Continuous assessment of practical/ clinical skills and attitude	20%
Pre-Annual Exam	25%
Total	**100%**

4. Structured Summary of Y4BX

Name	Y4BX
Duration	**11 weeks**
Prerequisite Block	3rd Professional exam
Special Pathology	• Cardiovascular system, Respiratory system, Gastrointestinal system, Hepatobiliary system and Pancreas.
Community Medicine	• General epidemiology, Infectious disease epidemiology, Biostatistics, Concept of health and disease, Health care delivery system, Screening, Respiratory infections,Occupational health Research
ENT	• Congenital anomalies of the ear, Ear discharge, Referred otalgia, Vertigos, Facial nerve related disorders, Tumours of ear, mastoid bone and acoustic neuroma, Deafness in adults and children
Ophthalmology (EYE)	• Introduction to Ophthalmology and Medical Ethics, Refractive errors, Eye Lid, Surgical Retina, Diabetic Retinopathy, Retinal Vascular Diseases and Hypertensive eye Disease, Macular disorders, Peadiatric Vitreoretina
Gynecology	• Medical complications of pregnancy (Hypertension, cardiac diseases, liver disorders, obstetric cholestasis and venous thromboembolism), Normal labour, preterm labour, preterm prelabour rupture of membranes (PPROM) and multiple pregnancies, Antenatal care, prenatal diagnosis, Common perinatal infections.
Surgery	• Basic principles of cardiovascular surgery • Principles of Management of Surgical Gastrointestinal Pathologies • Principles of Management of orthopedics Trauma and Pathologies • Principles & type of Anaesthesia
Medicine	• Common cardiovascular, Gastroenterology, Pulmonology, Dermatology and Psychiatry Disorders Complications, preventive and safety measures of these disorders, Critically ill patients in A&E department
Peads	• CVS, GIT, Respiration

5. Block Development Committee

Chairperson	Prof. Dr. Musarat Ramzan
Block In-charge	Prof. Shezadi Sabah Imran
Members/ Resource persons	Community Medicine : Prof. Shezadi Sabah Imran Pathology : Prof. Jamila ENT : Lt. Col (R) Prof. Muhammad Asad Chughtai Ophthalmology : Dr. Yaseen Lodhi Surgery : Brig. Prof. Manan Masood Medicine : Dr. Syed Asim Ali Shah Gynecology : Dr. Khair un Nisa Pediatrics : Dr. Tahir Mehmood Behavioral Sciences : Miss Sara Rubab
Study guide developed by	Department of Medical Education Wah Medical College under Supervision of Prof. Dr. Musarat Ramzan
Resource person for Study Guide	**Dr. Ambreen Ansar**

6. Course content

Community Medicine

Subject Learning Outcomes

At the end of fourth year MBBS program the student will be able to:

1. Apply knowledge of statistics to measure all health problems affecting people at individual and community levels, right from birth to death, considering research and ethical approaches. (PLO 2,3,4,6,7).
2. Recommend measures for prevention, protection and education about the common community health problems. (PLO 1,3,5,6,7).
3. Evaluate the existing service for its suitability to cater for needs of the people and recommend modifications need fully. (PLO 6).
4. Apply relevant statistic to conduct a house hold survey and a mini research project. (PLO 3,4,6,7)
5. Demonstrate professionalism and leadership in all situations involving individuals and community. (PLO 3, 7)
6. Describe composition, functions and programs of various international health agencies for national and international health care. (PLO 6)

Block Learning Outcomes

At the end of first block, the student of 4th year MBBS will be able to:

1. Assess health and disease status of the community using indicators to promote health and prevent disease. (SLO1,3,4)
2. Relate the role of public health in providing relevant individual and community healthcare. (SLO1,3,4)
3. Apply relevant statistics to conduct a house hold survey. (SLO 4,5)
4. Describe health system of the country by applying concepts of Primary Health Care and Leadership. (SLO 2,3)
5. Apply epidemiology of common communicable and non-communicable diseases in the global and local context for control and prevention of diseases. (SLO 1, 2)
6. Demonstrate computing and soft skills. (SLO 2,4,5)
7. Write comprehensive report on assigned tasks. (SLO 2,4,5)
8. Demonstrate professional behavior in all learning activities. (SLO 5)

S.#	Topic	Educational Strategies	Name of Instructor	Importance (Must Know Should Know Could Know)
1.	**General Epidemiology**	Flipped class room	Prof Dr. Musarat Ramzan	Must know
Learning Outcomes:				

- Calculate various measures of morbidity, mortality and association.
- Describe uses and limitations of various measures of mortality and morbidity.
- Interpret comparison of mortality at different places.
- Differentiate individual and population-based study designs
- Select the design for confirming associations on the basis of its advantages and disadvantages.
- Differentiate types of errors in research
- Justify the criteria of association and causation in the given situations.

| 2. | **Biostatistics** | LGIS/SGD | Prof Dr. S. Sabah
Dr. Robina Rizvi
Dr. Khola Waheed
Dr. Sadia Nadeem
Dr Saleh Ahmed | Must know |

Learning Outcomes:
- Identify various types of data, data presentation, distributions, sampling techniques and probable errors in research.
- Calculate measures of central tendency, dispersion and ranges of normally distributed data.
- Generalize results of a sample over the population by using appropriate test of significance
- Differentiate various sampling techniques.
- Select relevant sampling technique for a given situation
- Apply steps of hypothesis testing for a given research question

| 3. | **Concept of health and disease** | Flipped Class Room | Dr. Robina Mushtaq | Must know |

Learning Outcomes:
- Apply concept of causation, natural history and disease spectrum in the given situations
- Calculate health indicators.
- Interpret type of agent, levels of prevention and intervention measures in the given scenarios

| 4. | **Infectious disease epidemiology** | Flipped class room | Prof Dr. Musarat Ramzan | Must know |

Learning Outcomes:
- Differentiate between the terms used to describe a disease.
- Relate relevant levels of prevention with the stages of a disease.
- Interpret patterns of disease distribution in time, place and person.
- Rationalize steps taken to investigate an epidemic.
- Extrapolate control measures for diseases in any affected area.

| 5. | **Screening** | Flipped class room | Prof. Dr. S. Sabah Imran | Must know |

Learning Outcomes:
- Compare and contrast screening and diagnostic test
- Correlate favorable characteristics of a disease that make screening useful and relevant for the disease.

- Select an ideal screening test on the basis of its characteristics and ethics.
- Interpret calculated values of the Sensitivity, Specificity, PPV, NPV, False positive and False negative rate and accuracy of the test
- Recognize effect of changes in the cut off value on sensitivity, specificity, false positives, false negative, true positive and true negatives rates.
- Relate validity with precision of a screening test
- Interpret likely errors in screening.
- Explain methods of evaluation of screening program

6.	**Occupational health**	LGIS/ Flipped class room	Dr Sadia Nadeem	Must know

Learning Outcomes:
- Identify occupational diseases on the basis of clinical and laboratory findings.
- Suggest preventive measures for Occupational Diseases.

7.	**Respiratory infections**	Flipped classroom	Dr Sadia Nadeem	Must know

Learning Outcomes:
- Compare and contrast the epidemiological determinants, mode of transmission, spectrum, clinical presentations and investigations of gastrointestinal and respiratory infections.
- Suggest strategies for disease control and prevention for every specific disease and in different scenarios.

8.	**Health care delivery System in Pakistan**	Flipped classroom	Dr. S. Sabah Imran	Must know

Learning Outcomes:
- Explain the rationale of devolution of power and the problems of health care system in Pakistan
- Identify deficiencies in different health-care facilities
- Differentiate different sectors of health system and functioning
- Recommend improvement in health-care delivery in Pakistan
- Appraise the efficiency of a health system/health outlet

Learning Resources:

1. **Text Books**
   - Park's Textbook of Preventive and Social Medicine
   - Public Health and Community Medicine (Shah, Ilyas, Ansari, Irfan's)
2. **Reference Books**
   - Epidemiology by Leon Gordis
   - Linnen field- Screening
   - Handouts/SDL prepared by faculty

3. **Online resources**
   - Types of data
   - Graphical presentation
   - Concept of hypothesis testing
   - HMIS
   - SDGs
   - Study designs

Teaching Faculty:

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Dr. Sadia Nadeem	sadianadeem@wahmedicalcollege.edu.pk
Dr. Saleh Ahmed	s.ahmed.2345@gmail.com

Assessment formats

Assessment tools (Formative)	Assessment Strategies (Summative)
MCQs, Home assignments, SAQs, class discussion, quiz using google forms	MCQs, SEQs, OSPE, Viva

Clerkship Module

S.#	Topic	Educational Strategies	Name of Instructor	Importance (Must Know Should Know Could Know)
Week 1: Epidemiology and Biostatistics				
1.	Microsoft word	Hands on training	Dr. Saleh Dr. Ahmed Mughal	Must Know
Learning Outcomes: • Perform assign commands on Microsoft Word.				
2.	Mendeley	Hands on training	Dr. Saleh Dr. Ahmed Mughal	Must Know
Learning Outcomes: • Apply Mendeley software for referencing				
3.	SPSS	Hands on training	Dr. Saleh Dr. Ahmed Mughal Mr. Asad Elahi	Must Know
Learning Outcomes: • Analyze provided or collected data using SPSS.				
4.	Press Cutting	SGD	Batch In charge Co In charge	Must Know
5.	HMIS	Field Visit	Dr. Khola Dr. Qandeel Dr. Fatima Dr. Aimen	Should Know
6.	Measures of Morbidity and mortality	SGD		Must Know
Learning Outcomes: • Calculate various measures of morbidity, mortality and association.				
7.	Emerging and reemerging Diseases	SDL	Dr. Sabah Dr. Aimen	Must Know
8.	Investigation of Epidemic	Workshop	Dr Saleh Dr Qandeel	Must Know
Learning Outcomes: • Rationalize steps taken to investigate an epidemic.				
Week 2: Maternal, Neonatal Child Health and Family planning				
9.	Sustainable Development Goals	SDL	Dr. Khola Dr. Aimen	Must Know
10.	MNCH/WGH/BHU	Field visit	Dr. Sadia Dr. Fatima	Must Know
11.	Family planning	SGD	Dr Sadia	Must Know
Learning Outcomes: • Recommend contraceptive methods according to the given situation. • Calculate failure rate of contraceptive methods (Pearl's Index).				

12.	Family planning center	Field visit	Dr. Qandeel Dr. Aimen	Must Know
13.	National Programs of Pakistan	SDL	Dr. Khola Dr. Ahmed	Must Know
14.	Counselling skills	Skills	Dr. Fatima, Dr. Qandeel Dr. Aimen, Dr. Ahmed	Must Know

Learning Outcomes:

Demonstrate the ability to educate the:
- Mother for dietary management of PEM, breast feeding, weaning, preparation and administration of ORS (homemade / packet).
- Women regarding antenatal and postnatal care in the given scenario
- Advise mothers for vaccination in different situations

15.	EPI	Hands on training	Dr. Saleh Dr. Aimen Dr. Ahmed	Must Know

Learning Outcomes:
- Identify the given vaccine & the compartment of Refrigerator for its storage.
- Administer Polio vaccine following the protocol.
- Demonstrate the site administration of vaccine, recapping & cutting technique of syringe.
- Recognize efficacy of a vaccine on basis of the Vaccine Vial Monitor

16.	EPI Center	Field visit		Must Know
17.	Press cutting	SGD	Batch In charge Co In charge	Must Know

| Week 3: Communicable disease school health and Hospital waste management |||||

18.	School Health Services	SGD	Dr. Saleh Dr. Ahmed Dr. Qandeel	Must Know

Learning Outcomes:
- Describe components of School Health, responsibilities of the school Health team members and functions of School Health program
- Assist in training of members of school health teams regarding control of common school health problems.
- Assist in various screening programs among school children.

19.	Visit to School	Field visit		Must Know
20.	Press cutting	SGD		Must Know
21.	Communicable diseases	CBL	Dr. Qandeel Dr. Aimen	Must Know

Learning Outcomes:
- Compare and contrast the gastrointestinal diseases, mode of transmission, spectrum, clinical presentations and investigations of gastrointestinal diseases.
- Recommend strategies for control of gastrointestinal diseases.

22.	Hospital Waste management	SDL	Dr. Khola	Must Know

23.	Visit to Incinerator	Field visit	Dr. Fatima Dr. Ahmed	Must Know
24.	Rural urban health	SDL	Dr. Saleh Hafsa	Should Know
25.	Zoonotic diseases	SGD	Dr Fatima	Must Know

Learning Outcomes:
- Compare and contrast the epidemiological determinants, mode of transmission, spectrum, clinical presentations and investigations of zoonotic diseases.
- Suggest strategies for disease control and prevention for every specific disease and in different scenarios.

26.	International health agencies	SDL	Dr. Saleh	Should Know

Week 4: Non-communicable diseases and nutrition				
27.	Genetics	SDL	Dr. Fatima	Should Know
28.	Non communicable diseases	Seminar by students	Dr. Robina Dr Ahmed Dr Aimen	Must Know

Learning Outcomes:
- Identify epidemiological determinants of common non-communicable diseases
- Suggest preventive measures for these diseases in at-risk individuals and populations

29.	Dental health	SDL	Dr. Ahmed	Must Know -
30.	Non-communicable diseases	Communication Skills	Dr. Fatima Dr. Aimen Dr. Ahmed	Must Know

Learning Outcomes:
- Demonstrate the ability to educate the:
- Individuals about prevention of hypertension, diabetes, obesity, cancer, snake bite, accidents
- Individuals to quit smoking
- Industrial workers and owners about prevention of occupational diseases
- Individuals/communities on promoting environmental measures to maintain good health
- Individuals / administration on prevention of nosocomial infections
- Travelers to prevent the travel related problems

31.	Press cutting	SGD	Batch In charge Co In charge	Must Know
32.	Personal Hygiene and unsafe Injection	SDL	Dr. Saleh	Must Know
33.	Hand washing	Hands on training	Dr. Qandeel Dr. Aimen Dr. Ahmed	Must Know

Learning Outcomes:
- Demonstrate steps of hand washing

34.	Visit to Double Dispensary for BMI, Anemia, Dehydration, MUAC and Growth monitoring	Hands on training	All Lecturers	Must Know

Learning Outcomes:
- Plot the given parameters on a growth chart
- Interpret growth variations visible on the chart in light of the parameters provided
- Assess anemia and dehydration in children
- Categorize the calculated BMI following the given protocol.
- Assess the nutritional status of a child using Shakers Tape

Week 5: Occupational health and Environment				
35.	Press cutting	SGD	Batch In charge Co in charge	Must Know
36.	Occupational health	CBL	Dr. Sadia Dr. Qandeel Dr. Aimen	Should Know

Learning Outcomes:
- Relate type of pneumoconiosis with the trade of patients
- Identify the clinical condition and its agent on the basis of occupational history, clinical examination and laboratory investigations.
- Identify the special radiological features of patients having pneumoconiosis.
- Suggest preventive and control measures for workers of various trades

37.	Air and ventilation	SDL	Dr. Saleh Dr. Ahmed	Must Know
38.	Occupational health (factory)	Field visit		Should Know
39.	Water	SDL	Dr. Robina Dr. Qandeel	Must Know
40.	Water treatment plant and sewage treatment plant	Field visit	Dr. Sadia Dr. Fatima Dr. Ahmed	Must Know
41.	Temperature pressure and noise	SDL	Dr. Saleh	Must Know
42.	Housing and radiation	SDL	Dr. Robina Dr. Ahmed	Must Know
43.	Reflection	Reflective writing	Dr. Saleh	Must Know

Learning Outcomes:
Reflective writing activity will enable the students to:
- Make connection of theoretical knowledge with practical experience
- Critically evaluate their learning experience
- Become reflective Practitioner in future
- Be self-assessor and lifelong learner
- Demonstrate their writing skills

Learning Outcomes of Press Cuttings:

- Focus attention to current health & related problems such as re-emerging infections, newer epidemics, disasters etc.
- Comment on these problems by highlighting the related determinants.
- Suggest possible alterations for provision of health care to rectify the identified problems.
- Give recommendations for the change of health policy & health care delivery system to ensure better equity & appropriate technology.

Learning Outcomes of Field Visits:

- Gain knowledge of the organization or place of visit.
- Assess critically the existing problems in the observed circumstances of the place of visit and the prevailing condition to which the people are exposed while at work.
- Analyze these problems in the backdrop of whole scenario.
- Apply their theoretical and technical knowledge pertaining to the given situation to formulate purposeful, practice and comprehensive suggestions to solve the problems and hence improving the overall situation.

RESEARCH

Subject Learning Outcomes

After completion of course, the students will be able to:

- Apply knowledge of statistics to measure all health problems affecting people at individual and community levels, right from birth to death, considering research and ethical approaches. (PLO 4).

S.#	Topic	Educational Strategies	Name of Instructor	Importance (Must Know Should Know Could Know)
1.	**Guidelines for medical writing**	SGD	Dr S. Sabah Imran Dr Robina Rizvi Dr Khola Waheed Dr Sadia Nadeem Dr Saleh Ahmed	Must know
Learning Outcomes: • Write manuscript according to guidelines			
2.	**Literature Search & Literature Review**	SGD	Dr S. Sabah Imran Dr Robina Rizvi Dr Khola Waheed Dr Sadia Nadeem Dr Saleh Ahmed	Must know
Learning Outcomes: • Write a review after scientific literature search on selected topic.			
3.	**Data Collection**	SGD	Dr S. Sabah Imran Dr Robina Rizvi Dr Khola Waheed Dr Sadia Nadeem Dr Saleh Ahmed	Must know
Learning Outcomes: • Collect data from the target population			

Teaching Faculty:

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Dr. Saleh Ahmed	s.ahmed.2345@gmail.com

Assessment formats

Research project

PCMILE

Subject Learning Outcomes

At the end of fourth year MBBS program the student will be able to:

S.#	Topic/department	Educational Strategies	Name of Instructor	Importance (Must Know Should Know Could Know)
1.	**Introduction to patient safety / BS**	LGIS	Hassan Ali	Must Know
Learning Outcomes:				
● Recognize the role of patient safety in safe health-care delivery. ● Discuss the harms caused by health-care errors and system failures.				
2.	**Impact of health system complexity on patient care/ BS**	LGIS	Zunaira Naveed	Must Know
Learning Outcomes:				
● Explain system and "complex system" in relation to health-care. ● Differentiate systems approach from traditional approach to patient safety ● Describe the elements of a safe health-care system.				
3. 3	**Ethical Dilemmas/ DME**	Flipped Classroom/ Student presentations	Dr Ambreen Ansar	Must know
Learning Outcomes:				
● Identify ethical dilemmas of the medical profession in the scenarios provided. ● Make a reasonable decision in the light of learned principles				
4.	**Case studies/ Surgery**		Prof. Dr Naeem Ashraf	
Learning Outcomes:				
● This case study highlights the importance of continuity of care.				
5.	**Effective team player/ BS**	LGIS	Hafsa Naeem	Should Know
Learning Outcomes:				
● Discuss different types of teams in health care ● Discuss characteristics of an effective team ● Discuss the role of a patient in the team				
6.	**Case studies**		Prof. Dr Naeem Ashraf	
Learning Outcomes:				
● This case illustrates the importance of using checklists and listening to patients.				
7.	**Role of human factors in patient safety/ Com Med**	LGIS	Dr Sadia Nadeem	Must know
Learning Outcomes:				
● Explain the relationship between human factors and patient safety.				

	● Describe the Importance of Human Factors in Patient Safety			
8.	**Managing clinical risk/ Surgery**		Prof. Dr Naeem Ashraf	

Learning Outcomes:
- Identify, assess & Report the known risks or hazards in the workplace-Discuss incident monitoring.
- Respond appropriately to patients & families after an adverse event

9.	**Introduction to quality improvement methods/ DME**	LGIS	Dr Ambreen Ansar	**Nice to Know**

Learning Outcomes:
- Explain
    1. the science of improvement
    2. the quality improvement model- PDSA
- Identify tools of TQM – Flowcharts, cause & effect diagrams, pareto charts, run charts

Pathology

Subject Learning Outcomes

At the end of the program, students of 4th year MBBS WMC should be able to:

1. Correlate etiology and morphological changes of prevalent diseases with pathogenesis. (1,2,6)
2. Devise appropriate plan of lab investigations based on signs and symptoms of the patient. (1,2,6)
3. Correlate cellular responses to stress and toxic insults with clinical presentation and laboratory reports. (1,2,6)
4. Counsel the patients on pre-test preparation and lab reports. (1,2,3,6,7)

Block Learning Outcomes:

At the end of first block, the student of 4th year MBBS should be able to:

- Correlate the etiology, clinical features, pathogenesis, laboratory findings, morphological features and clinico-pathologic consequences of major diseases related to the
  - o Cardiovascular system,
  - o Respiratory system,
  - o Gastrointestinal system,
  - o Hepatobiliary system and
  - o Pancreas. (SLO 1, 2, 3, 4)

S.#	Topic	Educational Strategies	Name of Instructor	Importance (Must Know Should Know Could Know)
1.	**Congenital Heart Diseases**	LGIS	Asst. Prof. Dr. Fauzia Noreen	**Should Know**

Class Learning Outcomes
- Enumerate relative frequency of different congenital malformations.
- Describe embryogenesis.
- Describe the common clinical features of congenital malformations.
- Differentiate between right to left and left to right shunts and resulting morphological abnormalities.
- Explain the malformations associated with obstructive lesions.

S.#	Topic	Educational Strategies	Name of Instructor	Importance
2.	**Hypertensive vascular diseases & cardiac failure**	LGIS	Asst. Prof. Dr. Fauzia Noreen	**Should Know**

Class Learning Outcomes
- Describe the pathogenesis of hypertensive disease and cardiac failure.
- Differentiate between clinical presentation, pathogenesis and morphological features of systemic and pulmonary vascular disease.
- Enumerate predisposing conditions of systemic and pulmonary vascular diseases.

	● Describe the clinical presentation, causes, functional patterns, related cardiomyopathies, gross and microscopic features of heart failure.			
3.	**Atherosclerosis**	LGIS/ Practical	Asst. Prof. Dr. Fauzia Noreen	**Should Know**

Class Learning Outcomes
- Define 'arteriosclerosis' and 'atherosclerosis'.
- Describe basic structure of an atheromatous plaque.
- List modifiable and non-modifiable risk factors of Atherosclerosis.
- Describe the pathogenesis and response to injury in atherogenesis.
- Enumerate the morphological features of fatty streaks and atheromatous plaque.
- Describe the clinicopathologic consequences of atherosclerosis.

4.	**Vasculitidis / Raynaud's Phenomenon**	LGIS	Asst. Prof. Dr. Fauzia Noreen	**Should Know**

Class Learning Outcomes
- Define vasculitis and describe two most important pathogenetic mechanisms.
- List the primary forms of vasculitis.
- Differentiate between different forms of non-infectious vasculitis on the basis of sites of involvement and microscopic features.
- Describe the clinical features according to the site of involvement and relevant laboratory findings.

5.	**Vascular Aneurysms**	LGIS	Asst. Prof. Dr. Fauzia Noreen	**Should Know**

Class Learning Outcomes
- Define vascular aneurysms.
- Differentiate between true and false aneurysms and arterial dissection.
- List the most important predisposing conditions and describe the pathogenesis of vascular aneurysm formation.
- Describe the clinical consequences of abdominal and thoracic aneurysms.
- Enumerate the gross and microscopic morphological features of thoracic and abdominal aneurysms.

6.	**Ischemic Heart Disease**	LGIS / Practical	Asst. Prof. Dr.Fauzia Noreen	**Should Know**

Class Learning Outcomes
- Identify the spectrum of ischemic heart disease.
- Describe the pathogenesis and elements contributing to development and sequential progression to ischemia.
- Define myocardial infarction (MI) and describe its pathogenesis.
- Identify the clinical features and laboratory findings.
- Describe the factors affecting the patterns of infarction, evolution of gross and microscopic morphological features of MI.
- Describe the consequences and complications of MI.

7.	**Valvular Heart Disease (RF & RHD)**	LGIS / Practical	Asst. Prof. Dr. Fauzia Noreen	**Should Know**

Class Learning Outcomes
- Enumerate different etiologies of acquired valvular heart disease.
- Identify the specific pathogenesis of Rheumatic valvular disease.
- Enumerate the common clinical features, laboratory findings and gross and microscopic features of rheumatic valvular disease.

8.	**Cardiomyopathies &Pericardial Diseases / Bacterial endocarditis**	LGIS	Asst. Prof. Dr. Fauzia Noreen	**Should Know**

Class Learning Outcomes
- Identify the clinical presentation, causes and functional patterns of cardiomyopathies.
- Differentiate between hypertrophic, dilated and restrictive cardiomyopathies with respect to left ventricular ejection fraction, causes and mechanisms of heart failure.
- Describe the morphological features and consequences of different types.
- Define infective endocarditis and describe its pathogenesis in relation to endocardium.
- Enlist the common clinical features and laboratory findings.
- Differentiate between morphological features of infective endocarditis, Rheumatic heart disease, non-bacterial thrombotic endocarditis and Libman- Sacks endocarditis.
- Enumerate types of Pericardial effusions and their common causes.
- Enlist clinical features of Pericarditis and describe the causes and morphological findings.

9.	**Tumors of the CVS**	LGIS	Asst. Prof. Dr. Noreen	**Should Know**

Class Learning Outcomes
- Enumerate different primary cardiac tumors.
- Describe the morphological features of most common primary cardiac tumor (atrial myxoma).
- Describe the clinical features related to atrial myxomas.
- Enumerate the cardiac effects of non-cardiac neoplasms

10.	**Cardiac Biomarkers.**	LGIS	Assit. Prof. Dr. Lubna Ehtizaz	**Must Know**

Class Learning Outcomes
- State background scientific information concerning cardiac biomarkers including current and historical markers.
- Explain and justify the medical use and utility of various cardiac biomarkers in diagnosis of cardiovascular disorders.
- Interpret the cardiac biomarkers report.
- Identify possible situations where false positive and false negative cardiac biomarkers results may occur.

11.	**Lipid and Lipoproteins**	LGIS	Assit. Prof. Dr. Lubna Ehtizaz	**Should Know**

Class Learning Outcomes
- Define the following terms:
    - Lipid
    - Fatty acids
    - Apo lipoprotein
    - Lipoprotein
    - Chylomicron
    - Atherosclerosis
- Explain the metabolism of cholesterol and triglyceride
- State the significance of the Apo lipoproteins in health and disease.
- Differentiate the five lipoprotein classes based on chemical makeup and clinical significance.
- List the causes of hyper lipoproteinemias and state the laboratory findings associated with each.

12.	**ARDS / COPD (Emphysema, Ch. Bronchitis)**	LGIS / Practical	Prof Brig(R) Tariq Masood Malik	**Should Know**

Class Learning Outcomes
- Explain the terms acute respiratory distress syndrome (ARDS) and Diffuse alveolar damage (DAD).
- Describe the pathogenesis, clinical features and morphology of ARDS/DAD.
- Describe the spectrum of obstructive airway diseases.
- Define Emphysema.
- Differentiate between Centriacinar, Panacinar and Distal acinar emphysema.
- Describe the pathogenesis, clinical features and morphological features of Emphysema.
- Define Chronic bronchitis and describe its pathogenesis.
- Describe the clinical and morphological features of Chronic bronchitis.

13.	**COPD (Asthma & Bronchiectasis)**	LGIS / Practical	Prof Brig(R) Tariq Masood Malik	**Should Know**

Class Learning Outcomes
- Define Asthma and describe its pathogenesis.
- Identify the types of Asthma; Atopic asthma, Non-atopic asthma, drug-induced asthma and occupational asthma.
- Describe the morphology and clinical features of asthma.
- Describe the term Status asthmaticus.
- Define bronchiectasis and describe its predisposing conditions.
- Describe the clinical features, pathogenesis and morphology of bronchiectasis.

14.	**Interstitial Lung Diseases**	LGIS	Prof Brig(R) Tariq	**Should Know**

			Masood Malik	

Class Learning Outcomes
- Describe the spectrum of restrictive/interstitial lung diseases.
- Differentiate between the term's idiopathic pulmonary fibrosis and usual interstitial pneumonia.
- Describe the pathogenesis, clinical features and morphological findings of idiopathic pulmonary fibrosis.
- Enlist Mineral dust-induced interstitial lung diseases.
- Differentiate between clinical and morphological features of coal workers pneumoconiosis, silicosis and asbestosis.

15.	**Pulmonary Vascular Disorders / Granulomatous Diseases Respiratory System**	LGIS / Practical	Prof Brig(R) Tariq Masood Malik	**Should Know**

Class Learning Outcomes
- Identify the spectrum of granulomatous lung diseases.
- Define sarcoidosis and identify regions and populations effected.
- Describe the etiological factors and pathogenesis of sarcoidosis.
- Identify the clinical features, morphology and prognosis of sarcoidosis.
- Identify the risk factors of Pulmonary embolism, hemorrhage and infarction and describe their clinical and morphological features.
- Describe the pathogenesis and morphological features of Pulmonary hypertension.
- Describe the etiology, pathogenesis, and morphology of viral and bacterial pneumonias.

16.	**Pneumonias**	LGIS / Practical	Prof Brig(R) Tariq Masood Malik	**Must Know**

Class Learning Outcomes
- Describe the classification, etiology, pathogenesis and morphology of viral and bacterial pneumonias.

17.	**Lung Tumors - I**	LGIS / Practical	Prof Brig(R) Tariq Masood Malik	**Must Know**

Class Learning Outcomes
- List the classification of Lung tumors.
- Identify the major histologic types of lung carcinomas.
- Differentiate between adenocarcinoma and adenocarcinoma in-situ.

18.	**Lung Tumors - II**	LGIS	Prof Brig(R) Tariq Masood Malik	**Must Know**

Class Learning Outcomes
- Describe the major morphological features of squamous cell carcinomas and adenocarcinomas.

	● Describe the morphological features of small cell carcinoma of lung and carcinoid tumors.			
19.	**Pleura / Pleural Effusion / Pneumothorax**	LGIS	Prof Brig(R) Tariq Masood Malik	**Should Know**

Class Learning Outcomes
- List the causes of pleural effusions and pleuritis.
- Describe the etiology and pathogenesis of pneumothorax
- Identify the causes of malignant mesothelioma.
- Describe the morphological features of malignant mesothelioma.

20.	**Respiratory acidosis & alkalosis**.	LGIS	Assit. Prof. Dr. Lubna Ehtizaz	**Should Know**

Class Learning Outcomes
- Explain normal acid-base balance.
- Explain buffers systems in regulation of pH.
- Explain compensatory response to respiratory acid-base disorders.
- Recognize respiratory acidosis and alkalosis.

21.	**Oral Cavity (Inflammatory disorders, non-neoplastic/ neoplastic disorders)**	LGIS	Prof Brig(R) Tariq Masood Malik	**Should Know**

Class Learning Outcomes
- List the precancerous conditions of the oral cavity.
- Describe the etiology, pathogenesis and morphology of squamous cell carcinoma tongue.

22.	**Tumors and precancerous conditions of oral cavity**	LGIS / Practical	Prof Brig(R) Tariq Masood Malik	**Should Know**

Class Learning Outcomes
- List the benign and malignant tumours of the salivary glands.
- Describe the etiology, pathogenesis and morphology of pleomorphic adenoma.
- Describe the morphological features of adenoid cystic carcinoma.

23.	**Motor Disorders of Esophagus, Esophagitis, Barrett Esophagus**	LGIS	Assit. Prof. Dr. Lubna Ehtizaz	**Should Know**

Class Learning Outcomes
- Explain the etiology of the lesion, the disease process (pathogenesis) and the effects of the disease, including its symptoms and complications.
- Identify morphological changes (macroscopic and microscopic) of the lesion.

24.	**Tumors of Esophagus**	LGIS	Assit. Prof. Dr. Lubna Ehtizaz	**Should Know**

Class Learning Outcomes

- Explain the etiology of the lesion, the disease process (pathogenesis) and the effects of the disease, including its symptoms and complications.
- Identify morphological changes (macroscopic and microscopic) of the lesion.

25.	**Gastritis / Peptic ulcer disease**	LGIS / Practical	Assit. Prof. Dr. Lubna Ehtizaz	**Should Know**

Class Learning Outcomes
- Explain the etiology of the lesion, the disease process (pathogenesis) and the effects of the disease, including its symptoms and complications.
- Identify morphological changes (macroscopic and microscopic) of the lesion.

26.	**Gastric Polyps & Gastric Tumors**	LGIS / Practical	Assit. Prof. Dr. Lubna Ehtizaz	**Should Know**

Class Learning Outcomes
- Explain the etiology of the lesion, the disease process (pathogenesis) and the effects of the disease, including its symptoms and complications.
- Identify morphological changes (macroscopic and microscopic) of the lesion.

27.	**Inflammatory Bowel diseases**	LGIS / Practical	Prof. Dr. Jamila	**Should Know**

Class Learning Outcomes
- Explain the etiology of the lesion, the disease process (pathogenesis) and the effects of the disease, including its symptoms and complications.
- Identify morphological changes (macroscopic and microscopic) of the lesion.

28.	**Malabsorption & Celiac Disease /entero-colitis**	LGIS / Practical	Prof. Dr. Jamila	**Could Know**

Class Learning Outcomes
- Explain the etiology of the lesion, the disease process (pathogenesis) and the effects of the disease, including its symptoms and complications.
- Identify morphological changes (macroscopic and microscopic) of the lesion.

29.	**Malignant Lesions of Small and Large Intestine**	LGIS / Practical	Prof. Dr. Jamila	**Should Know**

Class Learning Outcomes
- Explain the etiology of the lesion, the disease process (pathogenesis) and the effects of the disease, including its symptoms and complications.
- Identify morphological changes (macroscopic and microscopic) of the lesion.

30.	**Appendicitis**	LGIS / Practical	Prof. Dr. Jamila	**Should Know**

Class Learning Outcomes
- Explain the etiology of the lesion, the disease process (pathogenesis) and the effects of the disease, including its symptoms and complications.
- Identify morphological changes (macroscopic and microscopic) of the lesion.

31.	**Introduction to Hepatobiliary System, Jaundice**	LGIS	Assit. Prof. Dr. Lubna Ehtizaz	**Should Know**

Class Learning Outcomes
- Define jaundice and neonatal jaundice.

- Differentiate between physiological and pathological jaundice.
- Identify the causes of jaundice and differentiate between pre-hepatic, hepatic and post-hepatic jaundice.
- Plan diagnostic approach and further work up.

32.	**Hepatitis (Acute & Chronic)**	LGIS	Assit. Prof. Dr. Lubna Ehtizaz	**Should Know**

Class Learning Outcomes
- List hepatitis viruses transmitted by fecal-oral versus blood and body fluids
- Discuss the causes, transmission, and symptoms of viral hepatitis infections.
- Identify current laboratory testing recommendations for viral hepatitis diagnosis and treatment.

33.	**Cirrhosis / Varices / Portal hypertension**	LGIS / Practical	Assit. Prof. Dr. Lubna Ehtizaz	**Should Know**

Class Learning Outcomes
- Explain the etiology of the lesion, the disease process (pathogenesis) and the effects of the disease, including its symptoms and complications.
- Identify morphological changes (macroscopic and microscopic) of the lesion.

34.	**Drug Induced and Toxic Liver Injury / Metabolic liver diseases**.	LGIS	Assit. Prof. Dr. Lubna Ehtizaz	**Should Know**

Class Learning Outcomes
- Explain the etiology of the lesion, the disease process (pathogenesis) and the effects of the disease, including its symptoms and complications.
- Identify morphological changes (macroscopic and microscopic) of the lesion.

35.	**Tumors of the Liver**	LGIS / Practical	Assit. Prof. Dr. Lubna Ehtizaz	**Must Know**

Class Learning Outcomes
- Explain the etiology of the lesion, the disease process (pathogenesis) and the effects of the disease, including its symptoms and complications.
- Identify morphological changes (macroscopic and microscopic) of the lesion.

36.	**Cholestatic disease / Cholelithiasis**	LGIS	Assit. Prof. Dr. Lubna Ehtizaz	**Should Know**

Class Learning Outcomes
- Explain the etiology of the lesion, the disease process (pathogenesis) and the effects of the disease, including its symptoms and complications.
- Identify morphological changes (macroscopic and microscopic) of the lesion.

37.	**Gall bladder diseases (Acute & chronic)/ Cholecystitis& Tumors of Gall bladder.**	LGIS / Practical	Assit. Prof. Dr. Lubna Ehtizaz	**Should Know**

Class Learning Outcomes
- Explain the etiology of the lesion, the disease process (pathogenesis) and the effects of the disease, including its symptoms and complications.
- Identify morphological changes (macroscopic and microscopic) of the lesion.

38.	**Pancreatitis / Diagnosis of acute pancreatitis.**	LGIS	Assit. Prof. Dr. Lubna Ehtizaz	**Should Know**

Class Learning Outcomes
- Describe the etiology and pathogenesis of acute and chronic pancreatitis.
- Identify the clinical and morphological features of acute and chronic pancreatitis.
- Interpret the laboratory findings helpful in the diagnosis of acute and chronic pancreatitis.
- Manage patients with acute and chronic pancreatitis.

39.	**Neoplastic Disorders of Pancreas**	LGIS	Assit. Prof. Dr. Lubna Ehtizaz	**Should Know**

Class Learning Outcomes
- Identify the genetic causes of different types of pancreatic neoplasms
- Explain the classification, pathogenesis, morphology, treatment and complications of benign pancreatic tumors
- Describe incidence, risk factors, pathogenesis and morphology of pancreatic carcinoma
- Identify morphological changes (macroscopic and microscopic) of the lesion.

40.	**Liver Function Tests, Diagnosis of Acute & Chronic Hepatitis**	LGIS	Assit. Prof. Dr. Lubna Ehtizaz	**Must Know**

Class Learning Outcomes
- Justify the importance of various biochemical markers in diagnosis of hepatic disorders.
- Correlate various biochemical markers with the etiology and disease process.
- Interpret the Liver biomarkers report.

Special Pathology Practical's

Block Learning Outcomes:

At the end of first block, the student of 4th year MBBS should be able to:
- Establish diagnosis of given slides of Special Pathology lesions included in the block, correlating histopathological findings. (SLO 3, 4)

S. No	Systemic Pathology Learning Outcomes	Educational Strategies	Name of Instructor	Importance (Must Know Should Know Could Know)
1	Identify the histopathological changes in Atherosclerosis	Demonstration / Practical	All Lecturers	**Should Know**
2	Identify the histopathological changes in Rheumatic carditis and Myocardial infarction	Demonstration / Practical	All Lecturers	**Should Know**
3	Identify the histopathological changes in Pulmonary tuberculosis and Bronchiectasis	Demonstration / Practical	All Lecturers	**Should Know**

4	Identify the histopathological changes in Lobar Pneumonia and Broncho Pneumonia	Demonstration / Practical	All Lecturers	**Should Know**
5	Identify the histopathological changes in Chronic Bronchitis and Bronchogenic carcinoma.	Demonstration / Practical	All Lecturers	**Should Know**
6	Identify the histopathological changes in Pleomorphic Adenoma, Chronic gastritis, Peptic ulcer	Demonstration / Practical	All Lecturers	**Should Know**
7	Identify the histopathological changes in Carcinoma stomach, Ulcerative colitis, Crohn's disease, TB intestines	Demonstration / Practical	All Lecturers	**Should Know**
8	Identify the histopathological changes in Cirrhosis, Chronic Viral Hepatitis, Chronic Cholecystitis	Demonstration / Practical	All Lecturers	**Should Know**
9	Identify the histopathological changes in Rectal Polyps and Colorectal carcinoma	Demonstration / Practical	All Lecturers	**Should Know**
10	Identify the histopathological changes in Acute appendicitis, Typhoid, Malabsorption	Demonstration / Practical	All Lecturers	**Should Know**

Learning Resources:

1. **Text Books**
   i. Robbins Basic Pathology, 10th edition
   ii. Robbins & Cotran Pathologic Basis of Disease, 9th/10th Edition

2. **Reference Books**
   i. Hoff brand's Essential Hematology, 9th Edition
   ii. Fundamentals of Clinical Chemistry (Tietz) 7th Edition

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Assessment formats

Assessment tools (Formative)	Assessment Strategies (Summative)
MCQs, Home assignments, SAQs	MCQs, SEQs, OSPE, Viva

ENT

Subject Learning Outcomes:

1. Diagnose & manage diseases of ear and facial nerve. (PLO1,3,6,7,8)
2. Provide primary ENT care for various Ear diseases including emergencies if required refer the patient to appropriate center (PLO1,3,6,7,8)
3. Provide awareness regarding prevention of common public ENT health problems (PLO5,7,8)
4. Apply principles of medical ethics pertaining to ENT Enlist recent advances in ENT (PLO6)

Block Learning Outcomes:

After completion of ENT course content for 1st block the students would be able to:
1. Diagnose congenital anomalies of the ear and counsel patients regarding their management (SLO1,4,5,6)
2. Suggest a management plan for a patient with ear discharge after interpreting the relevant investigations if needed (SLO1,4,5,6).
3. Differentiate between referred otalgia and that arising from local conditions of ear (SLO1,4,5,6).
4. Diagnose various types of vertigos in relation to their pathophysiology and suggest appropriate treatment plans (SLO1,4,5,6).
5. Identify and manage a patient with facial nerve related disorders (SLO1,4,5,6).]
6. Name the common tumours of ear, mastoid bone and acoustic neuroma from signs and symptoms. (SLO 8)
5. Know the causes of deafness in adults and children and their rehabilitation strategies.

S.#	Topic	Educational Strategies	Name of Instructor	Importance (Must Know Should Know Could Know)
1.	**Disease of Pinna**	LGIS	HOD/Prof Dr. Muhammad Asad Chughtai	**Must Know**
Class Learning Outcomes • Diagnose and describe a management plan for diseases of Pinna				
2.	**Diseases of external Auditory canal**	LGIS	HOD/Prof Dr. Muhammad Asad Chughtai	**Must Know**
Class Learning Outcomes • Diagnose and describe a management plan for diseases of external ear				
3.	**Acute supportive otitis media**	LGIS	HOD/Prof Dr. Muhammad Asad Chughtai	**Must know**
Class Learning Outcomes • Identify symptoms and signs of Acute supportive otitis media • Diagnose and describe a management plan for diseases of Middle ear				

4.	**Chronic supportive otitis media**	LGIS	HOD/Prof Dr. Muhammad Asad Chughtai	**Must know**

Class Learning Outcomes
- Describe clinical signs and symptoms of chronic suppurative otitis media
- Suggest thorough management plan

5.	**Complications of chronic supportive otitis media**	LGIS	HOD/Prof Dr. Muhammad Asad Chughtai	**Should know**

Class Learning Outcomes
- Discuss conditions leading to ear discharge and suggest managements.
- Name various types of conditions in the middle ear;
- Identify symptoms of chronic discharging ears, anticipate complications, take immediate measures to avert life threatening impact, advise relevant investigations and referral for safe care.

6.	**Otosclerosis**	LGIS	Dr Aiemen Fatima	**Must know**

Class Learning Outcomes
- Diagnose a case of otosclerosis based on history and knowledge of etiology, pathology, presentation, investigations and managements along with counseling.

7.	**Meniere's disease Tinnitus & vertigo**	LGIS	Dr Anum Ajmal	**Should know**
8.	**Deafness. Deafness in adults and children Rehabilitation strategies of deafness**	LGIS	Dr Anum Ajmal	**Should know**

Class Learning Outcomes
- Differentiate between various types of vertigo in relation to its pathophysiology
- Suggest appropriate treatment including rehabilitation after the interpretation of investigations if needed.
  - Enlist the causes of deafness in adults and children
  - Discuss various options for rehabilitation of deaf children and adults

9.	**Tinnitus, Tumours of external, middle ear and mastoid. Acoustic neuroma , Oltalgia, Trauma,**	LGIS	HOD/Prof Dr. Muhammad Asad Chughtai	**Should know**

Class Learning Outcomes
- Diagnose a case presenting with tinnitus on the basis of signs, symptoms and appropriate investigations
- Suggest thorough management plan.
- Name the common tumours of external, middle ear and mastoid
- Identify symptoms and signs of tumours and relevant investigation.
- Diagnose a case of acoustic neuroma based on history hond knowledge of etiology, pathology, presentation, investigations and management.

10.	**Facial paralysis**	LGIS	HOD/Prof Dr. Muhammad Asad Chughtai	**Must know**

Class Learning Outcomes

- Explain nature and components of facial nerve and its innervations.
- Identify various nerve lesions topographically in relation to etiology, presentation and early managements to prevent late complications.
- Differentiate Bell's palsy from facial paralysis.
- Advise rehabilitation and proper counseling.

Learning Resources:

1. Reference Book

➢ Dhingra, P. and Dhingra, S. n. d. Diseases of ear, nose and throat & head and neck surgery 7th edition.

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Assessment formats

Assessment Strategies (Formative)	Assessment Strategies (Summative)
End Block Exam, Bed Side Case Presentation, CBL,	MCQs, SEQs, OSPE & VIVA

Ophthalmology

Subject Learning Outcomes

To equip doctors with essential knowledge, skills and attitude in order to enable them to:

1. Provide primary eye care for various ophthalmic diseases including emergencies and if required, refer the patients to appropriate centers **(PLO 1,6,7)**
2. Perform various ophthalmic examination methods essential for all practitioners **(PLO 1,2,6,7)**
3. Communicate effectively with the patient, family and community regarding eye diseases and their related issues **(PLO 1,2,6.7)**
4. Assist in pre-operative preparation and post-operative care of ophthalmic surgical procedures. **(PLO 1,2,7)**
5. Apply principles of medical ethics pertaining to Ophthalmology **(PLO 3,7)**
6. Provide awareness regarding prevention of common public ophthalmic health problems **(PLO 5,7)**

Block Learning Outcomes

After completion of Ophthalmology course content for 1st block the students would be able to:

1. Diagnose conditions like ptosis, Entropion, Ectropion, lid tumors and benign lesions, etc., based on their clinical assessment and make a referral to ophthalmologist. **(SLO 1,2,3,5)**
2. Diagnose Dry eyes and diseases of Nasolacrimal System based upon their clinical assessment and make a referral to ophthalmologist. **(SLO 1,2,3,6)**
3. Diagnose different refractive errors and summarize various treatment options. **(SLO 1,2,3,5)**
4. Diagnose conditions like Pterygium, Pinguecula, Conjunctivitis, episcleritis and scleritis and recognize their systemic associations when present. **(SLO: 1,3,5,6)**

Sr #	Topic	Educational Strategies	Names of Instructor	Importance (Must Know Should Know Could Know)
1.	**Orientation session: Introduction to ophthalmology and medical ethics**	LGIS	Prof. M. Akmal Khan	Must Know
Learning outcomes:				
- Explain the medicine and surgery of the eye and its surrounding structures and connections to the brain. - Define subject learning outcomes. - Explain the principles of medical ethics pertaining to Ophthalmology				
2.	**Eye Lid I**	LGIS	Prof. M. Akmal Khan	Must Know

Learning outcomes:
- Correlate the anatomy and physiology of Lids to its pathological conditions.
- Classify ptosis, identify its clinical features and discuss treatment options for ptosis.

3.	**Eye Lid II**	LGIS	Prof. M. Akmal Khan	Must Know

Learning outcomes:
- Identify the clinical features of eyelid margin diseases like blepharitis, entropion, ectropion, trichiasis and discuss their management.
- Classify Lid masses.
- Differentiate between clinical features and management strategies of different lid masses.

4.	**Lacrimal system**	LGIS	Dr. Marrium Shafi	Should Know

Learning outcomes:
- Correlate the anatomical and pathophysiological aspects with the clinical features of different lacrimal disorders.
- Outline management strategies for nasolacrimal disorders.

5.	**Dry Eye**	LGIS	Dr. Marrium Shafi	Should Know

Learning outcomes:
- Classify dry eye according to its pathogenesis.
- Identify the clinical features of dry eye.
- Outline management plan for dry eyes.

6.	**Refractive Errors I**	LGIS	Dr. Yaseen Lodhi	Must Know

Learning outcomes:
- Identify common refractive conditions of the eye like myopia, hypermetropia and astigmatism

7.	**Refractive Errors II**	LGIS	Dr. Yaseen Lodhi	Must Know

Learning outcomes:
- Summarize the management strategies of different refractive disorders.
- Describe different refractive surgical procedures like excimer, LASIK, LASEK and their basis.

8.	**Conjunctiva I**	Flipped Classroom	Dr. Asma Aftab	Should Know

Learning outcomes:
- Correlate the anatomical and pathophysiological aspects with clinical presentation of conjunctival diseases.
- Classify conjunctival diseases.
- Recognize clinical features of vernal keratoconjunctivitis and discuss treatment options.

9.	**Conjunctiva II**	Flipped Classroom	Dr. Asma Aftab	Must Know

Learning outcomes:
- Differentiate between bacterial, viral, allergic and chlamydial conjunctivitis and suggest their management.
- Recognize condition like Pterygium, Pinguecula.

10.	**Episclera & Sclera**	Flipped Classroom	Dr. Asma Aftab	Should know

Learning Outcomes:
- Differentiate between Episcleritis and Scleritis.
- Recognize the systemic associations.
- Identify red eye causing common conditions and their initial management.

LEARNING RESOURCES:

1. **Text books:**
   - Clinical Ophthalmology, Jatoi S M
   - Basic Ophthalmology, Jogi R
2. **Reference Books:**
   - General Ophthalmology, Vaughan and Asbury
   - Kanski's Clinical Ophthalmology A Systematic approach, Bowling
3. **Online resources**:
   - https://www.medscape.com/ophthalmology
   - Google classroom
4. **Library resources:**
   - Basic Ophthalmology, Jogi R
   - General Ophthalmology, Vaughan and Asbury
   - Clinical Ophthalmology, Jatoi S M
   - Parson's Diseases of the eye, Sihota R
   - Kanski's Clinical Ophthalmology A Systematic approach, Bowling

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ASSESSMENT FORMATS:

Assessment Strategies (Formative)	Assessment Strategies (Summative)
MCQ's, Quiz, Class discussion, Quiz using Google forms	MCQ's , SAQ's , Viva

Medicine

Block Learning Outcomes:

By the end of this block students should know:

- Identify Clinical features, Correlate pathophysiology, Diagnose, investigate and plan management of common cardiovascular, Gastroenterology, Pulmonology, Dermatology and Psychiatry disorders (SLO1,3, 5,6).
- Recognize complications & advise preventive and safety measures and discuss prognosis of these disorders (SLO1, 2,4, 5).
- Diagnose, investigate and plan management of critically ill patients in A&E department (SLO 1, 3, 4, 5).

S.#	Topic	Educational Strategies	Instructor	Importance (Must Know Should Know Could Know)
		CVS		
1.	**Congenial Heart Disease**	LGIS	Dr. Raafe Iqbal	Should Know
Learning Outcomes: - Identify common etiologies and risk factors for cyanotic heart defects. - Diagnose cyanotic heart defects based on clinical manifestations and appropriate diagnostic methods. - Explain the pathophysiology, manifestations, diagnosis and management of a cyanotic cardiac anomalies. - Elaborate the pathophysiology, manifestations, diagnosis and management of obstructive congenital anomalies. - Identify the implications of cardiac anomalies for respiratory care.				
2.	**Hypertension**	LGIS	Prof. Dr. Muzamil Jamil	Must Know
Learning Outcomes: - Rationalize the need for achieving recommended BP goals in treatment of hypertension. - Classify anti-hypertensive drugs - Choose appropriate antihypertensive e drug considering their indications for use. - Recognize types of hypertensions, hypertensive urgency and emergency - Define diagnostic criteria for hypertension. - Provide pathophysiological basis of hypertension. - Propose Life style modifications and non-pharmacological options for patients with hypertension. - Diagnose primary hypertension from secondary hypertension.				
3.	**CCF**	LGIS	Dr. Raafe Iqbal	Must Know
Learning Outcomes: - Define Heart failure - Provide pathophysiological basis of Heart failure.				

	• Diagnose Heart failure. • List complications of Heart failure. • Analyze the pharmacological management in the treatment of Heart failure			
4.	**Approach to Patient with Chest Pain**	LGIS	Dr. Raafe Iqbal	Must Know

Learning Outcomes:
- Generate differential diagnosis of the patient with chest pain.
- Differentiate between cardiac and non-cardiac chest pain.
- Identify Various causes of life-threatening chest pain.
- Investigations required and their interpretations.
- Outline the emergency management of patient.

5.	**Ischemic heart disease Angina & Unstable Angina**	LGIS	Dr. Raafe Iqbal	Must Know

Learning Outcomes:
- Define
  - ➢ Acute coronary syndrome (ACS)
  - ➢ Angina
  - ➢ Unstable angina pectoris (UA)
  - ➢ Non-ST segment elevation myocardial infarction (NSTE MI)
  - ➢ ST segment elevation myocardial infarction
- Provide pathophysiological basis of cardiac ischemia.
- Diagnose ACS and MI.
- List complications of MI
- Analyze the pharmacological management in the treatment of ACS.
- Differentiate between male and female signs and symptoms of ACS.
- Examine ACS modifiable and non-modifiable risk factors.
- Discuss coronary revascularization n procedures and nursing care.

6.	**Acute coronary syndrome MI**	LGIS	Dr. Raafe Iqbal	Must Know

Learning Outcomes:
Define
- Acute coronary syndrome (ACS)
- Angina
- Unstable angina pectoris (UA) Non-ST segment elevation myocardial infarction(NSTE MI)
- Identify ST segment elevation in ECG of patient with myocardial infarction
- Provide patho physiological basis of cardiac ischemia.
- Diagnose ACS and MI.
- List complications of MI.
- Analyze the pharmacological management in the treatment of ACS.
- Differentiate between male and female signs and symptoms of ACS.
- Differentiate modifiable and non-modifiable risk factors of ACS.
- Discuss coronary revascularization procedures and nursing care.

7.	**Acute Rheumatic Fever**	LGIS	Dr. Raafe Iqbal	Should Know

Learning Outcomes:
- Describe its Etiology
- Discuss pathophysiology related to clinical presentation
- Identify its Clinical presentation
- Formulateits Investigation plan
- Plan its management

8.	Acute pericarditis & Pericardial Disease	LGIS	Dr. Raafe Iqbal	Should Know

Learning Outcomes:
- Differentiate between types of Pericarditis on the basis of its etiology and pathophysiology
- Identity acute and chronic complications of Pericarditis
- Identify the clinical manifestation of Pericarditis with diagnostic approach of Pericarditis.
- State principles of management of Pericarditis.
- List common causes and understand mechanism of pericardial effusion
- Recognize early signs of pericardial tamponade
- Justify the role of echo cardiography in the diagnosis of pericardial effusion

9.	Mitral Valve Disease	LGIS	Dr. Raafe Iqbal	Should Know

Learning Outcomes:
- List causes of Valvular Heart Disease
- Describe Etiology, pathogenesis and hemodynamics of mitral/aortic valve disease.
- Outline management plan.

10.	Aotic Valve Disease	LGIS	Dr. Raafe Iqbal	Should Know

Learning Outcomes:
- List causes of Valvular Heart Disease
- Describe Etiology, pathogenesis and hemodynamics of mitral/aortic valve disease.
- Outline management plan.

11	Infective Endocarditis	LGIS	Dr. Raafe Iqbal	Should Know

Learning Outcomes:
- List causes of Infective Endocarditis.
- Describe Etiology, pathogenesis, clinical features and diagnostic criteria of infective Endocarditis.
- Outline management plan.

	Gastroenterology			
1.	GERD	LGIS	Dr. Noreen Adil	Must Know

Learning Outcomes:
- Identify the causes of Dyspepsia, GERD and Peptic Ulcer
- Generate differential diagnosis of Dyspepsia, GERD and Peptic Ulcer
- Establish definitive diagnosis based on laboratory investigations
- Develop treatment plan for GERD.

2.	Peptic Ulcer Disease	LGIS	Dr. Noreen Adil	Must Know

Learning Outcomes:

- Identify the causes of Peptic Ulcer
- Generate differential diagnosis of Dyspepsia, GERD and Peptic Ulcer
- Establish definitive diagnosis based on laboratory investigations Develop treatment plan for Peptic Ulcer
- Evaluate prognosis of the patient of Peptic Ulcer.

3.	**GI Bleeding**	LGIS	Dr. Noreen Adil	Must Know

Learning Outcomes:
- Define upper GI Bleed
- Describe etiology of upper GI Bleed
- Identify its clinical features
- Plan evaluation of case of GI Bleed
- Discuss relevant investigations
- Discuss management

4.	**Diarrheas**	LGIS	Prof. D. Muzamil Jamil	Must Know

Learning Outcomes:
- Define acute diarrhea
- Describe its Pathophysiology
- Identify its Clinical presentation
- Plan Investigation
- Discuss detailed management plan

5.	**Pancreatitis**	LGIS	Dr. Jamila Khan	Should Know

Learning Outcomes:
- Elaborate the pathophysiology of Acute and Chronic Pancreatitis
- Diagnose the patient on the basis of Signs, symptoms and investigations
- Outline the Treatment plan
- List its Complications

6.	**Acute Viral Hepatitis**	LGIS	Dr. Sohail Iqbal Bhutta	Must Know

Learning Outcomes:
- Classify viral Hepatitis
- Differentiate between different types of Hepatitis
- Interpret investigations for diagnosis of Hepatitis B and C
- Discuss their modes of transmission and clinical features
- Outline the treatment plan and prognosis
- List the Complications
- Plan & advice about its prevention at individual & community level

7.	**Cirrhosis - Ascites**	LGIS	Dr. Sohail Iqbal Bhutta	Must Know

Learning Outcomes:
- Describe the causes, pathology and clinical features of Hepatic Cirrhosis
-       Explain the pathogenic mechanism of Hepatic Fibrosis
-       Discuss the Management and prognosis of the condition
- Elaborate the causes of Ascites
-       Outline the management and prognosis

8.	**Cirrhosis - Hepatic Encephalopathy**	LGIS	Dr. Shahid Saleem	Must Know

Learning Outcomes:
- Correlate the causes and pathology of hepatic encephalopathy to its clinical features
- Enlist precipitating causes of encephalopathy
- Outline the management and prognosis

9.	**Chronic Viral Hepatitis**	LGIS	Prof. Sohail Iqbal Bhutta	Must Know

Learning Outcomes:
- Classify viral Hepatitis
- Differentiate between different types of Hepatitis
- Interpret investigations for diagnosis of Hepatitis Band C
- Discuss their modes of transmission
- Outline the treatment plan and prognosis
- List the Complications

10.	**Metabolic Liver Disease**	LGIS	Prof. Sohail Iqbal Bhutta	Should Know

Learning Outcomes:
- Describe the pathophysiology, Clinical features investigations and management of:
  1. Wilson disease
  2. Hemochromatosis
  3. Primary Biliary Cirrhosis.

11.	**Hepatic Cellular Carcinoma**	LGIS	Dr. Noureen Adil	Should Know

Learning Outcomes:
- Describe the pathophysiology, Clinical features investigations and management of HCC

	Dermatology			
1.	**An Introduction to Dermatology**	LGIS	Brig. R Naveed Akhtar	MUST KNOW

Learning Outcomes:
- Apply concepts of anatomy and physiology of skin to clinical dermatology give pathologic basis of skin lesions
- Identify different types of skin lesions
- Differentiate characteristics of various skin lesions

2.	**Common Bacterial Skin Infections**	LGIS	Brig. R Naveed Akhtar	MUST KNOW

Learning Outcomes:
- List the types of Bacterial and Mycobacterial Infections
- Give clinical features and symptoms of bacterial and Mycobacterial infections
- Develop management plan to establish diagnosis and treat different infections

3.	**Skin Infestations**	LGIS	Brig. R Naveed Akhtar	MUST KNOW

Learning Outcomes:

	• Diagnose scabies and pediculosis based on clinical features and investigations • Recommend specific treatment options for scabies and pediculosis.			
4.	**Viral Infections**	LGIS	Brig. R Naveed Akhtar	SHOULD KNOW

Learning Outcomes:
- List common types of viral infections of skin
- Establish diagnosis of viral skin infections based on clinical features and investigations.
- Elaborate various management modalities of viarl skin infections

	Psychiatry			
1.	**Psychiatric Assessment**	LGIS	Dr. Faheem Qasim	MUST KNOW

Learning Outcomes:
- Give overview regarding Phenomenology and Psychiatry disorders
- Classify Psychiatry disorders
- Elaborate epidemiological and etiological basis of psychiatric disorders
- Outline diagnostic plan for Psychiatry disorders

2.	**Anxiety Disorders I, (GAD & Panic Disorder)**	LGIS	Dr. Fatima Amir	MUST KNOW

Learning Outcomes:
- Classify Anxiety Disorders
- Discuss the Management of Anxiety Disorders

3.	**Anxiety Disorders II, (Phobias &OCD)**	LGIS	Dr. Faheem Qasim	MUST KNOW

Learning Outcomes:
- Classify Anxiety Disorders
- Discuss the Management of Anxiety Disorders

4.	**Somatoform Disorders**	LGIS	Dr. Fatima Amir	SHOULD KNOW

Learning Outcomes:
- Classify Somatoform Disorders
- Discuss the Management of Somatoform Disorders

	Emergency Medicine			
1.	**Aproach to an unconscious patient.**	LGIS	Dr. Turab Fatima	MUST KNOW

Learning Outcomes:
- Generate differential diagnosis of the unconscious patient
- Identify signs and investigations to determine the cause
- Justify the utility of Glasgow Coma Scale (GCS)
- Outline the emergency management of patient

2.	**Hypothermia**	LGIS	Dr. Turab Fatima	SHOULD KNOW

Learning Outcomes:
- Correlate pathophysiological basis of various etiological factorstoclinical manifestations of Hypothermia

3.	**Triaging and approach to a critical patient in emergency**	LGIS	Dr. Turab Fatima	MUST KNOW

Learning Outcomes:
- Correlate severity of patients in ER with the concept of triage.

Learning Resources:

1. **Reference books:**
   a. Davidson's Principals & Practice of Medicine 23th EditionElsevier
   b. Current Medical diagnosis & treatment (Latest Edition 2022)
2. **Online resources**
   a. www.medscape.com
3. **Library resources**
   a. Harrison's Principles of Internal Medicine 20th Edition (2018).McGraw Hill Education

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Assessment formats:

Assessment Strategies (Formative)	Assessment Strategies (Summative)
In class discussions SGD	Practical Clinical Exam (Short & Long Cases) MCQs at the end of block

Surgery

Block Learning Outcomes:

At the end of this block, final year student will be able to:

1. Describe the common surgery related, cardiovascular diseases and their clinical presentation; and outline the basic principles of their management. (SLO 1,2,3,4)
2. Discuss the common gastrointestinal pathologies and Rationalize appropriate management plan. (SLO1,3,4)
3. Diagnose the common and Outline the management upper/Lower limb fractures (SLO 2,3,4,5)
4. Describe principles and types Anesthesia.

(Details of skill related Outcomes can be found in surgery Logbooks)

S.#	Topic	Educational Strategies	Instructor	Importance (Must Know Should Know Could Know)
		CVS		
1.	Cardiac patahlogies Cardiac tumors	LGIS	Asstt. Prof. Dr. Munawer Latif	
Learning Outcomes:				
• Describe the common acquired surgical cardiac pathologies, their clinical presentation and outline basic management plan				
2.	Varicose veins	LGIS	Assoc. Prof. Dr. Muhammad Azhar	
Learning Outcomes:				
• Elaborate clinical presentation, etiology and pathophysiology of varicose veins.				
• Suggest differential diagnosis based on assessment of patient.				
• Classify varicose veins.				
• Rule out the diagnosis of DVT using appropriate investigations.				
• Suggest conservative or surgical management of varicose veins where indicated.				
3.	Aneurysms	LGIS	Prof. Dr. M. Naeem Ashraf	
Learning Outcomes:				
• Elaborate clinical presentation, etiology and pathophysiology of aneurysms				
• Suggest clinical workup and management plan of aneurysms				
4.	Acute and chronic limb ischemia	LGIS	Assoc. Prof. Dr. Naeem Akhtar	
Learning Outcomes:				
• Identify clinical manifestations and etiology of acute and chronic limb ischemia				
• Relate the major risk factors to the etiology and pathophysiology of acute & chronic limb ischemia.				
• Elaborate differential diagnosis of acute limb ischemia.				

	• Suggest appropriate investigations to make the diagnosis. • Discuss the medical and surgical management of limb ischemia.		
5.	Venous Ulcer + DVT	LGIS	Prof. Brig (R). Dr. Mannan Masud

Learning Outcomes:
- Elaborate clinical presentation, etiology and pathophysiology of DVT
- Suggest conservative or surgical management of venous ulcer

6.	Congenital & Development anomalies of limbs and spine		Asstt. Prof .Dr. M. Ikram

Learning Outcomes:
- Elaborate clinical presentation, etiology and pathophysiology of DVT
- Suggest conservative or surgical management of venous ulcer

7.	Diabetic Foot & Gangrene ulcer	LGIS	Assoc. Prof. Dr .Naeem Akhtar

Learning Outcomes:
- Describe the causes , risk factors and clinical presentation of diabetic foot
- Formulate the management plan for diabetic foot.

	Oral Cavity		
8.	CA Tongue	LGIS	Asstt. Prof. Dr. Munawer Latif

Learning Outcomes:
- Describe cause, Risk factors & clinical presentation of CA Tongue.
- Formulate investigation & treatment plan.

	GIT		
9.	Esophagus I	LGIS	Assoc. Prof. Dr. M. Azhar

Learning Outcomes:
- Describe the causes, risk factors and clinical presentation of esophageal perforation.
- Formulate the management plan for esophageal perforation

10.	Liver	LGIS	Prof. Brig(R). Mannan Masud

Learning Outcomes:
- Enlist the common causes of liver abscess
- Discuss the clinical presentation of liver abscess
- Outline the principles of management of liver abscess
- Generate differential diagnosis of SOL Liver
- Develop plan for diagnosis, treatment and prevention of SOL liver and its complications
- Generate differential diagnosis of SOL Liver
- Develop plan for diagnosis, treatment and prevention of SOL liver and its complications

11.	Disease of Spleen	LGIS	Prof. Brig (R). Dr. Mannan Masud	

Learning Outcomes:
- Diagnose pancreatitis using Ranson and Glasgow criteria
- Enumerate causes of pancreatitis and its predisposing factors
- Elaborate the Diagnosis of pancreatitis based on its signs and symptoms
- Manage pancreatitis and its complications
- Discuss the etiology of Ca Pancreas
- Discuss the Clinical Presentation and diagnostic workup for carcinoma pancreas
- Plan the surgical management of Ca Pancreas and its complications

12.	Stomach & duodenum	LGIS	Prof Brig (R). Dr .Muhammad Parvez	

Learning Outcomes:
- Discuss the causes of Ca stomach
- Discuss the warning signs which lead to the diagnosis of Ca stomach
- Discuss the presenting complaints of Ca stomach
- list the investigations needed to diagnose the case
- Describe the staging and grading of cancer.
- Describe the management plan for a patient with Ca stomach

13.	Small Gall	LGIS	Assoc. Prof. Dr .Naeem Akhtar	

Learning Outcomes:
- Elaborate the etiology Differential diagnose, Clinical factors of intestinal abstraction
- Describe the management plan for patient with intestinal obstruction

14.	CA Colon	LGIS	Prof. Brig (R). Dr. Mannan Masud	

Learning Outcomes:
- Discusses the pathological basis of CA Colon
- Elaborate the specific tumor marker
- Elaborate the staging of CA Colon
- Diagnose CA Colon and chronic abdomen based on clinical presentation
- Develop management and Prevention of CA Colon and chronic Abdomen and their associated complication plan for.

15.	CA Rectum	LGIS	Asstt. Prof. Dr. Munawer Latif	

Learning Outcomes:
- Describe cause, Risk factors & clinical presentation of CA Rectum.
- Formulate investigation & treatment plan.

16.	Anal Canal Diseases	LGIS	Assoc. Prof. Dr .Naeem Akhtar	

Learning Outcomes:

	• Describe cause, Risk factors & clinical presentation of Anal Canal Diseases. • Formulate investigation & treatment plan.			
17.	Gall Balder Bile Duct	LGIS	Prof. Brig (R). Dr. Mannan Masud	

Learning Outcomes:
• Discuss the clinical presentation and diagnostic workup for gall balder & bile duct

18.	Pancreas	LGIS	Assoc. Prof. Dr .Naeem Akhtar	

Learning Outcomes:
• Discuss the etiology of Ca Pancreas
• Discuss the Clinical Presentation of Ca Pancreas
• Enumerate the Signs and symptoms of Ca pancreas
• Discuss diagnostic criteria for Ca Pancreas
• Stage the cancer
• Plan the treatment of Ca Pancreas and its complications.

Chest Related Disorders				
19.	Chest Trauma	LGIS	Prof. Brig (R). Dr. Mannan Masud	

Learning Outcomes:
• Discuss the presenting complaints of chest trauma.

20.	CA Lungs	LGIS	Prof. Dr Naeem Ashraf	

Learning Outcomes:
• identify the causes and risk factors for lung cancer
• Advocate measures and guidelines to decrease risk for developing lung cancer and its screening
• Discuss the prognostic factors of Ca lung.
• Classify tumours based on types, staging and grading justify the role of radiographic, endoscopic and laboratory evaluation in the diagnosis
• Formulate a management plan using various modalities. Discuss the complications of disease and its treatment

21.	Mediastinal Tumors	LGIS	Prof. Dr Naeem Ashraf	

Learning Outcomes:
• Describe Differential Diagnosis & Clinical Presentation of Mediastinal Tumors
• Formulate investigation & treatment plan.

Miscellaneous (Ortho + Anesthesia, Patient Safety				
22.	Upper limb fractures	LGIS	Prof. Dr .Sajid Ejaz Rao	

Learning Outcomes:
• Describe clinical presentation and treatment plan of upper limb fracture.

23.	Lower Limbs Fractures and Dislocation	LGIS	Prof. Dr. Sajid Ejaz Rao	

Learning Outcomes:				
• Describe clinical presentation and treatment plan of Lower limb fracture and dislocation.				
24.	General Principles of orthopedics' trauma Management	LGIS	Asstt. Prof. Dr. M. Ikram	
Learning Outcomes:				
• Discuss the principles of orthopedics trauma management.				
25.	Introduction to trauma golden HR, ATLS	LGIS	Dr Naeem Ashraf	
Learning Outcomes:				
• Describe the principles of protocols of ATLS				
26.	Facial Trauma, Mandible, leforte	LGIS	Asstt. Prof. Dr .Usman ul haq	
Learning Outcomes:				
• Discuss principles of facial trauma, mandible, leforte				
27.	Local Anaesthesia and pharmacology of Local Anaesthesia	LGIS	Senior Registrar. Dr Varda	
Learning Outcomes:				
• Discuss the mechanism of action dose, side effects of local anesthesia				
28.	IV Anaesthesia, Induction agent, general Anaesthesia	LGIS	Prof. Brig(R). Dr. Fareed Azam	
Learning Outcomes:				
• Discuss clinical presentation workup for general anesthesia				
• mechanism of action dose, side effects and complications of General Anaesthesia				
29.	Patient Safety	LGIS	Prof. Dr. Naeem Ashraf	
Learning Outcomes:				
• Discuss patient's safety training in clinical practice.				
30.	Patient Safety	LGIS	Prof. Dr. Naeem Ashraf	
Learning Outcomes:				
• Discuss patients safety issue and protocol in clinical practices				

Learning Resources:

1. **Reference Books**
   - Bailey & Loves, Norman brows, clinical methods, Essential Orthopaeidcs (including Clinical method & Anesthesia for medical students
2. **Online Resources**
   - Zoom
3. **Library resources**

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Gynecology

Subject Learning Outcomes:

1. Triage and refer women to the appropriate facility of care.
2. Conservatively manage common illnesses.
3. Assist in management of critical cases.
4. Counsel patients and their attendants regarding management options and preventive measures.

Block Learning Outcomes:

1. Identify the clinical presentation, diagnose and plan management of women with medical complications of pregnancy (Hypertension, cardiac diseases, liver disorders, obstetric cholestasis and venous thromboembolism) and recognizes limitations and escalate care to senior colleagues and other specialties when appropriate.
2. Appraise the risk factors and manage patients in normal labour, pre-term labour, preterm prelabour rupture of membranes (PPROM) and having multiple pregnancy.
3. Formulat a plan for antenatal care, prenatal diagnosis and is able to assess fetal well-being.
4. Identify and manage patients with common perinatal infections.

S.#	Topic	Educational Strategies	Name of Instructor	Importance (Must Know Should Know Could Know)
1	**Hypertensive disorders of pregnancy**	LGIS	**Prof. Mehreen Mehdi**	**Must Know**
Learning Outcomes: • Enlist and define types of hypertensive disorders in pregnancy • Describe etiology & pathophysiology of pre-eclampsia • Explain clinical presentation of PIH & PE • Interpret investigations to diagnose pre-eclampsia • Manage a patient of PIH and pre-eclampsia • Define eclampsia and HELLP syndrome • Describe risk factors and pathophysiology of eclampsia and HELLP syndrome • Interpret investigations for eclampsia and HELLP syndrome • Formulate a management plan for eclampsia and HELLP syndrome				
2	**Cardiac diseases in pregnancy**	LGIS	**Prof. Dr. Kinza Alam**	**Should Know**
Learning Outcomes: • Discuss Pre-pregnancy counselling of patients with heart diseases • Describe antenatal management of patients with cardiac disease in pregnancy • Identify high risk cardiac conditions & comprehend NHYA classification of cardiac patients				

	• Review a general management plan of labour & delivery of cardiac patients • Outline management of heart failure and specific conditions i.e., IHD, Mitral & aortic stenosis, Marfan syndrome & pulmonary hypertension			
3	**Antenatal care**	LGIS	**Prof. Humaira Nasir**	**Must Know**

Learning Outcomes:
- Discuss the aims & importance of antenatal care
- Describe the antenatal booking visit, Booking history &examination
- Discuss investigations done at booking visit & their importance
- Explain follow up visits & routine antenatal care in pregnancy

4	**Assessment of fetal wellbeing and prenatal diagnosis**	LGIS	**Dr. Ayesha Irfan**	**Must Know**

Learning Outcomes:
- Discuss the clinical application of ultrasound and scanning schedule in pregnancy
- Discuss ultrasound assessment of fetal wellbeing, biophysical profile and its importance
- Explain the Doppler investigations done to assess fetal well being
- Enlist conditions that can be diagnosed in pre-natal period and describe method
- Describe indications, contraindications and complications of chorionic villus sampling, amniocentesis and cordocentesis
- Discuss down syndrome screening

5	**Preterm labour &PPROM**	LGIS	**Dr. Shabana Kalsoom**	**Must Know**

Learning Outcomes:
- Describe preterm labour, its frequency, pathogenesis and consequence of preterm labour
- Review the Modifiable and non-modifiable risks for Preterm labour
- Plan management of a patient in Preterm labor
- Discuss the etiology of preterm prelabour rupture of membranes (PPROM)
- Diagnose a case of preterm prelabour rupture of membranes
- Formulate a management plan for patients having preterm prelabour rupture of membranes

6	**Liver disorders in pregnancy & obstetric cholestasis**	LGIS	**Dr. Khair-Un-Nisa**	**Should Know**

Learning Outcomes:
- Discuss viral hepatitis, its effects on pregnancy, risk of perinatal transmission and management during pregnancy
- Describe obstetric cholestasis, its etiology, fetal risks and management of pregnancy
- Discuss management of women with cholelithiasis during pregnancy

7	**Multiple pregnancy**	LGIS	**Prof. Mehreen Mehdi**	**Must Know**

Learning Outcomes:
- Review the incidence, predisposing factors and types of twin pregnancy
- Discuss the antenatal, intrapartum and postpartum complications of multiple pregnancy

	• Describe complications specific to monochorionic twin pregnancy • Formulate a management plan for antenatal and intrapartum care of multiple pregnancy			
8	**Antenatal obstetric complications (Minor ailments of pregnancy & Venous thromboembolism)**	LGIS	**Prof. Humaira Nasir**	**Should Know**

Learning Outcomes:
- Review musculoskeletal problems, common gastrointestinal problem hyperemesis gravidarum, hemorrhoids and their management
- Describe etiology and management of varicose veins and edema in pregnancy
- Discuss the incidence and clinical presentation of DVT and pulmonary embolism.
- Select and interpret investigations for DVT and pulmonary embolism.
- Manage a patient with DVT and pulmonary embolism in pregnancy
- Suggest preventive measures for VTE in pregnancy

9	**perinatal infections**	LGIS	**Prof. Dr. Kinza Alam**	**Should Know**

Learning Outcomes:
- Enlist infections causing congenital abnormalities
- Discuss the infective organism, prevalence, clinical features, effect on fetus and management of rubella, syphilis, toxoplasmosis, CMV, chicken pox
- Enlist congenital infections associated with pregnancy loss and preterm birth
- Enlist the infections acquired around the time of delivery with serious neonatal consequences
- Discuss the infective organism, prevalence, screening and management of HIV in pregnancy

10	**Normal labour & its management**	LGIS	**Lt Col Zaib Un Nisa**	**Must Know**

Learning Outcomes:
- Identify changes in uterus, cervix and hormonal factors that occurs during labor & Diagnose onset of labor
- Explain stages of labour.
- Describe the diameters of normal gynaecoid pelvis, the anatomy and diameters of fetal skull
- Critically appraise the mechanism of normal delivery
- Discuss on admission history taking, general physical examination, abdominal examination and vaginal examination
- Outline management of first, second and third stage of labour

11	**Urogynaecology: Urinary incontinence**	LGIS	**Dr. Gulwish Hameed**	**Must Know**

Learning Outcomes:
- Identify the causes of urinary incontinence
- Appraise the differentiating points in history indicating cause of incontinence
- Enlist investigations to reach the diagnosis
- Discuss management option of each type of incontinence

- Must know names of surgical procedures for stress incontinence

Learning Resources:

1. **Reference Books**
   - Obstetrics by ten teachers 20th edition
   - Gynaecology by ten teachers 20th edition
2. **Library resources**
   - Hacker and Moore's essential obstetrics 6th edition
   - High Risk pregnancy 5th edition
   - Shaw's text book of gynaecology 17th edition
3. **Teaching faculty :**

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Assessment formats :

Assessment Strategies (Formative)	Assessment Strategies (Summative)
SEQ, MCQ	SEQ, MCQ, OSPE

Pediatrics

Subject Learning Outcomes:

The students should be able to

Diagnose, investigate and plan management of common cardiovascular disorders in children

- Recognize complications & preventive measures and discuss prognosis of pediatric cardiovascular disorders.
- Diagnose, investigate and plan management plan of common GIT disorders.
- Diagnose, investigate and plan management of acute and chronic respiratory illnesses.
- List complications, preventive measures and discuss prognosis of diseases causing respiratory illnesses.

S.#	Topic	Educational Strategies	Name of Instructor	Importance (Must Know Should Know Could Know)
		CVS		
1.	Child with Cyanosis	LGIS	Dr Tahir Mahmood	Must Know
Learning Outcomes: • Define cyanosis • Describe the basics of cyanosis • List Differential Diagnosis of cyanosis in a child • Differentiate between central and peripheral cyanosis • Discuss key areas in history and examination relevant to children presenting with cyanosis • List investigations and outline management plan of cyanosis				
2.	**Cyanotic Congenital Heart Disease**	LGIS	Prof Munazza Saleem	Must Know
Learning Outcomes: • Define murmur • List common congenital heart defects causing cyanosis & murmur. • Describe the evaluation through history, physical examination and investigations • Explain the management options for different cyanotic heart diseases and their prognosis • Discuss pathophysiology, clinical manifestations and complications of Eisenmenger's syndrome				
3.	**Acyanotic Congenital Heart Disease**	LGIS	Prof Munazza Saleem	Must Know
Learning Outcomes: • List common congenital heart defects producing murmur without cyanosis. • Describe the clinical features of left to right shunts causing volume overload • Recognize clinical features of common lesions causing pressure overload • Discuss difference between small and large left to right shunts				

	• Outline investigations, enumerate management steps and prognosis			

GIT

4.	**Recurrent Abdominal pain**	LGIS	Dr Kiran Shah	Must Know

Learning Outcomes:
- Cause of recurrent abdominal pain
- Identify common associated signs & symptoms.
- Differentiation b/w organic & inorganic causes
- Plan diagnostic work up
- Outline management startegies

5.	**Malabsorption Syndromes / Chronic Diarrhea**	LGIS	Dr Tahir Mehmood	Must Know

Learning Outcomes:
- Define Chronic & Persistent diarrhea.
- List organisms causing diarrhea.
- Classify dehydration
- Identify signs & symptoms of dehydration.
- Identify the clinical presentation of malabsorption.
- Identify the signs and symptoms of gluten enteropathy/ celiac disease.
- List investigations and outline management steps of celiac disease/giardiasis.
- List complications of malabsorption.
- Discuss prognosis.

6.	**Jaundice / Acute Hepatitis**	LGIS	Dr Saba Mushtaq	Must Know

Learning Outcomes:
- Definition of acute & chronic hepatitis
- Describe etiology of acute & chronic hepatitis.
- Discuss features of hepatotropic viruses.
- List complications of hepatitis & outline management.
- List investigations and outline management steps of acute/chronic hepatitis.
- Identify clinical features, list investigations and outline management steps of Wilson disease.
- Discuss prognosis.

7.	**Constipation / Encoperesis**	LGIS	Dr Qurat ul Ain	Must Know

Learning Outcomes:
- Describe pathophysiology of abd pain, vomiting and constipation.
- List causes of vomiting and constipation in neonates, infants and children.
- Discuss the organic causes of constipation.
- List investigations and outline management of a child with vomiting and constipation.

RESPIRATION

8.	**ARI / Pneumonia**	LGIS	Dr Tahir Mehmood	Must Know

Learning Outcomes:
- List differential diagnosis of child with breathing difficulty

	• Describe the pathophysiology of pneumonia & bronchiolitis • Identify signs & symptoms of pneumonia & bronchiolitis • List causative organisms and complications of pneumonia & bronchiolitis. • List investigations and enumerate management steps of pneumonia & bronchiolitis • Interpret radiological findings of pneumonia & bronchiolitis. • Interpret laboratory investigations done in a child with respiratory problem • List preventive measure of pneumonia • Discuss prognosis			
9.	**Chronic cough / Recurrent chest infections**	LGIS	Dr Sohail Ashraf	Must Know

Learning Outcomes:
- List differential diagnosis of child with Chronic cough / Recurrent chest infections
- Describe the pathophysiology of TB, CF, Immotile cilia syndrome Bronchiectasis, Pertusis.
- Identify signs & symptoms of diseases causing Chronic cough / Recurrent chest infections
- List complications of diseases causing Chronic cough / Recurrent chest infections.
- List investigations and enumerate management steps of diseases causing Chronic cough / Recurrent chest infections.
- Interpret radiological findings and investigations of diseases causing Chronic cough / Recurrent chest infections.
- List preventive measure of diseases causing Chronic cough / Recurrent chest infections.
- Discuss prognosis.

10.	**Tuberculosis in children**	LGIS	Prof Munazza Saleem	Must Know

Learning Outcomes:
- Definition of TB
- Epidemiology of TB in Pakistan
- Identify the clinical presentation of TB.
- List investigations and outline management steps of TB.
- List complications.
- Vaccination & Prevention
- Discuss prognosis.

Learning Resources:

1. Reference Books
   - Basis of Pediatrics by [Parvez Akbar Khan](#)
2. Online resources
   - drtahirnoor@hotmail.com
3. Library resources
   - Textbook of Pediatrics by PPA
   - Current Pediatric Diagnosis & Treatment
   - Harriet & Lane Handbook of Pediatrics
   - Pediatrics illustrated text book by Tom Lissauer

- **Teaching faculty & Student's hours:**

Name	Email address
Dr Munazza Saleem	munazza@wahmedicalcollege.edu.pk
Dr Sohail Ashraf	drsohail@wahmedicalcollege.edu.pk
Dr Tahir Mahmood	drtahir@wahmedicalcollege.edu.pk

- **Assessment formats:**

Assessment Strategies (Formative)	Assessment Strategies (Summative)
MCQ, SEQ, Mini CEX	**MCQ, SEQ, Long case, short case**

Behavioral Science

Subject Class Learning Outcomes:
1. Develop an understanding of influence and potential implications of culture and community on health behaviors, perceptions and beliefs.
2. A physician will be able to integrate this knowledge into patient care
3. Take detailed, accurate and relevant patient history by taking into account self-awareness and reflective writing using social and behavioral sciences approach
4. Provide patient centered behavioral guidance and interventions
5. Comprehend how social determinants of health influence health outcomes and how physician can use this knowledge in patient care
6. Practice professionalism and leadership qualities
7. Integrate their knowledge and skills gained throughout five years into clinical practice

Learning outcomes:
1. Discuss significance of Behavioral Sciences in Medical practice (SLO 1, SLO 5)
2. List of psychological, sociological and anthropological as well as biological determinants of health and disease in clinical practice (SLO1, SLO 5)
3. Analyze human behavior and other factors affecting health and disease by Enhancing doctor's own learning and clinical skill (SLO 4)
4. Assess types of human personality and phases of personality development along with intelligence (SLO 4)
5. Integrate the principles of medical ethics in professional life (SLO 6)

Sr. No.	Topics	Educational Strategies	Name of instructor	Importance (Must Know Should Know Could Know)
1.	Differentiate: Holistic Vs. Traditional Allopathic Medicine	Lectures/ Presentations	All Faculty	Must Know
Learning Outcomes: ● Demonstrate understanding of holistic and bio medicine model in clinical practice along with understanding of culture and medical practice (BLO 1)				
2.	Culture & Medical Practice	Lectures/ Presentations	All Faculty	Should know
Learning Outcomes: ● Discuss the culture and medical practice in Pakistan. (BLO 1)				
3.	Discuss Health Care Models and their Clinical Applications 1. Bio-Psycho- Social Model of health and disease	Lectures/ Presentations	All Faculty	Must Know
Learning Outcomes: ● List the psychological, sociological and anthropological as well as biological determinants of health and disease in clinical practice, along with a public health				

	approach of primary and secondary prevention of disease/disorder and promotion of health. (BLO 1)			
4.	The Integrated Model of Health Care: Correlation of Body, Brain , Mind, Spirit and Behavioral Sciences	Lectures/Presentations/ (SGD)/ seminars	All Faculty	Should Know

Learning Outcomes:
- List the psychological, sociological and anthropological as well as biological determinants of health and disease in clinical practice (BLO 2)

5.	The Public HealthCare Model	Lectures/Presentations/ (SGD)/ seminars	Zunaira Naveed	Should Know

Learning Outcomes:
- List the psychological, sociological and anthropological as well as biological determinants of health and disease in clinical practice (BLO 2)

6.	Understand human behavior through Principles of Psychology 1. Sensation and sense organs	Lectures/ Presentations/ Interactive Video ignites/ (LGIS)	Zunaira Naveed	Must Know

Learning Outcomes:
- Analyze human behavior and other factors affecting health and disease by Enhancing doctor's own learning and clinical skill (BLO 3)

7.	Perception & factors affecting perception	Lectures/ Presentations/ Interactive Video/ (LGIS)	Zunaira Naveed	Must Know

Learning Outcomes:
- Analyze human behavior and other factors affecting health and disease by Enhancing doctor's own learning and clinical skill (BLO 3)

8.	Principles of Psychology: Attention and concentration	Lectures/ Presentations /Interactive Video/ (LGIS)	Zunaira Naveed	Must Know

Learning Outcomes:
- Analyze human behavior and other factors affecting health and disease by Enhancing doctor's own learning and clinical skill (BLO 4)

9.	Memory & Thinking	LGIS/ Presentations /Interactive Video/	Zunaira Naveed	Must Know

Learning Outcomes:
- Analyze human behavior and other factors affecting health and disease by Enhancing doctor's own learning and clinical skill (BLO 4)

10.	Individual human differences 1. Intelligence	LGIS/ Presentations/ Interactive Video/	Zunaira Naveed	Should Know

Learning Outcomes:
- Assess types of human personality and phases of personality development along with intelligence (BLO 4)

Learning Resources:
- Handouts prepared by faculty
- Online resources
- Lecture notes

Teaching Faculty:

Name	Email address
Zunaira Naveed	naveedzunie@gmail.com
Hassan Ali	ha55an.qau5@gmail.com
Sara Rubab	Sararubab753@gmail.com

Assessment formats:

Assessment Strategies (Formative)	Assessment Strategies (Summative)
- Directly observed behaviors, - Small group discussions, - Reflective writing Portfolios - MCQs, Home assignments, SAQs/SEQs	- Assignments, - Case studies, - Quiz, Presentations - MCQs, SAQs/SEQs, OSPE, Viva

7. Rules & Regulations:

i. Student's code of conduct

The Student Code of Conduct sets out the standards of conduct expected of students. It holds individuals and groups responsible for the consequences of their actions. Failure to fulfill these responsibilities may result in the withdrawal of privileges or the imposition of sanctions.

Wah Medical College is a community of students, faculty and staff involved in learning, teaching, research and other activities. All members of WMC community are expected to conduct themselves in a manner that contributes positively to an environment in which respect, civility, diversity, opportunity and inclusiveness are valued, so as to assure the success of both the individual and the community. The Student Code of Conduct reflects a concern for these values and tries to ensure that members of the WMC can make use of and enjoy the activities, facilities and benefits of WMC without undue interference from others.

ii. WMC student code of conduct

- Discipline
- Decent dress
- Good Manners
- Smart Turn Out
- Healthy Activities
- No smoking
- No Abusive Language
- Cooperative Attitude
- Respect for All

iii. Attendance policy

a. Students are required to mark attendance for every class.

b. The attendance is compiled by respective department and submitted to student affairs by the 10th of each month.

c. Students Affair Department will compile the absent report and fine of Rs. 500/- for a lecture or for the whole day will be imposed on absent students. It is pertinent to mention here that fine is imposed on students to compel them to attend classes regularly and not to generate the funds.

d. A compiled attendance state of all students along with those having attendance less than 75% duly highlighted will be submitted to the Students Affairs Department on monthly as well as quarterly basis by the concerned departments.

e. At the end of academic year, a consolidated state of attendance of students will be submitted to Students Affair Department.

f. Departments will submit the list of those students having attendance less than 75% at the end of academic year.

g. Admission forms of students having attendance less than 75% will NOT be submitted to NUMS for appearing in Annual University Exams.

8. Study tips

Dear Students,

Becoming a doctor is a tough job, but you can make it easier for yourself by adopting some time-tested techniques or habits. It's never too early – or too late – to develop good study habits. The sooner you get into a good self-study pattern, the easier everything will be and the more your chances of getting good marks will improve. Here are our top tips for getting the most out of your self-directed study time. And remember **Perseverance is the Key to Success!**

Review the material regularly, create a study schedule

Test yourself

Find an effective learning environment with limited distractions and some fresh air

Improve memorization with Mnemonics

Incorporate auditory methods; use online podcasts

Use visuals, images, concept maps & illustration charts

Consider forming a study group or find an accountability buddy

Take strategic breaks

9.   Feedback on the study guide

We value your feedback and will use it for improvement of this Study guide. Kindly provide feedback for this study guide. At the email:

dme@wahmedicalcollege.edu.pk

dmewahmedicalcollege@gmail.com

10. References:

HARDEN, J.M. LAIDLAW, E.A. HESKETH, R. M. (1999). AMEE Medical Education Guide No 16: Study guides-their use and preparation. *Medical Teacher*, *21*(3), 248–265. https://doi.org/10.1080/01421599979491

11. Time Table Template

3rd Clinical Rotation:
- A – Medicine
- B – Surgery 1
- C – Medicine 1
- D – Medicine 2
- A – Surgery 1
- B – Surgery 2
- C – Gyne
- B – Peds
- E – Com Med
- P – Pathology

Day/Date	Monday 23-01-2023	Tuesday 24-01-2023	Wednesday 25-01-2023	Thursday 26-01-2023	Friday 27-01-2023
8:00-11:00					**8:00-8:45** Medicine LGIS Lect#
11:15-12:05	Com.med — Flipped Class Room	Pathology LGIS Lect#4	Com.med — Flipped Class Room	Pathology LGIS Lect#4	**8:45-9:30** Surgery LGIS Lect#4
12:05-12:55	Medicine LGIS Lect#4	ETE LGIS Lect#4	EMT LGIS	Com.med Field Visit (E,F,G,H) (12:05-...)	**9:30-10:15** Surgery LGIS Lect#4
12:55-1:45	Pathology LGIS	Medicine LGIS Lect#4	Surgery LGIS	Pathology (12:05-1:05) (Practical)(A,B,C,D) Lect#4	**10:15-11:05** Gynae-Obs Lect#4
2:00-3:00	Peds LGIS	Com.med SGD Lect#4	Mentors SGD Lect#4	P-CMILE LGIS Lect#4	

Break 11:00-11:15

Break 1:45-2:00

Friday (additional slots):
Time	Subject		
11:05-11:20	Break		
11:20-12:10	Com.med LGIS Lect#4		
12:10-1:00	Pathology LGIS Lect#4		
1:00-1:30	Juma Break		
1:30-2:15	Com.med SGD (A,B,C,D) Lect#5		
2:15-3:00	Pathology (Practical)(E,F,G,H) Lect#4		

Professor
Dr. S. Sabah Imran
Year/In-charge Y4B1

Professor. Dr. Murarat Ramzan
Dean/Vice Principal
Wah Medical College, Wah Cantt