



GANDHARA UNIVERSITY KABIR MEDICAL COLLEGE



4TH YEAR MBBS 2026-27

BLOCK – X (Module 19 & 20)

DEPARTMENT OF MEDICAL EDUCATION
GHANDHARA UNIVERSITY PESHAWAR

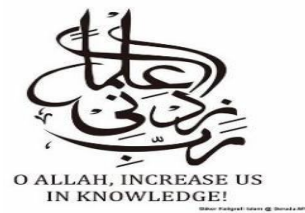
MESSAGE FROM THE VICE CHANCELLOR

Welcome to Gandhara University. Our aim is to help you grow from learners into confident health professionals who are motivated to serve humanity. The University and its colleges are fully recognized by national and international bodies, ensuring your education meets the highest standards.

With experienced faculty, modern facilities, and a strong IT system to support both classroom and online learning, we are committed to providing you with the best environment for academic and personal growth.

We believe our students are our greatest strength. Along with professional skills, we focus on leadership and character development so you can contribute positively to society.

I warmly welcome you to Gandhara University and wish you success in your journey ahead.



Prof. Dr. Ejaz Hassan Khan,
MBBS, M. Phil , PhD, FCPS,
FRCP, FCPP, MHPE
Vice Chancellor,
Gandhara University,
Peshawar.

FROM THE DESK OF PRINCIPAL

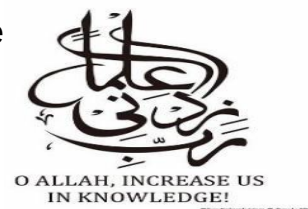
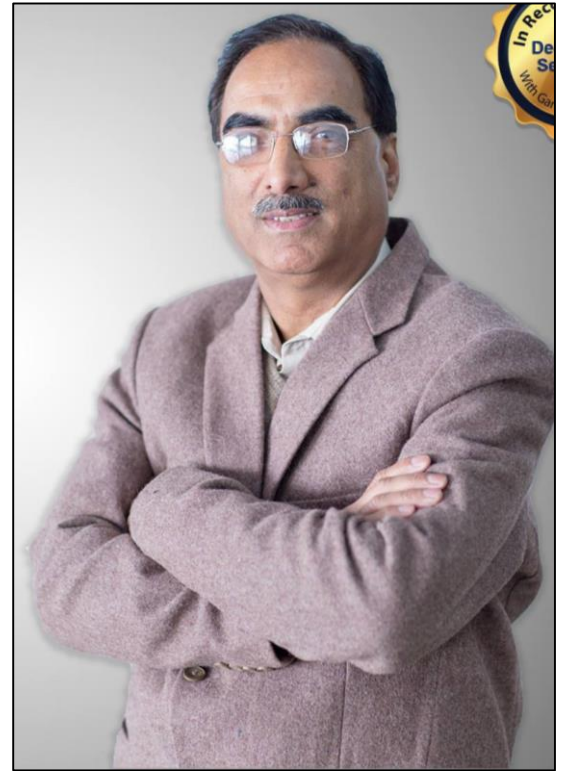
Kabir Medical College has evolved, since its inception, as an exceptionally outstanding facility to provide quality education to the students.

I must appreciate the hard work of our well experienced and dedicated faculty members and staff in maintaining high standards of medical education and the efforts they have put in Kabir Medical College to be a distinguished center of excellence.

By the grace of Almighty, we have started the integrated curriculum for 4th year MBBS. We meet international standards of professional education by following the system of integrated curriculum and system-based teaching of basic medical sciences. We advocate interactive sessions to improve comprehension of students as well as training them with skills of communication and self-expression.

Since the establishment of Kabir Medical College, we have been working constantly to upgrade the services and facilities at the campus and the attached Naseer Teaching Hospital for the benefit of our students and patients. In addition, we are affiliated with Shahab Orthopedics, Life Care Teaching Hospital, and Maqsood Medical Complex to further enhance clinical training and healthcare services.

We would like our graduates to excel as confident, responsible, and self-learning medical practitioners. With a state-of-the-art campus, experienced faculty, an up-to-date digital library, I assure that your decision to study at Kabir Medical College will surely be a wise one, your experience here will be profoundly enriching and you will become a valuable asset to the nation and international community health care professionals.



Brig Ahmad Hussain Mashwani (R)
MBBS, FCPS(SURGERY)OJT
(VASCULAR SURGERY)
CHPE, MHPE(KMU) Principal
Kabir Medical College Gandhara
University Peshawar

Welcome

On behalf of the block team, I would like to welcome you to block-10 (Neurosciences & GIT & Hepatobiliary modules). As a part of the system-based curriculum, this block is an integrated presentation, comprises system-based modules which link basic science knowledge to clinical problems. Integrated teaching means that subjects are presented as a meaningful whole. Students will be able to have better understanding of basic sciences when they repeatedly learn in relation to clinical examples. Small group discussions, early exposure to clinics, wards, and skills acquisition in skills lab are characteristics of integrated teaching program.

Our mission is to provide all educational opportunities to our students therefore on completion of the MBBS program graduates will possess an appropriate foundation of knowledge, skills, and attitudes to be well prepared to practice safely and effectively.

This study guide includes the course contents of the block. The learning objectives, practical, topics of the small group discussions. It also includes the assessment plan for the block exam.

As a director I will be meeting with the facilitators to receive feedback and will try to resolve any difficulties or problems faced during the block. Please do not hesitate to contact DME for any academic help. I wish you an enjoyable and learning experience with block 10.

Director DME: Dr. Marina Khan



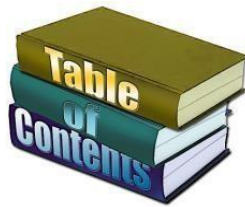


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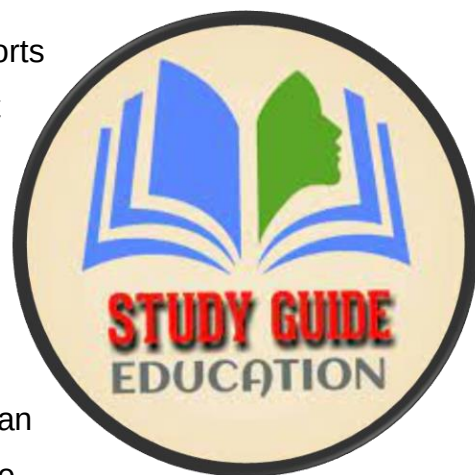
Learning Resources.....

LIST OF ABBREVIATIONS

DME	Department of Medical Education
CI	Curriculum Integration
Anat	Anatomy
Physio	Physiology
Patho	Pathology
Pharma	Pharmacology
OPTH	Ophthalmology
ENT	Ear Nose Throat
GM	General Medicine
COM	Community Medicine
LGIS	Large Group Interactive Session
SGD	Small Group Discussion
SDL	Self-Directed Learning
MCQ	Multiple Choice Question
SAQ	Short Answer Question
OSPE	Objective Structured Practical Exam
OSCE	Objective Structured Clinical Exam

STUDY GUIDE:

This study guidebook was designed by combining the efforts of all topics throughout the year to give medical students at Gandhara University a resource material that highlights significant components of the curriculum. By providing students control over their learning, the study guide aims to promote self-regulated lifelong learning.



Regarding the course content, the study guide provides an overview of the anticipated course outcomes and objectives. The assessment approach is also customized to the intuitional strategy.

A successful curriculum has a significant impact on the final product, as well as on society. This study guide was carefully designed with the PMDC curriculum and rules in mind, and Gandhara University stakeholders and faculty members worked hard to personalize it to the needs of students. They are further working to build, implement, and exercise a well-built curriculum considering changing demographic needs and disease prevalence in our society. Throughout the construction of the study guide, students' feedback was received and included. Curriculum is a living, dynamic entity that is constantly changing. With each passing day, we hope to improve it.

Each module in this block has been created to cater the gap between basic and clinical subjects through pre-clinical learning. The block is divided into two modules in which the students are exposed to a variety of basic and clinical subjects. The integrated curriculum is enforced through interactive lectures, small group discussion, community outreach programs along with rotations at preclinical laboratory. There will be formative as well as summative assessment of the block throughout the modules. This study guide will serve as a helpful resource for students as they navigate Block 10.

AIMS OF THE STUDY GUIDE

It is an aid to:

- Inform students how student learning program of the BLOCK-wise module has been organized
- Help students organize and manage their studies throughout the module
- Guide students on assessment methods, rules, and regulations
- Communicates information on organization and management of the module. This will help the student to contact the right person in case of difficulty.
- Defines the objectives which are expected to be achieved at the end of the module.
- Identifies the learning strategies such as lectures, small group teachings, clinical skills and demonstration, tutorial that will be implemented to achieve the module objectives.
- Provides a list of learning resources such as books, computer assisted learning programs, web-links, and journals, for students to consult in order to maximize their learning.
- Highlights information on the contribution of continuous and block examinations on the student's overall performance.
- Includes information on the assessment methods that will be held to determine every student's achievement of objectives.
- Focuses on information pertaining to examination policy, rules, and regulations.



ORGANIZATION OF MODULAR CURRICULUM

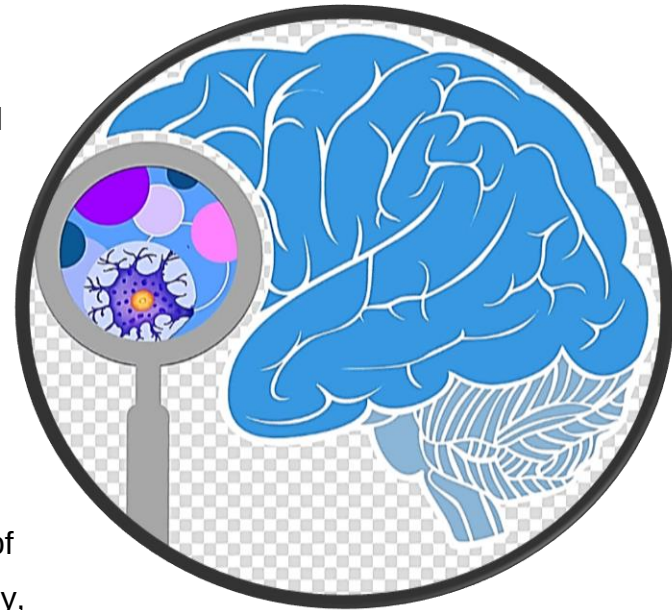
4th YEAR MBBS

<u>Block-10</u>		<u>Exam Block 10</u>	<u>Block-11</u>		<u>Exam Block 11</u>	<u>Block-12</u>		<u>Exam Block 12</u>	<u>PROF Exam</u>
<u>Module</u> <u>19</u>	<u>Module</u> <u>20</u>		<u>Module</u> <u>21</u>	<u>Module</u> <u>22</u>		<u>Module</u> <u>23</u>	<u>Module</u> <u>24</u>		
Neurosciences -II	GIT- II		Renal- II	Endocrinology- II		Multisystem-II	Reproduction-II		

INTRODUCTION TO BLOCK-10:

Welcome to the 4th Year MBBS Block 10, which encompasses the **Neurosciences and Gastrointestinal (GIT) & Hepatobiliary modules**—two fundamental areas of medicine that are essential for understanding the human body in health and disease.

The **Neurosciences Module** offers a comprehensive exploration of the intricate and captivating world of the nervous system. As you embark on this journey, you will delve into the fascinating realm of neuroscience, a field that lies at the intersection of biology, medicine, and the mysteries of the human mind and body. The human nervous system is an astonishingly complex network of cells, chemicals, and electrical signals that orchestrates our thoughts, emotions, movements, and sensations. Understanding its intricacies is essential for any medical practitioner, as neurological disorders and diseases pose significant challenges to healthcare professionals worldwide.



Throughout this module, you will gain in-depth knowledge of the structure and function of the nervous system, from the intricacies of neuronal communication to the clinical aspects of diagnosing and treating neurological conditions. Students will also learn about the etiology of common disorders encountered by neurologists and psychiatrists and develop a comprehensive understanding of the biological, pathological, psychological, and social factors behind these disorders. The basis for pharmacological treatments for conditions such as epilepsy, Parkinson's disease, and schizophrenia will also be discussed.

This module will provide students with a multidisciplinary approach to understanding the etiology of neurological and mental disorders. Neurological problems are the leading cause for disability globally. An estimated 1-billion people around the world have a neurological disorder or disease, which is almost 15-percent of the world's population. According to WHO more than 6 million people die because of stroke each year; over 80% of these deaths take place in low- and middle-income countries. Psychiatric disorders are also major human toll of ill health. According to 2012 WHO data, Neuro-Psychiatric disorders are among 12 leading causes of disability and death in Pakistan. In this module students will learn about the etiology of common disorders encountered by

neurologists and psychiatrists and develop a comprehensive understanding of the biological, pathological, psychological and social factors behind these disorders. The basis for pharmacological treatments for conditions such as epilepsy, Parkinson's disease and schizophrenia will also be discussed.

The **Gastrointestinal (GIT) & Hepatobiliary Module** introduces students to the anatomy, physiology, pathology, and clinical relevance of the digestive system. The gastrointestinal tract plays a pivotal role in maintaining health through the processes of digestion, absorption, metabolism, and elimination. Disorders of the GIT are among the most frequent reasons for patient visits to healthcare facilities, ranging from common conditions such as peptic ulcer disease, gastroenteritis, and irritable bowel syndrome to more serious disorders including gastrointestinal bleeding, chronic liver disease, inflammatory bowel disease, and gastrointestinal malignancies.

In this module, students will explore the **structure and function** of the gastrointestinal tract and associated organs, as well as the underlying mechanisms that contribute to disease. Emphasis will be placed on understanding the **clinical presentation, diagnostic methods, and treatment strategies** for common gastrointestinal disorders. Furthermore, students will appreciate the impact of lifestyle, nutrition, infections, and socio-economic factors on GIT health, particularly in regions like Pakistan, where gastrointestinal and hepatic diseases contribute significantly to morbidity and mortality.

By integrating knowledge from both the **modules**, students will be equipped with a holistic understanding of two vital systems of the human body, enabling them to apply theoretical concepts to clinical practice with competence and confidence.

RATIONALE

The nervous system is the most complex system of the body. A large number of diseases involve the nervous system in their primary pathology, or the nervous system may be secondarily involved in systemic illnesses. Infections like meningitis and encephalitis, movement disorders, demyelinating diseases, epilepsy, and cerebrovascular accidents along with congenital and traumatic disorders are some of the commoner diseases of the nervous system. Timely diagnosis and management prevent high morbidity and mortality. The Neurosciences 1 module in the 2nd Year has already provided a sound basis of the anatomy, physiology, neuropharmacology, and pathologic basis of CNS diseases. In this 4th year, the student will learn the clinical presentation, diagnosis, and management of these diseases

Gastrointestinal and hepatic diseases are among the most common health problems encountered in clinical practice and contribute significantly to morbidity and mortality, particularly in developing countries. Understanding the normal structure and function of the digestive system, along with the pathophysiology, clinical features, and management of common disorders such as peptic ulcer disease, hepatitis, cirrhosis, and gastrointestinal malignancies, is essential for every medical graduate. This knowledge enables students to diagnose, manage, and prevent these conditions effectively and promote better digestive health in the community.

LEARNING METHODOLOGIES

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

- Large Group Interactive Lectures
- Small Group Discussion
- Practical Sessions
- Clinical rotations
- Skills session
- E-Learning
- Self-Directed Learning

LARGE GROUP INTERACTIVE LECTURES (LGIS)



In large group, the lecturer introduces a topic or common clinical conditions and explains the underlying phenomena through questions, pictures, videos of patients'

SELF DIRECTED LEARNING SDL:

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



E-LEARNING:

E-Learning is a strategy by which learning occurs through the utilization of electronic media, typically the Internet. The basic aspects of medical professionalism and ethics will be addressed through an e-learning course.



RULES AND REGULATIONS

We will be making the journey through BLOCK 10 in 14 weeks. Therefore, this course includes an intensive coursework load. Class attendance and participation are extremely important to your learning and are considered in the evaluation of your course grade. If there is anything that the module team can do to assist you during the course, please feel free to contact them. Attendance will be monitored during the different teaching activities. If your attendance is less than 75%, you will not be allowed to sit for both block and annual examination.

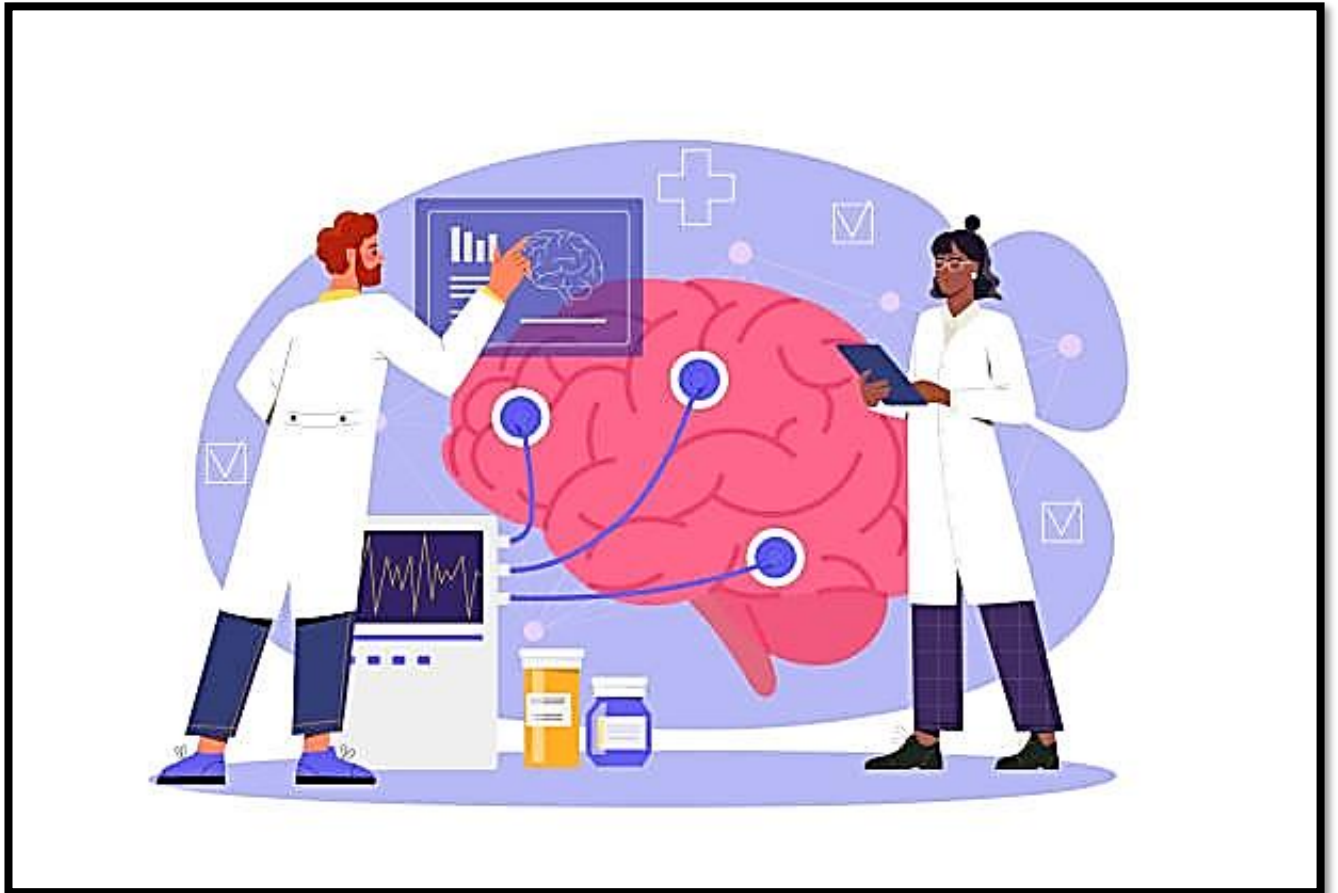


All examinations must be taken on the date scheduled. No student will be allowed to enter the examination hall after the examination starts. There will be a block exam at the end of each block and each block will cover two modules. There will be a total of 3 block examination and the 20% weightage of these block exam will be added to the 80 % of the annual professional exam as an internal assessment.



MODULE – 19

NEUROSCIENCES-II



GENERAL OUTCOMES

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

COGNITIVE DOMAIN:

At the end of block 10, the students of 4th year MBBS will have knowledge about



- Enumerate common CNS infection.
- Define meningitis, enumerate & describe types, etiology & pathogenesis of acute pyogenic & aseptic meningitis.
- Discuss etiology, pathogenesis of brain abscess viral encephalitis, melanocytic and dysplastic nevi, medulloblastoma, meningioma.
- Discuss causes, pathogenesis, morphology and clinical presentation of Alzheimer disease and Parkinson disease.
- Enlist metastatic bone tumor.
- Discuss the anatomy & physiology of the ear. Discuss the clinical presentations examination, investigations findings and treatment plan for the diseases of external ear.
- Describe Ulcers, immune disorders, Trauma, Neoplasm, Skin disorder, Blood disorder, Drug Allergy, Vitamin deficiency.
- Enumerate differential diagnosis of oral ulcers and discuss management of Aphthous ulcers. Classify the premalignant lesions of oral cavity, Differentiate the benign and malignant tumors of oral cavity.
- Identification of different types of research problems, Devise research and survey methodology, perform different types of research and research introduction methodology, study designs and results discussion, understand and formulate a dissertation.
- Discuss the concepts of health & disease. Describe health care system of Pakistan using WHO Health system framework.
- Define epidemiology. Explain the basic concepts of epidemiology.
- Define, Describe, classify mental health and mental health illnesses. Discuss global perspectives and epidemiology, risk factors, prevention & control of mental health disorders.
- Describe the role of radiographic imaging studies in diagnosis and management of stroke patients. Differentiate between hemorrhagic and ischemic strokes.
- Identify Normal cranial and neurological anatomy, Skull fracture, Extra-cerebral blood, Intracranial blood on the following on a CT film.
- Discuss pathophysiology, clinical presentation, and management of myopia, hypermetropia, astigmatism and presbyopia.
- Discuss overview of different causes and management of lid bumps.
- Describe pathophysiology and management of chalazion and sty.
- Enlist different eyelid tumors and their pathogenesis.
- Enumerate causes of ptosis, assessment, and their management.
- Discuss Trichiasis, Entropion and Ectropion, assessment, and their management.
- Discuss the etiology, clinical features, investigation, and management of congenital, nasolacrimal duct obstruction and dacryocystitis.

PSYCHOMOTOR DOMAIN:

By the end of Module 19, students of 4th year MBBS will be able to perform the following skills:

- Pathology museum + CSF
- Pathology Museum: Gross examination of brain tumor specimen
- Skin tumors basal cell carcinoma
- Skin Tumor & squamous cell carcinoma
- Introduction to Community Museum
- Ice berg phenomena and diseases that exhibit the phenomena
- Epidemiological trial with examples
- Natural history of disease
- Level of Prevention
- Blindness



ATTITUDE:

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



- Follow the basic ward protocols
- Participate in class and practical work efficiently
- Maintain discipline of the college.
- Follow the norms of the college properly.
- Communicate effectively in a team with colleagues and teachers.
- Demonstrate professionalism and ethical values in dealing with patients, cadavers, colleagues, and teachers.
- Communicate effectively in a team with colleagues and teachers.
- Demonstrate the ability to reflect on the performance.

COURSE CONTENT & LEARNING OBJECTIVES

At the end of the teaching session the student should be able to achieve the following objectives:

<u>PATHOLOGY LECTURES</u>		
S.NO	TOPICS	LEARNING OBJECTIVES
1.	Basic terminology in CNS/ Introduction to types & features of neuronal injury	- Define basic terminologies used in CNS related to anatomy, histology, cell types with functions. - Enlist different types of neuronal injuries.
2.	Hemorrhages / Vascular Injuries	- Describe the mechanism and pathology of brain vascular supply. - Enumerate causes & pathogenesis of vascular injuries. - Enumerate causes of brain hemorrhages. - Describe the Pathogenesis of intracranial hemorrhage. - Enlist types of hematomas & their pathogenesis.
3.	Motor Neuron Diseases (Huntington's diseases, spinocerebellar Ataxia)	- Risk Factors, pathogenesis, & morphology of Huntington disease & Clinical Features of spinocerebellar ataxia. - Pathogenesis of Huntington disease, spinocerebellar ataxia. - Key morphological features of Huntington disease - Differentiate between enlisted disorders.
4.	Neurodegenerative Disorders (Alzheimer's & Parkinson's)	- Enlist the Types of neurodegenerative disorder, Alzheimer & Parkinson disease. - Describe the Risk Factors, pathogenesis, morphology & Clinical features of Alzheimer & Parkinson disease.
5.	Infections – I (Meningitis)	- Define meningitis. - Enumerate types of meningitis. - Enlist causes of meningitis in children & adults. - Describe the Pathogenesis of different types of meningitis. - Differentiate between the types based on CSF examination.
6.	Infections – II (Encephalitis, Brain Abscess & Cerebral toxoplasmosis)	- Define Encephalitis. - Enlist causes of encephalitis, brain abscess, cerebral toxoplasmosis - Describe the Pathogenesis of encephalitis, brain abscess, cerebral toxoplasmosis. - Enlist the morphological features in cerebral toxoplasmosis.
7.	Acute & Chronic demyelinating diseases (Multiple Sclerosis)	- Define multiple sclerosis. - Describe the Epidemiology of Multiple sclerosis. - Describe the Pathogenesis & key morphological features of multiple sclerosis
8.	Disorders of Neuromuscular junction (Myasthenia Gravis)	- Enlist the Types of disorders of neuromuscular junction. - Describe the Risk Factors, pathogenesis, & clinical features of Myasthenia Gravis.
9.	Classification of brain tumors & Epidemiology	- Enlist and Classify benign & malignant brain tumors. - Common tumors in children & adults. - Epidemiology of brain tumors in Pakistan - Epidemiology of brain tumors worldwide studying - Globocon 2024-WHO
10.	Astrocytoma	Define astrocytoma.

		- Enumerate types of astrocytoma. - Describe the Pathogenesis of astrocytoma. - Enlist the Key morphological features of different types of astrocytoma.
11.	Ependymoma & Oligodendroglioma	- Define ependymoma & oligodendroglioma - Enumerate the types of ependymoma, oligodendroglioma. - Describe the Pathogenesis of ependymoma, oligodendroglioma. - Enlist the Key morphological features of ependymoma, Oligodendroglioma
12.	Meningioma & Medulloblastoma	- Define meningioma & medulloblastoma. - Enumerate the types of meningioma, medulloblastoma. - Describe the Pathogenesis of meningioma & medulloblastoma. - Enlist the Key morphological features of meningioma & medulloblastoma.
13.	Peripheral Nerve Sheath tumors (Neurofibroma, Schwannoma & Neurofibromatosis)	- Enumerate tumors of peripheral nerve sheath - Enlist the risk factors of peripheral nerve sheath - Describe the pathogenesis of enlisted tumors. - Enlist the Key features in morphology of Neurofibroma, schwannoma & neurofibromatosis.
14.	Overview of brain tumors	- Enlist benign & malignant brain tumors - Enlist the Common tumors in adults & children. - Enlist the Key morphological features of common brain tumor. - Differentiate between the different tumors morphologically.

PATHOLOGY PRACTICALS

S.NO	TOPICS	LEARNING OBJECTIVES
1.	Pathology Museum (Study of brain with different diseases)	- Identify the gross structure and microscopic features of: - brain model for different disease.
2.	CSF Examination & its Clinical Correlation	- Describe the chemical, cytological composition of CSF - Estimate the following analysis of CSF: • hemistry • Cytology • Gram stain • Microbiology
3.	Astrocytoma (Morphology)	Identify the gross structure and microscopic features of Astrocytoma.
4.	Meningioma (Morphology)	Identify the gross structure and microscopic features of meningioma.
5.	Neurofibroma, Schwannoma (Morphology)	- Identify the gross structure and microscopic features of neurofibroma & schwannoma. - Differentiate between neurofibroma & schwannoma morphologically.

PATHOLOGY SGDS

S.NO	TOPICS	LEARNING OBJECTIVES
1.	Hypoxia, Ischemia, Infarction	• Define hypoxia, ischemia, infarction • Enlist the causes of hypoxia, ischemia, infarction • Discuss the Pathogenesis of hypoxia, ischemia, infarction • Enlist the Key morphological features of hypoxia, ischemia, infarction.
2.	developmental disorders of CNS Hydrocephalus, Meningocele, meningioma spinal bifida	• Define Hydrocephalus, meningocele, meningioma spinal bifida. • Enlist the Causes & pathogenesis of Hydrocephalus, meningocele, meningioma, spinal bifida. • Differentiate between these conditions.
3.	Astrocytoma (Grading & Staging)	• Define Astrocytoma. • Enumerate the types of astrocytoma. • Describe the Key morphological features of astrocytoma. • Discuss the Grading & staging of astrocytoma.
4	Ependymoma, Oligodendroglioma & Medulloblastoma (Grading & Staging)	• Define Ependymoma, oligodendroglioma, medulloblastoma. • Discuss the pathogenesis of Ependymoma, oligodendroglioma, medulloblastoma. • Enlist the Key Morphological features of Ependymoma, oligodendroglioma, medulloblastoma. • Discuss the Grading & staging of Ependymoma, oligodendroglioma, medulloblastoma.
5	Patterns & types of peripheral nerve injuries	• Enlist the Types of peripheral nerve injury. • Enlist the disorder associated with peripheral nerve injury. • Discuss the pathologic changes in peripheral neuropathies.

COMMUNITY MEDICINE LECTURES

S.NO	TOPICS	LEARNING OBJECTIVES
1.	Introduction to community medicine / public health	- Define community medicine and explain its scope in relation to clinical medicine and public health. - Definition, importance of Public Health - Importance of tracking public health progress to understand the challenges and successes in Pakistan
2.	Basic Epidemiology introduction	- Define epidemiology and explain its scope in medicine and public health. - Describe the key objectives of epidemiology
3.	Research and its components	- Explain the research process - Explain the research problem - Identify the problems for research
4.	Global burden of neurological diseases	- Analyze the global epidemiological trends, prevalence, and incidence of major neurological disorders. - Evaluate the concept of Disability-Adjusted Life Years (DALYs) to measure the true burden of neurological conditions. - Identify the leading neurological contributors to global mortality and long-term disability. - Appraise the modifiable and non-modifiable risk factors associated with the global rise of neurological diseases. - Discuss public health strategies, preventive measures, and policy frameworks for reducing the neurological disease burden.
5.	Basic epidemiology study designs	- Define epidemiological study design and explain its importance in research and public health. - Classify study designs into broad categories: observational and experimental.
6.	Changing concepts of health	- Define health according to different perspectives, including the WHO definition. - Describe the evolution of health concepts over time
7.	The role of federal & provincial govt. In health care	- Understand the Federal Government's Role: - Describe the federal government's responsibilities in healthcare - explain the federal government funds health care programs, such as national immunization campaigns, disease control initiatives, and health education. - Understand the Provincial Government's Role: - Identify the responsibilities of provincial governments in managing and delivering health care services and explain how provincial health departments are responsible for primary and secondary health care services, hospitals, maternal and child health programs, and local health initiatives.
8.	Research identification, prioritization of research problem, introduction to qualitative research methodology	- Identify the research problem - Discuss the selection of the most suitable problem for research in the community - Writing the title - Discuss how to Write the title of research
9.	Concept of causation	- Discuss concept of causation - Discuss the Germ theory of disease

		• Discuss the Epidemiological triad • Multifactorial causation • Web of causation
10.	Descriptive study (Cross sectional prevalence study longitudinal incidence study-I)	• Define a cross-sectional study and explain its role in measuring prevalence of disease or health conditions. • Define a longitudinal (cohort) study and explain its role in measuring incidence of disease over time.
11	Health for all, background, concept and progress	• Understand the background of "health for all", origin, and explain the historical context and global health challenges that led to the development of the "health for all" concept. • Define "health for all" and explain its fundamental principles, goals and objectives. • Evaluate the progress, key challenges and barriers to achieving "health for all". • Understand the role of international organizations, governments, civil society, and communities in advancing the "health for all" agenda. • Evaluate the role of different stakeholders
12.	Mental Health	• Describe classification of mental health illnesses • Define mental health • Discuss global perspectives and epidemiology of mental health disorders • Discuss risk factors leading to mental health problems • Discuss prevention and control of mental health disorders
13.	Research, how to write research & survey methodology. Research writing introduction & methodology	• Define research • Discuss the different parts of the introduction • Discuss the method material section of thesis
14.	Prevention and control of stroke	• Discuss the prevention and control of stroke
15.	Cross sectional prevalence study longitudinal incidence study-II	• Define a cross-sectional study and explain its role in measuring prevalence of disease or health conditions. • Define a longitudinal (cohort) study and explain its role in measuring incidence of disease over time.
16.	Prevention and control of rabies	• Define the rabies virus and its global public health burden. • Identify the primary animal reservoirs and modes of transmission to humans. • Describe the pathogenesis and clinical stages of rabies in humans. • Classify categories of animal contact (Category I, II, and III exposures) according to WHO guidelines. • Determine when post-exposure prophylaxis (PEP) is necessary based on the type of exposure and animal status. • Explain the immediate steps for local wound management after an animal bite. • Discuss the Outline the correct schedules for rabies post-exposure vaccination and rabies immunoglobulin (RIG) administration. • Identify target groups and schedules for pre-exposure prophylaxis (PrEP).
17.	Background, Objectives, Concept	• Distinguish between Primary, Secondary and Tertiary Healthcare

		• Explain how PHC acts as the core foundation for achieving Universal Health Coverage (UHC). • Discuss the importance of empowering local communities to take charge of their own health decisions. • Discuss the Value the necessity of working with non-health sectors (like education, agriculture, and sanitation) to improve overall public health.
18	Spectrum of diseases Concept of disease	• Discuss the spectrum of disease.
19	Primary Health Care	• Define Primary Health Care as essential health care made universally accessible to individuals and families in the community. • Discuss the history of PHC, including the landmark Alma-Ata Declaration of 1978 and the Astana Declaration of 2018. • Enlist the core principles of PHC, which include equitable distribution, community participation, intersectoral coordination, and appropriate technology. • Identify the 8 essential elements of PHC (such as education on health problems, proper food supply, safe water, maternal and child care, immunization, and treatment of common diseases).
20	Prevention and control of head energy (RTA)	• Define the epidemiological triad (agent, host, environment) concerning Road Traffic Accidents (RTAs) and head injuries. • Describe the global and national burden, trends, and risk factors of RTAs. • Classify prevention strategies into primary, secondary, and tertiary levels. • Explain Haddon's Matrix and its application to RTA prevention. • Analyze the specific risk factors contributing to head injuries during RTAs. • Identify high-risk vulnerable road users within the community. • Apply public health surveillance principles to monitor and report RTAs.
21	Resources for health and community mobilization (examples from neurological diseases)	• Understand the concept of resources for health and define the different types of resources for health, including human, financial, infrastructure, and technological resources. • Explain the importance of these resources in achieving effective and equitable health service delivery in Pakistan. • Understand the challenges related to the availability, allocation, and management of health resources in Pakistan. • Identify major challenges in mobilizing and managing resources for health in Pakistan, such as inadequate funding, human resource shortages, and infrastructure gaps. • Define community mobilization and discuss the principles of community mobilization, including participation, empowerment, partnership, and sustainability
22	Analytical studies case control studies	• Define analytical epidemiology and explain the purpose of analytical studies. • Describe the design of a case-control study (selection of cases and controls, exposure assessment).
23	Research writing and discussion	• Enlist the steps of conducting evidence research

24.	Cohort study I	• Enlist the steps of conducting RCT & NRCT
25.	International Vs Global health	• Define and understand the concept "international health" and distinguish it from related concepts like global health and public health. • Explain the importance of international health in addressing health issues that cross national borders and impact populations globally. • Recognize the historical development of international health as a field of study and practice. • Identify major global health challenges. Understand the impact of social determinants of health, such as poverty, education, gender, and environment, on international health outcomes. • Analyse the health effects of global phenomena like climate change, migration, conflict, and pandemics. • Describe the roles and responsibilities of key international health organizations
26.	Vertical & horizontal program in Pakistan (EPI & LHW program)	• Define vertical and horizontal health programs and explain the key differences between them. • Describe the objectives, structure, and scope of the expanded program on immunization (epi) in Pakistan and understand the specific diseases targeted by epi. • Describe the objectives, structure, and scope of the lady health worker (lhw) program in Pakistan. • Discuss the role of lhws in delivering a broad range of primary health care services, including maternal and child health, family planning, nutrition, and health education.
27.	Natural history of Diseases	• Define the concept of Natural history of disease • Explain the sequence of events in disease progression from Pre-pathogenesis stage to pathogenesis stage without medical intervention • Describe the role of preventive measures at different stages • Apply the concept of prevention to common communicable and non-communicable diseases • Discuss the importance of understanding natural history of disease in planning public health interventions, screening programs and health policy. • Discuss how to apply three levels of prevention on malnourished child
28.	Analytical studies cohort studies	• Define a cohort study and explain its purpose in analytical epidemiology. • Differentiate between prospective and retrospective cohort studies. • Describe the design steps of a cohort study
29.	Format of Dissertation	• Formulate a clear research problem and design an appropriate study to address it.

COMMUNITY MEDICINE SGDS

S.NO	TOPICS	LEARNING OBJECTIVES
1.	Health dimension / health determinants	- Define health according to the WHO concept. - Describe the major dimensions of health – physical, mental, social, spiritual and emotional. - Explain the determinants of health and their interrelationships.
2.	Polio And Tautness	- Define polio and tetanus and identify their causative agents. - Describe the epidemiology, mode of transmission, and risk factors. - Explain the clinical features and complications of both diseases.
3.	Health indicators (PQLI, HDI)	- Discuss & present human development index - Health indicators - Classification of indicators
4.	Neurological disorders and public health approach	- Define neurological disorders and describe their public health importance. - Identify common neurological disorders such as epilepsy, stroke, dementia, Parkinsonism, meningitis, and migraine. - Explain the relationship between neurological disorders and mental health, including depression, anxiety, cognitive and behavioral problems.
5.	Evaluation of public health & Branches of public health and Development of Public health Pakistan	- Define public health and explain its importance in the community. - Describe the development and major milestones of public health in Pakistan. - Identify major public health programmes and services in Pakistan. - Explain the need and principles of evaluating public health programmes.
6.	Sustainable development goals	- Discuss the sustainable development goals (SDGs) - Discuss the Background of sustainable development goals (SDGs) - Discuss the basic concept of SDG'S

COMMUNITY MEDICINE PRACTICALS

S.NO	TOPICS	LEARNING OBJECTIVES
1.	community Museum	• Explain how to Maintain a structured written record (museum logbook/worksheet) of exhibits observed, correlating each with its public health relevance. • Demonstrate professional curiosity and attentiveness while observing sensitive exhibits (e.g., malnutrition, disability, congenital anomaly models). • Appreciate the value of visual and model-based tools for future community health education and patient/family counseling. • Demonstrate responsible, careful, and respectful handling of museum specimens and models.
2.	EPI schedule and cold chain	• Enlist vaccines under the National Immunization Schedule with age, dose, route and site. • Describe cold chain equipment and vaccine storage temperatures. • Explain vaccine vial monitor stages and common AEFIs. • Demonstrate correct cold chain maintenance and vaccine handling.
3.	Effect Of Substance Abuse On Mental Health Mental Health Program	• Classify commonly abused substances and describe their neuropsychiatric effects. • Explain tolerance, dependence, and withdrawal. • Describe screening tools (CAGE, AUDIT) and red-flag features. • Describe the objectives and components of NMHP and DMHP. • Enumerate common mental disorders encountered in primary care. • Explain salient patient-rights provisions of the Mental Healthcare Act 2017.
4.	Snake Bite	• Classify medically important venomous snakes of the region. • Describe clinical features of neurotoxic and hemotoxic envenomation. • Explain indications, dosage principles and administration of Anti-Snake Venom (ASV) per national protocol.
5.	leprosy and National Leprosy control program	• Classify leprosy as paucibacillary / multibacillary using clinical criteria. • Describe cardinal signs and WHO disability grading. • Explain the MDT regimen and objectives of NLEP.
6.	Epidemiological Triad / ICE berg Phenomenon	• Explain agent-host-environment components of the epidemiological triad as applied to a neurological disease (e.g., epilepsy, stroke, neurocysticercosis). • Describe the concept and levels of the iceberg phenomenon. • Correlate underreporting/under-treatment of neurological disorders with the iceberg concept. • Apply the epidemiological triad model to a given neurological case scenario.

E.N.T LECTURES

S.NO	TOPICS	LEARNING OBJECTIVES
1.	Introduction to ENT	Define the scope of ENT as a medical and surgical specialty.
2.	Anatomy & Physiology of ear	Discuss the anatomy & physiology of ear
3.	Diseases of Pinna	Describe the clinical presentation, the examination, the investigations and treatment plan
4.	Diseases of external Ear	- Discuss the clinical presentations examination, investigations findings and treatment plan for the diseases of external ear - Develop management plan for impacted wax & foreign body

OPHTHAMOLOGY LECTURES

S.NO	TOPICS	LEARNING OBJECTIVES
1.	Introduction to module and subject ophthalmology	Define ophthalmology
2.	Refractive Error	- Discuss pathophysiology and clinical presentation of myopia, hypermetropia, astigmatism and presbyopia - Describe management of myopia, hypermetropia, astigmatism and presbyopia.
3.	Eyelids (Blephritis, Chalazions and lid tumors, Trichiasis, Entropion and Ectropion, Ptosis)	- Discuss overview of different causes of lid bumps. - Describe pathophysiology and management of chalazion and sty. - Enlist different eyelid tumors and its pathogenesis. - Explain management plan of lid bumps. - Enumerate causes of ptosis, assessment and their management. - Discuss Trichiasis, Entropion and Ectropion, assessment and their management. - Describe the etiology, clinical features, investigation and management of proptosis in children and adults
4.	Lacrimal Dacryocystitis congenital NLD obstruction	- Discuss the etiology, clinical features, investigation, and management of congenital, nasolacrimal duct obstruction and dacryocystitis - Assess the time of probing in children
5.	Orbit Proptosis, thyroid eye Disease and orbital cellulitis	- Discuss the etiology, clinical features, investigation and management of TED & amp; - Explain Orbital cellulitis
6.	Ocular surface conjunctivitis	- Define conjunctivitis and explain its relevance as an ocular surface disorder. - Classify conjunctivitis into bacterial, viral, allergic, neonatal, and other types. - Describe the common causes and risk factors of conjunctivitis. - Identify the key clinical features of different types of conjunctivitis

GENERAL MEDICINE LECTURES

S.NO	TOPICS	LEARNING OBJECTIVES
1.	Motor Neuron Disease	- Describe the etiology, risk factors, morphology & clinical features of motor neuron diseases - Describe the types, clinical presentation and management of motor neuron diseases
2.	Parkinson Disease	Describe the etiology, risk factors, morphology & clinical features of Parkinson diseases
3.	Meningitis	Describe the etiology, risk factors, morphology & clinical features of management of meningitis.
4.	Multiple Sclerosis	Explain the pathophysiology, clinical features and management of Multiple sclerosis
5	Stroke CVA	- Describe the risk factors of stroke - Explain the types of strokes - Describe the clinical features, radiological features & management of a patient with stroke due to infarction

PSYCHIATRY LECTURES

S.NO	TOPICS	LEARNING OBJECTIVES
1.	Depressive disorders and atypical depression	- Describe the clinical presentation of atypical depression C/F Management Recognize the symptoms of atypical depression - Describe the management of atypical depression and seasonal affective disorders
2.	Delusional Disorders	- Describe the types and management of delusional disorders - Describe the ways of differentiating delusional disorders from Schizophrenias
3.	Bipolar Affective disorder	- Define bipolar affective disorder and distinguish it from unipolar depression. - Describe the epidemiology, etiology, and risk factors of BPAD. - Explain the clinical features of manic, hypomanic, depressive, and mixed episodes
4	Anxiety dissociative stress somatoform disorders	- Classify anxiety disorders - Differentiate between medical and psychiatric causes of anxiety - Differentiate between anxiety and phobia - Explain the different behavioral and neurological presentations of dissociative disorders Types Management Describe the pharmacological and non-pharmacological management of dissociative disorders - Classify the somatoform disorders
5	Substance use disorder	- Define substance use, abuse, dependence, and addiction according to standard diagnostic criteria. - Classify the commonly abused substances
6	Suicide and self-harm	- Recognize pattern and statistics - Identify the triggers of suicide - Describe the common predictors of suicide and elaborate management plan for given pathologies

ANATOMY LECTURES

S.NO	TOPICS	LEARNING OBJECTIVES
1.	Overview of Anatomy of Brain & Eye	- Describe the gross anatomy of the eye, including the eyeball, coats, chambers, lens, retina, and optic nerve. - Identify the major anatomical structures of the eye and their relationships. - Describe the extraocular muscles, their attachments, actions, and nerve supply. - Explain the arterial supply and venous drainage of the eye and the course of the optic pathway.

ORTHOPEDICS LECTURES

S.NO	TOPICS	LEARNING OBJECTIVES
1.	Peripheral nerve injuries	- Describe the types and management of peripheral nerve injury - Explain entrapment neuropathies - Describe the risk factors, clinical features and management of Carpal tunnel syndrome

PHARMACOLOGY LECTURES

S.NO	TOPICS	LEARNING OBJECTIVE
1.	Introduction to CNS Pharmacology	- Describe basic terms like neurotransmitters, neuromodulator/neurotropic factors, withdrawal symptoms (abstinence syndrome), cross-tolerance, reverse tolerance (sensitization) and cross dependence - Describe the blood-brain barrier and its clinical significance - Enlist the principal neurotransmitters and their receptors in the CNS - Classify the drugs acting on the CNS
2.	Antidepressants	- Classify antidepressants - Describe the mechanism of action, clinical uses, adverse effects and drug interactions of TCAs
3.	Maniac depressive illness, Mood stabilizing drugs	- Describe the concept of "mood-stabilization" in Bipolar affective disorder (Manic Depressive illness) - Enlist Mood-stabilizing drugs
4.	Antipsychotics	- Classify Antipsychotics - Describe the advantages of Atypical antipsychotics over the Typical (Classical/Traditional/Old) agents - Describe the mechanism of action of Antipsychotics

FORENSIC MEDICINE LECTURES

S.NO	TOPICS	LEARNING OBJECTIVE
1.	Classification of Neurotoxins	- Define neurotoxins and explain their general mechanisms of action on the nervous system. - Classify neurotoxins according to their source, chemical nature, site of action, and mechanism of toxicity. - Explain the mechanisms of important neurotoxins such as botulinum toxin, tetanus toxin, organophosphates, and selected marine and venom toxins.
2.	Medical Ethics	- Define medical ethics and explain its importance in professional medical practice. - Describe the fundamental principles of medical ethics, including autonomy, beneficence, non-maleficence, and justice. - Explain the concepts of informed consent, confidentiality, privacy, and professional responsibility.
3.	Drug dependence & forensic psychiatry	- Describe Drug dependence and its psychological effects. - Describe drug abuse and outline the procedure to investigate a case due to narcotics.

PHYSIOLOGY LECTURES

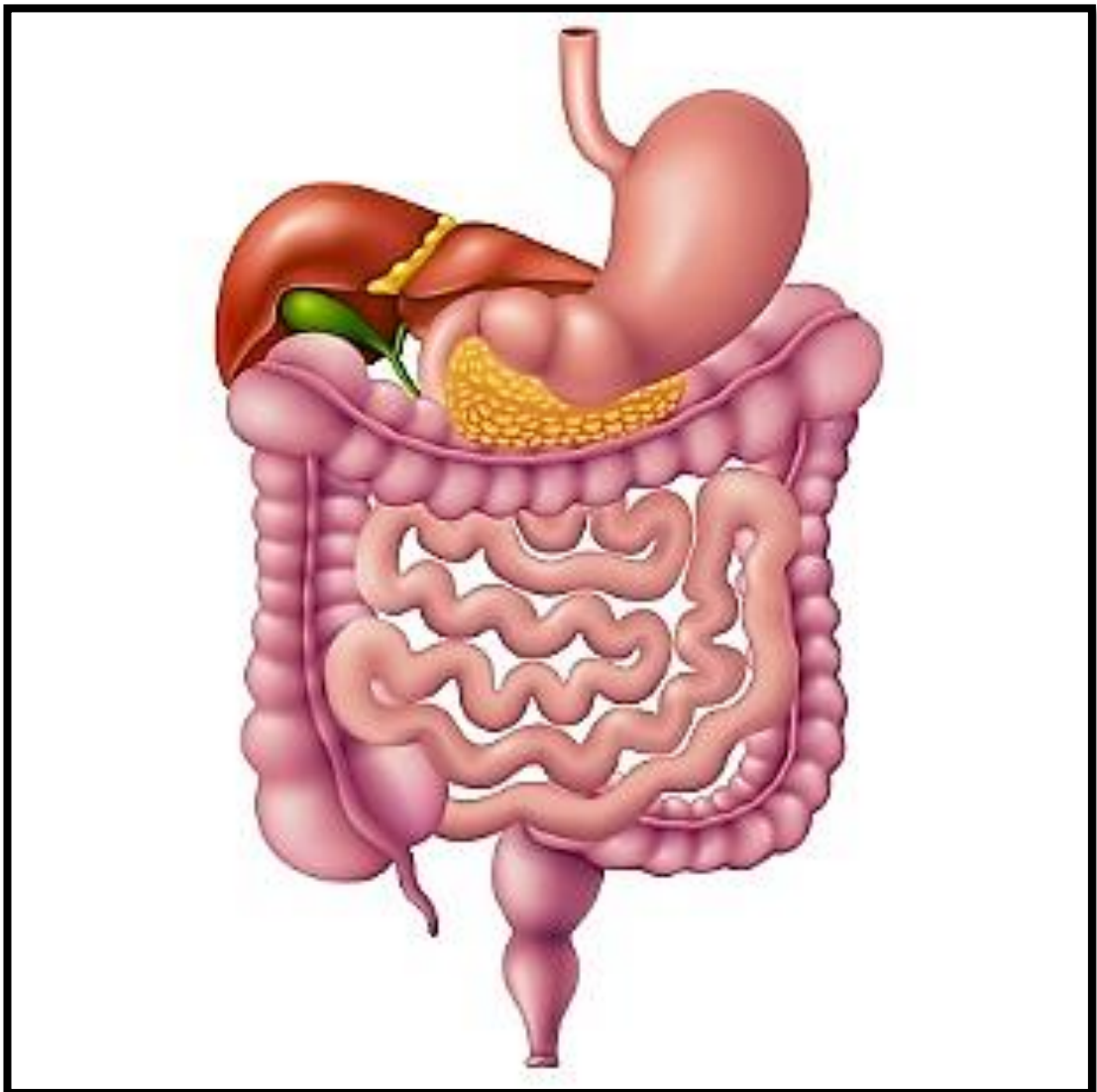
S.NO	TOPICS	LEARNING OBJECTIVE
1.	Introduction to Neurophysiology	- Define neurophysiology and explain its role in understanding normal nervous system function. - Describe the basic organization of the nervous system and its functional divisions. - Explain the resting membrane potential and the ionic basis of neuronal excitability.

BEHAVIORAL SCIENCES LECTURES

S.NO	TOPICS	LEARNING OBJECTIVES
1.	Difficult patients & attendants & conflict resolution	- Define difficult patient and attendant behaviors and explain common causes of conflict in healthcare settings. - Identify common challenging behaviors, including anger, aggression, anxiety, non-compliance, excessive demands, and unrealistic expectations. - Explain the principles of conflict resolution, including identifying the problem, acknowledging concerns, exploring solutions, and reaching an appropriate agreement.

MODULE – 20

GASTROINTESTINAL & HEPATOBILIARY – II



GENERAL OUTCOMES

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

COGNITIVE DOMAIN:

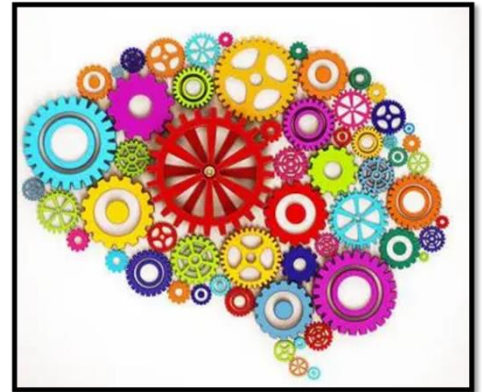
At the end of block 10, the students of 4th year MBBS will have knowledge about

- Define, etiology, pathogenesis morphology of premalignant lesions.
- Enumerate etiology pathogenesis of white lesions of oral cavity.
- Classification of tumors. Classify tumors of salivary glands
- Discuss the Epidemiology, etiology, pathogenesis, morphology of squamous cell carcinoma, adenocarcinoma.
- Enumerate inflammatory lesions.
- Discuss etiology, pathogenesis, morphology of common tumors, GERD, Barret esophagus, SCC, adenocarcinoma, acute and chronic gastritis, gastric polyps and cancer, ulcerative colitis and Crohn disease, colorectal carcinoma, carcinoid, Cholecystitis, Gall Bladder, pancreas and pancreatitis.
- Discuss the etiology, clinical presentations, the examination findings and investigations and treatment plan of Acute & Chronic Pharyngitis, H&N infections ludwigs angina and RPS abscess, acute suppurative otitis media, Quingy and PPS abscess, Secretory otitis media.
- Discuss the Papilloma, hypopharyngeal carcinoma, Oropharyngeal Ca, Lymphoma, syndrome.
- Define system and health system. Differentiate between Health work force and health units. Recognize Health system stakeholders. Enlist Factor influencing health system.
- Discuss different descriptive study designs, analytical study designs.
- Define demography. Explain Different components of demography Cycles with example. Describe Demographic transition and population pyramids.
- Define water pollution Enlist its Types Explain the Causes of water pollution Discuss the Diseases caused by it.
- Describe Water related disease. Differentiate between Types of water related diseases.
- Explain Water purification in small scale. Compare and Contrast Different methods of water purification on small scale.
- Describe Well purification. Discuss Hardness of water and how to remove it.
- Explain Swimming pool sanitation and diseases caused by it.
- Define & discuss cross sectional studies, Case control studies, Cohort study, Randomized control trials.
- Define & describe & Explain the Effects of air pollution, noise pollution.
- Define hospital. Describe and classify types of hospitals. Discuss hospital management principles and its types.
- Classify Hospital wastes. Explain Hospital waste management plan. Discuss Sources of waste in the hospital. Describe the methods of waste disposal.
- Enumerate causes of red eye. Describe pathophysiology and management of different conjunctival (bacterial /viral/allergic) Inflammations.
- Describe differences between Pterygium, Pseudo-ptyerygium, Episcleritis & Scleritis Explain their management.
- Discuss the etiology, clinical features, investigation, and management of corneal ulcers & keratoconus.

PSYCHOMOTOR DOMAIN:

At the end of module 20, the students of 4th year MBBS will be able to perform the following skills

- Identification and Gross examination
- Identification and Gross examination
- Identification and Gross examination
- Acute diarrheal diseases ORS
- Introduction to parasitic diseases, Classification, Hook worm infection ascariasis, Prevention and control of parasitic diseases
- Immunizing agent (Vaccines) indications, contraindications and side effects
- Poor quality housing and disease caused by it
- Waste collection team
- Demography and social implication of high population growth



ATTITUDE:

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



- Follow the basic ward protocols
- Participate in class and practical work efficiently
- Maintain discipline of the college.
- Follow the norms of the college properly.
- Communicate effectively in a team with colleagues and teachers.
- Demonstrate professionalism and ethical values in dealing with patients, cadavers, colleagues, and teachers.
- Communicate effectively in a team with colleagues and teachers.
- Demonstrate the ability to reflect on the performance.

LEARNING OBJECTIVES & COURSE CONTENTS:

At the end of the teaching session the student should be able to achieve the following objectives:

<u>PATHOLOGY LECTURES</u>		
S.NO	TOPICS	LEARNING OBJECTIVES
1.	Pre-Malignant lesions of oral cavity	• Define premalignant lesions of the oral cavity. • Identify the etiology, pathogenesis, and morphology of premalignant lesions. • Enumerate and discuss the etiology and pathogenesis of white lesions of the oral cavity. • Describe the key morphological features of leukoplakia and erythroplakia.
2.	Tumors of Oral Cavity	• Enumerate the major tumors of the oral cavity. • Discuss the epidemiology, etiology, pathogenesis, and morphology of squamous cell carcinoma and adenocarcinoma of the oral cavity.
3.	Tumors of Salivary Glands	• Classify the tumors of the salivary glands. • Discuss the etiology and pathogenesis of salivary gland tumors. • Describe the key morphological features of pleomorphic adenoma and Warthin tumor.
4.	Diseases of Esophagus (GERD,) Barrett Esophagus	• Define gastroesophageal reflux disease (GERD) and Barrett esophagus. • Discuss the etiology and pathogenesis of GERD and Barrett esophagus. • Describe the key morphological features of GERD and Barrett esophagus. • Enumerate the complications of GERD and Barrett esophagus.
5.	Tumors of Esophagus SCC, Adenocarcinoma	• Enumerate the major tumors of the esophagus. • Discuss the epidemiology, etiology, and pathogenesis of esophageal squamous cell carcinoma and adenocarcinoma. • Describe the key morphological features of esophageal squamous cell carcinoma and adenocarcinoma.
6.	Diseases of Stomach Gastritis (Acute & Chronic)	• Define acute and chronic gastritis. • Identify the major etiological factors associated with acute and chronic gastritis. • Discuss the pathogenesis of acute and chronic gastritis. • Describe the key morphological features of acute and chronic gastritis. • Enumerate the complications of acute and chronic gastritis.
7.	Peptic Ulcer diseases (PUD)	• Define peptic ulcer disease. • Identify the major etiological factors associated with peptic ulcer disease. • Discuss the pathogenesis of peptic ulcer disease. • Describe the key morphological features of peptic ulcer disease.

		Enumerate the complications of peptic ulcer disease.
8.	Diseases of Stomach Gastritis (Autoimmune Gastritis)	- Define autoimmune gastritis. - Identify the major etiological factors associated with autoimmune gastritis. - Discuss the pathogenesis of autoimmune gastritis. - Describe the key morphological features of autoimmune gastritis. - Enumerate the complications of autoimmune gastritis.
9.	Gastric Polyps & Tumors	- Define a gastric polyp. - Enumerate the causes of gastric polyps. - Discuss the epidemiology and pathogenesis of gastric polyps. - Describe the morphology and complications of gastric polyps. - Enumerate the major tumors of the stomach. - Identify the risk factors associated with gastric carcinoma. - Discuss the epidemiology and pathogenesis of gastric adenocarcinoma. - Describe the key morphological features of gastric adenocarcinoma.
10.	Diarrheal Diseases	- Classify diarrheal diseases into major types. - Enumerate the major etiological agents causing diarrheal diseases. - Discuss the pathogenesis of diarrheal diseases. - Enumerate the complications associated with diarrheal diseases.
11.	Diseases of small/large intestine inflammatory bowel diseases (IBD), (Ulcerative colitis and Crohn disease)	- Define Crohn disease and ulcerative colitis. - Discuss the epidemiology, etiology, and pathogenesis of ulcerative colitis and Crohn disease. - Describe the key morphological features of ulcerative colitis and Crohn disease. - Enumerate the complications of ulcerative colitis and Crohn disease.
12.	Tumors of small/large intestine Colorectal Carcinoma	- Enumerate the major tumors of the small and large intestine. - Discuss the epidemiology, etiology, and pathogenesis of colorectal carcinoma. - Describe the key morphological features of colorectal carcinoma. - Enumerate the complications of colorectal carcinoma.
13.	Viral Hepatitis (A.B.C.E)	- Define viral hepatitis. - Enumerate the causative viruses of hepatitis A, B, C, and E. - Discuss the pathogenesis and clinical features of viral hepatitis. - Enumerate the complications of viral hepatitis. - Identify and interpret the serological markers of hepatitis A, B, C, and E.
14.	Chronic liver disease Portal hypertension, Cirrhosis	- Define portal hypertension and cirrhosis. - Enumerate the causes of portal hypertension and cirrhosis. - Discuss the pathogenesis of portal hypertension.

		• Enumerate the complications of portal hypertension. • Describe the key morphological features of cirrhosis.
15.	LFT's & its Clinical Correlations	• Define liver function tests (LFTs). • Enumerate the major liver function tests. • Explain the clinical significance of individual LFT parameters. • Correlate LFT findings with common liver diseases.
16.	Tumors of liver – Hepatocellular carcinoma HCC /	• Enumerate the major tumors of the liver. • Identify the major risk factors and causes associated with hepatocellular carcinoma. • Discuss the pathogenesis of hepatocellular carcinoma. • Describe the key morphological features of hepatocellular carcinoma. • Enumerate the complications of hepatocellular carcinoma.
15.	Diseases of Gall Bladder (GB) & Pancreas. Cholecystitis, Cholelithiasis	• Define cholecystitis and cholelithiasis. • Enumerate the etiological factors associated with cholecystitis and cholelithiasis. • Classify gallbladder stones into major types. • Discuss the pathogenesis of cholecystitis and cholelithiasis. • Describe the key morphological features of cholecystitis and cholelithiasis. • Enumerate the complications of cholecystitis and cholelithiasis.
16.	Pancreatitis	• Define acute and chronic pancreatitis. • Enumerate the causes of acute and chronic pancreatitis. • Discuss the pathogenesis of acute and chronic pancreatitis. • Describe the key morphological features of acute and chronic pancreatitis. • Identify the laboratory findings associated with pancreatitis. • Enumerate the complications of acute and chronic pancreatitis.
17.	Tumors of Gall Bladder & Pancreas	• Enumerate the major tumors of the gallbladder and pancreas. • Discuss the pathogenesis of gallbladder carcinoma and pancreatic carcinoma. • Describe the key morphological features of gallbladder carcinoma and pancreatic carcinoma.

PATHOLOGY PRACTICALS

S.NO	TOPICS	LEARNING OBJECTIVES
1.	Pleomorphic adenoma	- Identify the specimen of pleomorphic adenoma. - Identify gross features of pleomorphic adenoma - Identify key microscopic features of pleomorphic adenoma. - Draw & Label gross and microscopic features of pleomorphic adenoma.
2.	Barret Esophagus with Dysplasia & Adenocarcinoma	- Identify gross & microscopic features of BE. - Identify gross & microscopic features of complications of BE- dysplasia, adenocarcinoma. - Identify Key points of identification of BE with dysplasia & adenocarcinoma.
3.	Gastric Adenocarcinoma	- Identify stomach with gross feature of adenocarcinoma. - Identify key microscopic features of gastric adenocarcinoma
4.	Ulcerative Colitis, Crohn Disease	- Identify the lesions of UC & CD on gross examination - Identify key microscopic points of identification of UC & CD - Differentiate UC from CD morphologically.
5.	Liver function tests (LFTs)	- Enumerate LFTs - Principle of LFTs - Clinical correlation of LFTs in Liver diseases
6	Gallstones / Cholecystitis	- Identify gross specimen of GB with cholecystitis & cholelithiasis. - Identify key microscopic features of cholecystitis with cholelithiasis

PATHOLOGY SGD's

S.NO	TOPICS	LEARNING OBJECTIVES
1.	Proliferative & Ulcerative lesions of oral cavity	- Define ulcer. - Enumerate the causes of oral ulcers. - Describe the pathogenesis & morphology of proliferative & ulcerative lesions. - Differentiate the different lesions.
2.	Developmental disorders of esophagus- Achalasia, Hiatal Hernia	- Enlist the developmental disorders of esophagus. - Define Achalasia, Hiatal Hernia. - Enumerate the types of achalasia & hiatal hernia. - Enlist the causes of achalasia & hiatal hernia. - Discuss the pathogenesis, key morphological features & complications of achalasia & hiatus hernia.
3.	Gastric Tumors- Carcinoid, GIST, Lymphoma	- Classify the gastric Tumors- Carcinoid, GIST, Lymphoma - Describe the pathogenesis, morphology, lab diagnosis and complications of Gastric Tumors- Carcinoid, GIST, Lymphoma
4.	Developmental disorders of small Large intestine- Hirschsprung disease, Meckel diverticulum	- Enlist the developmental disorders of small & large intestine. - Define Hirschsprung disease. - Discuss the causes, pathogenesis, morphology & complications of Hirschsprung disease. - Define and enlist the causes of Meckel Diverticulum. - Discuss the pathogenesis & morphology of Meckel Diverticulum.
5.	Liver – Cholestatic syndromes	- Define cholestasis. - Classify cholestasis. - Enumerate the cholestatic disease in children & adults. - Briefly discuss the causes, pathogenesis & complications of primary biliary cirrhosis, sclerosing cholangitis, drug induced cholestasis
6	Cholangiocarcinoma	- Define intrahepatic cholangiocarcinoma. - Discuss the epidemiology, etiology, clinical features & complications. - Discuss the key morphological features of Cholangiocarcinoma.

COMMUNITY MEDICINE LECTURES

S.NO	TOPICS	LEARNING OBJECTIVES
1.	ABCD of Nutritional Assessment	- Definition of nutritional assessment - Define the Objectives of nutritional assessment - Enlist the Classification of nutritional assessment - Enlist the Methods of nutritional assessment - Discuss the Advantages of nutritional assessment methods - Explain what are the Limitations of nutritional assessment methods
2.	Milk Borne Disease	- Define milk-borne diseases and explain their public health significance. - Classify the sources of milk contamination (e.g., animal, environment, handlers). - List the common bacterial, viral, parasitic, and zoonotic pathogens transmitted via milk. - Identify the clinical manifestations of major milk-borne infections like Bovine Tuberculosis, Brucellosis, and Q Fever. - Describe the steps of the milk pasteurization process and its various methods (e.g., Holder, HTST, UHT). - Interpret the results of quality control tests for milk, specifically the Phosphatase test and Methylene Blue reduction test.
3.	Water related disease (infectious group)	- Classify water related diseases (infectious group) - Discuss the Prevention of water related diseases.
4.	Over View Of Descriptive Study	- Define descriptive epidemiology. - List the three components of the "person, place, time" framework with one example of each. - Enlist the common types of descriptive studies (case report, case series, cross-sectional study). - State the basic steps of a descriptive study in simple sequence (who is studied → how disease is measured → what question/hypothesis is generated).
5.	Concepts, uses and History of Statistics	- Describe the basic concepts of statistics. - Explain the uses and importance of statistics in healthcare and medical research. - Outline the historical development of statistics. - Identify the key milestones in the development of statistics.
6.	Water related diseases (non-infectious group)	- Discusses brief Classification of water related diseases (non – infectious group) - Discuss the Prevention of water related diseases.
7	Food Borne Diseases	- Define and differentiate between key public health terms: foodborne infection, foodborne intoxication (poisoning), and foodborne outbreak. - Classify the common etiological agents of foodborne diseases into biological (bacterial, viral, parasitic), chemical, and physical hazards. - Identify the epidemiological triad (agent, host, environment) and modes of transmission specific to endemic foodborne illnesses. - Enumerate the "Big Five" primary biological pathogens of high public health significance: <i>Salmonella</i>, <i>Shigella</i>, <i>E. coli</i> (EHEC), Norovirus, and Hepatitis A.

		Recognize the clinical syndromes associated with different types of food poisoning (e.g., rapid onset of staphylococcal vomiting vs. delayed, febrile salmonellosis).
8	Data and its uses	- Define data and describe its importance in health research. - Classify data into its major types. - Differentiate between the different types of data. - Explain the uses of data in health research.
9	Cholera	- Define cholera and explain its significance in public health. Describe the global and regional epidemiology of cholera, including its prevalence, incidence, and affected populations. - Understand the impact of cholera on health systems, including morbidity, mortality, and economic costs. Identify the Causes, risk factors and routes of transmission. Discuss the Clinical Presentation and Complications. Explore Public Health Strategies and Policies for Cholera Control
10	Investigation of an Epidemic	- List, in correct order, the basic steps of outbreak investigation (confirm the diagnosis → confirm it is really an epidemic → define a case → collect information → describe by person-place-time → make a guess about the cause → control it). - Define "epidemic curve" in simple terms. - Plot a simple epidemic curve from a small given set of case-count data (e.g., number of cases per day).
11	Experimental Epidemiology Randomized Control Studies	Enlist the methods to conduct RCT
12	How To Collect Hospital Waste	- Discuss waste management at hospital - Discuss methods of hospital waste disposal .
13	Growth Parameters	- Definition of growth and development - Enlist the difference between growth and development? - Discuss the Factor affecting growth of a child - Explain the Growth pattern and parameters.
14.	Developmental Miles Stones	- Define normal developmental milestones from birth to five years of age. - Identify the four core domains of development: gross motor, fine motor, language, and social skills. - List community-based screening tools used to track child growth and development. - Explain the social determinants, like poverty and malnutrition, impact early childhood development. - Interpret the growth and development charts used in local primary health care clinics.
15	Techniques Of Data Presentation	- Enlist the common ways of presenting data (table, bar chart, pie chart, histogram, line graph) - Construct a simple table from a small given dataset. - Construct a simple bar chart or pie chart from given category data
16	Water Pollution	- Define water pollution - Discuss the Classification of water pollution - Enlist the Causes of water pollution?

		• Discuss briefly the Health effects of water pollution • Discuss the control water pollution
17	Small Scale Water Purification	• Explain the classification of water purification • Discuss the methods of water purification • Discuss the advantage and disadvantage of each method
18	Measures Of Central Tendency	• Define mean, median, and mode. • Describe when each measure of central tendency is generally used, including the use of the mean for symmetric data and the median in the presence of extreme values. • Identify the most appropriate measure of central tendency (mean, median, or mode) for a given simple dataset containing an extreme value.
19	Malnutrition	• Define malnutrition • Enlist the various Forms of malnutrition • Enlist the Causes of malnutrition and protein energy malnutrition • Discuss the Clinical pictures of protein energy malnutrition • Discuss the Prevention of protein energy malnutrition
20	Nutrition Health Program	• Identify the major nutritional deficiencies and public health problems in the region. • List the core national and international nutritional health programs currently in operation. • Describe the target components, target beneficiaries, and specific strategies of each program. • Explain the role of multi-sectoral coordination in tackling community malnutrition. • Enlist the indicators used to monitor and evaluate nutritional intervention outcomes.
21	RR.AR.POR	• Discuss the relative risk attributions risk and their public health importance
22	Measure of Dispersion / Population Sampling, Inclusion Exclusion Criteria	• Define range, variance, and standard deviation in simple terms. • Explain the importance of measuring spread in addition to the mean. • Define the terms “sample” and “population.” • Enumerate the common types of sampling, including simple random, systematic, stratified, cluster, and convenience sampling. • Define inclusion criteria and exclusion criteria. • Differentiate between inclusion and exclusion criteria in a research study.
23	Health Management Information System (HMIS)	• Define the fundamental concepts, components, and purpose of a Health Management Information System (HMIS). • Identify the core data sources and indicators used in national and regional public health surveillance. • Describe the data flow process, from primary data collection at the health facility level to national policy-making.

		• Evaluate common challenges in HMIS implementation, such as data quality issues, fragmentation, and under-reporting. • Apply HMIS data interpretation methods to identify local disease trends and plan public health interventions.
24	Hospital Waste And Its Collection	• Define hospital wastes and its sources in health care facilities. • Discuss the factors associated with hospital waste generation. • Explain the status of hospital waste management in Pakistan. • Enlist the groups at risk of developing diseases from hospital risk waste. • Discuss the hazards confronting the local's community and nearby residents, hospital staff due to hospital's dysfunctional waste management system at hospital? • Describe the proper procedures for segregation, transportation and disposal of waste at the point of generation
25	Non Randomized Control Trial	• Define a non-randomized (quasi-experimental). • State basic difference between a randomized controlled trial (RCT) and a non-randomized trial.
26	Health Policy And Planning	• Define health policy and health planning in simple terms. • List the basic steps of health planning (find the problem → set priorities → plan → carry out → check results. • Identify the local health problems and place them in the correct step of the health planning cycle.
27	Hospital Waste And Its Disposal	• Discuss the Classification of hospital waste management methods • Discuss the hospital wastes disposal methods in detail
28	Biases and Confounding	• Define bias and confounding in simple terms. • Enlist the three basic types of bias (selection, information/measurement, recall). • Enlist the methods to reduce confounding (randomization, matching, stratification, multivariate analysis).
29	Normal Curve	• Describe the basic characteristics of a normal distribution curve, including its symmetric and bell-shaped nature. • State the empirical rule for a normal distribution. • Draw a bell-shaped normal distribution curve and label the mean and standard deviation lines. • Whether a given value falls within the normal range when provided with the mean and standard deviation.

COMMUNITY MEDICINE SGDS

S.NO	TOPICS	LEARNING OBJECTIVES
1.	Importance and deficiencies of micro and micro nurturance	- Define and classify macro- and micronutrients. - Enumerate the functions of carbohydrates, proteins, fats, vitamins, and minerals. - List important deficiency diseases and their causative nutrient deficiencies. - Enumerate major dietary sources of important vitamins and minerals.
2.	Food Poisoning	- Define food poisoning and describe its basic concept. - Explain the major modes of transmission and risk factors associated with food poisoning. - Describe the key measures for prevention of food poisoning. - Identify appropriate food hygiene and safety practices for preventing food poisoning.
3.	Prevention and control of parasitic diseases	- Define parasitic diseases and explain their public health importance. - Describe the epidemiology and modes of transmission of common parasitic diseases. - Identify major sources and reservoirs of infection and factors responsible for their spread. - Explain the principles of prevention and control of parasitic diseases.
4.	Hepatitis A, B, C, D & E	- Define viral hepatitis and describe its public health importance. - Identify the causative agents and modes of transmission of Hepatitis A, B, C, D and E. - Describe the epidemiology and risk factors of different types of viral hepatitis. - Recognize the major clinical features and complications. - Explain the methods of diagnosis and screening.
5.	Large Scale Water Purification	- Define large-scale water purification and explain its public health importance. - Describe the main steps of water treatment: screening, aeration, coagulation, sedimentation, filtration, and disinfection. - Explain the role of chlorination in ensuring safe drinking water.
6.	Common Nutritional Of Problems Of Public Health Importance Its Principal	- Define common nutritional problems, including undernutrition and over nutrition. PEM, underweight, wasting, stunting, marasmus and kwashiorkor. - Identify major micronutrient deficiencies and their health effects - Discuss vitamin B-complex, vitamin C and calcium deficiencies and their prevention. - Explain the role of nutrition education, supplementation, fortification and dietary diversification.
7.	Poor Quality Housing	- Define poor-quality housing and its public health importance. - Identify major housing deficiencies such as overcrowding, poor ventilation, dampness, and inadequate sanitation. - Explain the effects of poor housing on physical and mental health.

COMMUNITY MEDICINE PRACTICALS

S.NO	TOPICS	LEARNING OBJECTIVES
1.	Balanced diet and food pyramid	- Define a balanced diet and identify the criteria that qualify a diet as balanced according to age, sex, physiological status, and activity level. - Classify foods into the major food groups according to the food pyramid/food guide plate. - State the recommended number of servings from each food group per day. - Determine the appropriate food group servings for individuals based on their age, sex, physiological status, and activity level.
2.	Food Fortification / adulteration	- Define food fortification, food enrichment, and food adulteration, and differentiate between them with relevant examples. - Enumerate nationally mandated fortified foods in Pakistan, including iodized salt, fortified wheat flour, and fortified edible oil. - Identify the major micronutrients used for food fortification in Pakistan.
3.	Acute Diarrheal diseases and composition of ORS	- Define acute diarrhea, persistent diarrhea, and dysentery, and differentiate between them. - Describe the epidemiology of acute diarrheal diseases in Pakistan and developing countries, including incidence, age distribution, seasonal trends, and risk factors. - Describe the composition of ORS and explain the role of its major components in the management of acute diarrhea.
4.	Growth chart	- Define growth monitoring and state its objectives in child health surveillance. - Identify the standard anthropometric indices used in growth charts, including weight-for-age, height/length-for-age, weight-for-height, BMI-for-age, and head circumference-for-age. - Interpret growth charts using appropriate anthropometric indices to assess child growth.
5.	Quality survey of water analysis / chlorination residual volume	- Define safe/potable water and identify the WHO/national standards for the physical, chemical, and bacteriological quality of drinking water. - Outline the steps involved in conducting a sanitary survey of a water source or supply. - Explain the principle of chlorination as a method of water disinfection, including breakpoint chlorination. - Describe the importance of residual chlorine in assessing the effectiveness of water disinfection.
6.	Management of kwashiorkor / Marasmus	- Define protein-energy malnutrition (PEM) and classify its major clinical forms, including kwashiorkor and marasmus. - Describe the clinical features and nutritional deficiencies associated with kwashiorkor and marasmus. - Explain the concept and protocol of community-based management of acute malnutrition (CMAM) using Ready-to-Use Therapeutic Food (RUTF).
7.	Requirement of health full housing	- Define healthy housing and state its significance to individual and community health. - Identify the essential requirements of healthy housing. - Explain the role of housing conditions in the transmission of communicable diseases, including tuberculosis, acute respiratory infections, and vector-borne diseases.

E.N.T LECTURES

S.NO	TOPICS	LEARNING OBJECTIVES
1.	Ulcers of oral cavities	Discuss the etiology, clinical features, investigations, complications and management of ulcers of oral cavity
2.	Premalignant conditions of the oral cavity	Discuss the etiology, clinical features, investigations, complications and management of pre malignant conditions of the oral cavity
3.	Tumor of oral cavity	Discuss the etiology, clinical features, investigations, complications and management of tumors of the oral cavity
4.	Acute & Chronic Pharyngitis	- Discuss the etiology and clinical presentations of Acute & Chronic Pharyngitis - Enlist the examination findings and investigations of Acute and Chronic Pharyngitis - Describe the treatment plan for Acute & Chronic Pharyngitis
5.	Acute Suppurative otitis media	- Discuss the etiology and clinical presentations for acute suppurative otitis media - Enlist the examination findings and investigations for acute suppurative otitis media - Describe the treatment plan for Acute Suppurative otitis media
6.	Secretory Otitis Media	- Discuss the etiology and clinical presentations for Secretory otitis media - Enlist the examination findings and investigations for Secretory otitis media - Describe treatment plan for Secretory otitis media
7	Formation of Colycistoma	- Define cholesteatoma. - Describe the pathogenesis and theories of cholesteatoma formation
8	H&N infections ludwigs angina and RPS	- Discuss the etiology and clinical presentations of H&N infections ludwigs angina and RPS abscess - Enlist the examination findings and investigations of H&N infections ludwigs angina and RPS abscess - Describe the treatment plan for H&N infections ludwigs angina and RPS abscess
9	Chronic Suppurative Otitis media	- Discuss the etiology and clinical presentations for Chronic Suppurative otitis media - Enlist the examination findings and investigations for Chronic Suppurative otitis media - Describe the treatment plan for Chronic Suppurative otitis media - Discuss the complications of chronic suppurative otitis media
10	Quingy & PPS abscess	- Define quinsy and differentiate it from acute tonsillitis. - Describe the etiology, pathogenesis, and predisposing factors. - Identify the clinical features and complications of quinsy
11	Complications of chronic suppurative otitis media	- Classify the complications of CSOM into extracranial and intracranial. - Describe the pathophysiology leading to complications

12	Angiofibroma & Nasopharyngeal Carcinoma	- Define juvenile nasopharyngeal angiofibroma (JNA). - Describe its epidemiology, etiology, and typical age/sex distribution. - Explain the pathophysiology and sites of origin.
13	Tumors of Oropharynx	- Discuss the Papilloma, - Explain the Oropharyngeal Ca, Describe Lymphoma
14.	Tumors of Hypopharynx	- Discuss the hypo pharyngeal carcinoma, - Explain PV syndrome
15	Anatomy and Physiology of Larynx Acute laryngitis	- Recall the applied anatomy & physiology of Larynx - Discuss the clinical features and etiology of laryngitis

OPHTHAMOLOGY LECTURES

S.NO	TOPICS	LEARNING OBJECTIVES
1.	Cornea I & II Corneal Ulcers	- Discuss the etiology, clinical features, investigation, and management of corneal ulcers - Discuss the etiology, clinical features, investigation, and management of corneal ulcers
2.	Cornea-III Keratoconus & ectasias	Discuss the etiology, clinical features, investigation, and management of keratoconus.
3.	Ocular Surface Dry Eyes	- Enumerate causes of red eye. - Describe pathophysiology and management of different conjunctival (bacterial /viral/allergic) Inflammations. - Describe differences between Pterygium, Pseudo-ptyerygium, Episcleritis & Scleritis - Explain the management of Ocular Surface Dry Eyes.
4.	Episleritis Scleritis	- Define pterygium - Describe the etiology, risk factors of Episleritis Scleritis - Identify clinical features and complications of Episleritis Scleritis - Outline management options of Episleritis Scleritis
5.	Ocular Trauma Open & Closed Globe	- Define ocular trauma - Describe the etiology, risk factors of ocular trauma - Identify clinical features and complications of ocular trauma - Outline management options of ocular trauma

GENERAL SURGERY LECTURES

S.NO	TOPICS	LEARNING OBJECTIVES
1.	Tongue Ulcers	- Describe the Etiology and Pathology of Tongue ulcers - Enlist the Clinical features of tongue ulcers - Discuss the investigations and treatment of tongue ulcers
2.	Benign and malignant diseases of salivary glands	- Describe Common salivary gland diseases and - Explain their assessment and management

GENERAL MEDICINE LECTURES

S.NO	TOPICS	LEARNING OBJECTIVES
1.	Esophageal Carcinoma	- Define the Basics of esophageal carcinoma - Explain the Clinical Features of Esophageal Carcinoma - Discuss the Management of Esophageal Carcinoma
2.	Benign esophageal disease	- Define the Basics of Benign Esophageal Diseases - Enlist the Clinical Features of Benign esophageal disease - Discuss the Management of Benign esophageal disease
3.	Gastric carcinoma	- Explain the Basics of Gastric carcinoma - Enlist the Clinical Features of Gastric carcinoma - Discuss the Management of Gastric carcinoma
4.	Peptic Ulcer Disease	Explain the types of Etiology, clinical features, investigation, management and complications of gastritis.
5.	Inflammatory Bowel Syndrome	- Define the Basics of IBS - Enlist the Clinical Features of Inflammatory Bowel Syndrome - Discuss the Management of Inflammatory Bowel Syndrome
6.	Constipation, Irritable Bowel Syndrome	- Define constipation using clinical and standard diagnostic criteria - Enlist the Clinical Features of constipation - Discuss the Management of constipation
7.	Diarrhea	- Explain the Basics of Diarrhea - Enlist the Clinical Features of Diarrhea - Discuss the Management of Diarrhea
8.	Liver Diseases	Elaborate on the investigations use for the diagnoses of Hepatobiliary disorders & their interpretations.
9.	Acute and Chronic Pancreatitis	- Differentiate between the Basics of acute and chronic pancreatitis - Enlist the Clinical Features of acute and chronic pancreatitis - Compare and Contrast the Management of acute and chronic pancreatitis

PEADS LECTURES

S.NO	TOPICS	LEARNING OBJECTIVES
1	Acute & Chronic Diarrhea	- Define acute diarrhea - Different classifications of diarrhea - Grades of diarrhea - Discussion of management according to dehydration - Define chronic diarrhea - Different the classification of chronic diarrhea - Enlist the Causes of chronic diarrhea
2	Acute hepatitis	- Define acute hepatitis - Enlist Causes of acute hepatitis - Enlist Clinical features of acute hepatitis - Discuss the Diagnosis & management of acute hepatitis

GYNAE / OBS LECTURE

S.NO	TOPICS	LEARNING OBJECTIVES
1.	Gastrointestinal Symptoms in pregnancy	• Identify common GI symptoms in pregnancy (nausea, vomiting, heartburn, constipation, bloating). • Explain the physiological basis of these symptoms

ANATOMY LECTURES

S.NO	TOPICS	LEARNING OBJECTIVES
1.	Gross Anatomy & Histology of liver	• Explain the lobes and segments of the liver • Discuss the gross structure of gall bladder and biliary channels. • Explain the gross and microscopic structure of the pancreas. • Explain the microscopic structure of the liver and gall bladder.

PHYSIOLOGY LECTURES

S.NO	TOPICS	LEARNING OBJECTIVES
1.	Physiology of Liver	• Describe Physiological anatomy of liver. • Describe blood flow through the liver. • Describe metabolic functions through the liver.



ASSESSMENT METHODS FOR BLOCK EXAM:

Evaluation is a continuous process comprising of block examination and annual university examination. Students will be evaluated throughout the year. The internal assessment will contribute towards the final examination scores.

Multiple examination methods including MCQs, SAQs, OSPE, OSCE and viva will be used. In lined with PM&DC stipulation, the pass/fail marks for the test and examination will be 75%. There will be a block exam at the end of each block.

Theory (knowledge):

MCQs (Multiple Choice Questions) and SAQs (Short Answer Questions) are used to assess the theory part for the block exam.

MCQ:

A MCQ has a statement or clinical scenario followed by five options (likely answers). After reading the statement/scenario student select ONE, the most appropriate answer/response from the given list of options.

Correct answer carries one mark, and incorrect 'zero mark'. There is NO negative marking.

SAQ:

SAQ are short open ended questions that requires students to create an answer. They are commonly used in examinations to access the basic knowledge and understanding of a topic.

OSPE:

Objective Structured Practical Examination (See the proposed plan of OSPE)

It may comprise between 12- 25 stations.

The content may assess application of knowledge, or practical skills.

Student will complete task in define time at one given station.

All the students are assessed on the same content by the same examiner in the same allocated time.

A structured examination will have observed, unobserved, interactive and rest stations.

OSCE:

Objective Structured Clinical Examination

It comprises of one long case

The case assesses application of knowledge, or clinical skills.

Student will complete task in defined time.

All the students are assessed on the same case by the same examiner in the same allocated time.

OBSERVED AND INTERACTIVE STATIONS:

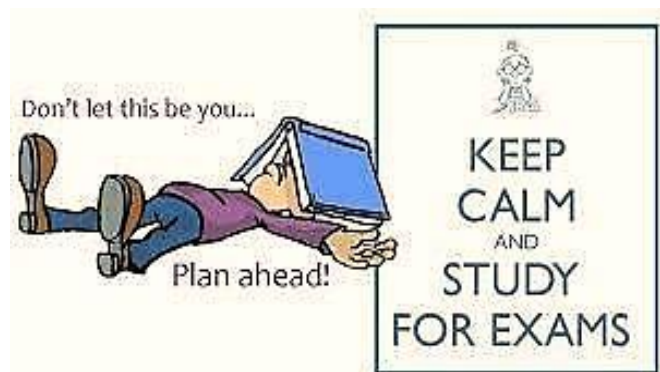
They will be assessed by internal or external examiners through the task or viva.

UNOBSERVED STATION:

It will be static station in which students will have to answer the questions related to the given pictures, models or specimens on the provided response sheet.

REST STATION:

It is a station where no task is given, and during this time student can organize his/her thoughts.



FOURTH YEAR MBBS BLOCK THEORY FORMAT

<u>CLASS ROLL NO</u>	<u>BLOCK – (---)</u>			<u>TOTAL</u>
	<u>MCQs</u>	<u>SAQs</u>	<u>TOTAL</u>	<u>PERCENTAGE</u>
	28	12	40	5%
	28 MCQs each subject	4 SAQs out of which One is optional i.e., to be attempted 3 SAQs. Each SAQ carries 4 marks. 4 x 3 = 12		MARKS OBTAINED / 40 X 5

FOURTH YEAR MBBS END OF SESSION THEORY

FORMAT

<u>CLASS ROLL NO</u>	<u>BLOCK X</u>	<u>BLOCK XI</u>	<u>BLOCK XII</u>	<u>ASSIGNMENTS</u>	<u>ATTENDANCE</u>	<u>TOTAL</u>
	5%	5%	5%	3%	2%	20%
				1 Assignment per subject each block 1 mark per Assignment <u>SCORING</u> Assignment submitted on time = 01 Late submission / Not Submitted = 0	Obtained Attendance % /100 x 2	<u>NOTE:</u> <u>FOR PATHO AND COMMUNITY</u> (Marks obtained out of 20 x 1.5 = __)

FOURTH YEAR MBBS BLOCK PRACTICAL FORMAT

<u>CLASS</u> <u>ROLL</u> <u>NO</u>	<u>BLOCK (-----)</u>				<u>TOTAL</u>
	<u>DISTRIBUTION</u>				5%
	<u>OSPE</u>	<u>VIVA</u>	<u>PRACTICAL LOGBOOK</u>	<u>TOTAL</u>	OBATINED MARKS / 40 x 5 = ____%
	5 OSPE STATIONS (4 MARKS EACH) = 20 MARKS	3 VIVA STATIONS (5 MARKS EACH) = 15 MARKS	5 MARKS Complete & timely signed = 5 Complete but late submission = 3 Incomplete logbook = 1 No logbook = 0	40 TOTAL MARKS	

FOURTH YEAR MBBS END OF SESSION PRACTICAL

FORMAT

<u>CLASS ROLL NO</u>	<u>BLOCK X</u>	<u>BLOCK XI</u>	<u>BLOCK XII</u>	<u>BEHAVIOUR</u>	<u>ATTENDANCE</u>	<u>TOTAL</u>
	5%	5%	5%	3%	2%	20%
				No misbehave or written warning = 3 Written warning given to student = 0	Obtained Attendance % /100 x 2	<u>NOTE:</u> <u>FOR PATHO AND COMMUNITY</u> (Marks obtained out of 20 x 1.5 =___)

FOURTH YEAR MBBS FINAL PROF FORMAT (1000 MARKS)

<u>CLASS ROLL NO</u>	<u>THEORY (500 MARKS)</u>				<u>PRACTICAL (500 MARKS)</u>				<u>TOTAL</u>
	<u>MCQs</u>	<u>SAQs</u>	<u>I.A</u>	<u>TOTAL</u>	<u>OSPE</u>	<u>VIVA</u>	<u>I.A</u>	<u>TOTAL</u>	<u>GRAND TOTAL</u>
SUBJECT	30	50 / 70	20 / 30	100 / 150	40 / 60	40 / 60	20 / 30	100 / 150	200 / 300
ENT OPHTH	40 MCQs each subject	6 SAQs out of which TWO will be optional i.e., to be attempted 5 SAQs. Each SAQ carries 10 marks. 4 x 10 = 40	20	100	10 OSPE Stations 4 marks each	20 MARKS INTERNAL 20 MARKS EXTERNAL	20	100	200
COM PATHO		10 SAQs out of which TWO will be optional i.e., to be attempted 8 SAQs. Each SAQ carries 10 marks. 8 x 10 = 80	30	150	12 OSPE Stations 5 marks each	30 MARKS INTERNAL 30 MARKS EXTERNAL	30 (Marks obtained out of 20 x 1.5 = __)	150	300

LEARNING RESOURCES

<u>SUBJECT</u>	<u>RESOURCES</u>
<u>ENT</u>	<u>TEXTBOOKS</u> Diseases of Ear, Nose and Throat by P.L. Dhingra, 6th edition
<u>OPHTHALMOLOGY</u>	<u>TEXTBOOKS</u> Shafi and Jatoi · Short Kanski
<u>COMMUNITY MEDICINE</u>	<u>TEXTBOOKS</u> Fundamentals of community medicine & Public Health (3rd Edition) (Dr. Hayat Muhammad Khan, Dr. Bushra Iftikhar) Public Health & Community Medicine (latest Edition) (M. Iliyas Ansari Preventive & social Medicine (Latest Edition) (K. Park)
<u>PATHOLOGY</u>	<u>TEXTBOOKS</u> Robbins & Cotran, Pathologic Basis of Disease, 9th edition

OTHER LEARNING RESOURCES

<u>Hands-on Activities/ Practical</u>	Students will be involved in Practical sessions, clinical rotations and hands-on activities that link with the foundation module to enhance the learning.
<u>Labs</u>	Utilize the lab to relate the knowledge to the specimens and models available.
<u>Skill Labs</u>	A skills lab provides the simulators to learn the basic skills and procedures. This helps build the confidence to approach the patients.
<u>Videos</u>	Video familiarize the student with the procedures and protocols to assist patients.
<u>Computer Lab/CDs/DVDs /Internet Resources</u>	To increase the knowledge students should utilize the available internet resources and CDs/DVDs. This will be an additional advantage to increase learning.
<u>SDL</u>	SDL is scheduled to search for information to solve cases, read through different resources and discuss among the peers and with the faculty to clarify the concepts.