

2026
2027

**BAQAI MEDICAL COLLEGE
INTEGRATED CURRICULUM
SPIRAL II
4TH YEAR MBBS
STUDY GUIDE**



**BAQAI MEDICAL COLLEGE
BAQAI MEDICAL UNIVERSITY**

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The landscape of medical education is evolving rapidly, embracing a shift from teacher-centered to student-centered learning approaches across undergraduate and postgraduate levels. In response to these advancements, this study guide for the integrated modular system has been meticulously crafted to align with these changes, following the SPICES model of curriculum development.

1. **Student-centered Approach:** The course organization, content, and activities are predominantly structured around student engagement and empowerment.
2. **Problem-Oriented Learning:** Case-based learning is integrated into our modules to foster problem-solving skills among students.
3. **Explicit Integration:** Basic sciences content is seamlessly integrated with pre-clinical and clinical subjects to provide a comprehensive understanding of medical concepts.
4. **Community Engagement:** Field visits to satellite clinics and community healthcare centers offer students firsthand exposure to community-related health issues.
5. **Elective Opportunities:** Students are encouraged to pursue electives within our institution and other institutes to broaden their learning experiences.
6. **Structured Program:** Our curriculum unfolds systematically, starting from foundational medicine concepts and encompassing all facets of medical sciences in Spiral integration.

Therefore, this study guide serves as a comprehensive resource, offering content-related information, guidance on learning strategies, curriculum management, and outlines of student activities. It is designed to support the undergraduate MBBS program in a multidimensional manner, facilitating holistic learning and development.

Baqai Medical University



To evolve as a nucleus for higher learning with a resolution to be socially accountable, focused on producing accomplished health care professionals for services in all spheres of life at the national and global level.

University is dedicated to the growth of competencies in its potential graduates through dissemination of knowledge for patient care, innovation in scholarship, origination of leadership skills, use of technological advancements, and providing noteworthy contributions to society through commendable services.

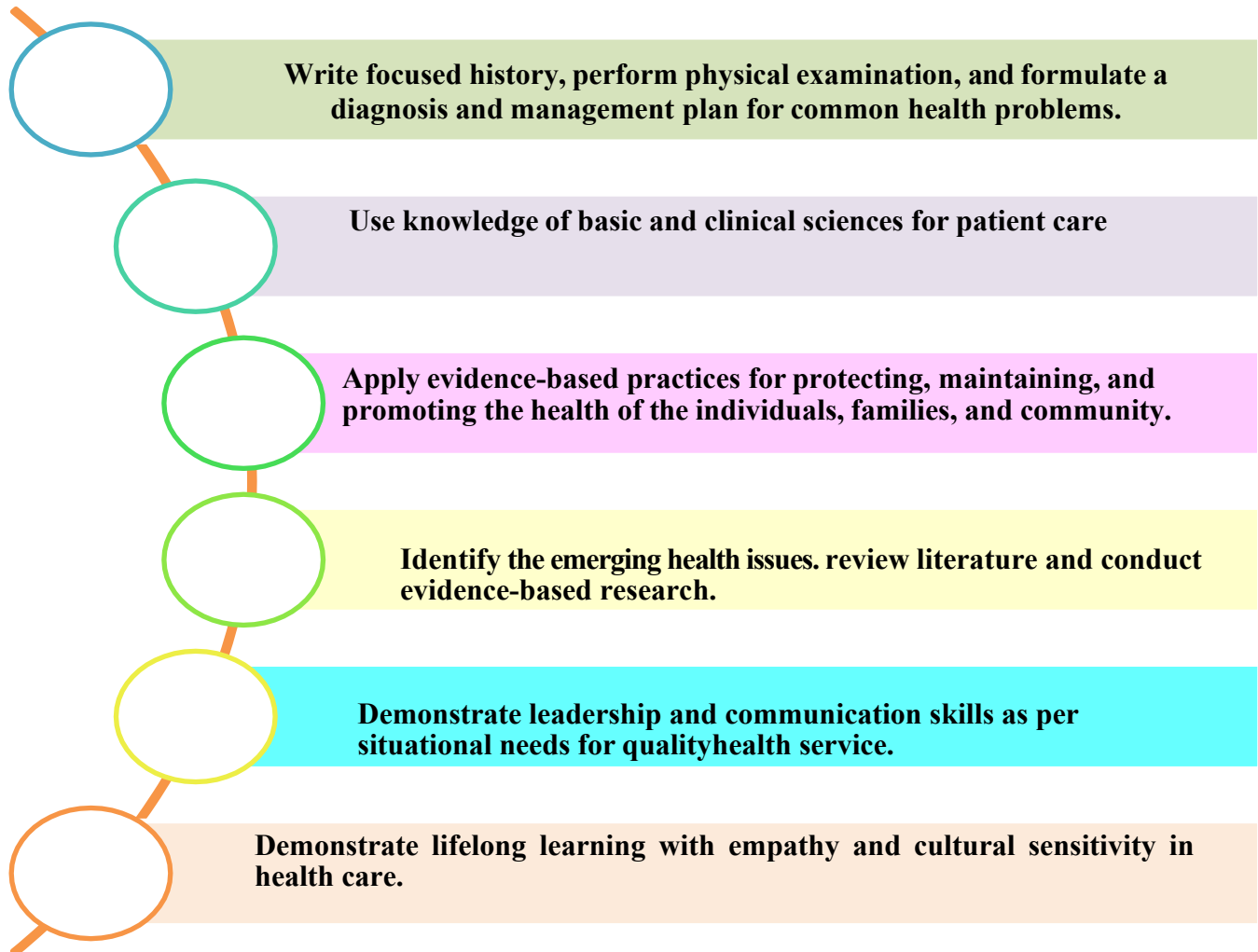
Baqai Medical College



The mission of the Baqai Medical College is to produce medical graduates who are responsible and accomplished individuals and have skills for problem-solving, clinical judgment, research, and leadership for a medical practice at the international level, and are also aware of the health problems of the less privileged rural and urban population of Pakistan.

OUTCOMES OF THE MBBS PROGRAM

By the end of the five-year MBBS Program, the Baqai Medical College Graduate will be able to:



POLICIES AND PROCEDURES

Code of Conduct and Maintenance of Discipline of Students Regulations Under section 25(e) BMU Act.1996

All University students shall be under the full disciplinary control of the University. No students shall be allowed to participate in politics. The action against the act of indiscipline shall include fines, debarring from attending class, and cancellation of admission, depending on the gravity of indiscipline.

The following shall constitute acts of indiscipline for which action may be taken against the student or students:

- (a) Breach of any rule of public morals, such as:
 - Use of indecent or filthy language;
 - Use of immodest dress;
 - Use of undesirable remarks or gestures; and
 - Disorderly behavior, such as shouting, abusing, quarrelling, fighting and insolence.
- (b) Defiance of authority
- (c) Action, defamatory of and derogatory to Islam
- (d) Immorality
- (e) Being found under the effect of an intoxicant or misuse of drugs, including marijuana, LSD, dope, and other opioids.
- (f) False personation or giving false information or willful suppression of information, cheating, or deceiving.
- (g) Inciting or staging a walk-out, a strike, or an unauthorized procession.
- (h) Shouting of slogans derogatory to the prestige of the University or the reputation of its officers or teachers.
- (i) Visiting without a pass place which are not to be visited without a pass.
- (j) Visiting places declared out of bounds for students.

Every student must carry his / her Identity Card, which will be open to examination and will be demanded at the time of entrance to the various University Faculties and functions.

No student will be admitted to the facilities of the library, transport, or the canteen unless he /she is in possession of the Identity Card

INTRODUCTION TO THE INTEGRATED CURRICULUM

(SPIRAL- II) FOR 4TH YEAR MBBS

Welcome to the Integrated Curriculum (SPIRAL-II), designed for 4th-year MBBS students. In this study guide, we delve into the principles and structure of our curriculum, emphasizing its unique approach to organ-system-based integration.

The integrated curriculum for 4th-year MBBS is a testament to our commitment to providing comprehensive and cohesive medical education. Rooted in the principle of organ-system-based integration, this curriculum offers a progressive and immersive learning experience.

At its core, the SPIRAL-II curriculum embodies level seven integration, as defined by Harden's 11 levels of integration, encapsulating the pinnacle of correlation. This level of integration underscores our dedication to bridging the traditional boundaries between basic sciences and clinical medicine, fostering a holistic understanding of medical concepts.

Through SPIRAL-II, students embark on a journey of exploration, where the intricacies of various organ systems are intricately woven together to get a comprehensive picture of human health and disease. By transcending the isolated subject matter, students gain a deeper appreciation for the interconnectedness of physiological processes and pathological manifestations.

Key to the success of our integrated approach is the seamless alignment of theoretical knowledge with practical application. By intertwining classroom learning with clinical experiences, SPIRAL-II empowers students to translate theoretical concepts into real-world scenarios, preparing them for the complexities of medical practice.

Furthermore, SPIRAL-II embraces a multidisciplinary approach, fostering collaboration among faculty members from diverse specialties. This collaborative effort ensures that students receive a well-rounded education, enriched by the expertise of professionals across various medical domains.

Hence, the Integrated Curriculum (SPIRAL-II) for 4th year MBBS students embodies a paradigm shift in medical education, in which integration, correlation, and multidisciplinary collaboration converge to cultivate competent and compassionate healthcare professionals. Join us as we embark on this transformative journey, where the boundaries of medical knowledge are transcended, and the art and science of medicine are seamlessly intertwined.



Integration is Key

INTRODUCTION OF THE INTEGRATED MODULES

INTEGRATED CURRICULUM - SPIRAL II

4th YEAR MBBS

S. No	Modules	Duration
1 st Module	GIT & Hepatobiliary Module	8 Weeks
2 nd Module	Musculoskeletal & Dermatology Module	7 Weeks
3 rd Module	Endocrinology Module	5 Weeks
4 th Module	Reproduction & Breast Module	6 Weeks
5 th Module	Renal Module	4 Weeks
6 th Module	Special Senses Module	6 Weeks

TEACHING FACULTY FOR 4TH YEAR MBBS

DEPARTMENT OF PATHOLOGY		
<i>Name</i>	<i>Qualifications</i>	<i>Designation</i>
Prof. Dr. Rafiq Khanani rafiq.khanani@baqai.edu.pk	MBBS, M. Phil., FC Path (H), Ph.D.	Chairman & Professor
Prof. Dr. Nasima Iqbal drnasimaiqbal@baqai.edu.pk	MBBS, M.Phil., CHPE	Professor
Prof. Dr. Maeesa Sajeel drmaeesasajeel@baqai.edu.pk	MBBS, M.Phil., M.S, CHPE, CHQP, Ph.D. (Scholar)	Professor
Dr. Muhammad Rizwan drmrizwan@baqai.edu.pk	MBBS, M. Phil., CQAP, CHQP, CCIM, Ph.D., CHPE	Associate Professor
Dr. Sarah Azhar drsarahazhar@baqai.edu.pk	MBBS, M.Phil., CHPE, Ph.D. (Scholar)	Associate Professor
Dr. Munazza Rashid dr.munazzarashid@baqai.edu.pk	MBBS, Ph.D., CHPE	Assistant Professor
Dr. Khurram Jah Siddiqui khurramjah@baqai.edu.pk	MBBS, M.Phil.	Assistant Professor
Muhammad Rizwan muhammadrizwan@bmu.edu.pk	M.Sc., M.Phil.	Senior Lecturer
Dr. Yasir Rishi yasirrishi@bmu.edu.pk	MBBS, CHPE, M.Phil. (Scholar)	Lecturer
Dr. Rozina Khan drrozinakhan@baqai.edu.pk	MBBS, CHPE, M.Phil. (Scholar)	Lecturer
Mr. Uzair Khan muzair@baqai.edu.pk	M.Sc., M.Phil. (Scholar)	Lecturer
Dr. Nadeem Umer Baqai nadeemumerbaqai@baqai.edu.pk	MBBS	Lecturer
Dr. Moazzam Nadeem nadeem.moazzam@baqai.edu.pk	MBBS	Lecturer

DEPARTMENT OF PHARMACOLOGY & THERAPEUTICS

<i>Name</i>	<i>Qualifications</i>	<i>Designation</i>
Prof. Dr. Asif Ahmed drasifahmed@baqai.edu.pk	MBBS, Ph.D., CHPE	HOD & Professor
Prof. Dr. Shaikh Nadeem Ahmed dr.nadeemahmad@baqai.edu.pk	MBBS, M.Phil., Ph D., CHPE	Professor
Dr. Faraz Saleem dsaleem@baqai.edu.pk	BDS, M.Phil., CHPE	Assistant Professor
Dr. Humaira Arif humairaarif@baqai.edu.pk	BDS, M.Phil., CHPE	Assistant Professor
Dr. Sehrish Mahmood sehrishmahmood@baqai.edu.pk	MBBS, M.Phil., CHPE	Assistant Professor
Dr. Hina Masood hinamasood@baqai.edu.pk	MBBS, M. Phil (Scholar)	Senior Lecturer
Dr. Izrum Shafi Rajput dr.izrumshafi@baqai.edu.pk	BDS, M.Phil., CHPE	Senior Lecturer
Dr. Sheeraz Ali sherazalishah@baqai.edu.pk	BDS	Lecturer
Dr. M. Arif Nadeem marifnadeem@baqai.edu.pk	MBBS, MBA (Health Management)	Lecturer
Dr. Sarah Saeed sarasaeed@baqai.edu.pk	BDS	Lecturer
Dr. Sumreen Mujahid sumreenfawaz@baqai.edu.pk	Pharm D, M.Phil.	Senior Pharmacist

DEPARTMENT OF COMMUNITY MEDICINE

<i>Name</i>	<i>Qualifications</i>	<i>Designation</i>
Prof. Dr. Nazia Jameel drnazijameel@baqai.edu.pk	MBBS, MPH	HOD & Professor
Prof. Dr. Imtiaz Ahmed Jafry drintiazjafry@baqai.edu.pk	MBBS, MPH	Professor
Dr. Syed Muhammad HyderNaqvi zulfiqarnaqvi@baqai.edu.pk	MBBS, M.S.B.E.	Associate Professor
Dr. Syed Nauman Raza naumanraza@baqai.edu.pk	MBBS, MPH	Assistant Professor
Dr. Munir Ahmed Shaikh munirshaikh@baqai.edu.pk	MBBS, M.S.B.E.	Assistant Professor
Mr. Ghulam Ali Ghulamali7867@gmail.com		Field Visit In-Charge

DEPARTMENT OF OPHTHALMOLOGY

<i>Name</i>	<i>Qualifications</i>	<i>Designation</i>
Prof. Mir Amjad Ali miramjadali@baqai.edu.pk	MBBS, FCPS	Professor

DEPARTMENT OF OTORHINOLARYNGOLOGY

<i>Name</i>	<i>Qualifications</i>	<i>Designation</i>
Prof. Dr. Muhammad ShaheenMalik drsmalik@baqai.edu.pk	MBBS, DLO, FCPS (ENT)	HOD & Professor

DEPARTMENT OF MEDICINE & ALLIED		
<i>Name</i>	<i>Qualifications</i>	<i>Designation</i>
Prof Jameel Ahmed jameelahmed@baqai.edu.pk	MBBS, FRCP	Dean & Chair of Medicine
Prof Karim Kammeruddin drkarim@baqai.edu.pk	MBBS, FCPS	Professor
Prof. Dr. Adil Khan adilkhan@baqai.edu.pk	MBBS, FCPS	Professor
Dr. Masooda Fatima masoodafatima@baqai.edu.pk	MBBS, FCPS	Associate Professor
Dr. Zahid Shah zahidshah@baqai.edu.pk	MBBS, MD	Assistant Professor
Dr. Saima Askari saimaaskari@baqai.edu.pk	MBBS, FCPS	Assistant Professor Endocrinology
Dr. Sumayyah Liaquat sumayyahliaquat@yahoo.com	MBBS, FCPS	Assistant Professor of Neurology

DEPARTMENT OF SURGERY & ALLIED

<i>Name</i>	<i>Qualifications</i>	<i>Designation</i>
Prof. Dr Khalid Ahmed drkhalidahmed@baqai.edu.pk	MBBS, FCPS	Chairman & Professor
Prof. Dr. Ghulam Mustafa Kaimkhani ghulammustafa@baqai.edu.pk	MBBS, FCPS	Professor, Orthopedic Surgery
Prof. Dr. Muhammad Abid Owais drabidowais@baqai.edu.pk	MBBS, FCPS	Professor
Dr. Sidra Abbass drsidraabbass@baqai.edu.pk	MBBS, FCPS	Associate Professor
Dr. Bashir Ahmed drbashirahmed@baqai.edu.pk	MBBS, FCPS	Associate Professor, Pediatric Surgery
Dr. Abdul Ghaffar drabdulghaffar@baqai.edu.pk	MBBS, MCPS, FCPS	Associate Professor
Dr. Asad Hanif Shaikh drasadhanif@gmail.com	MBBS, FCPS	Senior Registrar, Orthopedic Surgery
Dr Haris Hamid harishamid@baqai.edu.pk	MBBS, FCPS	Senior Registrar, Neurosurgery

DEPARTMENT OF GYNECOLOGY & OBSTETRICS

<i>Name</i>	<i>Qualifications</i>	<i>Designation</i>
Prof Dr. Farrukh Naheed drfarrukhnaheed@baqai.edu.pk	MBBS, MCPS, FCPS	HOD & Professor
Dr. Nikhat Ahsan nikhatahsan@baqai.edu.pk	MBBS, MCPS, FCPS	Associate Professor
Dr. Saadia Akram saadiaakram@baqai.edu.pk	MBBS, FCPS	Associate Professor
Dr. Nazish Ali drnazishgeo@gmail.com	MBBS, FCPS	Associate Professor
Dr. Farah Liaquat syedafarah2009@hotmail.com	MBBS, FCPS	Assistant Professor
Dr. Erum Illyas	MBBS, FCPS	Assistant Professor

DEPARTMENT OF MEDICAL EDUCATION

<i>Name</i>	<i>Qualifications</i>	<i>Designation</i>
Dr. Syeda Saima Qamar saima.qamar@baqai.edu.pk	MBBS, FCPS, MHPE, PhD-Candidate	Deputy Director DME, BMC Assistant Professor

DEPARTMENT OF PEDIATRIC MEDICINE

<i>Name</i>	<i>Qualifications</i>	<i>Designation</i>
Dr. Arshad Hamid Khan drarshadhamid@baqai.edu.pk	MBBS, MCPS. DCH, MD, CHPE	HOD & Associate Professor
Prof Dr Bushra Rafique bushrarafique@baqai.edu.pk	MBBS, MCPS, MRCPCH, FRCPCH, CHPE	Professor
Dr Tahira Saeed tahirasaeed@baqai.edu.pk	MBBS, MCPS, FCPS	Assistant Professor
Dr. Anwar ul Haq anwarhaq@baqai.edu.pk	MBBS, DCH, PGD-N, MS PH, MD	Assistant Professor
Dr Saleem Ahmed saleemahmed@baqai.edu.pk	MBBS, MCPS, MD, MS PH	Senior Registrar
Dr. Sidra Saleem sidrasaleem@baqai.edu.pk	MBBS, FCPS, CHPE	Senior Registrar
Dr M. Ajmal Tahir	MBBS, DCH	Registrar

DEPARTMENT OF RESEARCH

<i>Name</i>	<i>Qualifications</i>	<i>Designation</i>
Maria Rahim maria.rahim@baqai.edu.pk	M.Phil. (Biostats)	Assistant Professor

TEACHING METHODOLOGIES



Interactive Lectures



Case-based Learning



Student's Presentations



Flipped Classroom



Small group discussions



Practical demonstration



Hands-on clinical skills in a simulated environment



Virtual teaching sessions



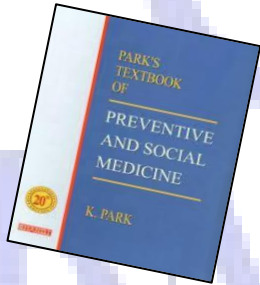
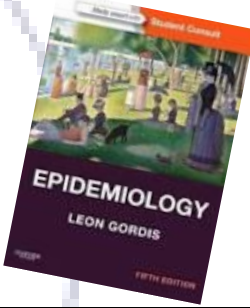

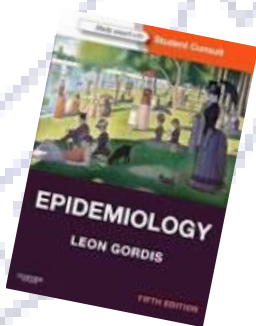


Self-directed learning

SUGGESTED READING BOOKS

PATHOLOGY			
<p>Robbins & Cotran Pathologic Basis of Disease 10th Edition Kumar, Abbas & Aster</p>		<p>Pathology Illustrated 8th Edition Alasdair D. T. Govan</p>	
<p>Curran's Atlas of Histopathology 4th Edited Edition Robert Curran</p>		<p>Rubin's Pathology: Clinicopathologic Foundations of Medicine 6th Edition Raphael Rubin & David S. Strayer</p>	
PHARMACOLOGY & THERAPEUTICS			
<p>Basic and Clinical Pharmacology 14th Edition Bertram Katzung</p>		<p>Lippincott's illustrated review of Pharmacology 7th Edition Karen Whalen</p>	
<p>Katzung and Trevor's Pharmacology Examination and Board Review 14th Edition Katzung and Trevor</p>		<p>Goodman & Gillman The Pharmacological Basis of Therapeutics 14th Edition Laurence L Brunton & Bjorn C. Knollmann</p>	

SUGGESTED READING BOOKS

COMMUNITY MEDICINE			
<p>Public Health & Community Medicine 8th Edition M. Ilyas</p>		<p>Public Health & Preventive Medicine 13th Edition Maxcy- Rosenau-Last</p>	
<p>Park's Textbook of Preventive & Social Medicine 20th Edition K. Parks</p>		<p>Epidemiology 5th Edition Leon Gordis</p>	
RESEARCH METHODOLOGY			
<p>Introduction to Research in Health Sciences- Stephen Polgar, Shane A. Thomas</p>		<p>Epidemiology 5th Edition Leon Gordis</p>	

SUGGESTED WEBSITES & SEARCH ENGINES

	
<p>https://www.medscape.com</p>	<p>https://www.PathologyOutlines.com</p>
	
<p>https://pubmed.ncbi.nlm.nih.gov</p>	<p>https://scholar.google.com</p>
	
<p>https://medlineplus.gov</p>	<p>https://medicine.nus.edu.sg/pathweb</p>

ASSESSMENT METHODS

1. *Formative Assessment*

- Assignment
- Quiz (face-to-face or online)
- Student Presentation
- Class participation in small group discussions and case-based learning sessions
- Project / Poster

* 4th Year MBBS Students are requested to maintain their practical journals and logbooks for formative assessment.

2. *Summative Assessment*

- ***Modular Exam:***

As per the Assessment Policy of Baqai Medical College, Version 2.01 2025, an integrated modular exam will be conducted at the end of each module, including all subjects of basic medical sciences. The Integrated Module Examination will be conducted using the following assessment methods:

- MCQ
- SEQ
- OSPE
- ***Annual Exam:***
 - Internal Evaluation = 20%
 - Final Exam= 80%Theory: MCQs, EMQs & SEQs
Practical: Viva & OSPE

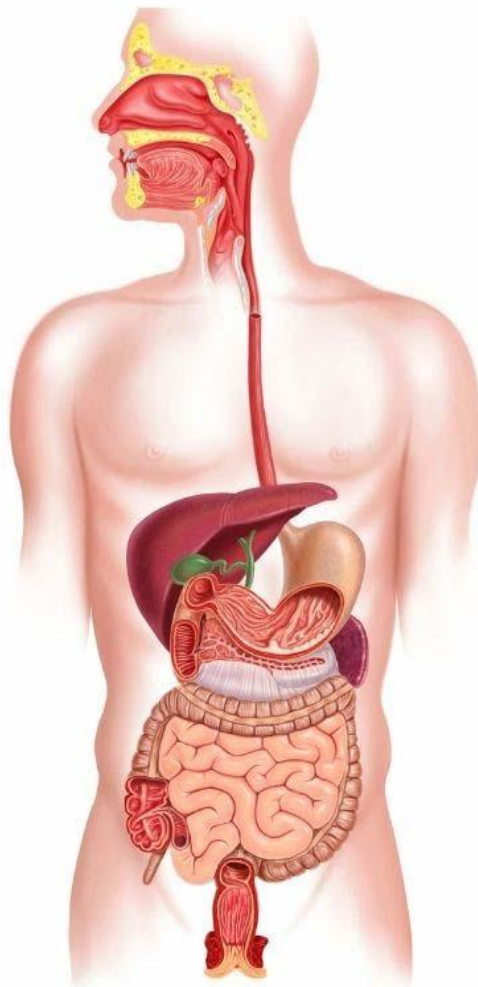


For further details, visit our website: [Policy Manual | Baqai Medical University](#)

GASTROINTESTINAL TRACT

&

HEPATO BILIARY SYSTEM



*Gastrointestinal
Tract
&
Hepatobiliary
System*

INTRODUCTION TO MODULE – I



<i>Module – I</i>	
<i>GIT & Hepatobiliary System</i>	
Systems	<ul style="list-style-type: none"> • GIT System • Hepatobiliary System
Duration	8 Weeks (6 th January 2026 – 27 th February 2026)
Assessment Dates	2 nd March 2026
Assessment Pattern	MCQs, SEQs & OSPE

- The Assessment dates are tentative (Subject to change)

MODULE RATIONALE

The Gastrointestinal and Hepatobiliary module is designed to provide 4th-year MBBS students with an integrated understanding of disorders affecting the gastrointestinal tract, liver, biliary system, and pancreas. Given the high burden of GI and hepatobiliary diseases in Pakistan, such as hepatitis, cirrhosis, peptic ulcer disease, and gastrointestinal malignancies, this module emphasizes clinicopathological correlation, evidence-based diagnosis, and rational management. The module integrates basic sciences with clinical disciplines to develop competent, ethical, and patient-centered physicians.

MODULE LEARNING OUTCOMES

At the end of this module, the students of the 4th year MBBS will be able to:

1. Explain the etiology, pathophysiology, and clinical presentation of common gastrointestinal and hepatobiliary disorders.
2. Interpret relevant laboratory investigations, imaging, and endoscopic findings in GI and liver diseases.
3. Formulate differential diagnoses and management plans for common GI and hepatobiliary conditions.
4. Apply principles of pharmacology and nutrition in the management of digestive system disorders.
5. Demonstrate professional attitudes, ethical practice, and effective communication while managing patients with GI and hepatobiliary diseases.



Pathology

At the end of these 1-hour interactive lectures, the students of the 4th year MBBS will be able to:

Topic	Teaching Strategy	Duration	Learning Objectives	Assessment Pattern
Inflammatory & ulcerative lesions of the oral cavity	Interactive Lecture # 1	1 hour	<ol style="list-style-type: none"> 1. Comprehend Aphthous Ulcer. with its causes, pathogenesis, and morphology. 2. Discuss the predisposing factors, pathogenesis, and morphology of Erythroplakia and Leukoplakia. 3. List the important viruses and fungi that can cause infections in the oral cavity. 	MCQs, SEQs & Structured Viva
Disorders of Salivary glands	Interactive Lecture # 2	1 hour	<ol style="list-style-type: none"> 1. List the diseases of salivary glands with their causes and brief morphology. 2. Classify the tumors of salivary glands. 3. Describe the causes, pathogenesis & morphological features of pleomorphic adenoma 	MCQs, SEQs & Structured Viva
Tumors of the Oral Cavity	Interactive Lecture # 3	1 hour	<ol style="list-style-type: none"> 1. Classify tumors of the oral cavity. 2. List the causes and risk factors of Squamous cell carcinoma. 3. Comprehend Squamous cell carcinoma's pathogenesis, morphology & clinical features. 	MCQs, SEQs & Structured Viva
Congenital Disorders of the Esophagus	Interactive Lecture # 4	1 hour	<ol style="list-style-type: none"> 1. Describe the common congenital anomalies of the Esophagus with their causes and pathological features. 2. Define Hiatal Hernia and list its causes and pathological features. 	MCQs, SEQs & Structured Viva

Pathology

At the end of these 1-hour interactive lectures, the students of the 4th year MBBS will be able to:

Topic	Teaching Strategy	Duration	Learning Objectives	Assessment Pattern
Inflammatory Disorders of the Esophagus	Interactive Lecture # 5	1 hour	<ol style="list-style-type: none"> 1. List the inflammatory disorders of the Esophagus. 2. Discuss their causes, pathogenesis, and common complications. 3. Describe the pathogenesis, Clinical & morphological features of GERD (Gastroesophageal Reflux Disease). 	MCQs, SEQs & Structured Viva
Tumor of the Esophagus	Interactive Lecture # 6	1 hour	<ol style="list-style-type: none"> 1. Classify the tumors of the esophagus. 2. List the causes of esophageal tumors. 3. Describe the pathogenesis and morphology of adenocarcinoma and squamous cell carcinoma of the esophagus. 4. Discuss the epidemiology & prognosis of esophageal carcinoma. 	MCQs, SEQs & Structured Viva
Gastritis	Interactive Lecture # 7	1 hour	<ol style="list-style-type: none"> 1. Discuss the predisposing factors, pathogenesis, and complications of acute gastritis. 2. Comprehend the clinical features and morphology of acute gastritis. 3. Describe the causes, predisposing factors, pathogenesis, clinical features, morphology, and complications of chronic gastritis. 	MCQs, SEQs & Structured Viva

Pathology

At the end of these 1-hour interactive lectures, the students of the 4th year MBBS will be able to:

Topic	Teaching Strategy	Duration	Learning Objectives	Assessment Pattern
Peptic Ulcer Disease	Interactive Lecture # 8	1 hour	<ol style="list-style-type: none"> 1. Discuss the causes and risk factors associated with peptic ulcers. 2. Describe peptic ulcer disease's pathogenesis, morphology, and clinical features. 3. Differentiate between benign & malignant ulcers of the stomach. 	MCQs, SEQs & Structured Viva
Gastric Tumors	Interactive Lecture # 9	1 hour	<ol style="list-style-type: none"> 1. Classify tumors of the stomach. 2. List the common causes and risk factors of Gastric tumors. 3. Describe the pathogenesis and morphology of Carcinoma of the Stomach. 4. Briefly describe lymphoma, stromal tumors of the stomach, and carcinoid tumors. 	MCQs, SEQs & Structured Viva
Congenital anomalies of the intestines	Interactive Lecture # 10	1 hour	<ol style="list-style-type: none"> 1. List the different congenital anomalies of the Intestines with their causes and pathological features. 2. Discuss diverticulitis with its causes, pathogenesis, morphology, diagnosis & clinical features. 3. Describe the causes, pathogenesis, morphology, clinical features, and diagnosis of Congenital Aganglionic Megacolon (Hirschsprung's disease). 	MCQs, SEQs & Structured Viva

Pathology

At the end of these 1-hour interactive lectures, the students of the 4th year MBBS will be able to:

Topic	Teaching Strategy	Duration	Learning Objectives	Assessment Pattern
Inflammatory Bowel Diseases - I	Interactive Lecture # 11	1 hour	<ol style="list-style-type: none"> 1. Classify Inflammatory bowel diseases. 2. Discuss the causes, pathogenesis, morphology, diagnosis, and clinical features of idiopathic inflammatory bowel diseases. 3. Comprehend Ulcerative colitis based on its causes & predisposing factors, pathogenesis, clinical, morphological features, and complications. 	MCQs, SEQs & Structured Viva
Inflammatory Bowel Diseases - II	Interactive Lecture # 12	1 hour	<ol style="list-style-type: none"> 1 List the causes of Crohn's disease. 2 Explain its pathogenesis. 3 Describe the morphology and clinical features of Crohn's disease. 4 Differentiate between the pathological features of Crohn's disease and Ulcerative Colitis. 	MCQs, SEQs & Structured Viva
Vascular diseases of the intestine	Interactive Lecture # 13	1 hour	<ol style="list-style-type: none"> 1. Classify the vascular diseases of the intestine. 2. Comprehend the causes, pathogenesis, morphology, and clinical features of gangrene and other vascular diseases of the bowel. 	MCQs, SEQs & Structured Viva

Pathology

At the end of these 1-hour interactive lectures, the students of the 4th year MBBS will be able to:

Topic	Teaching Strategy	Duration	Learning Objectives	Assessment Pattern
Malabsorption Syndrome	Interactive Lecture # 14	1 hour	<ol style="list-style-type: none"> List the different malabsorption syndromes of the intestines. Discuss the causes, pathogenesis, morphology, diagnosis, and clinical features of celiac sprue, tropical sprue & Whipple's disease. 	MCQs, SEQs & Structured Viva
Polyps of the Intestine	Interactive Lecture # 15	1 hour	<ol style="list-style-type: none"> Classify intestinal polyps. Describe the causes and risk factors of non-neoplastic polyps of the intestine. Relate the pathogenesis to the clinical features of non-neoplastic polyps of the intestine. Describe the morphological and clinical features along with the diagnosis of non-neoplastic intestinal polyps. Differentiate between the pathological features of Intestinal Papilloma and Polyp. 	MCQs, SEQs & Structured Viva
Tumors of the Intestine	Interactive Lecture # 16	1 hours	<ol style="list-style-type: none"> Classify the tumors of the intestine. Describe the causes, risk factors, pathogenesis, and morphological & clinical features of intestinal tumors. Describe the commonest site of adenocarcinoma with its incidence and etiology. Explain the pathogenesis, morphological, and clinical features of colorectal carcinoma. Discuss the Aster-Collar classifications of carcinoma of the colon and rectum. 	MCQs, SEQs & Structured Viva

Pathology

At the end of these 1-hour interactive lectures, the students of the 4th year MBBS will be able to:

Topic	Teaching Strategy	Duration	Learning Objectives	Assessment Pattern
Irritable Bowel Syndrome	Interactive Lecture # 17	1 hour	<ol style="list-style-type: none"> 1. Define and classify irritable bowel syndrome. 2. Explain the causes, pathogenesis, and clinical features of irritable bowel syndrome. 3. Discuss the laboratory diagnosis and differential diagnosis of IBS. 	MCQs, SEQs & Structured Viva
Intestinal Obstruction	Interactive Lecture # 18	1 hour	<ol style="list-style-type: none"> 1. List the major mechanical and non-mechanical causes of intestinal obstruction. 2. Explain the etiology and pathology leading to bowel obstruction in different conditions (Obstructed hernia, Volvulus, Intussusception, and adhesions) 3. Discuss the clinical features, morphology, and laboratory diagnosis of intestinal obstruction. 4. List the complications of intestinal obstruction 	MCQs, SEQs & Structured Viva
Acute Appendicitis	Interactive Lecture # 19	1 hour	<ol style="list-style-type: none"> 1. Explain the etiology and pathogenesis of acute appendicitis. 2. Describe the morphological and clinical features of acute appendicitis. 3. Discuss the laboratory diagnosis and complications of acute appendicitis. 	MCQs, SEQs & Structured Viva

Pathology

At the end of these 2-hour small group discussion sessions, the students of the 4th year MBBS will be able to:

Topic	Teaching Strategy	Duration	Learning Objectives	Assessment Pattern
Disorders of the Oral Cavity	Small group discussion # 1	2 hours	<ol style="list-style-type: none"> 1. Classify the disorders of the Oral Cavity. 2. Define dental caries, periodontitis, gingivitis & oral sub-mucosal fibrosis. Describe the etiology, pathogenesis, morphology, clinical features, and diagnosis of common disorders of the oral cavity. 	OSPE & Structured Viva
Acid peptic disease	Small group discussion # 2	2 hours	<ol style="list-style-type: none"> 1. Comprehend acid peptic disease based on its pathogenesis, morphology, and clinical features. 2. Discuss the different complications of acid-peptic disease. 	OSPE & Structured Viva
Gastroenteritis	Small group discussion # 3	2 hours	<ol style="list-style-type: none"> 1. List the different causes of gastroenteritis. 2. Describe the route of transmission and epidemiology of Enteric tract viruses, bacteria, and protozoa. 3. Correlate the pathogenesis of gastroenteritis with its morphological & clinical features. 4. Discuss the required lab investigations for its diagnosis. 	OSPE & Structured Viva
Diarrheal diseases	Small group discussion # 4	2 hours	<ol style="list-style-type: none"> 1. Classify the different causes of diarrheal diseases. 2. Describe the pathogenesis, morphological & clinical features, and diagnosis of infective enterocolitis. 3. Discuss pathophysiology with the clinical features and lab investigation for diarrheal diseases. 	OSPE & Structured Viva

Pathology

At the end of these 2-hour small group discussion sessions, the students of the 4th year MBBS will be able to:

Topic	Teaching Strategy	Duration	Learning Objectives	Assessment Pattern
Bacterial and Parasitic Intestinal Diseases	Small group discussion # 5	2 hours	1. List the different causes of Intestinal diseases. 2. Comprehend the pathogenesis, morphological & clinical features, and lab diagnosis of bacterial and parasitic intestinal diseases.	OSPE & Structured Viva



Pathology

At the end of these 2-hour practical sessions, the students of the 4th year MBBS will be able to:

Topic	Teaching Strategy	Duration	Learning Objectives	Assessment Pattern
Barrett's Esophagus & Esophageal Varices	Practical # 1	2 hours	<ol style="list-style-type: none"> 1. Comprehend Barrett's esophagitis based on its causes, morphology, and clinical features of Barrett's Esophagus. 2. Summarize the pathogenesis, morphology, clinical features, and complications of Esophageal Varices. 3. Identify the photomicrographs of Barrett's Esophagus with its points of identification. 4. Identify the photomicrographs of Esophageal Varices with their points of identification. 	OSPE & Structured Viva
Rectal Polyps of the Intestine and Colorectal Carcinoma	Practical # 2	2 hours	<ol style="list-style-type: none"> 1. Summarize the pathogenesis, morphological & clinical features of Intestinal Polyps, and Colorectal Carcinoma. 2. Identify the gross specimen and histopathological slide of the juvenile rectal polyp with its points of identification. 3. Identify the gross specimen and histopathological slide of Colorectal Carcinoma with its points of identification. 	OSPE & Structured Viva
Acute Appendicitis	Practical # 3	2 hours	<ol style="list-style-type: none"> 1. Comprehend the pathogenesis, morphological & clinical features of Acute Appendicitis. 2. Identify the gross specimen and histopathological slide of Acute Appendicitis with its points of identification. 	OSPE & Structured Viva

Pathology

At the end of these 1-hour interactive lectures, the students of the 4th year MBBS will be able to:

Topic	Teaching Strategy	Duration	Learning Objectives	Assessment Pattern
Hepatitis	Interactive Lecture # 20	1 hour	<ol style="list-style-type: none"> 1. Define acute, chronic, persistent, and fulminant hepatitis and carrier state. 2. Differentiate between acute and chronic hepatitis based on their etiology, pathogenesis, morphology, and clinical features. 3. Justify the investigations required for the diagnosis of hepatitis. 4. Discuss the complications of Hepatitis. 	MCQs, SEQs & Structured Viva
Viral Hepatitis	Interactive Lecture # 21	1 hour	<ol style="list-style-type: none"> 1. Comprehend the microbiology of viral hepatitis A, B, C, D, and E, including the route of transmission, incubation period, clinical features, and potential outcome of acute infection. 2. Discuss the various investigations required for the diagnosis of viral hepatitis. 3. Describe the causes and pathogenesis of neonatal hepatitis. 	MCQs, SEQs & Structured Viva
Liver Abscess	Interactive Lecture # 22	1 hour	<ol style="list-style-type: none"> 1. Describe the common causes of liver abscess. 2. Explain the pathogenesis & morphology of liver abscess. 3. Discuss the clinical, diagnostic, and morphological features of liver abscess. 4. Describe its complications. 	MCQs, SEQs & Structured Viva

Pathology

At the end of these 1-hour interactive lectures, the students of the 4th year MBBS will be able to:

Topic	Teaching Strategy	Duration	Learning Objectives	Assessment Pattern
Liver Cirrhosis & its Complications	Interactive Lecture # 23	1 hour	<ol style="list-style-type: none"> 1. List the common causes of cirrhosis. 2. Classify Liver Cirrhosis. 3. Discuss the pathogenesis, clinical features, and morphology of Liver cirrhosis. 4. Summarize its complications. 	MCQs, SEQs & Structured Viva
Hepatic Failure and Massive Liver Necrosis	Interactive Lecture # 24	1 hour	<ol style="list-style-type: none"> 1. Comprehend Massive Liver necrosis based on its pathophysiology, morphology, and clinical features. 2. Discuss the causes, pathogenesis, morphology, and clinical features of Hepatic failure. 3. Justify the laboratory investigations required for the diagnosis of Hepatic failure. 4. List the complications associated with Hepatic failure. 	MCQs, SEQs & Structured Viva
Hepatocellular Carcinoma	Interactive Lecture # 25	1 hour	<ol style="list-style-type: none"> 1. List the common causes and risk factors associated with Hepatocellular Carcinoma. 2. Discuss the pathogenesis, morphological, and clinical features of hepatocellular carcinoma 3. Justify the laboratory investigations required for the diagnosis of Hepatocellular Carcinoma. 4. Explain the complications associated with Hepatocellular Carcinoma. 	MCQs, SEQs & Structured Viva

Pathology

At the end of these 1-hour interactive lectures, the students of the 4th year MBBS will be able to:

Topic	Teaching Strategy	Duration	Learning Objectives	Assessment Pattern
Alcoholic Liver Disease	Interactive Lecture # 26	1 hours	<ol style="list-style-type: none"> 1. Explain the pathogenesis of alcohol liver disease. 2. Describe the morphological and clinical features of alcoholic liver disease. 3. Discuss the laboratory investigations and complications of alcoholic liver disease. 	MCQs, SEQs & Structured Viva
Metabolic Diseases of the Liver	Interactive Lecture # 27	1 hour	<ol style="list-style-type: none"> 1. Classify Metabolic diseases of the Liver. 2. Comprehend the inherited metabolic diseases of the Liver based on their causes, risk factors, pathogenesis, morphological and clinical features. 3. Discuss their complications. 	MCQs, SEQs & Structured Viva
Cholelithiasis, Cholecystitis, and Gall Bladder Cancer	Interactive Lecture # 28	2 hours	<ol style="list-style-type: none"> 1. Explain the risk factors, pathogenesis, and complications of Cholelithiasis. 2. Describe the different types of gallstones and their gross appearance. 3. Differentiate between acute and chronic cholecystitis based on their pathogenesis, morphological, and clinical features. 4. Comprehend the types, pathogenesis, clinical features, laboratory diagnosis, and morphology of Gall bladder cancers. 5. Discuss its complications. 	MCQs, SEQs & Structured Viva

Pathology

At the end of these 1-hour interactive lectures, the students of the 4th year MBBS will be able to:

Topic	Teaching Strategy	Duration	Learning Objectives	Assessment Pattern
Pancreatitis	Interactive Lecture # 29	1 hour	<ol style="list-style-type: none"> 1. Differentiate between Acute and Chronic Pancreatitis based on their causes, pathogenesis, morphological and clinical features, and diagnosis. 2. Discuss the complications of Pancreatitis. 	MCQs, SEQs & Structured Viva
Pancreatic Carcinoma	Interactive Lecture # 30	1 hour	<ol style="list-style-type: none"> 1. Comprehend Pancreatic carcinoma based on its causes, risk factors, and pathogenesis. 2. Describe the morphological and clinical features of Pancreatic carcinoma. 3. Discuss the complications of Pancreatic carcinoma. 	MCQs, SEQs & Structured Viva
Biliary Diseases	Interactive Lecture # 31	1 hour	<ol style="list-style-type: none"> 1. Classify Primary and Secondary Biliary diseases. 2. Differentiate between intrahepatic and extra-hepatic biliary obstruction. 3. Comprehend the causes, risk factors, pathogenesis, morphological, and clinical features of Biliary Cirrhosis. 4. Discuss the pathogenesis, morphology, clinical features, and Cholangiocarcinoma. 	MCQs, SEQs & Structured Viva

Pathology

At the end of this 1-hour learning session, the students of the 4th year MBBS will be able to:

Topic	Teaching Strategy	Duration	Learning Objectives	Assessment Pattern
Jaundice	Flipped Classroom # 1	1 hour	<ol style="list-style-type: none"> 1. Define and classify Jaundice. 2. Identify and describe the causes, pathogenesis, clinical features, and laboratory investigations of different types of Jaundice. 3. Recognize and comprehend the causes of Neonatal Jaundice based on its etiology, pathophysiology, clinical features, and complications. 	MCQs, SEQs & Structured Viva



Pathology

At the end of these 2-hour practical sessions, the students of the 4th year MBBS will be able to:

Topic	Teaching Strategy	Duration	Learning Objectives	Assessment Pattern
Hepatitis	Practical # 4	2 hours	<ol style="list-style-type: none"> 1. Summarize the causes, pathology, and clinical features of Hepatitis. 2. Compare the morphological features of acute hepatitis with chronic hepatitis. 3. Identify the histopathological slide of hepatitis and describe its point of identification. 	OSPE & Structured Viva
Liver Cirrhosis	Practical # 5	2 hours	<ol style="list-style-type: none"> 1. Correlate the pathogenesis of liver cirrhosis with its morphological features. 2. Identify the gross and histopathological slide of liver cirrhosis and describe its point of identification. 	OSPE & Structured Viva
Hepatocellular Carcinoma	Practical # 6	2 hours	<ol style="list-style-type: none"> 1. Describe the pathogenesis of Hepatocellular Carcinoma with its morphological features. 2. Identify the gross and histopathological slide of Hepatocellular Carcinoma and describe its point of identification. 	OSPE & Structured Viva

Pathology

At the end of these 2-hour practical sessions, the students of the 4th year MBBS will be able to:

Topic	Teaching Strategy	Duration	Learning Objectives	Assessment Pattern
Chronic Cholecystitis & Pancreatitis	Practical # 7	2 hours	<ol style="list-style-type: none"> 1. Differentiate between the morphology of acute and chronic cholecystitis. 2. Examine the gross specimen of chronic cholecystitis and describe its points of identification. 3. Identify the histopathological slide of chronic cholecystitis and draw a labeled diagram. 4. Summarize the morphological features of Pancreatitis. 5. Identify the histopathological slide of pancreatitis and describe its point of identification 	OSPE & Structured Viva



Pharmacology

At the end of these 1-hour interactive lectures, the students of the 4th year MBBS will be able to:

Topic	Teaching Strategy	Duration	Learning Objectives	Assessment Pattern
Drugs stimulating motility & Antiemetic drugs	Interactive Lecture # 1	1 hour	<ol style="list-style-type: none"> 1. Outline the pathophysiology of Emesis. 2. Classify antiemetics and drugs increasing motility. 3. Explain the mechanism of action of Metoclopramide, Domperidone, Dimenhydrinate, Promethazine, and Ondansetron. 4. List the pharmacokinetic properties and adverse effects of the given drugs. 5. Correlate the indications /contraindications of these drugs. 	MCQs, SEQs & Structured Viva
Drugs used in acid peptic disease - 1	Interactive Lecture # 2	1 hour	<ol style="list-style-type: none"> 1. Outline the pathophysiology of Acid-peptic disease. 2. Classify the drugs to treat acid-peptic disease. 3. Explain the MOA of Antacids (Aluminum Hydroxide), and Mucosal Protective Agents (Sucralfate, Misoprostol, and Bismuth Subsalicylate). 4. List the pharmacokinetics & adverse effects of these drugs. 5. Correlate the indication/contraindication of these drugs. 	MCQs, SEQs & Structured Viva

Pharmacology

At the end of these 1-hour interactive lectures, the students of the 4th year MBBS will be able to:

Topic	Teaching Strategy	Duration	Learning Objectives	Assessment Pattern
Drugs used in acid peptic disease - 2	Interactive Lecture # 3	1 hour	<ol style="list-style-type: none"> 1.Explain the mode of action of PPI (Omeprazole), H₂ receptor blockers (Cimetidine) 2.List the pharmacokinetics of these drugs. 3.Correlate the indication/contraindication of these drugs. 4.List common adverse effects of these drugs. 5. List the Drug-Drug interactions of Omeprazole and Cimetidine. 	MCQs, SEQs & Structured Viva
Drugs used to treat inflammatory bowel disease.	Interactive Lecture # 4	1 hour	<ol style="list-style-type: none"> 1.Outline the pathophysiology of Inflammatory bowel disease (IBD). 2.Classify the drugs used to treat IBD. 3.Explain the mode of action of Mesalamine, sulfasalazine & role of Glucocorticoids and Immunomodulators in the treatment of IBD. 4.List the pharmacokinetics, common adverse effects & contraindications of these drugs. 5.List the common drug interactions associated with the use of Mesalamine and sulfasalazine. 	MCQs, SEQs & Structured Viva

Pharmacology

At the end of these 1-hour interactive lectures, the students of the 4th year MBBS will be able to:

Topic	Teaching Strategy	Duration	Learning Objectives	Assessment Pattern
Drugs used to treat irritable bowel syndrome.	Interactive Lecture # 5	1 hour	<ol style="list-style-type: none"> 1. Outline the pathophysiology of irritable bowel syndrome (IBS). 2. Classify the drugs used to treat IBS. 3. Explain the mode of action of Alosetron & Lubiprostone. 4. List the pharmacokinetics, common adverse effects & contraindications of these drugs. 5. Describe the pharmacological role of anticholinergics and anti-diarrheal agents in the treatment of IBS. 	MCQs, SEQs & Structured Viva
Anti-diarrheal agents	Interactive Lecture # 6	1 hour	<ol style="list-style-type: none"> 1. Outline the pathophysiology of "Diarrhea". 2. Classify anti-diarrheal drugs with examples. 3. Explain the mechanism of action of Loperamide and Diphenoxylate. 4. List the pharmacokinetics of these drugs. 5. List their clinical uses, common adverse effects, and contraindications. 	MCQs, SEQs & Structured Viva
Laxatives	Interactive Lecture # 7	1 hour	<ol style="list-style-type: none"> 1. Outline the pathophysiology of "Constipation". 2. Classify Laxatives. 3. Explain the Mechanism of Action of senna, lactulose, and Psyllium. 4. List the pharmacokinetics of senna, lactulose, and Psyllium. 5. List the common adverse effects and contraindications of senna, lactulose, and Psyllium. 	MCQs, SEQs & Structured Viva

Pharmacology

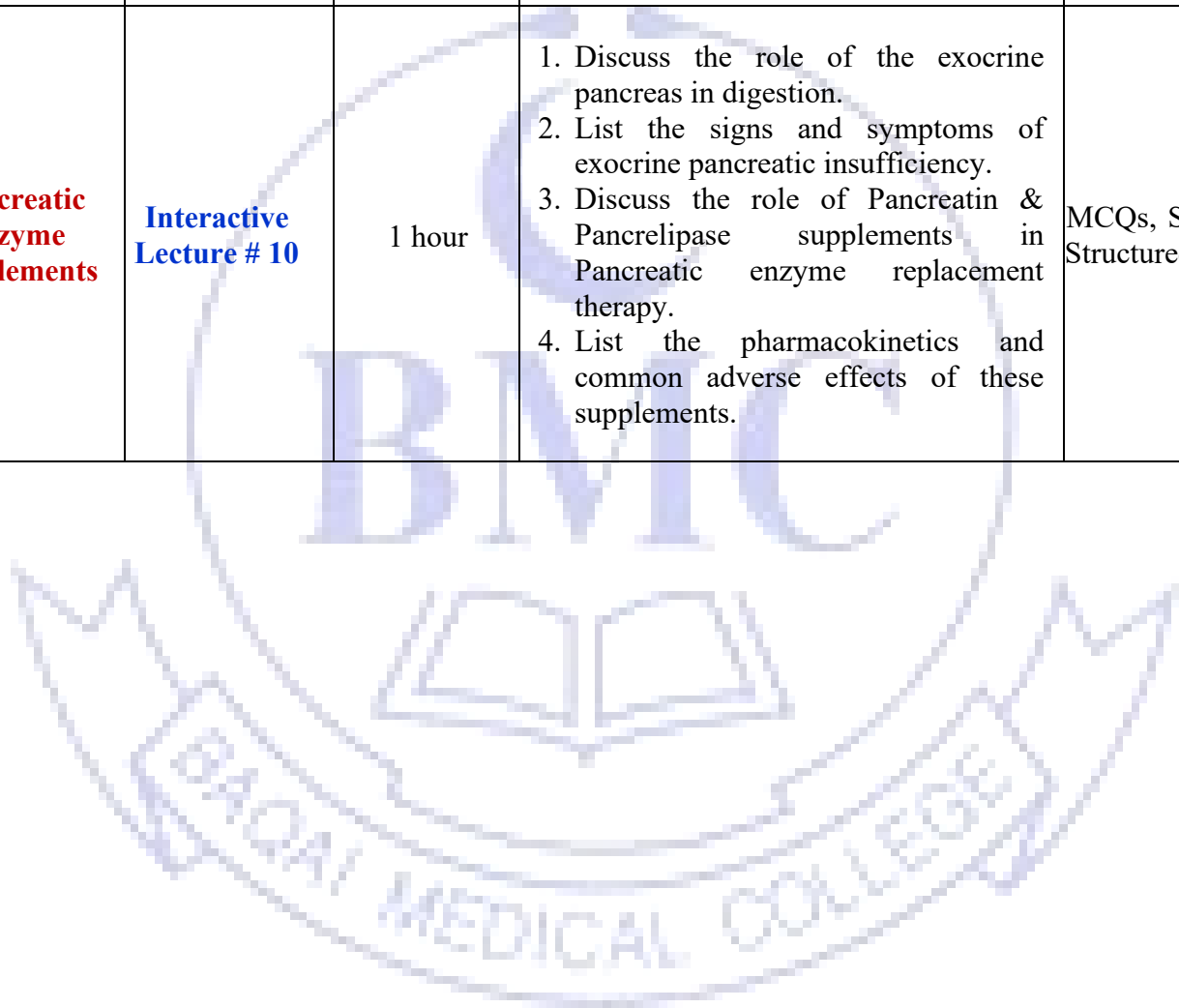
At the end of these 1-hour interactive lectures, the students of the 4th year MBBS will be able to:

Topic	Teaching Strategy	Duration	Learning Objectives	Assessment Pattern
Bile acid agents (for gallstones & primary biliary cirrhosis)	Interactive Lecture # 8	1 hour	<ol style="list-style-type: none"> 1. Discuss the role of bile acids in digestion. 2. Outline the pathophysiology of Gallstones and Primary Biliary Cirrhosis. 3. Explain the mechanism of action of Ursodiol and obeticholic acid. 4. List the pharmacokinetics of Ursodiol and obeticholic acid. 5. List the clinical uses and common adverse effects of Ursodiol and Obeticholic acid. 	MCQs, SEQs & Structured Viva
Drugs used to treat variceal hemorrhage	Interactive Lecture # 9	1 hour	<ol style="list-style-type: none"> 1. Outline the pathophysiology of Variceal Hemorrhage. 2. List the Signs and Symptoms of upper GI bleeding. 3. Explain the causes of Variceal Hemorrhage. 4. Discuss the role of Octreotide, Somatostatin, Vasopressin, and Terlipressin in the management of Variceal Hemorrhage. 5. List the pharmacokinetics, common adverse effects & contraindications of these drugs. 	MCQs, SEQs & Structured Viva

Pharmacology

At the end of these 1-hour interactive lectures, the students of the 4th year MBBS will be able to:

Topic	Teaching Strategy	Duration	Learning Objectives	Assessment Pattern
Pancreatic enzyme supplements	Interactive Lecture # 10	1 hour	<ol style="list-style-type: none"> 1. Discuss the role of the exocrine pancreas in digestion. 2. List the signs and symptoms of exocrine pancreatic insufficiency. 3. Discuss the role of Pancreatin & Pancrelipase supplements in Pancreatic enzyme replacement therapy. 4. List the pharmacokinetics and common adverse effects of these supplements. 	MCQs, SEQs & Structured Viva



Pharmacology

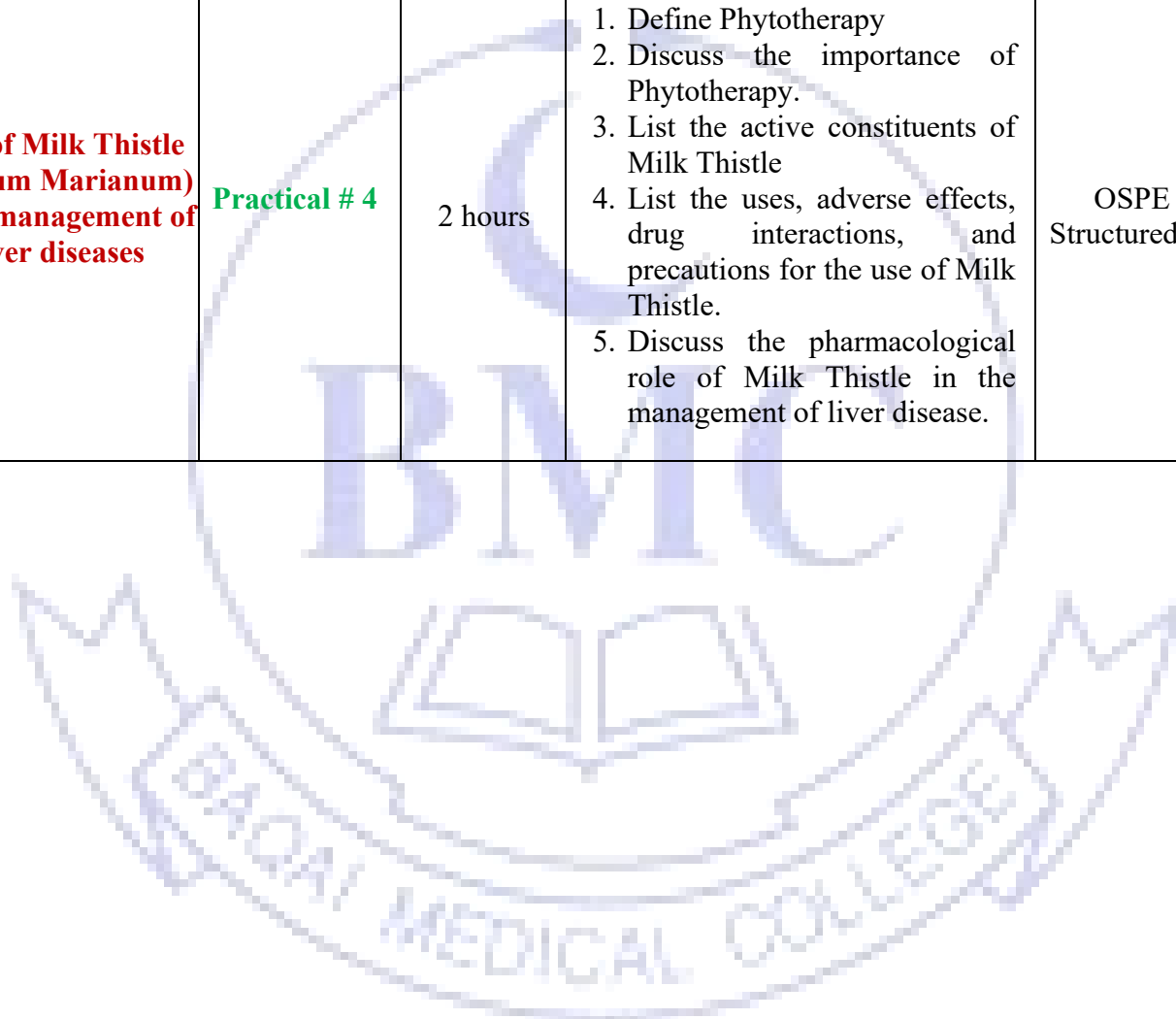
At the end of these 2-hour practical sessions, the students of the 4th year MBBS will be able to:

Topic	Teaching Strategy	Duration	Learning Objectives	Assessment Pattern
Introduction to intravenous and oral solutions, along with different types	Practical # 1	2 hours	<ol style="list-style-type: none"> 1. Define the solution. 2. List the components of a solution. 3. List various types of solutions according to composition 4. List various types of solutions according to tonicity 5. Give examples of the various types of intravenous and oral solutions 	OSPE & Structured Viva
Preparation and dispensing of gel in aphthous ulcer	Practical # 2	2 hours	<ol style="list-style-type: none"> 1. Define Gel. 2. Write down the composition of the gel used in an aphthous ulcer. 3. List the uses of the gel used in Aphthous Ulcers. 4. Draw the label of the gel used in Aphthous Ulcer 	OSPE & Structured Viva
Preparation and dispensing of homemade ORS.	Practical # 3	2 hours	<ol style="list-style-type: none"> 1. List the ingredients of ORS. 2. List the uses of ORS. 3. Demonstrate the steps of dispensing and preparation of ORS. 	OSPE & Structured Viva

Pharmacology

At the end of these 2-hour practical sessions, the students of the 4th year MBBS will be able to:

Topic	Teaching Strategy	Duration	Learning Objectives	Assessment Pattern
<p>Role of Milk Thistle (Silybum Marianum) in the management of Liver diseases</p>	<p>Practical # 4</p>	<p>2 hours</p>	<ol style="list-style-type: none"> 1. Define Phytotherapy 2. Discuss the importance of Phytotherapy. 3. List the active constituents of Milk Thistle 4. List the uses, adverse effects, drug interactions, and precautions for the use of Milk Thistle. 5. Discuss the pharmacological role of Milk Thistle in the management of liver disease. 	<p>OSPE & Structured Viva</p>



Pharmacology

At the end of these 2-hour tutorials, the students of the 4th year MBBS will be able to:

Topic	Teaching Strategy	Duration	Learning Objectives	Assessment Pattern
Prescription writing of Anti-emetics	Tutorial # 1	2 hours	<ol style="list-style-type: none"> 1. Define Emesis. 2. List the factors that cause emesis. 3. Discuss the pharmacokinetics and pharmacodynamics of Cyclizine and Chlorpromazine. 4. Write down the prescription for emesis. 	OSPE & Structured Viva
Prescription writing of Acute Gastroenteritis	Tutorial # 2	2 hours	<ol style="list-style-type: none"> 1. Define Acute Gastroenteritis. 2. Describe the role of I/V fluids in the management of acute Gastroenteritis. 3. Write down the pharmacological management of acute Gastroenteritis. 4. Write down the prescription of the given case of acute Gastroenteritis. 	OSPE & Structured Viva
Prescription writing of Peptic ulcer disease	Tutorial # 3	2 hours	<ol style="list-style-type: none"> 1. Define peptic ulcer. 2. List the signs and symptoms of a peptic ulcer. 3. Discuss the pharmacokinetics and pharmacodynamics of Esomeprazole, Ranitidine, and Sucralfate. 4. Write down the prescription of the given case. 	OSPE & Structured Viva

Pharmacology

At the end of these 2-hour tutorials, the students of the 4th year MBBS will be able to:

Topic	Teaching Strategy	Duration	Learning Objectives	Assessment Pattern
Prescription writing for constipation	Tutorial # 4	2 hours	<ol style="list-style-type: none"> 1. Define constipation. 2. Discuss the role of stool softeners (docusate sodium), lubricants (mineral oils), and prokinetic agents (Metoclopramide) in the treatment of Constipation. 3. Write down the prescription for the given case of Constipation. 	OSPE & Structured Viva
Prescription writing of Inflammatory bowel disease (Ulcerative Colitis)	Tutorial # 5	2 hours	<ol style="list-style-type: none"> 1. Define Inflammatory bowel disease. 2. Discuss the pharmacological management of IBD. 3. Discuss the rationale for prescribing the drugs for the pharmacological management of the given case of IBD. 4. Write down the prescription of the given case. 	OSPE & Structured Viva
Prescription writing of Irritable bowel syndrome	Tutorial # 6	2 hours	<ol style="list-style-type: none"> 1. Define irritable bowel syndrome (IBS) 2. Discuss the pharmacological management of the given case of irritable bowel syndrome (IBS) 3. Discuss the rationale for prescribing the drugs for the pharmacological management of the given case of irritable bowel syndrome (IBS) 4. Write down the prescription of the given case. 	OSPE & Structured Viva

Community Medicine

At the end of these 1-hour interactive lectures, the students of the 4th year MBBS will be able to:

Topic	Teaching Strategy	Duration	Learning Objectives	Assessment Pattern
Introduction to Community Medicine	Interactive Lecture # 1	1 hour	<ol style="list-style-type: none"> 1. Define Community Medicine. 2. Define Health and disease and differentiate between the two concepts. 3. Explain the concept of the iceberg phenomenon in the context of disease. 4. Describe the levels of Prevention with examples of interventions at each level of prevention. 	MCQs, SEQs, OSPE & Structured Viva
Introduction to Nutrition & Proteins	Interactive Lecture # 2	1 hour	<ol style="list-style-type: none"> 1. Define Nutrition, Nutrients, Food & Diet 2. List the classification of nutrients. 3. Discuss the classification and functions of proteins. 	MCQs, SEQs, OSPE & Structured Viva
Macro-nutrients (Carbohydrates & Lipids)	Interactive Lecture # 3	1 hour	<ol style="list-style-type: none"> 1. Describe Carbohydrates and their functions. 2. Discuss the classification of lipids. 3. List the functions of lipids. 	MCQs, SEQs, OSPE & Structured Viva
Micro-Nutrients (Vitamins – A, D, E, K, B-complex, and C)	Interactive Lecture # 4	1 hour	<ol style="list-style-type: none"> 1. Define Vitamins 2. Explain the classification of Vitamins. 3. List the sources of vitamins and the important functions of vitamins. 4. Discuss the prevention of vitamin (A, D, C) deficiencies. 	MCQs, SEQs, OSPE & Structured Viva

Community Medicine

At the end of these 1-hour interactive lectures, the students of the 4th year MBBS will be able to:

Topic	Teaching Strategy	Duration	Learning Objectives	Assessment Pattern
Micro-Nutrients (Minerals: Iron, Zinc, Iodine, Calcium, Fluoride)	Interactive Lecture # 5	1 hour	<ol style="list-style-type: none"> 1. Define minerals. 2. Explain the classification of minerals. 3. Discuss the sources and important functions of minerals 	MCQs, SEQs, OSPE & Structured Viva
Balanced Diet Nutritional requirements and status	Interactive Lecture # 6	1 hour	<ol style="list-style-type: none"> 1. Define a balanced diet. 2. Describe the dietary requirements of normal Human beings at different Stages of life. 3. Discuss the assessment of the nutritional status of the community (national nutrition survey) 	MCQs, SEQs, OSPE & Structured Viva
Malnutrition Macronutrient Deficiencies (LBW, Stunting, Marasmus, Kwashiorkor)	Interactive Lecture # 7	1 hour	<ol style="list-style-type: none"> 1. Define Malnutrition. 2. List the types of malnutrition. 3. Discuss the risk factors and prevention strategies of (LBW, Stunting, Marasmus, and Kwashiorkor) 	MCQs, SEQs, OSPE & Structured Viva
Micro – Nutrient Deficiencies (Zinc and Iodine Deficiencies)	Interactive Lecture # 8	1 hour	<ol style="list-style-type: none"> 1. Discuss Iodine deficiency disorder and its etiology. 2. Explain the prevention and control of iodine deficiency disorder. 3. Describe Zinc deficiency and its prevention and control. 	MCQs, SEQs, OSPE & Structured Viva

Community Medicine

At the end of these 1-hour interactive lectures, the students of the 4th year MBBS will be able to:

Topic	Teaching Strategy	Duration	Learning Objectives	Assessment Pattern
Micro – Nutrient Deficiencies (Nutritional Anemia)	Interactive Lecture # 9	1 hour	<ol style="list-style-type: none"> 1. Define nutritional anemia. 2. List the causes of nutritional anemia. 3. Discuss the prevention of nutritional anemia. 	MCQs, SEQs, OSPE & Structured Viva
Food Poisoning/ Prevention & control	Interactive Lecture # 10	1 hour	<ol style="list-style-type: none"> 1. Define food poisoning. 2. Discuss the types of food poisoning (Food infection and food toxemia) 3. Enlist the diseases caused by foodcontamination. 	MCQs, SEQs, OSPE & Structured Viva
Preservation of food and food Adulteration	Interactive Lecture # 11	1 hour	<ol style="list-style-type: none"> 1. Describe the preservation of food. 2. Define food adulteration. 3. Explain the causes of food adulteration. 4. Discuss the prevention of food adulteration. 	MCQs, SEQs, OSPE & Structured Viva
Hepatitis A/D/E Prevention and Control	Interactive Lecture # 12	1 hour	<ol style="list-style-type: none"> 1. Define Hepatitis 2. Explain the etiology of Hepatitis and list the types of hepatitis. 3. Enlist the clinical features of Hepatitis A/D/E. 4. Discuss the prevention of Hepatitis A/D/E. 	MCQs, SEQs, OSPE & Structured Viva

Community Medicine

At the end of these 1-hour interactive lectures, the students of the 4th year MBBS will be able to:

Topic	Teaching Strategy	Duration	Learning Objectives	Assessment Pattern
Hepatitis B/C Prevention and Control	Interactive Lecture # 13	1 hour	<ol style="list-style-type: none"> 1. Enlist the causes of Hepatitis B and C 2. Describe the clinical features of Hepatitis B and C. 3. Discuss the prevention of Hepatitis B and C. 	MCQs, SEQs, OSPE & Structured Viva
Typhoid Fever, Cholera & Dysentery	Interactive Lecture # 14	1 hour	<ol style="list-style-type: none"> 1. Discuss Typhoid Fever, its etiology, and prevention. 2. Explain the risk factors and prevention and control of Cholera. 3. Distinguish between cholera and food poisoning. 4. Explain the types and preventive strategies of Dysentery. 	MCQs, SEQs, OSPE & Structured Viva

Community Medicine Field Visit*

At the end of these 5-hour Community Field Visits, the students of the 4th year MBBS will be able to:

<p>R.O. Plant, Baqai Medical University Campus</p>	<ol style="list-style-type: none"> 1. Explore the various stages of the water purification process within the RO plant and grasp the significance of each step in producing clean and safe drinking water. 2. Observe the day-to-day operations of the RO plant.
<p>Primary Healthcare Centre</p>	<ol style="list-style-type: none"> 1. Participants will gain firsthand insights into basic concepts and principles of primary healthcare 2. Participants will observe how primary health care promotes health, prevents disease, and provides early treatment within communities. 3. Participants will identify and describe real-world examples of how primary healthcare interventions contribute to improving health outcomes in various populations.
<p>Dar-UI-Sukun Center for Children with Disabilities</p>	<ol style="list-style-type: none"> 1. Participants will gain insights into the foundational mission and values of Dar-ul-Sukun, understanding its commitment to providing care and support for abandoned children with disabilities. 2. Observe and comprehend the daily operations and activities within Dar-ul-Sukun, including the living conditions, educational initiatives, and healthcare provisions for the children under its care.

*List of proposed field visits for Community Medicine

Medicine & Allied				
At the end of these 1-hour interactive lectures, the students of the 4th year MBBS will be able to:				
Topic	Teaching Strategy	Duration	Learning Objectives	Assessment Pattern
Esophagitis	Interactive Lecture # 1	1 hour	<ol style="list-style-type: none"> 1. Define Esophagitis and its types. 2. Enlist the clinical features with which the patient presents. 3. Formulate a proper plan for the diagnosis. 4. How to prevent them. 5. Briefly describe the management plan. 	MCQs
Malabsorption Syndrome	Interactive Lecture # 2	1 hour	<ol style="list-style-type: none"> 1. Identify the symptoms and signs of malabsorption syndrome. 2. Make a differential diagnosis of malabsorption syndrome. 3. Discuss and formulate the investigation and the management plan & its complications. 	MCQs
Acute & Chronic Diarrhea	Interactive Lecture # 3	1 hour	<ol style="list-style-type: none"> 1. Define acute & chronic diarrhea & its types. 2. Enlist the clinical, pathological mechanisms & causes of acute & chronic diarrhea. 3. Outline the general management plan for Acute & Chronic diarrhea. 	MCQs
Upper and Lower GI bleeding	Interactive Lecture # 4	1 hour	<ol style="list-style-type: none"> 1. Define Upper and Lower GI bleeding. 2. Discuss the different causes of upper and lower GI bleeding. 3. Outline the diagnostic tests required for upper and lower GI bleeding. 	MCQs

Medicine & Allied				
At the end of these 1-hour interactive lectures, the students of the 4th year MBBS will be able to:				
Topic	Teaching Strategy	Duration	Learning Objectives	Assessment Pattern
Pernicious anemia	Interactive Lecture # 5	1 hour	<ol style="list-style-type: none"> 1. Define Pernicious Anemia. 2. Discuss the pathophysiology of Pernicious anemia. 3. Describe its clinical features & diagnosis. 4. Outline the management plan & its complications. 	MCQs
Acute Viral Hepatitis	Interactive Lecture # 6	1 hour	<ol style="list-style-type: none"> 1. Define Hepatitis and differentiate between Acute and Chronic Viral Hepatitis. 2. Describe the etiological factors of acute Viral Hepatitis. 3. Discuss the pathophysiology of acute viral Hepatitis. 4. Enlist the clinical features with which the patient presents. 5. Formulate a proper plan for the diagnosis of viral hepatitis along with specific investigations to explore etiology and to determine the possible complications. 	MCQs

Medicine & Allied				
At the end of these 1-hour interactive lectures, the students of the 4th year MBBS will be able to:				
Topic	Teaching Strategy	Duration	Learning Objectives	Assessment Pattern
Chronic Hepatitis B & C	Interactive Lecture # 7	1 hour	<ol style="list-style-type: none"> 1. Define Chronic Hepatitis B & C. 2. Describe the etiological factors of Chronic Hepatitis B & C. 3. Discuss the pathophysiology of Chronic Hepatitis B & C. 4. Enlist the clinical features with which the patient presents. 5. Formulate a proper plan for the diagnosis of Chronic Hepatitis B & C, along with specific investigations to explore etiology and to determine the possible complications. 	MCQs
Cirrhosis of the Liver and Its Complications	Interactive Lecture # 8	1 hour	<ol style="list-style-type: none"> 1. Define cirrhosis & enlist its common causes. 2. Describe the clinical, laboratory, and radiological features of Liver Cirrhosis. 3. Summarize the clinical course of Cirrhosis. 4. Identify its recognized complications. 	MCQs
Hepatocellular Carcinoma	Interactive Lecture # 9	1 hour	<ol style="list-style-type: none"> 1. Define Hepatocellular Carcinoma (HCC). 2. Describe the epidemiology and risk factors associated with HCC. 3. Explain the pathophysiology of HCC. 4. Recognize the clinical features of HCC. 5. Outline the diagnostic approach for HCC. 	MCQs

Medicine & Allied				
At the end of these 1-hour interactive lectures, the students of the 4th year MBBS will be able to:				
Topic	Teaching Strategy	Duration	Learning Objectives	Assessment Pattern
Hepatic Encephalopathy	Interactive Lecture # 10	1 hour	<ol style="list-style-type: none"> 1. Define and classify Hepatic Encephalopathy. 2. Describe the pathophysiology 3. Identify its risk factors and precipitating causes. 4. Recognize its clinical manifestations. 5. Outline the diagnosis and management strategies. 	MCQs
Management of Ascites	Interactive Lecture # 11	1 hour	<ol style="list-style-type: none"> 1. Identify the underlying cause of ascites. 2. Discuss the first-line management for cirrhosis-related ascites 3. Summarize the lifestyle modifications and diuretic therapy. 4. Outline the management of refractory ascites. 	MCQs

Surgery & Allied

At the end of these 1-hour interactive lectures, the students of the 4th year MBBS will be able to:

Topic	Teaching Strategy	Duration	Learning Objectives	Assessment Pattern
Disorders of the Salivary Gland	Interactive Lecture # 1	1 hour	<ol style="list-style-type: none"> 1. Explain the etiology, pathogenesis, and clinical features of common salivary gland disorders. 2. Discuss the diagnostic approach to salivary gland disorders. 3. Outline the principles of management of salivary gland disorders. 4. Identify complications of salivary gland disorders. 	MCQs
Dysphagia	Interactive Lecture # 2	1 hour	<ol style="list-style-type: none"> 1. Define dysphagia and classify types of dysphagia 2. Enumerate the causes of dysphagia 3. Explain the clinical features of dysphagia. 4. Discuss the diagnostic approach to dysphagia 5. Outline the principles of management of dysphagia. 	MCQs
Carcinoma of the Esophagus	Interactive Lecture # 3	1 hour	<ol style="list-style-type: none"> 1. Describe the risk factors and etiopathogenesis of carcinoma of the esophagus. 2. Explain the clinical features of esophageal carcinoma 3. Outline the diagnostic approach to carcinoma of the esophagus. 4. Discuss the principles of management of ca oesophagus, including surgical, chemotherapeutic, radiotherapeutic, and palliative options. 	MCQs

Surgery & Allied

At the end of these 1-hour interactive lectures, the students of the 4th year MBBS will be able to:

Topic	Teaching Strategy	Duration	Learning Objectives	Assessment Pattern
Perforated Peptic Ulcer	Interactive Lecture # 4	1 hour	<ol style="list-style-type: none"> 1. Describe the etiology and risk factors of peptic ulcer disease. 2. Identify the clinical features and signs of a perforated peptic ulcer 3. Outline its diagnostic approach. 4. Discuss the principles of initial resuscitation and emergency management of a patient with a perforated peptic ulcer. 	MCQs
Gastric Cancer and Gastric Outlet Obstruction	Interactive Lecture # 5	1 hour	<ol style="list-style-type: none"> 1. Describe the epidemiology, risk factors, and etiopathogenesis of gastric cancer, 2. Identify the clinical features and patterns of presentation of gastric cancer, including features of gastric outlet obstruction. 3. Outline the diagnostic evaluation of gastric cancer and gastric outlet obstruction. 4. Describe the principles of management of gastric cancer and gastric outlet obstruction. 	MCQs
Intestinal obstruction	Interactive Lecture # 6	1 hour	<ol style="list-style-type: none"> 1. Identify the clinical features and presentation of intestinal obstruction 2. Outline the diagnostic approach to intestinal obstruction. 3. Discuss the principles of initial management, including resuscitation, fluid and electrolyte correction, and nasogastric decompression. 4. Describe the surgical and non-surgical treatment options 	MCQs

Surgery & Allied

At the end of these 1-hour interactive lectures, the students of the 4th year MBBS will be able to:

Topic	Teaching Strategy	Duration	Learning Objectives	Assessment Pattern
Colorectal Carcinoma	Interactive Lecture # 7	1 hour	<ol style="list-style-type: none"> 1. Describe the epidemiology and risk factors of colorectal carcinoma. 2. Identify the clinical features of colorectal carcinoma. 3. Outline the diagnostic evaluation of colorectal carcinoma. 4. Describe the principles of management of colorectal carcinoma. 	MCQs
Acute Appendicitis	Interactive Lecture # 8	1 hour	<ol style="list-style-type: none"> 1. Explain the clinical features of acute appendicitis 2. Outline the diagnostic approach 3. Discuss the differential diagnoses of acute appendicitis in various patient populations. 4. Describe the principles of management, including preoperative care, surgical options (open and laparoscopic appendectomy), and postoperative care. 	MCQs

Surgery & Allied

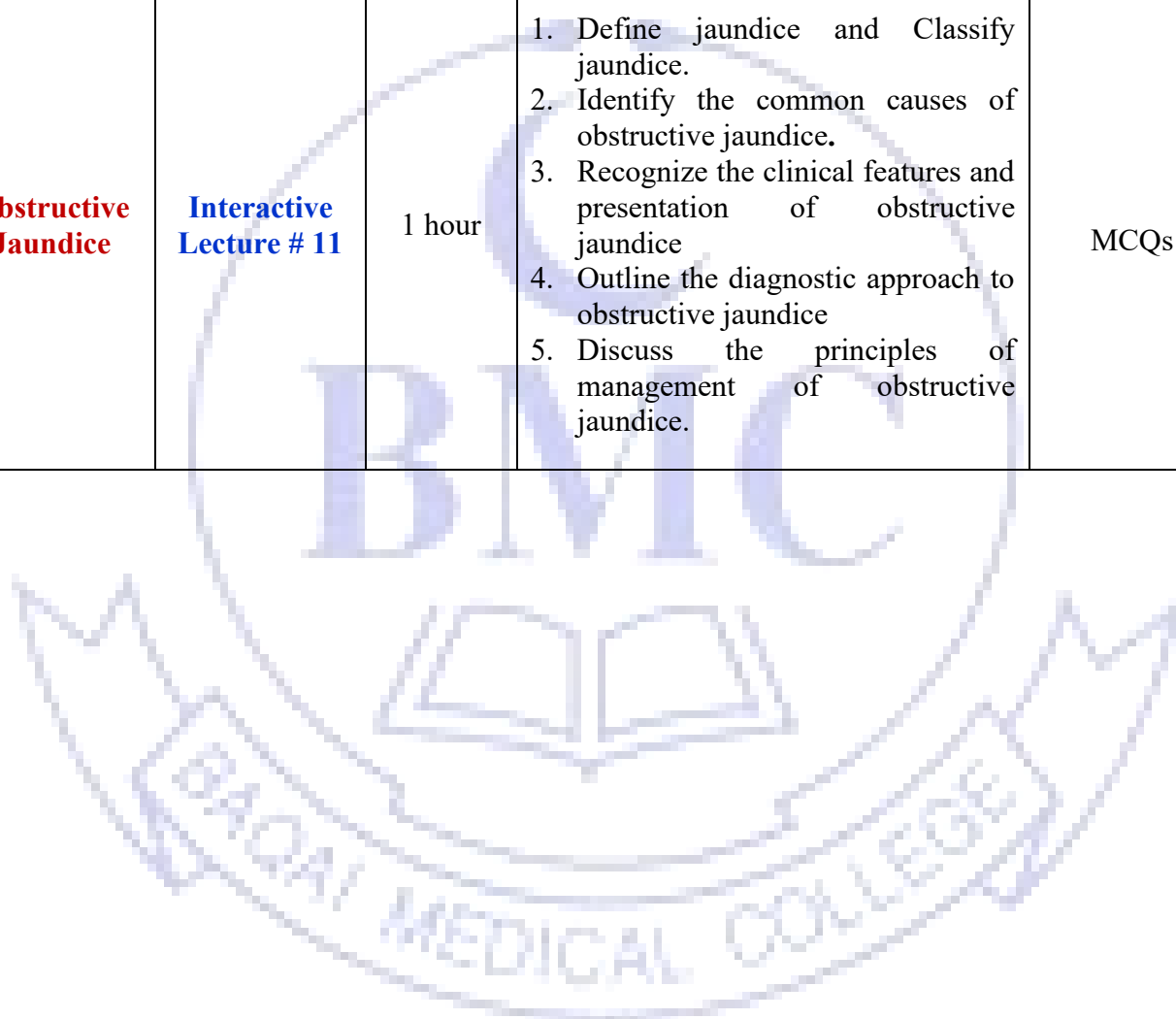
At the end of these 1-hour interactive lectures, the students of the 4th year MBBS will be able to:

Topic	Teaching Strategy	Duration	Learning Objectives	Assessment Pattern
Gall bladder diseases	Interactive Lecture # 9	1 hour	<ol style="list-style-type: none"> 1. Explain the etiology, risk factors, and pathophysiology of common gallbladder diseases, including cholelithiasis, cholecystitis, and gallbladder carcinoma. 2. Identify the clinical features and typical presentations of gallbladder diseases. 3. Outline the diagnostic approach of common gallbladder diseases, 4. Discuss the principles of management of common gallbladder diseases 	MCQs
Acute Pancreatitis	Interactive Lecture # 10	1 hour	<ol style="list-style-type: none"> 1. Identify the clinical features and presenting symptoms of acute pancreatitis. 2. Outline the diagnostic approach to acute pancreatitis 3. Discuss the principles of management of acute pancreatitis 4. Describe complications of acute pancreatitis. 	MCQs

Surgery & Allied

At the end of these 1-hour interactive lectures, the students of the 4th year MBBS will be able to:

Topic	Teaching Strategy	Duration	Learning Objectives	Assessment Pattern
Obstructive Jaundice	Interactive Lecture # 11	1 hour	<ol style="list-style-type: none"> 1. Define jaundice and Classify jaundice. 2. Identify the common causes of obstructive jaundice. 3. Recognize the clinical features and presentation of obstructive jaundice 4. Outline the diagnostic approach to obstructive jaundice 5. Discuss the principles of management of obstructive jaundice. 	MCQs



Pediatric Medicine

At the end of this 1-hour interactive lecture, the students of the 4th year MBBS will be able to:

Topic	Teaching Strategy	Duration	Learning Objectives	Assessment Pattern
IMNCI	Interactive Lecture # 1	1 hour	<ol style="list-style-type: none"> 1. Name the diseases covered in the IMNCI program 2. Recall preventive interventions (e.g., immunization) 3. Recall danger signs in children 4. Describe the management of common diseases of children 	MCQs
Liver	Interactive Lecture # 2	1 hour	<ol style="list-style-type: none"> 1. Describe the functions of the liver. 2. Describe Liver Function tests. 3. Describe common liver diseases. 	MCQs
Hepatitis	Interactive Lecture # 3	1 hour	<ol style="list-style-type: none"> 1. Classify hepatitis. 2. Recall clinical features of hepatitis. 3. Recall the basic investigations of hepatitis. 4. Explain its management. 	MCQs

Obstetrics & Gynecology

At the end of this 1-hour interactive lecture, the students of the 4th year MBBS will be able to:

Topic	Teaching Strategy	Duration	Learning Objectives	Assessment Pattern
Hyperemesis in pregnancy	Interactive Lecture # 1	1 hour	<ol style="list-style-type: none"> 1. Define hyperemesis gravidarum. 2. Discuss the Pathophysiology and causes of hyperemesis gravidarum. 	MCQs
Liver Disorders in Pregnancy	Interactive Lecture # 2	1 hour	<ol style="list-style-type: none"> 1. Classify the liver disorders in Pregnancy. 2. Discuss the scenarios, highlighting the common liver disorders in pregnancy. 	MCQs



MUSCULOSKELETAL SYSTEM & DERMATOLOGY



*Musculoskeletal
System
And
Dermatology*

INTRODUCTION TO MODULE – II



<i>Module – II</i>	
<i>Musculoskeletal System & Dermatology</i>	
Systems	<ul style="list-style-type: none"> • Musculoskeletal System • Dermatology
Duration	7 Weeks (3 rd March 2026 to 17 th April 2026)
Assessment Dates	20 th April 2026
Assessment Pattern	MCQs, SEQs & OSPE

*The Assessment pattern and dates are tentative (Subject to change)

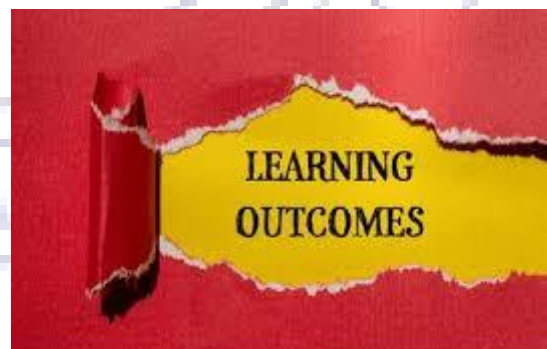
MODULE RATIONALE

This module integrates musculoskeletal and dermatological sciences with clinical medicine, emphasizing the skin as a window to systemic disease. This spiral integration allows students to revisit anatomy, histology, immunology, and pathology while advancing toward diagnostic reasoning, interpretation of imaging and biopsy findings, and rational pharmacotherapy of musculoskeletal and skin disorders.

MODULE LEARNING OUTCOMES

At the end of this module, the students of the 4th year MBBS will be able to:

1. Describe the pathogenesis of common musculoskeletal and dermatological disorders.
2. Analyze patterns of joint, muscle, bone, and skin involvement to reach a clinical diagnosis.
3. Interpret radiological, histopathological, and serological investigations relevant to MSK and skin diseases.
4. Differentiate inflammatory, degenerative, infectious, autoimmune, and neoplastic conditions.
5. Apply principles of pharmacological and non-pharmacological management in MSK and dermatological conditions.
6. Recognize dermatological manifestations of systemic diseases and drug reactions.



Pathology

At the end of these 1-hour interactive lectures, the students of the 4th year MBBS will be able to:

Topic	Teaching Strategy	Duration	Learning Objectives	Assessment Pattern
Developmental disorders of bone and cartilage	Interactive Lecture # 32	1 hour	<ol style="list-style-type: none"> List the developmental disorders of bone and cartilage. Discuss the pathophysiology, morphology, and clinical features of achondroplasia. Comprehend osteogenesis imperfecta based on its pathogenesis, morphology, types, and clinical features. Describe the pathogenesis, clinical features, and morphology of osteopetrosis. 	MCQs, SEQs & Structured Viva
Acquired disorders of bone and cartilage	Interactive Lecture # 33	1 hour	<ol style="list-style-type: none"> Classify the acquired disorders of bone and cartilage. Discuss Paget's disease based on its pathogenesis, clinical course, morphology, and complications. Describe the contributing factors, pathogenesis, and clinical manifestations of Renal Osteodystrophy. Differentiate between the pathophysiology and clinical features of Rickets and Osteomalacia. 	MCQs, SEQs & Structured Viva
Fractures & Osteonecrosis	Interactive Lecture # 34	1 hour	<ol style="list-style-type: none"> Define & classify fractures. Explain the sequence of events in the healing of a fracture. List the conditions associated with Osteonecrosis. Discuss the pathophysiology, morphology & clinical course of osteonecrosis. 	MCQs, SEQs & Structured Viva

Pathology

At the end of these 1-hour interactive lectures, the students of the 4th year MBBS will be able to:

Topic	Teaching Strategy	Duration	Learning Objectives	Assessment Pattern
Osteoporosis	Interactive Lecture # 35	1 hour	<ol style="list-style-type: none"> 1. Define Osteopenia and Osteoporosis. 2. Enumerate the primary and secondary categories of generalized osteoporosis. 3. Discuss the risk factors, pathogenesis, morphology, and clinical course of osteoporosis. 	MCQs, SEQs & Structured Viva
Infectious conditions of the bone (Osteomyelitis)	Interactive Lecture # 36	1 hour	<ol style="list-style-type: none"> 1. Define and classify osteomyelitis. 2. List the etiological factors of osteomyelitis. 3. Comprehend the pathogenesis, morphology, and clinical course of osteomyelitis. 4. Enumerate the common routes of spread and the frequent sites involved in osteomyelitis. 5. Differentiate between acute and chronic osteomyelitis. 	MCQs, SEQs & Structured Viva
Bone Tumors	Interactive Lecture # 37	1 hour	<ol style="list-style-type: none"> 1. Classify the primary tumors of the bone. 2. Differentiate between osteoid osteoma and osteoblastoma based on size, sites of origin, and symptoms. 3. Describe the morphology of osteoid osteoma. 4. Comprehend the risk factors, pathogenesis, morphology & and clinical features of osteosarcoma. 	MCQs, SEQs & Structured Viva

Pathology

At the end of these 1-hour interactive lectures, the students of the 4th year MBBS will be able to:

Topic	Teaching Strategy	Duration	Learning Objectives	Assessment Pattern
Cartilage-forming tumors	Interactive Lecture # 38	1 hour	<ol style="list-style-type: none"> 1. Classify the primary tumors of the cartilage. 2. Describe the pathophysiology, clinical features, and morphology of osteochondroma. 3. Explain the pathogenesis, clinical course & and morphology of chondroma. 4. Comprehend the pathophysiology, morphological, and clinical features of chondrosarcoma. 	MCQs, SEQs & Structured Viva
Inflammatory disorders of joints (Arthritis)	Interactive Lecture # 39	1 hour	<ol style="list-style-type: none"> 1. Classify arthritis. 2. Differentiate between osteoarthritis and rheumatoid arthritis based on their types, pathogenesis, morphological features, and clinical course. 3. Enumerate the joints frequently involved in osteoarthritis and rheumatoid arthritis. 4. Describe the diagnostic criteria of rheumatoid arthritis. 	MCQs, SEQs & Structured Viva
Crystal-induced Arthritis	Interactive Lecture # 40	1 hour	<ol style="list-style-type: none"> 1. Classify the crystal-induced arthritis. 2. Discuss the pathogenesis, clinical course, and morphology of gout. 3. Describe the pathophysiology and morphology of pseudogout. 4. Discuss their complications. 	MCQs, SEQs & Structured Viva

Pathology

At the end of these 1-hour interactive lectures, the students of the 4th year MBBS will be able to:

Topic	Teaching Strategy	Duration	Learning Objectives	Assessment Pattern
Infective Arthritis	Interactive Lecture # 41	1 hour	<ol style="list-style-type: none"> 1. Define infective arthritis and describe its etiopathogenesis, including common causative organisms and routes of infection. 2. Describe the gross and microscopic pathological features of septic arthritis and correlate them with clinical signs and symptoms. 3. Interpret the laboratory findings, including synovial fluid analysis and imaging, to aid in the diagnosis of septic arthritis. 4. Differentiate septic arthritis from other joint disorders and propose appropriate management strategies based on pathological findings. 	MCQs, SEQs & Structured Viva
Joint tumors and tumor-like conditions	Interactive Lecture # 42	1 hour	<ol style="list-style-type: none"> 1. Classify joint tumors and tumor-like conditions. 2. Define ganglion and synovial cyst. 3. Describe the pathogenesis, morphology, and clinical features of a tenosynovial giant cell tumor. 	MCQs, SEQs & Structured Viva
Inherited diseases of the skeletal muscle	Interactive Lecture # 43	1 hour	<ol style="list-style-type: none"> 1. Classify Congenital Myopathies. 2. Comprehend the subtypes, causes, pathophysiology, morphology, and clinical features of Muscular dystrophy. 	MCQs, SEQs & Structured Viva

Pathology

At the end of these 1-hour interactive lectures, the students of the 4th year MBBS will be able to:

Topic	Teaching Strategy	Duration	Learning Objectives	Assessment Pattern
Inflammatory diseases of the skeletal muscles	Interactive Lecture # 44	1 hour	<ol style="list-style-type: none"> 1. Classify inflammatory myopathies. 2. Discuss the pathogenesis, morphology, and clinical features of dermatomyositis. 3. Describe the pathogenesis and morphology of Polymyositis and inclusion-body myositis. 	MCQs, SEQs & Structured Viva
Diseases of the Neuromuscular Junction	Interactive Lecture # 45	1 hour	<ol style="list-style-type: none"> 1. Classify the Diseases of the Neuromuscular Junction. 2. Describe the etiology, clinicopathological features, and laboratory diagnosis of Myasthenia Gravis. 3. Explain the pathophysiology, morphology, and clinical features of Lambert-Eaton myasthenic syndrome based on etiology, pathology, 4. Discuss the diagnostic tests and complications for common neuromuscular junction disorders. 	MCQs, SEQs & Structured Viva
Systemic Lupus Erythematosus	Interactive Lecture # 46	1 hour	<ol style="list-style-type: none"> 1. Describe the etiology and pathogenesis of SLE. 2. Identify the key clinical manifestations and organ system involvement in SLE. 3. Interpret the laboratory findings of SLE. 4. Discuss its complications. 	MCQs, SEQs & Structured Viva

Pathology

At the end of these 1-hour interactive lectures, the students of the 4th year MBBS will be able to:

Topic	Teaching Strategy	Duration	Learning Objectives	Assessment Pattern
Soft Tissue Tumors	Interactive Lecture # 47	1 hour	<ol style="list-style-type: none"> 1. Categorize soft tissue tumors. 2. Differentiate between the pathophysiology and morphology of lipoma and liposarcoma. 3. Compare leiomyoma & leiomyosarcoma based on their pathogenesis and morphology. 4. Classify the tumors of the skeletal muscle. 5. Discuss the subtypes, pathogenesis, and morphology of Rhabdomyosarcoma. 	MCQs, SEQs & Structured Viva
Nomenclature of Skin Lesions	Interactive Lecture # 48	1 hour	<ol style="list-style-type: none"> 1. Define common macroscopic terms, e.g., macule, papule, nodule, plaque, vesicle, bulla, blister, pustule, scale, lichenification, and excoriation. 2. Define common microscopic terms, e.g., hyperkeratosis, parakeratosis, acanthosis, dyskeratosis, acantholysis, papillomatosis, and lentiginous spongiosis 	MCQs, SEQs & Structured Viva

Pathology

At the end of these 1-hour interactive lectures, the students of the 4th year MBBS will be able to:

Topic	Teaching Strategy	Duration	Learning Objectives	Assessment Pattern
Acute inflammatory dermatosis - I	Interactive Lecture # 49	1 hour	<ol style="list-style-type: none"> 1. Define and classify eczematous dermatitis. 2. Describe the etiology and pathogenesis of contact dermatitis, atopic dermatitis, drug-related eczematous dermatitis, photo-eczematous eruptions, and primary irritant dermatitis. 3. Describe the morphological and clinical features of acute eczematous dermatitis. 	MCQs, SEQs & Structured Viva
Acute inflammatory dermatosis – II	Interactive Lecture # 50	1 hour	<ol style="list-style-type: none"> 1. Enumerate the conditions that are associated with Erythema Multiforme. 2. Discuss the pathogenesis, morphology, and clinical features of Erythema Multiforme. 3. Define Urticaria. 4. Describe the causes, pathogenesis, morphological, and clinical features of urticaria. 	MCQs, SEQs & Structured Viva

Pathology

At the end of these 1-hour interactive lectures, the students of the 4th year MBBS will be able to:

Topic	Teaching Strategy	Duration	Learning Objectives	Assessment Pattern
Chronic inflammatory dermatosis	Interactive Lecture # 51	1 hour	<ol style="list-style-type: none"> 1. Define and Classify Chronic Inflammatory Dermatoses 2. Describe the etiopathogenesis, morphology, and clinical features of Psoriasis. 3. Discuss the etiopathogenesis, morphology, and clinical features of Seborrheic Dermatitis. 4. Define Lichen planus. Explain its etiopathogenesis, morphology, and clinical features. 5. Comprehend the etiopathogenesis, morphology, and clinical features of Lichen planus chronicus. 	MCQs, SEQs & Structured Viva
Infectious dermatosis	Interactive Lecture # 52	2 hours	<ol style="list-style-type: none"> 1. List superficial and deep bacterial infections of the skin, e.g., Impetigo caused by Staphylococcus and Streptococcus spp. (superficial) and Pseudomonas aeruginosa(deep). 2. Describe the etiopathogenesis, morphology, and clinical features of bacterial infections. 3. List fungal infections of the skin. 4. Describe the etiopathogenesis, morphology & and clinical features of Candida species and Aspergillus species. 5. Define Verrucae (Warts) and describe their etiopathogenesis, morphology, and clinical features. 6. Define Acne vulgaris. Describe its etiopathogenesis, morphology, and clinical features. 	MCQs, SEQs & Structured Viva

Pathology

At the end of these 1-hour interactive lectures, the students of the 4th year MBBS will be able to:

Topic	Teaching Strategy	Duration	Learning Objectives	Assessment Pattern
Systemic Sclerosis	Interactive Lecture # 53	1 hour	<ol style="list-style-type: none"> 1. Explain the pathogenesis of systemic sclerosis, emphasizing vascular injury, immune activation, and progressive fibrosis. 2. Recognize the clinical features and patterns of organ involvement in limited and diffuse forms of systemic sclerosis. 3. Interpret the relevant serologic tests and outline the diagnostic criteria for systemic sclerosis. 	MCQs, SEQs & Structured Viva
Blistering (Bullous) Diseases of the Skin	Interactive Lecture # 54	1 hour	<ol style="list-style-type: none"> 1. Define and classify blistering (bullous) disorders of the skin (Pemphigus vulgaris, Pemphigus foliaceus, and Paraneoplastic pemphigus). 2. Discuss the variants, pathophysiology, clinical features, and morphology of Pemphigus. 3. Comprehend the pathogenesis, clinical features & and morphology of Bullous Pemphigoid. 4. Define Dermatitis Herpetiformis and describe its etiopathogenesis, morphology, and clinical features. 	MCQs, SEQs & Structured Viva

Pathology

At the end of these 1-hour interactive lectures, the students of the 4th year MBBS will be able to:

Topic	Teaching Strategy	Duration	Learning Objectives	Assessment Pattern
Benign Skin Tumors and Tumor-like Skin Lesions	Interactive Lecture # 55	1 hour	<ol style="list-style-type: none"> 1. List premalignant and malignant epidermal tumors. 2. Describe etiopathogenesis, morphology, and clinical features of Actinic Keratosis. 3. List the tumors and tumor-like lesions of the Melanocytes. 4. Comprehend the types (Congenital nevus, blue nevus, Spitz's nevus, halo nevus, dysplastic nevus), etiopathogenesis, morphology, and clinical features of Melanocytic Nevi. 	MCQs, SEQs & Structured Viva
Malignant Skin Tumors	Interactive Lecture # 56	1 hour	<ol style="list-style-type: none"> 1. Explain the risk factors, etiology, and morphology of squamous cell carcinoma of the skin. 2. Discuss basal cell carcinoma concerning its frequent sites of origin and clinical and morphological features. 3. Describe the pathogenesis, clinical features, and morphology of Malignant Melanoma. 	MCQs, SEQs & Structured Viva

Pathology

At the end of these 2 hours of small group discussion sessions, the students of the 4th year MBBS will be able to:

Topic	Teaching Strategy	Duration	Learning Objectives	Assessment Pattern
Disorders of the bone and cartilage	Small group discussion # 6	2 hours	<ol style="list-style-type: none"> 1. Classify the disorders of bone and cartilage 2. Comprehend developmental disorders of bone and cartilage based on their causes, pathophysiology, morphology, and clinical features. 3. Describe the pathogenesis, clinical features, and morphology of acquired disorders of the bone and cartilage. 	OSPE & Structured Viva
Joint Disorders	Small group discussion # 7	2 hours	<ol style="list-style-type: none"> 1. Classify the disorders of joints. 2. Differentiate between the pathogenesis, clinical course, and morphology of Osteoarthritis and Rheumatoid Arthritis. 3. Comprehend Crystal-induced Arthritis based on pathogenesis, clinical course, and morphology. 4. Describe the pathophysiology, clinical features, and morphology of tumors and tumor-like conditions of the joint. 	OSPE & Structured Viva
Musculo-skeletal Disorders	Small group discussion # 8	2 hours	<ol style="list-style-type: none"> 1. Classify Musculoskeletal Disorders. 2. Summarize the causes, pathogenesis, clinical course, and morphology of Skeletal disorders. 3. Summarize the etiology, pathophysiology, and morphology of Muscular disorders 	OSPE & Structured Viva

Pathology

At the end of these 2 hours of small group discussion sessions, the students of the 4th year MBBS will be able to:

Topic	Teaching Strategy	Duration	Learning Objectives	Assessment Pattern
Inflammatory dermatosis	Small group discussion # 9	2 hours	<ol style="list-style-type: none"> 1. Classify the inflammatory disorders of the skin. 2. Discuss the causes, pathogenesis, clinical course, and morphology of acute inflammatory dermatosis. 3. Comprehend the causes, pathophysiology, clinical features, and morphology of chronic inflammatory dermatosis. 	OSPE & Structured Viva
Pathologies of the Skin	Small group discussion # 10	2 hours	<ol style="list-style-type: none"> 1. Classify Skin pathologies. 2. Comprehend the pathogenesis, clinical course, and morphology of Skin infections. 3. Discuss the pathophysiology and morphology of dermatological malignancies. 	OSPE & Structured Viva

Pathology

At the end of these 2 hours of practical sessions, the students of the 4th year MBBS will be able to:

Topic	Teaching Strategy	Duration	Learning Objectives	Assessment Pattern
Bone & Cartilage Tumors	Practical # 8	2 hours	<ol style="list-style-type: none"> 1. Comprehend the incidence and occurrence, pathogenesis, and morphology of Ewing's sarcoma. 2. Identify the given photomicrographs of Ewing's sarcoma with their points of identification. 3. Summarize the pathophysiology, morphological & clinical features of giant cell tumor. 4. Identify the histopathological slide of a giant cell tumor with its points of identification. 5. Summarize the pathophysiology, morphological & clinical features of Chondroma. 6. Identify the histopathological slide of a Chondroma with its points of identification. 	OSPE & Structured Viva
Joint Tumors and Tumor-like Conditions	Practical # 9	2 hours	<ol style="list-style-type: none"> 1. Comprehend the incidence and occurrence, pathogenesis, and morphology of Teno synovial Giant Cell Tumor. 2. Identify the given photomicrographs of Teno synovial Giant Cell Tumor with their points of identification. 3. Summarize the pathophysiology, morphological & clinical features of Ganglion and Synovial Cyst. 4. Identify the morphology of the Ganglion and Synovial Cyst with their points of identification. 	OSPE & Structured Viva

Pathology

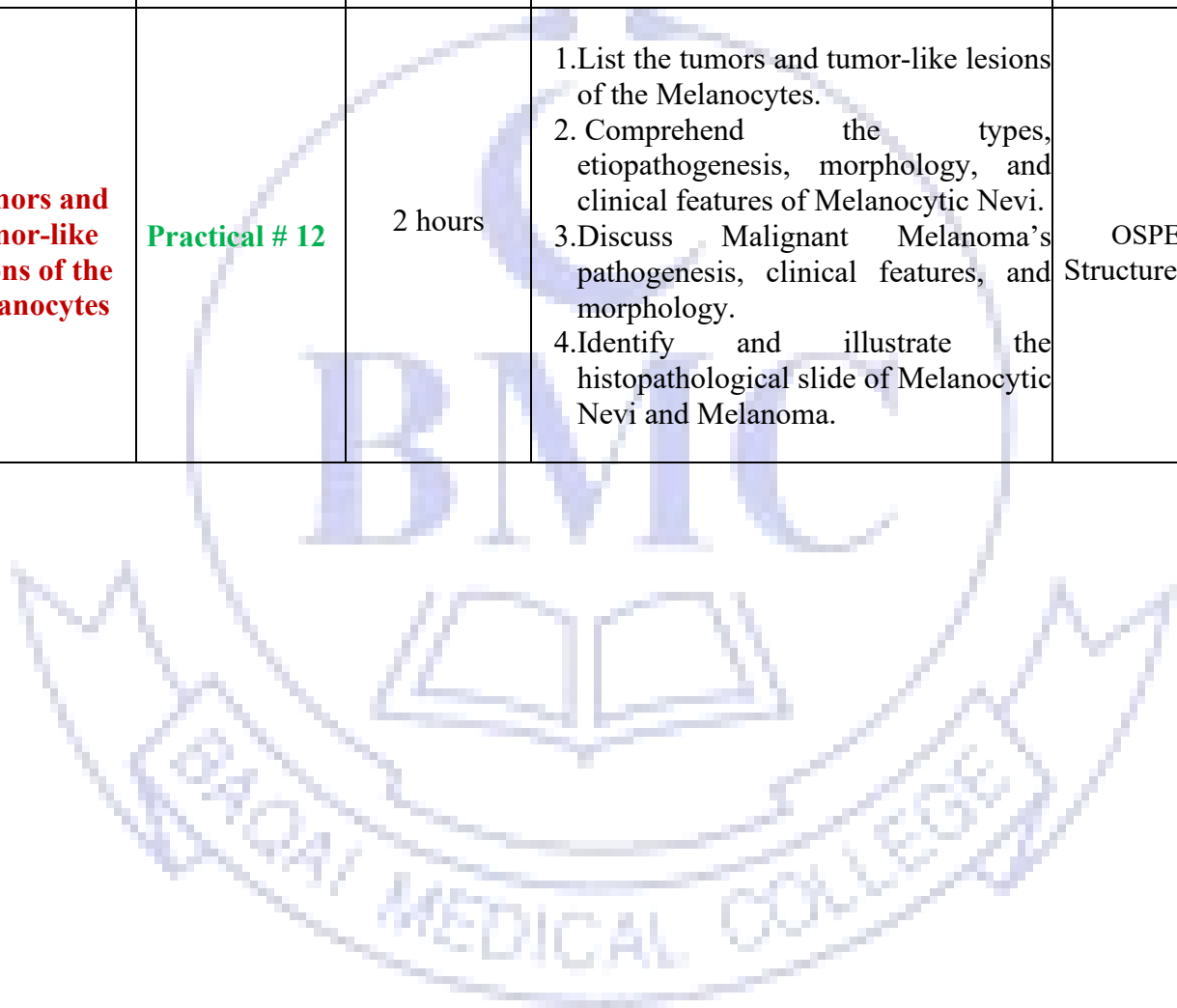
At the end of these 2 hours of practical sessions, the students of the 4th year MBBS will be able to:

Topic	Teaching Strategy	Duration	Learning Objectives	Assessment Pattern
Skeletal Muscles & Soft Tissue Tumors	Practical # 10	2 hours	<ol style="list-style-type: none"> 1. Identify the histopathological slide of lipoma with its points of identification. 2. Identify the histopathological slide of leiomyoma with its points of identification. 3. Identify the histopathological slide of leiomyosarcoma with its points of identification. 4. Identify the histopathological slide of Rhabdomyosarcoma with its points of identification 	OSPE & Structured Viva
Malignant Skin Tumors	Practical # 11	2 hours	<ol style="list-style-type: none"> 1. Comprehend the risk factors, etiology, and morphology of squamous cell carcinoma of the skin. 2. Discuss basal cell carcinoma concerning its frequent sites of origin and clinical and morphological features. 3. Identify and illustrate the histopathological slide of squamous cell carcinoma of the skin. 4. Identify and illustrate the histopathological slide of squamous cell papilloma of the skin. 	OSPE & Structured Viva

Pathology

At the end of these 2 hours of practical sessions, the students of the 4th year MBBS will be able to:

Topic	Teaching Strategy	Duration	Learning Objectives	Assessment Pattern
Tumors and tumor-like lesions of the Melanocytes	Practical # 12	2 hours	<ol style="list-style-type: none"> 1. List the tumors and tumor-like lesions of the Melanocytes. 2. Comprehend the types, etiopathogenesis, morphology, and clinical features of Melanocytic Nevi. 3. Discuss Malignant Melanoma's pathogenesis, clinical features, and morphology. 4. Identify and illustrate the histopathological slide of Melanocytic Nevi and Melanoma. 	OSPE & Structured Viva



Pharmacology

At the end of these 1-hour interactive lectures, the students of the 4th year MBBS will be able to:

Topic	Teaching Strategy	Duration	Learning Objectives	Assessment Pattern
Vasoactive Peptides (Kinins, Natriuretic Peptides, Endothelin, VIP, Substance P, Urotensin Agonist and Antagonist)	Interactive Lecture # 11	1 hour	<ol style="list-style-type: none"> 1. Define Vasoactive peptides. 2. Classify Vasoactive peptides. 3. List the physiologic functions of major Vasoactive peptides. 4. Explain the mechanism of action of Vasoactive peptides. 5. List the clinical applications of Vasoactive peptides. 	MCQs, SEQs & Structured Viva
Drugs for Rheumatoid arthritis (DMARDs)	Interactive Lecture # 12	1 hour	<ol style="list-style-type: none"> 1. Outline the pathophysiology of rheumatoid arthritis. 2. Classify drugs used for the management of rheumatoid arthritis. 3. Explain the mechanism of action of Methotrexate and Leflunomide. 4. List the pharmacokinetics of Methotrexate and Leflunomide. 5. List the common adverse effects and contraindications of Methotrexate and Leflunomide. 	MCQs, SEQs & Structured Viva

Pharmacology

At the end of these 1-hour interactive lectures, the students of the 4th year MBBS will be able to:

Topic	Teaching Strategy	Duration	Learning Objectives	Assessment Pattern
Drugs for Osteoarthritis	Interactive Lecture # 13	1 hour	<ol style="list-style-type: none"> 1. Outline the pathophysiology of Osteoarthritis. 2. Classify drugs used to treat Osteoarthritis. 3. Explain the mechanism of action of Acetaminophen, NSAIDs (Aspirin, Ibuprofen, and Naproxen), collagen-active peptides, and Hormonal Therapy. 4. List the pharmacokinetics of Acetaminophen, NSAIDs (Aspirin, Ibuprofen, and Naproxen), collagen-active peptides, and Hormonal Therapy. 5. List the common adverse effects and contraindications of Acetaminophen, NSAIDs (Aspirin, Ibuprofen, and Naproxen), collagen-active peptides, and Hormonal Therapy. 	MCQs, SEQs & Structured Viva
Drugs for Gout	Interactive Lecture # 14	1 hour	<ol style="list-style-type: none"> 1. Outline the pathophysiology of Gout. 2. Classify drugs used for the management of Gout. 3. Explain the mechanism of action of Allopurinol and Colchicine. 4. List the pharmacokinetic properties of Allopurinol and Colchicine. 5. List the common adverse effects and contraindications of Allopurinol and Colchicine. 	MCQs, SEQs & Structured Viva

Pharmacology

At the end of these 1-hour interactive lectures, the students of the 4th year MBBS will be able to:

Topic	Teaching Strategy	Duration	Learning Objectives	Assessment Pattern
Spasmolytic drugs	Interactive Lecture # 15	1 hour	<ol style="list-style-type: none"> 1. Classify Spasmolytic drugs. 2. Explain the mechanism of action of Diazepam, Baclofen, Tizanidine, and Dantrolene 3. List the pharmacokinetics and pharmacodynamics of these drugs. 4. List the clinical uses, common adverse effects, and contraindications of these drugs. 	MCQs, SEQs & Structured Viva
Drugs for Acne	Interactive Lecture # 16	1 hour	<ol style="list-style-type: none"> 1. Classify drugs used to treat acne vulgaris. 2. Explain the mechanism of action of Macrolide (Erythromycin), Benzoyl peroxide, and Retinoids used in acne vulgaris. 3. List the pharmacokinetic properties of Macrolide (Erythromycin), Benzoyl peroxide, and Retinoids used in acne vulgaris. 4. List adverse effects and contraindications of Macrolide (Erythromycin), Benzoyl peroxide, and Retinoids used in acne vulgaris. 	MCQs, SEQs & Structured Viva

Pharmacology

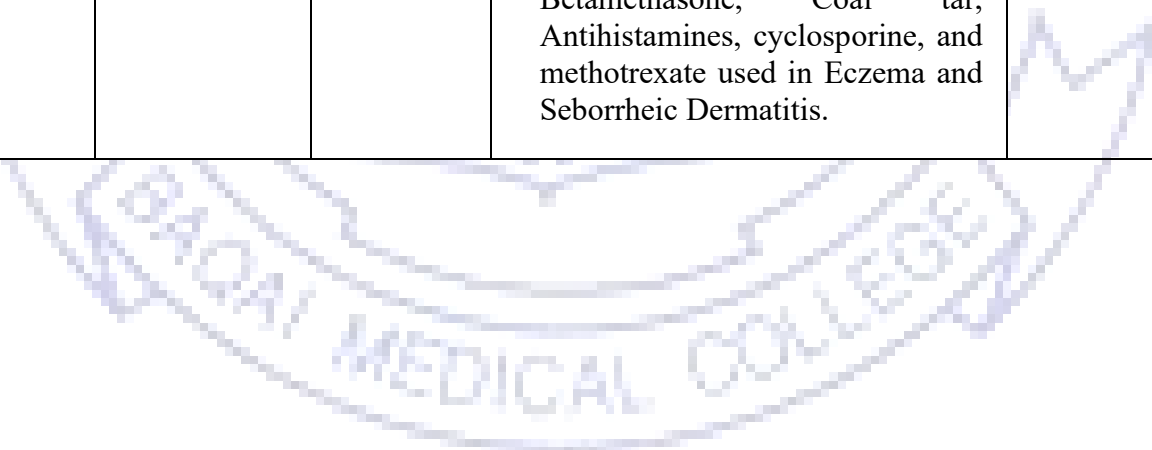
At the end of these 1-hour interactive lectures, the students of the 4th year MBBS will be able to:

Topic	Teaching Strategy	Duration	Learning Objectives	Assessment Pattern
Drugs used to treat fungal skin infections	Interactive Lecture # 17	1 hour	<ol style="list-style-type: none"> 1. Classify drugs used to treat Fungal Skin Infections. 2. Explain the mechanism of action of Clotrimazole, Miconazole, Nystatin, Fluconazole, and Griseofulvin used in fungal skin infections. 3. List the pharmacokinetics of Clotrimazole, Miconazole, Nystatin, Fluconazole, and Griseofulvin used in fungal skin infections. 4. List adverse effects and contraindications of Clotrimazole, Miconazole, Nystatin, Fluconazole, and Griseofulvin used in fungal skin infections. 	MCQs, SEQs & Structured Viva
Drugs used to treat Psoriasis	Interactive Lecture # 18	1 hour	<ol style="list-style-type: none"> 1. Classify drugs used to treat psoriasis. 2. Explain the mechanism of action of Acitretin, Tazarotene, Calcipotriene, and Apremilast used in Psoriasis. 3. List the pharmacokinetics of Acitretin, Tazarotene, Calcipotriene, and Apremilast used in Psoriasis. 4. List adverse effects and contraindications of Acitretin, Tazarotene, Calcipotriene, and Apremilast used in Psoriasis. 	MCQs, SEQs & Structured Viva

Pharmacology

At the end of these 1-hour interactive lectures, the students of the 4th year MBBS will be able to:

Topic	Teaching Strategy	Duration	Learning Objectives	Assessment Pattern
Drugs used to treat Eczema and Seborrheic Dermatitis	Interactive Lecture # 19	1 hour	<ol style="list-style-type: none"> 1. Classify drugs used to treat Eczema and Seborrheic Dermatitis. 2. Explain the mechanism of action of Betamethasone, Coal tar, Antihistamines, cyclosporine, and methotrexate used in Eczema and Seborrheic Dermatitis. 3. List the pharmacokinetics of Betamethasone, Coal tar, Antihistamines, cyclosporine, and methotrexate used in Eczema and Seborrheic Dermatitis. 4. List the adverse effects & contraindications of Betamethasone, Coal tar, Antihistamines, cyclosporine, and methotrexate used in Eczema and Seborrheic Dermatitis. 	MCQs, SEQs & Structured Viva



Pharmacology

At the end of these 2 hours of small group discussion sessions, the students of the 4th year MBBS will be able to:

Topic	Teaching Strategy	Duration	Learning Objectives	Assessment Pattern
Prescription of Osteoarthritis and Pain Management	Tutorial # 7	2 hours	<ol style="list-style-type: none"> List drugs used for the management of Osteoarthritis and pain management. Explain the pharmacokinetics and pharmacodynamics of Acetaminophen, Ibuprofen, and Meloxicam. Write down the pharmacological management of this case. 	OSPE & Structured Viva
Prescription writing on Rheumatoid arthritis and DMARDs	Tutorial # 8	2 hours	<ol style="list-style-type: none"> Classify drugs used for the management of rheumatoid arthritis. Explain the pharmacokinetics and pharmacodynamics of Abatacept, Hydroxychloroquine, and Sulfasalazine. Write down the pharmacological management of this case. 	OSPE & Structured Viva
Prescription writing on Gout (Acute and Chronic gout)	Tutorial # 9	2 hours	<ol style="list-style-type: none"> Discuss the pharmacological management of the given case. Discuss the rationale for prescribing the drugs for the pharmacological management of the given case. Write down the prescription of the given case. 	OSPE & Structured Viva

Pharmacology

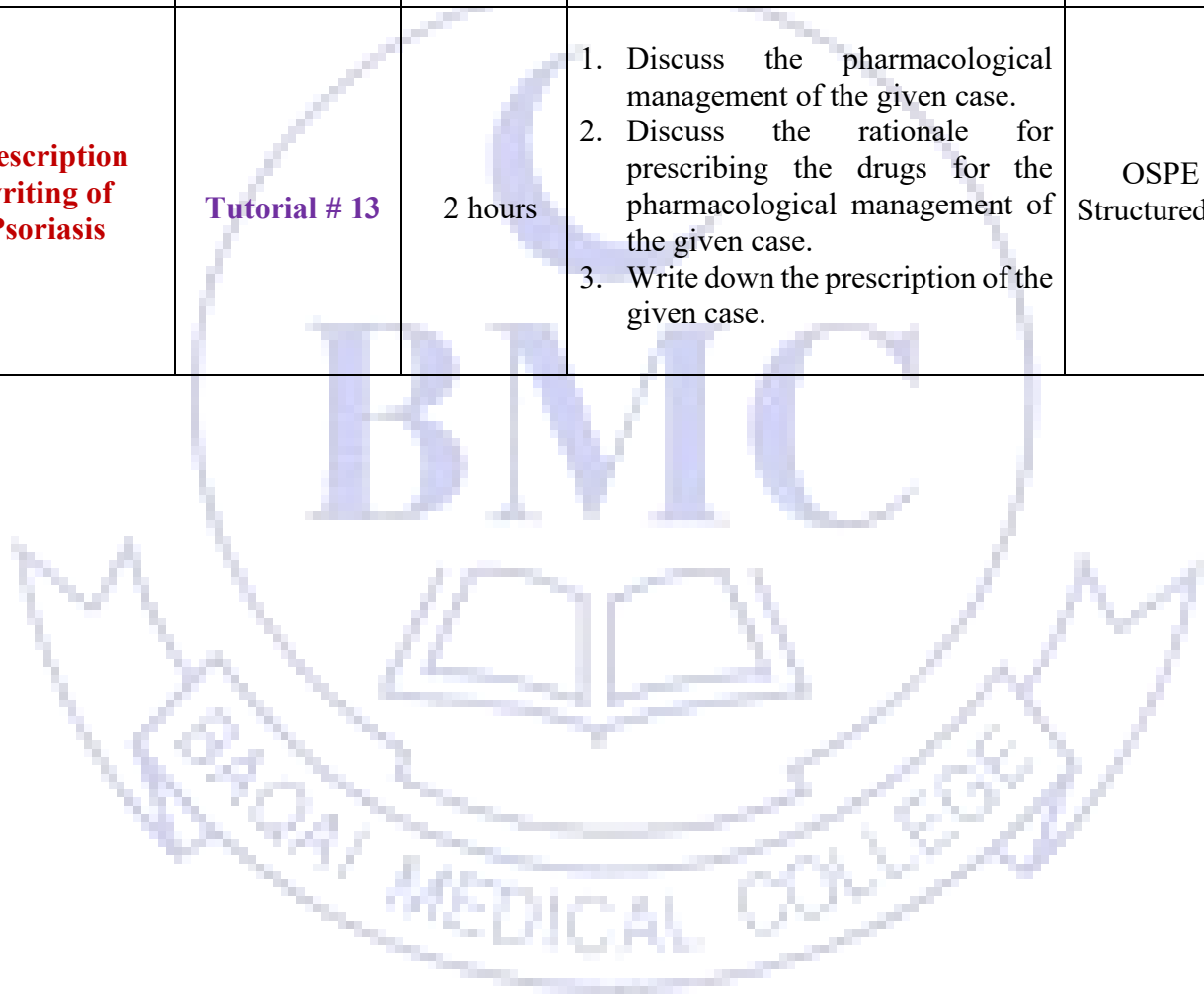
At the end of these 2 hours of small group discussion sessions, the students of the 4th year MBBS will be able to:

Topic	Teaching Strategy	Duration	Learning Objectives	Assessment Pattern
Prescription writing on calcium and Vitamin D deficiency	Tutorial # 10	2 hours	<ol style="list-style-type: none"> 1. Discuss the pharmacological management of the given case. 2. Discuss the rationale for prescribing the drugs for the pharmacological management of the given case. 3. Write down the prescription of the given case. 	OSPE & Structured Viva
Prescription writing of Acne	Tutorial # 11	2 hours	<ol style="list-style-type: none"> 1. Discuss the pharmacological management of the given case. 2. Discuss the rationale for prescribing the drugs for the pharmacological management of the given case. 3. Write down the prescription of the given case. 	OSPE & Structured Viva
Prescription writing of Eczema (Atopic Dermatitis)	Tutorial # 12	2 hours	<ol style="list-style-type: none"> 1. Discuss the pharmacological management of the given case. 2. Discuss the rationale for prescribing the drugs for the pharmacological management of the given case. 3. Write down the prescription of the given case. 	OSPE & Structured Viva

Pharmacology

At the end of these 2 hours of small group discussion sessions, the students of the 4th year MBBS will be able to:

Topic	Teaching Strategy	Duration	Learning Objectives	Assessment Pattern
Prescription writing of Psoriasis	Tutorial # 13	2 hours	<ol style="list-style-type: none"> 1. Discuss the pharmacological management of the given case. 2. Discuss the rationale for prescribing the drugs for the pharmacological management of the given case. 3. Write down the prescription of the given case. 	OSPE & Structured Viva



Pharmacology

At the end of these 2 hours of practical sessions, the students of the 4th year MBBS will be able to:

Topic	Teaching Strategy	Duration	Learning Objectives	Assessment Pattern
Preparation and dispensing of Topical Analgesic ointment	Practical # 5	2 hours	<ol style="list-style-type: none"> 1. Define lotion. 2. List the composition of calamine lotion. 3. List various steps used in the preparation of Calamine lotion. 4. List the uses of calamine lotion. 5. Draw the label of the calamine lotion. 	OSPE & Structured Viva
Preparation and Dispensing of Corticosteroid Cream for Dermatitis	Practical # 6	2 hours	<ol style="list-style-type: none"> 1. Define cream. 2. List the composition of corticosteroid cream for dermatitis. 3. List various steps used in the preparation of corticosteroid cream for dermatitis. 4. List the uses of corticosteroid cream for dermatitis. 5. Draw the label of corticosteroid cream for dermatitis. 	OSPE & Structured Viva
Preparation and dispensing of Vitamin A Cream (Retinoic Acid)	Practical # 7	2 hours	<ol style="list-style-type: none"> 1. List the composition of Vitamin A cream for different skin diseases. 2. List various steps used in the preparation of Vitamin A cream for different skin diseases. 3. List the uses of Vitamin A cream for different skin diseases. 4. Draw the label of Vitamin A cream for different skin diseases. 	OSPE & Structured Viva

Pharmacology

At the end of these 2 hours of practical sessions, the students of the 4th year MBBS will be able to:

Topic	Teaching Strategy	Duration	Learning Objectives	Assessment Pattern
Preparation and dispensing of Topical Antibacterial creams	Practical # 8	2 hours	<ol style="list-style-type: none"> 1. List the composition of topical antibacterial creams. 2. List various steps used in the preparation of topical antibacterial creams. 3. List the uses of topical antibacterial creams. 4. Draw the label of topical antibacterial creams. 	OSPE & Structured Viva
Preparation of Sunscreen	Practical # 9	2 hours	<ol style="list-style-type: none"> 1. Define Sunscreen. 2. List the composition of Sunscreen. 3. List various steps used in the preparation of Sunscreen. 4. List the uses of Sunscreen. 5. Draw the label of Sunscreen 	OSPE & Structured Viva

Community Medicine

At the end of these 1-hour interactive lectures, the students of the 4th year MBBS will be able to:

Topic	Teaching Strategy	Duration	Learning Objectives	Assessment Pattern
Introduction to Occupational Health	Interactive Lecture # 15	1 hour	<ol style="list-style-type: none"> 1. Define Occupational Health and Occupational Environment. 2. Discuss the types of Occupational environments. 3. Describe Ergonomics. 	MCQs, SEQs, OSPE & Structured Viva
Occupational Hazards	Interactive Lecture # 16	1 hour	<ol style="list-style-type: none"> 1. Discuss different types of hazards, such as physical, chemical, biological, and psychosocial hazards. 2. Describe the measures to control and prevent occupational hazards. 3. Explain the general measures that should be taken for the protection of workers. 	MCQs, SEQs, OSPE & Structured Viva
Occupational Diseases, Asbestosis, Silicosis, Pneumoconiosis, Farmer's Lungs	Interactive Lecture # 17	1 hour	<ol style="list-style-type: none"> 1. Discuss important occupational diseases. 2. Describe the preventive strategies for Occupational diseases. 	MCQs, SEQs, OSPE & Structured Viva
Occupational Cancers Lung, Skin, and Bladder Cancers	Interactive Lecture # 18	1 hour	<ol style="list-style-type: none"> 1. Define Occupational Cancer. 2. Describe the causes and risk factors of Occupational Cancers. 3. Discuss the prevention strategies for Occupational cancers. 	MCQs, SEQs, OSPE & Structured Viva

Community Medicine

At the end of these 1-hour interactive lectures, the students of the 4th year MBBS will be able to:

Topic	Teaching Strategy	Duration	Learning Objectives	Assessment Pattern
Topic Selection & Literature Search	Interactive Lecture # 19	1 hour	<ol style="list-style-type: none"> 1. Describe the criteria for research topic selection. 2. Define Literature search and its significance. 3. Explain the steps of the literature search. 	MCQs, SEQs, OSPE & Structured Viva
Synopsis Development	Interactive Lecture # 20	1 hour	<ol style="list-style-type: none"> 1. Define Synopsis. 2. Discuss the general structure of a synopsis. 	MCQs, SEQs, OSPE & Structured Viva
Questionnaire	Interactive Lecture # 21	1 hour	<ol style="list-style-type: none"> 1. Describe various data collection methods. 2. Explain the development of a questionnaire. 	MCQs, SEQs, OSPE & Structured Viva
School Health-1	Interactive Lecture # 22	1 hour	<ol style="list-style-type: none"> 1. Define School Health. 2. List and discuss the components of a coordinated school health program. 	MCQs, SEQs, OSPE & Structured Viva
School Health - 2	Interactive Lecture # 23	1 hour	<ol style="list-style-type: none"> 1. Discuss the responsibilities of the school health services team members (school medical officer, school health nurse & attendant) 2. Describe the functions of school health services (levels of prevention) 	MCQs, SEQs, OSPE & Structured Viva

Community Medicine

At the end of these 1-hour interactive lectures, the students of the 4th year MBBS will be able to:

Topic	Teaching Strategy	Duration	Learning Objectives	Assessment Pattern
Disaster Management	Interactive Lecture # 24	1 hour	<ol style="list-style-type: none"> 1. Define Disaster Management. 2. List the types of Disasters. 3. Describe the duties of the health team during a disaster. 4. Discuss the steps in planning disaster management 	MCQs, SEQs, OSPE & Structured Viva
Health Education - 1	Interactive Lecture # 25	1 hour	<ol style="list-style-type: none"> 1. Define Health education and health promotion. 2. Describe the principles of health education. 3. Explain the stages and strategies of health education. 	MCQs, SEQs, OSPE & Structured Viva
Health Education - 2	Interactive Lecture # 26	1 hour	<ol style="list-style-type: none"> 1. Identify the communication barriers regarding health education. 2. Discuss the components of program planning for health education. 	MCQs, SEQs, OSPE & Structured Viva

Community Medicine Field Visit*

At the end of these Community Field Visits, the students of the 4th year MBBS will be able to:

Marie Adelaide Leprosy Center	<ol style="list-style-type: none"> 1. Participants will be able to outline the diverse range of services provided by the Marie Adelaide Leprosy Center. 2. Participants will gain a comprehensive understanding of MALC's initiatives aimed at promoting the prevention of disabilities and creating an inclusive environment for people with disabilities.
Skin & Social Hygiene Center Regal, Karachi.	<ol style="list-style-type: none"> 1. Participants will gain insights into the specialized care provided by the Sindh Institute of Skin Diseases. 2. Observe the facilities and procedures in place, including the minor operation theater, pathology laboratory, and diagnostic tests
Khuda Ki Basti, Project of Baqai (School & Health Services).	<ol style="list-style-type: none"> 1. Participants will evaluate how well the medical services at Khuda Ki Basti, such as the OPD and surgical facilities, contribute to community well-being. 2. Participants will explore the impact of the free education provided at Saleemullah Fahmi Memorial Primary School on students' empowerment and well-being.

*List of proposed Community Medicine field visits.

Medicine & Allied

At the end of these 1-hour interactive lectures, the students of the 4th year MBBS will be able to:

Topic	Teaching Strategy	Duration	Learning Objectives	Assessment Pattern
Osteoporosis & Osteomalacia	Interactive Lecture # 12	1 hour	<ol style="list-style-type: none"> 1. Identify the causes of Osteoporosis. 2. Enumerate the signs and symptoms of Osteoporosis. 3. Discuss and logically analyze the management plan for Osteoporosis patients. 	MCQs
Rheumatoid Arthritis	Interactive Lecture # 13	1 hour	<ol style="list-style-type: none"> 1. Identify the causes of Rheumatoid Arthritis. 2. Enumerate the signs and symptoms of Rheumatoid Arthritis. 3. Discuss and logically analyze the management plan for Rheumatoid Arthritis patients. 	MCQs
Systemic Lupus Erythematosus	Interactive Lecture # 14	1 hour	<ol style="list-style-type: none"> 1. Identify the causes of Systemic Lupus Erythematosus. 2. Enumerate the signs and symptoms of SLE. 3. Discuss and logically analyze the management plan for SLE patients. 	MCQs

Medicine & Allied

At the end of these 1-hour interactive lectures, the students of the 4th year MBBS will be able to:

Topic	Teaching Strategy	Duration	Learning Objectives	Assessment Pattern
Cutaneous Presentation of Diabetes	Interactive Lecture # 15	1 hour	<ol style="list-style-type: none"> 1. Identify the signs and symptoms of dermal lesions of Diabetes Mellitus. 2. List the appropriate investigations required to confirm the lesions/manifestations. 3. Discuss the differential diagnosis of the cutaneous lesions. 	MCQs
Cutaneous Presentation of Thyroid Diseases	Interactive Lecture # 16	1 hour	<ol style="list-style-type: none"> 1. Identify the signs and symptoms of dermal lesions of Thyroid disorders. 2. List the appropriate investigations required to confirm the lesions/manifestations. 	MCQs

Surgery & Allied

At the end of these 1-hour interactive lectures, the students of the 4th year MBBS will be able to:

Topic	Teaching Strategy	Duration	Learning Objectives	Assessment Pattern
Bone fractures & their management	Interactive Lecture # 12	1 hours	<ol style="list-style-type: none"> 1. Define the terms: fracture, dislocation, and subluxation. 2. Identify the general causes, signs, and symptoms of fractures and explain the process of fracture healing. 3. Classify different types of fractures and describe the role of radiography in fracture management. 4. Discuss general principles of management of fractures. 5. State the local and general complications of fractures. 	MCQs
Bone tumors & their management	Interactive Lecture # 13	1 hour	<ol style="list-style-type: none"> 1. Define normal anatomy and physiology of bone. 2. Explain bone tumors & list the risk factors. 3. Explain the TNM classification of bone tumors. 4. Explain the types of bone tumors with their clinical manifestations. 5. Explain the diagnostic factors and the management of bone tumors 	MCQs
Acute Abdominal Conditions in Children	Interactive Lecture # 14	1 hour	<ol style="list-style-type: none"> 1. List the acute surgical conditions in children. 2. Describe the pathogenesis of the acute surgical conditions in children. 3. Discuss the investigations required in such cases. 	MCQs

Surgery & Allied

At the end of these 1-hour interactive lectures, the students of the 4th year MBBS will be able to:

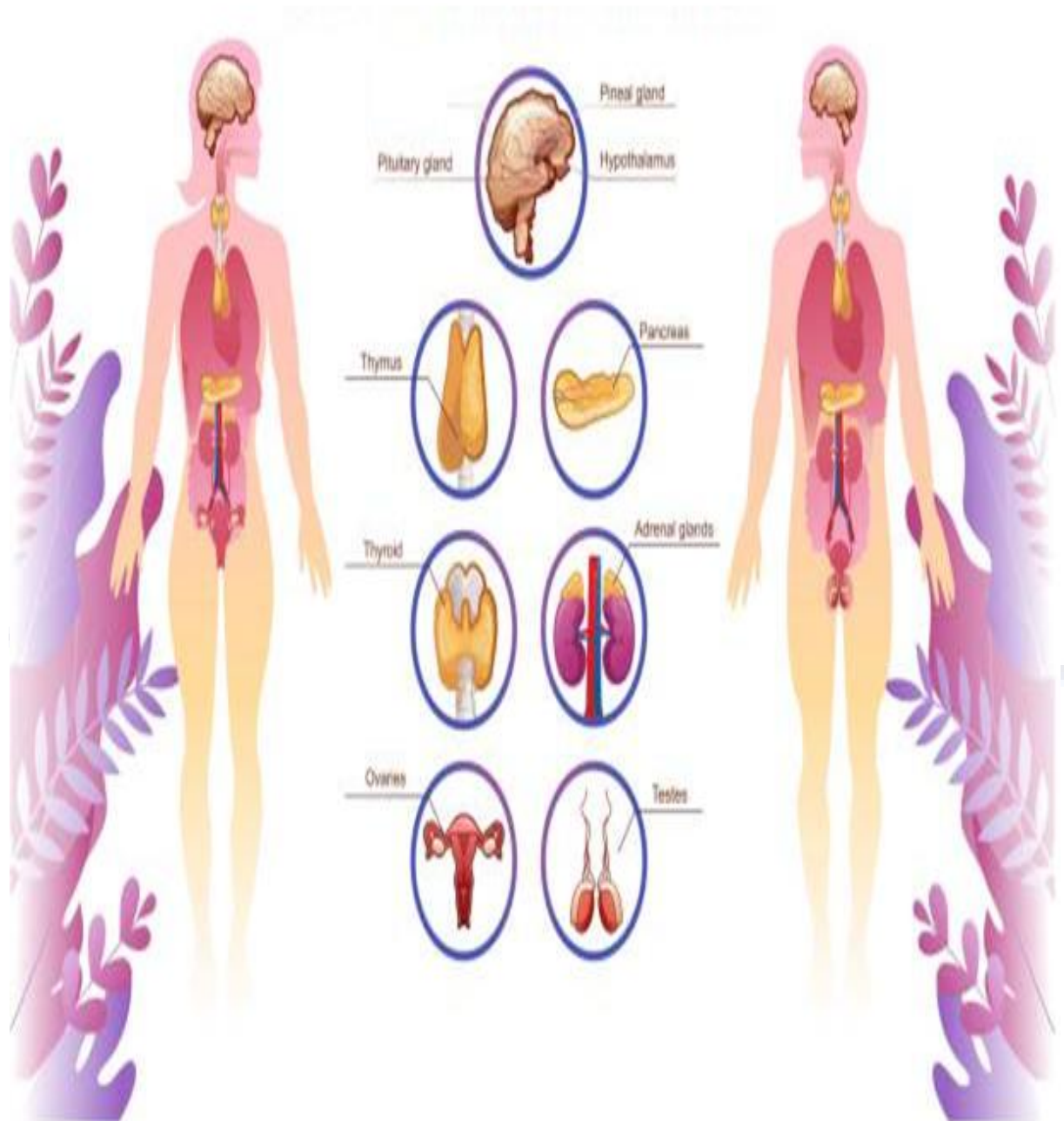
Topic	Teaching Strategy	Duration	Learning Objectives	Assessment Pattern
Skin Grafting and Flaps	Interactive Lecture # 15	1 hour	<ol style="list-style-type: none"> 1. Define and classify skin grafts and skin flaps 2. Explain the indications and contraindications of skin grafting and skin flaps. 3. Compare skin grafts and skin flaps with respect to blood supply, indications, advantages, disadvantages, and clinical applications. 4. Identify common complications of skin grafting and skin flaps. 	MCQs
Skin Carcinoma	Interactive Lecture # 16	1 hour	<ol style="list-style-type: none"> 1. Classify skin carcinomas 2. Describe the etiological factors and risk factors for skin carcinoma 3. Explain the clinical features and patterns of spread of common skin carcinomas 4. Discuss the diagnostic approach to skin carcinoma 5. Outline the principles of management of skin carcinoma 	MCQs

Pediatrics

At the end of this 1-hour interactive lecture, the students of the 4th year MBBS will be able to:

Topic	Teaching Strategy	Duration	Learning Objectives	Assessment Pattern
Arthritis in Children	Interactive Lecture # 4	1 hour	<ol style="list-style-type: none"> 1. Classify pediatric arthritis. 2. Recall clinical features of arthritis in childhood. 3. Describe the investigations of arthritis in childhood. 4. Describe management 	MCQs
Common skin diseases in childhood	Interactive Lecture # 5	1 hour	<ol style="list-style-type: none"> 1. Classify common pediatric dermatoses 2. Describe the etiology of common conditions 3. Recall the typical age distribution of various conditions 4. Outline key clinical features 5. Differentiate between clinically overlapping rashes 	MCQs

ENDOCRINOLOGY



Module III

Endocrinology

INTRODUCTION TO MODULE – III



<i>Module – III</i>	
<i>Endocrinology</i>	
System	Endocrine System
Duration	5 Weeks (21 st April 2026 to 22 nd May 2026)
Assessment Dates	25 th May 2026
Assessment Pattern	MCQs, SEQs & OSPE

*The Assessment pattern and dates are tentative (Subject to change)

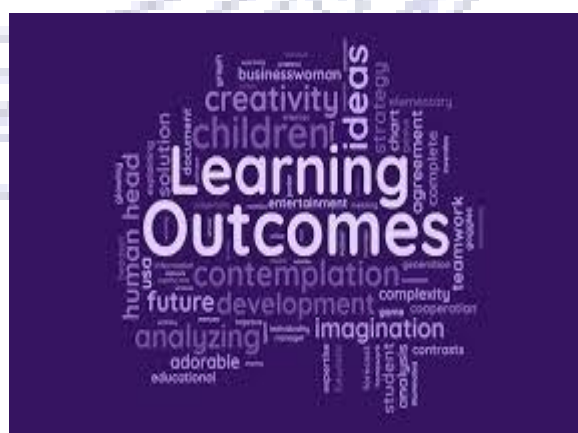
MODULE RATIONALE

The Endocrinology module revisits hormonal regulation introduced earlier and integrates it with pathology, pharmacology, and internal medicine. The spiral integration approach strengthens understanding of hormonal feedback mechanisms, metabolic consequences, and clinical syndromes, enabling 4th-year MBBS students to manage common endocrine disorders using a problem-based approach.

MODULE LEARNING OUTCOMES

At the end of this module, the students of the 4th year MBBS will be able to:

1. Explain hormonal regulation and feedback mechanisms in health and disease.
2. Correlate endocrine dysfunction with clinical manifestations and metabolic derangements.
3. Interpret endocrine laboratory tests and imaging studies.
4. Differentiate between primary, secondary, and tertiary endocrine disorders.
5. Apply standard treatment protocols for common endocrine diseases.
6. Evaluate complications and long-term outcomes of untreated endocrine disorders.



Pathology

At the end of these 1-hour interactive lectures, the students of the 4th year MBBS will be able to:

Topic	Teaching Strategy	Duration	Learning Objectives	Assessment Pattern
Introduction to Endocrine Disorders & Hyperpituitarism	Interactive Lecture # 57	1 hour	<ol style="list-style-type: none"> 1. Classify Endocrine disorders. 2. Classify Pituitary adenomas. 3. Explain the genetic alterations in pituitary tumors. 4. Describe the morphology and clinical features of pituitary adenomas. 5. Differentiate between Acromegaly and Gigantism. 	MCQs, SEQs & Structured Viva
Hypopituitarism	Interactive Lecture # 58	1 hour	<ol style="list-style-type: none"> 1. List the causes of hypopituitarism. 2. Explain the pathophysiology and clinical features of Sheehan's syndrome. 3. Discuss the pathophysiology and clinical features of Dwarfism. 4. Describe the pathophysiology and clinical features of Diabetes Insipidus and SIADH. 5. Summarize the pathophysiology and morphology of Suprasellar hypothalamic tumors. 	MCQs, SEQs & Structured Viva

Pathology

At the end of these 1-hour interactive lectures, the students of the 4th year MBBS will be able to:

Topic	Teaching Strategy	Duration	Learning Objectives	Assessment Pattern
Hyperthyroidism	Interactive Lecture # 59	1 hour	<ol style="list-style-type: none"> 1. Define Thyrotoxicosis 2. List the disorders associated with Thyrotoxicosis. 3. Discuss the causes, pathophysiology, clinical features, and laboratory diagnosis of Hyperthyroidism. 4. Describe the pathophysiology, clinical, and morphological features of Graves' disease. 5. Describe the investigations required for the diagnosis of hyperthyroidism. 	MCQs, SEQs & Structured Viva
Hypothyroidism & Goiter	Interactive Lecture # 60	1 hour	<ol style="list-style-type: none"> 1. List the causes of Hypothyroidism. 2. Explain the pathophysiology and clinical features of Cretinism. 3. Discuss the pathophysiology, clinical features, and laboratory diagnosis of Myxedema. 4. Differentiate between Diffuse (Non-toxic) and Multinodular Goiter based on their causes, pathophysiology, morphology, clinical features, and laboratory diagnosis. 	MCQs, SEQs & Structured Viva

Pathology

At the end of these 1-hour interactive lectures, the students of the 4th year MBBS will be able to:

Topic	Teaching Strategy	Duration	Learning Objectives	Assessment Pattern
Inflammatory disorders of the thyroid gland	Interactive Lecture # 61	1 hour	<ol style="list-style-type: none"> 1. Define and classify thyroiditis. 2. Discuss the pathophysiology, clinical course, and morphology of Hashimoto's Thyroiditis. 3. Comprehend the pathophysiology, clinical features, and morphology of Subacute Lymphocytic Thyroiditis. 4. Describe the pathophysiology, clinical features, and morphology of Granulomatous (de Quervain) thyroiditis. 	MCQs, SEQs & Structured Viva
Thyroid Neoplasms	Interactive Lecture # 62	1 hour	<ol style="list-style-type: none"> 1. Classify the neoplasms of the thyroid gland. 2. Describe the pathophysiology, clinical features, and morphology of the Follicular adenoma. 3. Comprehend the causes, pathogenesis, morphology, and clinical features of Papillary Carcinoma. 4. Discuss the causes, pathogenesis, morphology, and clinical features of Follicular Carcinoma. Summarize the causes, pathogenesis, morphology, and clinical features of Anaplastic and Medullary Carcinoma. 	MCQs, SEQs & Structured Viva

Pathology

At the end of these 1-hour interactive lectures, the students of the 4th year MBBS will be able to:

Topic	Teaching Strategy	Duration	Learning Objectives	Assessment Pattern
Diabetes Mellitus	Interactive Lecture # 63	1 hour	<ol style="list-style-type: none"> 1. Define and classify Diabetes Mellitus. 2. Explain the morphological changes in the pancreas that occur in Diabetes Mellitus. 3. Differentiate between Type 1 & 2 Diabetes Mellitus based on the causes, pathogenesis, morphology, and clinical features. 4. Discuss the diagnostic criteria of Diabetes Mellitus and impaired glucose tolerance. 	MCQs, SEQs & Structured Viva
Complications of Diabetes Mellitus	Interactive Lecture # 64	1 hour	<ol style="list-style-type: none"> 1. Classify the complications of Diabetes Mellitus. 2. Discuss the precipitating factors, pathophysiology, and clinical features of Diabetic Ketoacidosis (DKA). 3. Comprehend pathophysiology, morphology, and clinical features of the chronic complications of Diabetes Mellitus. 	MCQs, SEQs & Structured Viva

Pathology

At the end of these 1-hour interactive lectures, the students of the 4th year MBBS will be able to:

Topic	Teaching Strategy	Duration	Learning Objectives	Assessment Pattern
Pancreatic Neuroendocrine Tumors	Interactive Lecture # 65	1 hour	<ol style="list-style-type: none"> 1. Classify Pancreatic Neuroendocrine tumors. 2. Discuss the etiology, pathology & morphology of Hyper-insulinoma. 3. Describe the pathology & clinical features of Zollinger-Ellison Syndrome. 4. Summarize the causes, pathogenesis, and clinical features of rare Pancreatic Endocrine tumors. 	MCQs, SEQs & Structured Viva
Adrenocortical insufficiency	Interactive Lecture # 66	1 hour	<ol style="list-style-type: none"> 1. List the causes of Adrenocortical insufficiency. 2. Discuss the causes, pathophysiology, morphology, and clinical features of Primary acute adrenocortical insufficiency. 3. Comprehend the causes, pathophysiology, morphology, and clinical features of Addison's disease. 4. Differentiate between Primary and Secondary Adrenocortical insufficiency based on their causes, pathophysiology, clinical features, morphology, and diagnostic findings. 	MCQs, SEQs & Structured Viva

Pathology

At the end of these 1-hour interactive lectures, the students of the 4th year MBBS will be able to:

Topic	Teaching Strategy	Duration	Learning Objectives	Assessment Pattern
Hyperaldosteronism	Interactive Lecture # 67	1 hour	<ol style="list-style-type: none"> List the causes of Hyperadrenalism. Differentiate between Primary and Secondary Hyperaldosteronism based on their causes, pathophysiology, clinical features, morphology, and diagnostic findings. Discuss the complications of hyperaldosteronism. 	MCQs, SEQs & Structured Viva
Cushing Syndrome	Interactive Lecture # 68	1 hour	<ol style="list-style-type: none"> Enumerate the causes of Hypercortisolism. Comprehend Cushing Syndrome based on its pathophysiology, clinical features, morphology, and diagnostic findings. Discuss the complications of Cushing Syndrome. 	MCQs, SEQs & Structured Viva
Adrenogenital Syndrome	Interactive Lecture # 69	1 hour	<ol style="list-style-type: none"> List the causes of Adrenogenital Syndrome. Discuss the pathophysiology, morphology, and clinical features of Adrenogenital Syndrome. Describe its complications 	MCQs, SEQs & Structured Viva

Pathology

At the end of these 1-hour interactive lectures, the students of the 4th year MBBS will be able to:

Topic	Teaching Strategy	Duration	Learning Objectives	Assessment Pattern
Adrenal Neoplasms	Interactive Lecture # 70	1 hour	<ol style="list-style-type: none"> 1. Classify the neoplasms of the adrenal gland. 2. Describe the causes, pathophysiology, clinical features, and morphology of Adrenocortical adenoma. 3. Discuss the predisposing factors, pathophysiology, clinical features, and morphology of Adrenocortical carcinoma. 4. Comprehend Pheochromocytoma based on its causes, pathophysiology, morphology, and clinical features. 	MCQs, SEQs & Structured Viva
Multiple Endocrine Neoplasia Syndrome	Interactive Lecture # 71	1 hour	<ol style="list-style-type: none"> 1. Define and classify Multiple Endocrine Neoplasia (MEN) syndrome. 2. List the distinct features of MEN syndrome. 3. Differentiate between the causes, pathophysiology, clinical features, and morphology of MEN-1 & MEN-2 syndrome. 	MCQs, SEQs & Structured Viva

Pathology

At the end of these 1-hour interactive lectures, the students of the 4th year MBBS will be able to:

Topic	Teaching Strategy	Duration	Learning Objectives	Assessment Pattern
Disorders of the Parathyroid Gland	Interactive Lecture # 72	2 hours	<ol style="list-style-type: none"> 1. Classify the disorders of the parathyroid gland. 2. Comprehend Primary Hyperparathyroidism based on its causes, pathophysiology, clinical course, and morphology. 3. Explain the pathogenesis, clinical course & morphology of secondary hyperparathyroidism. 4. Discuss the causes, pathophysiology, and clinical and morphological features of hypoparathyroidism. 5. Summarize the pathophysiology and clinical features of pseudo-hypoparathyroidism. 	MCQs, SEQs & Structured Viva

Pathology

At the end of these 2 hours of practical sessions, the students of the 4th year MBBS will be able to:

Topic	Teaching Strategy	Duration	Learning Objectives	Assessment Pattern
Pituitary Adenoma	Practical # 13	2 hours	<ol style="list-style-type: none"> 1. Identify the gross and microscopic features of Pituitary adenoma with their points of identification. 2. Summarize the classification, pathophysiology, morphological & clinical features of Pituitary adenoma. 	OSPE & Structured Viva
Graves' disease, Multinodular goiter, and Hashimoto's thyroiditis	Practical # 14	2 hours	<ol style="list-style-type: none"> 1. Comprehend the causes, pathogenesis, clinical features, morphology, and complications of Graves' disease, multinodular goiter, and Hashimoto's thyroiditis. 2. Identify the gross and microscopic features of Graves' disease with their points of identification. 3. Identify the gross and microscopic features of Multinodular goiter with their points of identification. 4. Identify the gross and microscopic features of Hashimoto's thyroiditis with their points of identification. 	OSPE & Structured Viva
Thyroid Neoplasms	Practical # 15	2 hours	<ol style="list-style-type: none"> 1. Discuss the classification, pathophysiology, morphological & clinical features of thyroid neoplasms. 2. Identify the gross and microscopic features of follicular adenoma. 3. Identify the gross and microscopic features of papillary carcinoma. 4. Identify the gross and microscopic features of follicular carcinoma. 5. Identify the gross and microscopic features of medullary carcinoma. 	OSPE & Structured Viva

Pathology

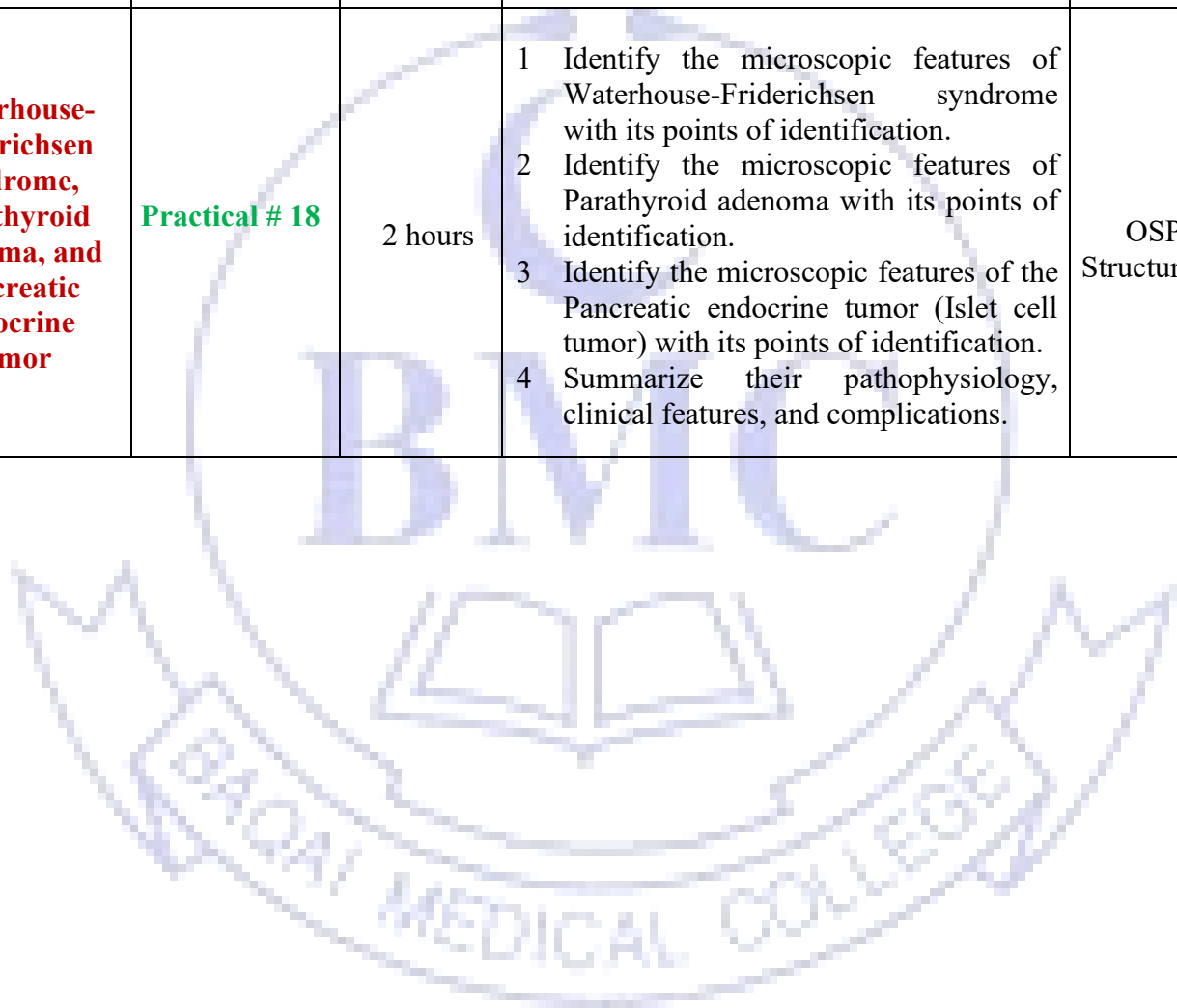
At the end of these 2 hours of practical sessions, the students of the 4th year MBBS will be able to:

Topic	Teaching Strategy	Duration	Learning Objectives	Assessment Pattern
Complications of Diabetes Mellitus	Practical # 16	2 hours	<ol style="list-style-type: none"> 1. Identify the microscopic features of severe renal hyaline arteriosclerosis. 2. Identify the gross features and microscopic features of diffuse nodular diabetic glomerulosclerosis. 3. Correlate the causes, pathogenesis, clinical features, and complications with the morphology of renal hyaline arteriosclerosis and nodular diabetic glomerulosclerosis. 	OSPE & Structured Viva
Adrenal Neoplasm	Practical # 17	2 hours	<ol style="list-style-type: none"> 1. Discuss the classification, pathophysiology, morphological & clinical features of adrenal neoplasms. 2. Identify the gross and microscopic features of adrenocortical adenoma with their points of identification. 3. Identify the gross and microscopic features of adrenocortical carcinoma with their points of identification. 4. Identify the gross and microscopic features of Pheochromocytoma with their points of identification. 	OSPE & Structured Viva

Pathology

At the end of these 2 hours of practical sessions, the students of the 4th year MBBS will be able to:

Topic	Teaching Strategy	Duration	Learning Objectives	Assessment Pattern
Waterhouse-Friderichsen syndrome, Parathyroid adenoma, and Pancreatic endocrine tumor	Practical # 18	2 hours	<ol style="list-style-type: none"> 1 Identify the microscopic features of Waterhouse-Friderichsen syndrome with its points of identification. 2 Identify the microscopic features of Parathyroid adenoma with its points of identification. 3 Identify the microscopic features of the Pancreatic endocrine tumor (Islet cell tumor) with its points of identification. 4 Summarize their pathophysiology, clinical features, and complications. 	OSPE & Structured Viva



Pharmacology

At the end of these 1-hour interactive lectures, the students of the 4th year MBBS will be able to:

Topic	Teaching Strategy	Duration	Learning Objectives	Assessment Pattern
Pituitary Hormones and Hypothalamic Regulators	Interactive Lecture # 20	1 hour	<ol style="list-style-type: none"> 1. Outline of pituitary hormones and hypothalamic regulators. 2. Outline the anterior and posterior pituitary and hypothalamic disorders. 3. Classify the drugs used to manage hypothalamic and pituitary disorders. 4. Explain the mechanism of action of somatropin, octreotide, β-hCG, Follitropin, bromocriptine, Leuprolide, vasopressin, and oxytocin. 5. List the pharmacokinetics, common adverse effects & contraindications of these drugs 	MCQs, SEQs & Structured Viva
Drugs used to treat Thyroid Disorders	Interactive Lecture # 21	1 hour	<ol style="list-style-type: none"> 1. Outline thyroid disorders. 2. Classify drugs used in the management of thyroid disorders. 3. Explain the mechanism of action of the thyroxine drug used in hypothyroidism. 4. Explain the mechanism of action of Methimazole, Iodide, and Propylthiouracil used in hyperthyroidism. 5. List the pharmacokinetics, common adverse effects & contraindications of these drugs of hypothyroidism and hyperthyroidism. 	MCQs, SEQs & Structured Viva

Pharmacology

At the end of these 1-hour interactive lectures, the students of the 4th year MBBS will be able to:

Topic	Teaching Strategy	Duration	Learning Objectives	Assessment Pattern
Oral Hypoglycemics 1	Interactive Lecture # 22	1 hour	<ol style="list-style-type: none"> 1. Discuss the types of diabetes mellitus. 2. Outline the pathophysiology of diabetes mellitus. 3. Classify the drugs used in diabetes mellitus. 4. Explain the mechanism of action of Glibenclamide and Metformin. 5. List the pharmacokinetics, common adverse effects & contraindications of these drugs 	MCQs, SEQs & Structured Viva
Oral Hypoglycemics 2	Interactive Lecture # 23	1 hour	<ol style="list-style-type: none"> 1. Classify the drugs used in diabetes mellitus. 2. Explain the mechanism of action of Acarbose, Rosiglitazone, and Sitagliptin 3. List the pharmacokinetics of Acarbose, Rosiglitazone, and Sitagliptin 4. List common adverse effects and contraindications of Acarbose, Rosiglitazone, and Sitagliptin. 	MCQs, SEQs & Structured Viva

Pharmacology

At the end of these 1-hour interactive lectures, the students of the 4th year MBBS will be able to:

Topic	Teaching Strategy	Duration	Learning Objectives	Assessment Pattern
Insulin Therapy	Interactive Lecture # 24	1 hour	<ol style="list-style-type: none"> 1. Classify insulin preparations according to their duration of action. 2. Explain the mechanism of action of insulin. 3. List the pharmacokinetics of Insulin (ultra-short-acting insulin, short-acting insulin, intermediate-acting insulin, and long-acting insulin). 4. List the indications of insulin in a diabetic patient. 5. List the common adverse effects and contraindications of Insulin. 	MCQs, SEQs & Structured Viva
Pharmacological Management of Diabetic Emergencies	Interactive Lecture # 25	1 hour	<ol style="list-style-type: none"> 1. Classify diabetic emergencies. 2. Explain the pathophysiology of diabetic ketoacidosis. 3. List the drugs used in diabetic ketoacidosis. 4. Explain the mechanism of action of these drugs. 5. List the pharmacokinetics, common adverse effects & contraindications of these drugs 	MCQs, SEQs & Structured Viva

Pharmacology

At the end of these 1-hour interactive lectures, the students of the 4th year MBBS will be able to:

Topic	Teaching Strategy	Duration	Learning Objectives	Assessment Pattern
Corticosteroids 1 (Glucocorticoid agonist and its antagonist)	Interactive Lecture # 26	1 hour	<ol style="list-style-type: none"> 1. Outline the disorders of the adrenal gland. 2. Classify corticosteroids. 3. Explain the mechanism of action of the glucocorticoid agonist (Prednisone) and antagonist (Mifepristone). 4. List the pharmacokinetics, clinical uses, common adverse effects & contraindications of these drugs 	MCQs, SEQs & Structured Viva
Corticosteroids 2 (Mineralocorticoid agonist and its antagonist)	Interactive Lecture # 27	1 hour	<ol style="list-style-type: none"> 1. Recall the disorders of the adrenal gland. 2. Classify mineralocorticoid. 3. Explain the mechanism of action of mineralocorticoid agonist (Fludrocortisone) and antagonist (Spironolactone). 4. List the pharmacokinetics, clinical uses, common adverse effects & contraindications of these drugs 	MCQs, SEQs & Structured Viva

Pharmacology

At the end of these 2 hours of small group discussion sessions, the students of the 4th year MBBS will be able to:

Topic	Teaching Strategy	Duration	Learning Objectives	Assessment Pattern
Prescription writing on Hyperprolactinemia	Tutorial # 14	2 hours	<ol style="list-style-type: none"> 1. Define Hyperprolactinemia. 2. List the causes of hyperprolactinemia. 3. Explain the pharmacokinetics and pharmacodynamics of Bromocriptine and Cabergoline. 4. Write down the prescription of the given case. 	OSPE & Structured Viva
Prescription Writing on Hyperthyroidism	Tutorial # 15	2 hours	<ol style="list-style-type: none"> 1. Define hyperthyroidism. 2. List the signs and symptoms of hyperthyroidism. 3. Discuss the pharmacokinetics and pharmacodynamics of Lugol's solution and Propranolol. 4. Write down the prescription of the given case. 	OSPE & Structured Viva
Prescription Writing on Hypothyroidism	Tutorial # 16	2 hours	<ol style="list-style-type: none"> 1. Define hypothyroidism. 2. List the signs and symptoms of hypothyroidism. 3. Discuss the pharmacokinetics and pharmacodynamics of Levothyroxine. 4. Write down the prescription of the given case. 	OSPE & Structured Viva

Pharmacology

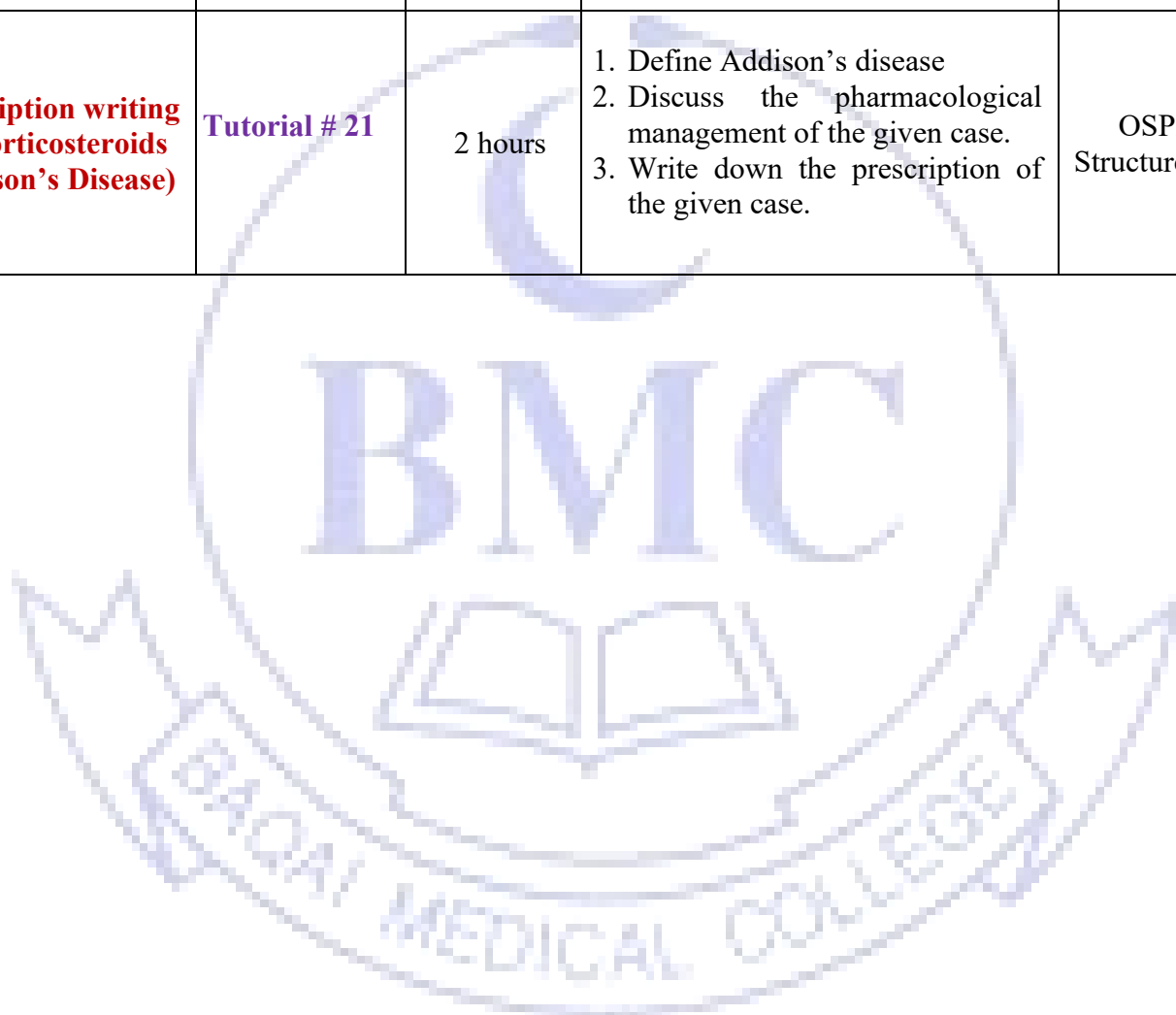
At the end of these 2 hours of small group discussion sessions, the students of the 4th year MBBS will be able to:

Topic	Teaching Strategy	Duration	Learning Objectives	Assessment Pattern
Prescription writing of various types of insulin	Tutorial # 17	2 hours	<ol style="list-style-type: none"> 1. Define Insulin. 2. List the types of Insulin. 3. Discuss the pharmacokinetics and pharmacodynamics of Insulin. 4. Discuss the pharmacological management of the given case. 	OSPE & Structured Viva
Prescription writing on hypoglycemia	Tutorial # 18	2 hours	<ol style="list-style-type: none"> 1. Define Hypoglycemia. 2. Discuss the pharmacokinetics and pharmacodynamics of Glucagon. 3. Discuss the pharmacological treatment of the given case. 	OSPE & Structured Viva
Prescription writing on Diabetic Ketoacidosis	Tutorial # 19	2 hours	<ol style="list-style-type: none"> 1. Define Diabetic Ketoacidosis 2. Discuss the pharmacological management of the given case. 3. Write down the prescription of the given case. 	OSPE & Structured Viva
Prescription writing on Corticosteroids (Cushing's Disease)	Tutorial # 20	2 hours	<ol style="list-style-type: none"> 1. Define Cushing's disease. 2. Discuss the pharmacological management of the given case. 3. Write down the prescription of the given case. 	OSPE & Structured Viva

Pharmacology

At the end of these 2 hours of small group discussion sessions, the students of the 4th year MBBS will be able to:

Topic	Teaching Strategy	Duration	Learning Objectives	Assessment Pattern
Prescription writing on Corticosteroids (Addison's Disease)	Tutorial # 21	2 hours	<ol style="list-style-type: none"> 1. Define Addison's disease 2. Discuss the pharmacological management of the given case. 3. Write down the prescription of the given case. 	OSPE & Structured Viva



Pharmacology

At the end of these 2 hours of practical sessions, the students of the 4th year MBBS will be able to:

Topic	Teaching Strategy	Duration	Learning Objectives	Assessment Pattern
Pharmaceutical Solutions	Practical # 10	2 hours	<ol style="list-style-type: none"> 1. Define Solutions 2. List the components of solutions. 3. Classify Solutions with examples. 	OSPE & Structured Viva
Dextrose solution	Practical # 11	2 hours	<ol style="list-style-type: none"> 1. Define Dextrose Solution. 2. Demonstrate the preparation and dispensing steps of Dextrose Solution. 3. Draw the label for dispensing the dextrose solution. 4. List the clinical uses of dextrose solution. 	OSPE & Structured Viva
Insulin Therapy	Practical # 12	2 hours	<ol style="list-style-type: none"> 1. Define Insulin. 2. List different types of insulin. 3. List the different types of insulin administration techniques. 4. Demonstrate the steps for the unit calculation of insulin therapy. 	OSPE & Structured Viva

Community Medicine

At the end of these 1-hour interactive lectures, the students of the 4th year MBBS will be able to:

Topic	Teaching Strategy	Duration	Learning Objectives	Assessment Pattern
Introduction to Communicable Diseases	Interactive Lecture # 27	1 hour	<ol style="list-style-type: none"> 1. Define communicable diseases and discuss important terms associated with them. 2. Describe the mechanisms and various modes of transmission of communicable diseases. 3. Discuss the global and nationwide burden of communicable diseases. 	MCQs, SEQs, OSPE & Structured Viva
Malaria/ Rabies	Interactive Lecture # 28	1 hour	<ol style="list-style-type: none"> 1. Discuss the important communicable diseases. 2. List the causes and common features of malaria and rabies. 3. Describe modes of transmission and prevention strategies for malaria and rabies. 	MCQs, SEQs, OSPE & Structured Viva
Poliomyelitis / Tuberculosis	Interactive Lecture # 29	1 hour	<ol style="list-style-type: none"> 1. Explain the causes and common features of Poliomyelitis and Tuberculosis. 2. Describe modes of transmission and prevention strategies for Poliomyelitis and Tuberculosis. 	MCQs, SEQs, OSPE & Structured Viva
Immunization	Interactive Lecture # 30	1 hour	<ol style="list-style-type: none"> 1. Define immunization. 2. Explain types of immunization. 3. Discuss the launching of EPI in Pakistan. 4. Describe those infectious diseases included in the EPI schedule. 	MCQs, SEQs, OSPE & Structured Viva

Community Medicine

At the end of these 1-hour interactive lectures, the students of the 4th year MBBS will be able to:

Topic	Teaching Strategy	Duration	Learning Objectives	Assessment Pattern
Introduction to Non-communicable Diseases	Interactive Lecture # 31	1 hour	<ol style="list-style-type: none"> 1. Differentiate b/w communicable diseases and non-communicable diseases. 2. Define the concepts related to non-communicable diseases. 3. Explain the risk factor and relative risk. 	MCQs, SEQs, OSPE & Structured Viva
Major Non-Communicable Diseases- I	Interactive Lecture # 32	1 hour	<ol style="list-style-type: none"> 1. Explain the risk factors of non-communicable diseases like Diabetes Mellitus, Hypertension, and heart diseases. 2. Discuss the prevention strategies for Diabetes Mellitus, Hypertension, and heart diseases. 	MCQs, SEQs, OSPE & Structured Viva
Major Non-Communicable Diseases- II	Interactive Lecture # 33	1 hour	<ol style="list-style-type: none"> 1. Explain the risk factors of non-communicable diseases like Obesity, Cancer, and Thalassemia. 2. Discuss the prevention strategies for Obesity, Cancer, and Thalassemia. 	MCQs, SEQs, OSPE & Structured Viva
Introduction to epidemiology	Interactive Lecture # 34	1 hour	<ol style="list-style-type: none"> 1. Describe epidemiological transition, screening for disease, and community diagnosis. 2. Define basic concepts and uses of epidemiology. 3. Explain the concepts of morbidity, mortality, disability, and fertility. 	MCQs, SEQs, OSPE & Structured Viva

Community Medicine

At the end of these 1-hour interactive lectures, the students of the 4th year MBBS will be able to:

Topic	Teaching Strategy	Duration	Learning Objectives	Assessment Pattern
Epidemiological study designs	Interactive Lecture # 35	1 hour	<ol style="list-style-type: none"> 1. Describe epidemiological study designs. 2. Explain the differences between various study designs. 3. Identify the study designs suitable for the given scenario. 	MCQs, SEQs, OSPE & Structured Viva
Causation and association	Interactive Lecture # 36	1 hour	<ol style="list-style-type: none"> 1. Describe the concept of association and causation. 2. Explain the criteria for establishing a causal association. 	MCQs, SEQs, OSPE & Structured Viva
Parasitology	Interactive Lecture # 37	1 hour	<ol style="list-style-type: none"> 1. Describe the epidemiology of major parasitic diseases. 2. Describe preventive strategies for major parasitic infections. 	MCQs, SEQs, OSPE & Structured Viva
Entomology/ Vector-borne diseases	Interactive Lecture # 38	1 hour	<ol style="list-style-type: none"> 1. Describe the epidemiology of vector-borne diseases. 2. Describe methods and strategies used to control disease vectors. 	MCQs, SEQs, OSPE & Structured Viva

Community Medicine Field Visit*

At the end of these Community Field Visits, the students of the 4th year MBBS will be able to:

<p>Baqai Institute of Diabetology & Endocrinology</p>	<ol style="list-style-type: none"> 1. Participants will be able to identify and explain the key components of collaborative diabetes care at BIDE. 2. Participants will assess and discuss the impact of collaborative services on the management plans of patients during a single visit.
<p>Ojha Institute of Chest Diseases</p>	<ol style="list-style-type: none"> 1. Participants will gain insights into OICD's holistic approach to addressing chest diseases. 2. Participants will engage with healthcare professionals at OICD to acquire knowledge about specialized treatments, ongoing research initiatives, and community outreach programs, enhancing their understanding of comprehensive respiratory healthcare delivery.

*List of proposed field visits of Community Medicine

Medicine & Allied

At the end of these 1-hour interactive lectures, the students of the 4th year MBBS will be able to:

Topic	Teaching Strategy	Duration	Learning Objectives	Assessment Pattern
Pituitary Disorders	Interactive Lecture # 17	1 hour	<ol style="list-style-type: none"> 1. Identify the signs and symptoms of Pituitary disorders. 2. Interpret the relevant lab investigations and discuss them with the facilitator. 	MCQs
Introduction to Thyroid Disorders	Interactive Lecture # 18	1 hour	<ol style="list-style-type: none"> 1. Identify the signs and symptoms of Thyroid disorders. 2. Interpret the relevant lab investigations and discuss the management plan. 	MCQs
Diabetes Mellitus	Interactive Lecture # 19	1 hour	<ol style="list-style-type: none"> 1. Identify the signs and symptoms of Diabetes Mellitus. 2. Make a differential diagnosis. 3. Discuss and formulate the treatment plan. 	MCQs
Cushing Syndrome	Interactive Lecture # 20	1 hour	<ol style="list-style-type: none"> 1. Identify the signs and symptoms of Cushing Syndrome. 2. Make a differential diagnosis. 3. Discuss and formulate the treatment plan 	MCQs

Surgery & Allied

At the end of these 1-hour interactive lectures, the students of the 4th year MBBS will be able to:

Topic	Teaching Strategy	Duration	Learning Objectives	Assessment Pattern
Hypothyroidism	Interactive Lecture # 17	1 hour	<ol style="list-style-type: none"> 1. Define hypothyroidism and identify common etiologies of hypothyroidism 2. Recognize clinical features of hypothyroidism in adults, 3. Outline the diagnostic approach to hypothyroidism 4. Discuss principles of management of hypothyroidism. 	MCQs
Hyperthyroidism	Interactive Lecture # 18	1 hour	<ol style="list-style-type: none"> 1. Define hyperthyroidism and identify common causes of hyperthyroidism 2. Recognize the clinical features of hyperthyroidism 3. Outline the diagnostic approach to hyperthyroidism 4. Discuss management options for hyperthyroidism. 	MCQs
Thyroid Carcinoma	Interactive Lecture # 19	1 hour	<ol style="list-style-type: none"> 1. Classify thyroid cancers 2. Identify risk factors and etiological associations of thyroid cancers 3. Recognize clinical features of thyroid malignancy. 4. Outline the diagnostic approach for thyroid cancers. 5. Describe the principles of management of thyroid cancer. 	MCQs

Surgery & Allied

At the end of these 1-hour interactive lectures, the students of the 4th year MBBS will be able to:

Topic	Teaching Strategy	Duration	Learning Objectives	Assessment Pattern
Diabetic foot ulcers	Interactive Lecture # 20	1 hour	<ol style="list-style-type: none"> 1. Identify risk factors of diabetic foot ulcers 2. Classify diabetic foot ulcers. 3. Recognize clinical features of diabetic foot ulcers. 4. Describe the principles of management of diabetic foot ulcers. 	MCQs



Gynecology and Obstetrics

At the end of this 1-hour interactive lecture, the students of the 4th year MBBS will be able to:

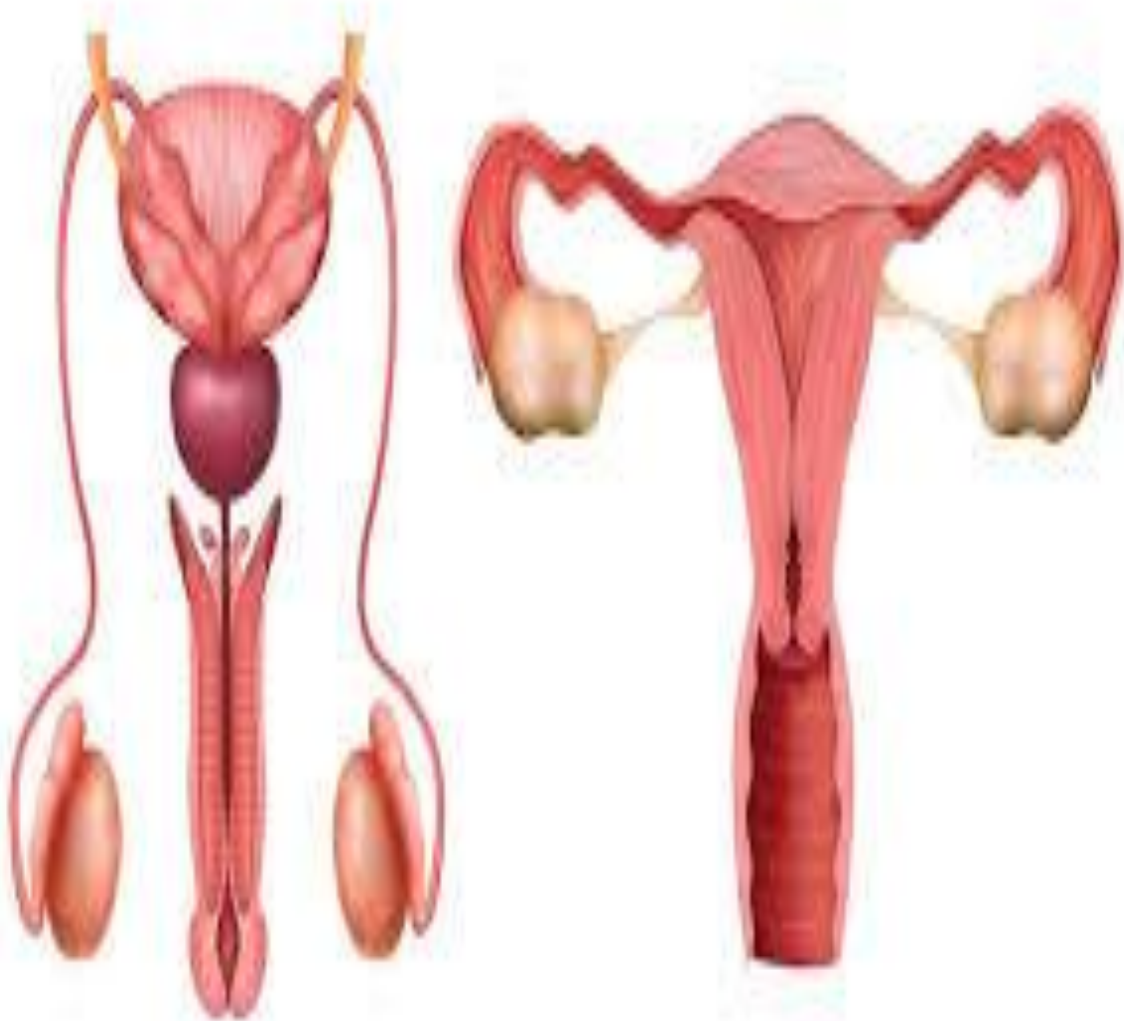
Topic	Teaching Strategy	Duration	Learning Objectives	Assessment Pattern
Hyperprolactinemia and reproduction	Interactive Lecture # 3	1 hour	<ol style="list-style-type: none"> 1. Describe the pathophysiology of hyperprolactinemia in fertility (male and female). 2. Discuss the clinical spectrum of hyperprolactinemia for reproduction. 	MCQs
Thyroid disorders and reproduction	Interactive Lecture # 4	1 hour	<ol style="list-style-type: none"> 1. Discuss the pathophysiology of hypothyroidism and hyperthyroidism on the reproductive cycle. 2. Describe the pathophysiology of common thyroidal disorders in pregnancy. 	MCQs
Hyperglycemia in pregnancy	Interactive Lecture # 5	1 hour	<ol style="list-style-type: none"> 1. Define hyperglycemia in pregnancy. 2. Discuss the pathophysiology of hyperglycemia in pregnancy and its maternal and fetal effects. 	MCQs
Polycystic Ovaries	Interactive Lecture # 6	1 hour	<ol style="list-style-type: none"> 1. Describe the pathophysiology of PCOS. 2. Discuss the morphological features of PCOS. 3. Explain the diagnostic criteria for PCOS. 	MCQs

Pediatrics

At the end of this 1-hour interactive lecture, the students of the 4th year MBBS will be able to:

Topic	Teaching Strategy	Duration	Learning Objectives	Assessment Pattern
Congenital Hypothyroidism	Interactive Lecture # 6	1 hour	<ol style="list-style-type: none"> 1. Define congenital hypothyroidism. 2. Classify hypothyroidism according to the etiology. 3. Describe common clinical features of congenital hypothyroidism. 4. Recall basic investigations of congenital hypothyroidism. 5. Outline its management. 	MCQs
Diabetes Mellitus	Interactive Lecture # 7	1 hour	<ol style="list-style-type: none"> 1. Describe the pathophysiology of diabetes mellitus 2. Classify diabetes mellitus. 3. Describe clinical features of diabetes mellitus. 	MCQs

REPRODUCTION AND BREAST MODULE



Module IV

*Reproduction &
Breast*

INTRODUCTION TO MODULE – IV



<i>Module – IV</i>	
<i>Reproduction</i>	
System	<ul style="list-style-type: none"> • Male Reproductive System • Female Reproductive System • Breast
Duration	6 Weeks (From 26 th May 2026 to 7 th August 2026)
Assessment Dates	Monday, 10 th August 2026
Assessment Pattern	MCQs, SEQs & OSPE
*The Assessment pattern and dates are tentative (Subject to change)	

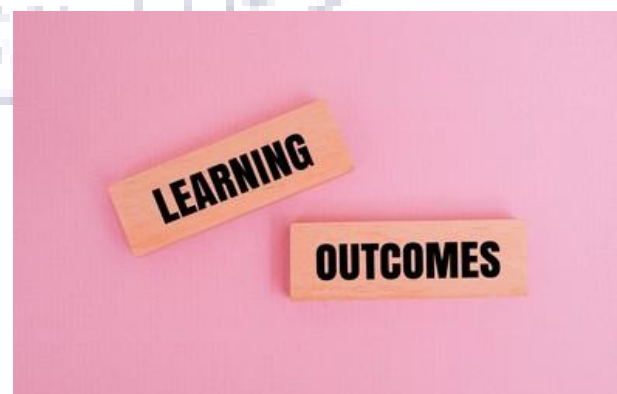
MODULE RATIONALE

This module integrates reproductive sciences and breast pathology with clinical gynecology, obstetrics, urology, and oncology. Through spiral integration, students advance from basic reproductive physiology to clinical evaluation, screening, and management of reproductive and breast disorders, emphasizing women's health priorities in the local context.

MODULE LEARNING OUTCOMES

At the end of this module, the students of the 4th year MBBS will be able to:

1. Describe normal and abnormal reproductive physiology and breast development.
2. Explain the etiopathogenesis of common reproductive and breast diseases.
3. Interpret hormonal profiles, imaging, cytology, and histopathology findings.
4. Differentiate benign and malignant conditions of the reproductive system and breast.
5. Apply principles of screening, early detection, and referral for reproductive and breast diseases.
6. Advocate preventive strategies and patient education related to reproductive and breast health.



Pathology

At the end of these 1-hour interactive lectures, the students of the 4th year MBBS will be able to:

Topic	Teaching Strategy	Duration	Learning Objectives	Assessment Pattern
Diseases of the Vulva	Interactive Lecture # 72	1 hour	<ol style="list-style-type: none"> 1. Classify the diseases of the Vulva. 2. Describe the causes, pathogenesis, morphology, and clinical features of vulvitis and vulval contact dermatitis. 3. Comprehend the causes, pathogenesis, morphology, and clinical features of <i>Condyloma acuminata</i>. 4. Differentiate between the causes, pathogenesis, morphology, and clinical features of squamous and glandular neoplastic lesions of the Vulva. 	MCQs, SEQs & Structured Viva
Vaginal disorders	Interactive Lecture # 73	1 hour	<ol style="list-style-type: none"> 1. Summarize the developmental anomalies of the vagina. 2. Explain the causes, pathogenesis, morphology, and clinical features of Vaginitis. 3. List the premalignant and malignant lesions of the vagina. 4. Discuss the causes, pathogenesis, morphology, and clinical features of vaginal intraepithelial neoplasia and squamous cell carcinoma. 	MCQs, SEQs & Structured Viva

Pathology

At the end of these 1-hour interactive lectures, the students of the 4th year MBBS will be able to:

Topic	Teaching Strategy	Duration	Learning Objectives	Assessment Pattern
Diseases of the Cervix	Interactive Lecture # 74	1 hour	<ol style="list-style-type: none"> 1. Explain the causes, pathophysiology, and morphology of cervicitis. 2. Discuss the causes, pathogenesis, morphology, and clinical features of cervical intraepithelial neoplasia (CIN) and squamous cell carcinoma. 3. Describe the staging of Cervical cancer. 4. Discuss the screening methods for cervical cancer and its preventive measures. 	MCQs, SEQs & Structured Viva
Pelvic Inflammatory Disease (PID)	Interactive Lecture # 75	1 hour	<ol style="list-style-type: none"> 1. Classify the infections that can affect the female genital tract, such as bacterial, viral, fungal, and parasitic infections. 2. Define pelvic inflammatory diseases. 3. List the etiological causes of pelvic inflammatory diseases. 4. Describe the pathogenesis, clinical features, morphology, and diagnosis of Pelvic inflammatory diseases. 5. Discuss its complications. 6. Summarize the risk factors, pathophysiology, morphology, clinical features, and diagnosis of infections of the lower female genital tract. 	MCQs, SEQs & Structured Viva

Pathology

At the end of these 1-hour interactive lectures, the students of the 4th year MBBS will be able to:

Topic	Teaching Strategy	Duration	Learning Objectives	Assessment Pattern
Tumors of the Myometrium	Interactive Lecture # 76	1 hour	<ol style="list-style-type: none"> 1. Discuss the types, etiology, morphology, clinical features, and complications of Leiomyoma. 2. Describe the causes, pathogenesis, clinical features, morphology, and complications of Leiomyosarcoma. 	MCQs, SEQs & Structured Viva
Endometrial disorders	Interactive Lecture # 77	1 hour	<ol style="list-style-type: none"> 1. List the causes of abnormal uterine bleeding. 2. Differentiate between acute and chronic endometritis based on their causes, pathogenesis, morphology, and clinical features. 3. Define and differentiate between Endometriosis and Adenomyosis. 4. Discuss the causes, morphology, clinical features, and complications of endometriosis and adenomyosis. 	MCQs, SEQs & Structured Viva

Pathology

At the end of these 1-hour interactive lectures, the students of the 4th year MBBS will be able to:

Topic	Teaching Strategy	Duration	Learning Objectives	Assessment Pattern
Endometrial Polyp and Endometrial Hyperplasia	Interactive Lecture # 78	1 hour	<ol style="list-style-type: none"> 1. Define endometrial polyp and endometrial hyperplasia. 2. Describe the causes, pathogenesis, morphology, and clinical features of an Endometrial polyp. 3. Discuss the causes, pathogenesis, morphology, clinical features, and WHO classification of Endometrial hyperplasia. 4. Explain endometrial hyperplasia as a fertile soil for Endometrial carcinoma. 	MCQs, SEQs & Structured Viva
Malignant Tumors of the Endometrium	Interactive Lecture # 79	1 hour	<ol style="list-style-type: none"> 1. List the malignant tumors of the endometrium. 2. Discuss the causes, pathogenesis, morphology, clinical features, diagnosis, and staging of Endometrial Carcinoma. 3. Tabulate the differentiating characteristics of Type I and Type II Endometrial Carcinoma. 4. Describe the causes, pathogenesis, and morphology of malignant mixed Müllerian tumors. 5. Summarize the causes, pathogenesis, morphology, and diagnosis of endometrial stromal tumors. 	MCQs, SEQs & Structured Viva

Pathology

At the end of these 1-hour interactive lectures, the students of the 4th year MBBS will be able to:

Topic	Teaching Strategy	Duration	Learning Objectives	Assessment Pattern
Gestational and Placental Disorders	Interactive Lecture # 80	1 hour	<ol style="list-style-type: none"> 1. Define and classify gestational trophoblastic diseases. 2. Discuss the causes, pathogenesis, morphology, and clinical features of Hydatidiform Mole, Invasive Mole, and Choriocarcinoma. 3. Enumerate the disorders of early and late pregnancy. 	MCQs, SEQs & Structured Viva
Ovarian disorders	Interactive Lecture # 81	1 hour	<ol style="list-style-type: none"> 1. Classify the non-neoplastic and neoplastic ovarian cysts. 2. Describe the causes, pathogenesis, morphology, and clinical features of non –non-neoplastic Follicle and Luteal cysts. 3. Explain the etiology, pathophysiology, morphology, and clinical features of Polycystic Ovaries. 	MCQs, SEQs & Structured Viva
Neoplasms of the Ovary	Interactive Lecture # 82	1 hour	<ol style="list-style-type: none"> 1. Classify the neoplasms of the Ovary. 2. Discuss the causes, pathogenesis, morphology, and clinical features of surface epithelial tumors of the ovaries (serous, mucinous, endometrioid, and Brenner tumors) 3. Comprehend the causes, pathogenesis, morphology, and clinical features of germ cell tumors, sex-cord stromal tumors, and teratoma. 	MCQs, SEQs & Structured Viva

Pathology

At the end of these 1-hour interactive lectures, the students of the 4th year MBBS will be able to:

Topic	Teaching Strategy	Duration	Learning Objectives	Assessment Pattern
Inflammatory Disorders of the Breast	Interactive Lecture # 83	1 hour	<ol style="list-style-type: none"> 1. Classify the inflammatory disorders of the breast. 2. Describe the causes, pathogenesis, and morphologies of acute mastitis, peri-ductal mastitis, and mammary duct atresia. 3. List the causes of nipple discharge. 4. Define gynecomastia and list its causes. 	MCQs, SEQs & Structured Viva
Benign epithelial lesions of the Breast	Interactive Lecture # 84	1 hour	<ol style="list-style-type: none"> 1. Classify the benign epithelial lesions of the breast. 2. Discuss the etiology, pathogenesis, and morphology of fibrocystic disease in the breast. 3. Explain the relationship of fibrocystic changes with carcinoma of the breast. 4. Differentiate between the causes, pathophysiology, clinical features, and morphology of Proliferative Breast Disease with and without atypia. 	MCQs, SEQs & Structured Viva

Pathology

At the end of these 1-hour interactive lectures, the students of the 4th year MBBS will be able to:

Topic	Teaching Strategy	Duration	Learning Objectives	Assessment Pattern
Tumors of the breast	Interactive Lecture # 85	1 hour	<ol style="list-style-type: none"> 1. Classify tumors of the breast. 2. Discuss the incidence, etiology, pathology, and morphology of fibroadenoma of the breast. 3. Comprehend the risk factors, pathophysiology, clinical features, and morphology of Phyllodes tumor. 4. Describe the causes, pathogenesis, morphology, and clinical features of Intra-ductal papilloma of the breast. 	MCQs, SEQs & Structured Viva
Breast Carcinoma	Interactive Lecture # 86	2 hours	<ol style="list-style-type: none"> 1. Classify Breast carcinoma. 2. Describe the risk factors of Breast Cancer. 3. Differentiate ductal and lobular carcinoma in situ based on their etiology, pathogenesis, morphology, and clinical features of breast carcinomas. 4. Discuss the causes, pathogenesis, and morphology of the histological types of invasive carcinoma of the breast. 5. Summarize the prognostic and predictive factors of breast cancer in women. 	MCQs, SEQs & Structured Viva

Pathology

At the end of these 1-hour interactive lectures, the students of the 4th year MBBS will be able to:

Topic	Teaching Strategy	Duration	Learning Objectives	Assessment Pattern
Congenital anomalies of the male genital tract	Interactive Lecture # 87	1 hour	<ol style="list-style-type: none"> 1. Discuss the causes, pathogenesis, morphology, and clinical features of Hypospadias, Epispadias, and Phimosis. 2. Define Cryptorchidism and explain its pathogenesis, clinical features, and morphology. 3. Differentiate between Varicocele, Hydrocele, and Spermatocele based on their causes, pathophysiology, and morphology. 	MCQs, SEQs & Structured Viva
Inflammatory and vascular disorders of the Male genital tract	Interactive Lecture # 88	1 hour	<ol style="list-style-type: none"> 1. Classify the inflammatory and vascular disorders of the male genital tract. 2. Describe the causes, pathogenesis, morphology, clinical features, and complications of Epididymitis and Orchitis. 3. Comprehend the causes, pathogenesis, morphology, and clinical manifestations of Prostatitis. 4. List the causes of testicular atrophy. 5. Summarize the pathogenesis of testicular torsion. 	MCQs, SEQs & Structured Viva

Pathology

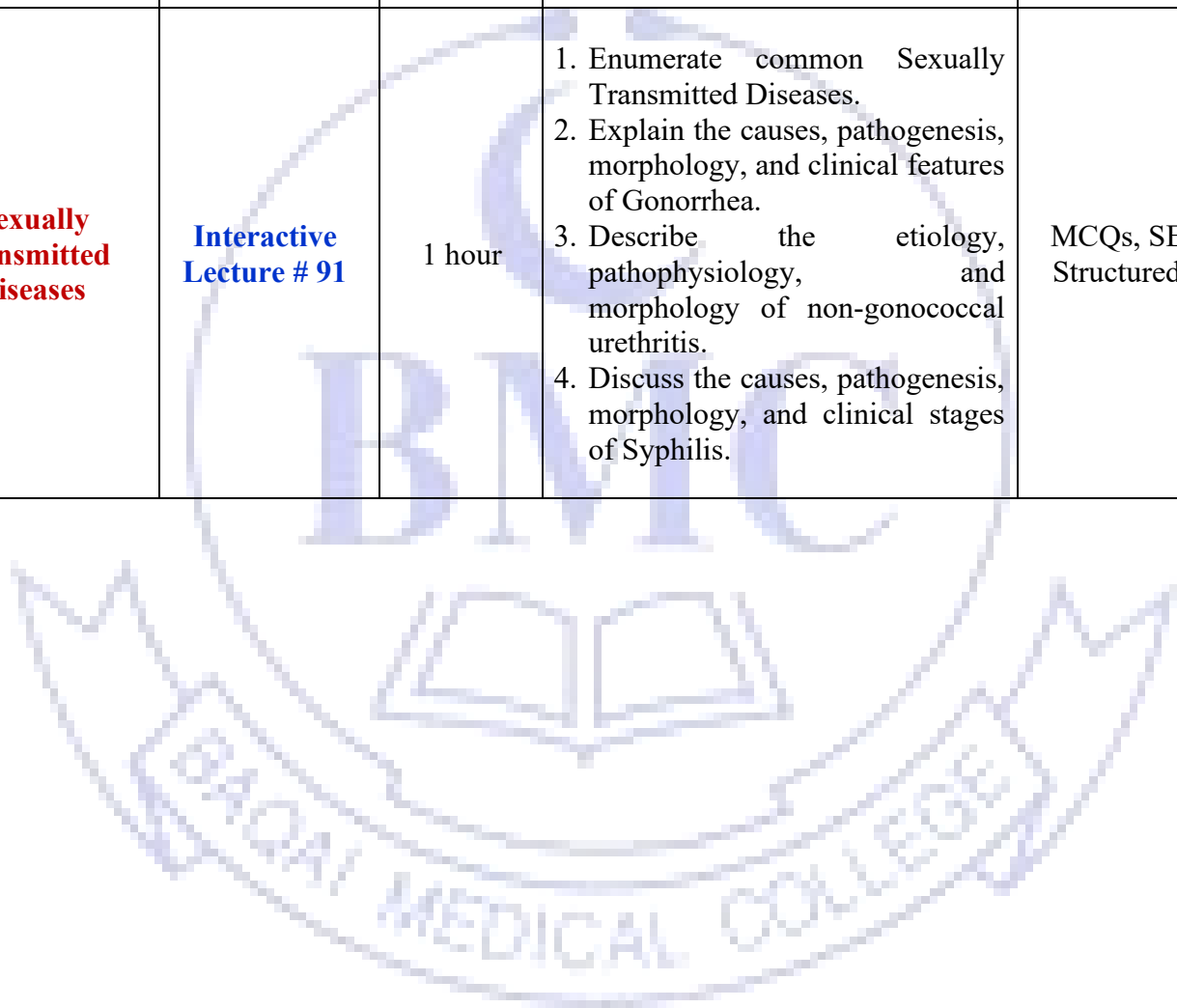
At the end of these 1-hour interactive lectures, the students of the 4th year MBBS will be able to:

Topic	Teaching Strategy	Duration	Learning Objectives	Assessment Pattern
Testicular Neoplasms	Interactive Lecture # 89	1 hour	<ol style="list-style-type: none"> 1. Classify Testicular Neoplasms. 2. Discuss the causes, pathogenesis, clinical features, morphology, and diagnosis of Germ cell tumors of the Testis. 3. Summarize the causes, pathogenesis, clinical features, morphology, and diagnosis of non-germ cell tumors (Sex cord-gonadal stroma tumors and non-Hodgkin lymphomas). 	MCQs, SEQs & Structured Viva
Disorders of the Prostate Gland	Interactive Lecture # 90	1 hour	<ol style="list-style-type: none"> 1. Discuss the types, causes, pathogenesis, clinical features, and morphology of Prostatitis. 2. Discuss the causes, pathogenesis, incidence, clinical features, and morphology of Benign Prostatic Hyperplasia (BPH). 3. List the tumors and tumor-like conditions of the Prostate gland. 4. Discuss the etiology, pathogenesis, morphology, clinical features, diagnosis, grading, and TNM staging of Prostatic adenocarcinoma. 	MCQs, SEQs & Structured Viva

Pathology

At the end of these 1-hour interactive lectures, the students of the 4th year MBBS will be able to:

Topic	Teaching Strategy	Duration	Learning Objectives	Assessment Pattern
<p style="text-align: center;">Sexually transmitted diseases</p>	<p style="text-align: center;">Interactive Lecture # 91</p>	<p style="text-align: center;">1 hour</p>	<ol style="list-style-type: none"> 1. Enumerate common Sexually Transmitted Diseases. 2. Explain the causes, pathogenesis, morphology, and clinical features of Gonorrhoea. 3. Describe the etiology, pathophysiology, and morphology of non-gonococcal urethritis. 4. Discuss the causes, pathogenesis, morphology, and clinical stages of Syphilis. 	<p style="text-align: center;">MCQs, SEQs & Structured Viva</p>



Pathology

At the end of these 2 hours of practical sessions, the students of the 4th year MBBS will be able to:

Topic	Teaching Strategy	Duration	Learning Objectives	Assessment Pattern
Cervicitis and Neoplastic Lesions of the Cervix	Practical # 19	2 hours	<ol style="list-style-type: none"> 1. Identify the differentiating gross and microscopic features of cervical intraepithelial neoplasia (CIN) and squamous cell carcinoma with their points of identification and correlate them with their pathophysiology and clinical features. 2. Identify the differentiating microscopic features of acute and chronic cervicitis with their points of identification and correlate them with their pathophysiology and clinical features. 	OSPE & Structured Viva
Uterine disorders	Practical # 20	2 hours	<ol style="list-style-type: none"> 1 Identify the differentiating microscopic features of Acute and Chronic Endometritis with their points of identification and correlate them with their pathophysiology and clinical features. 2 Identify the differentiating microscopic features of Endometriosis and Adenomyosis with their points of identification and correlate them with their pathophysiology and clinical features. 3 Identify the microscopic features of the Endometrial polyp with its points of identification and correlate with its pathophysiology and clinical features. 	OSPE & Structured Viva

Pathology

At the end of these 2 hours of practical sessions, the students of the 4th year MBBS will be able to:

Topic	Teaching Strategy	Duration	Learning Objectives	Assessment Pattern
<p style="text-align: center;">Tumors of the Uterus and Placenta</p>	<p style="text-align: center;">Practical # 21</p>	<p style="text-align: center;">2 hours</p>	<ol style="list-style-type: none"> 1. Identify the gross and microscopic features of Leiomyoma with its points of identification and correlate them with its pathophysiology and clinical features. 2. Identify the microscopic features of Endometrial hyperplasia and Endometrial carcinoma. 3. Correlate morphology with the pathophysiology and clinical features of Endometrial hyperplasia and Endometrial carcinoma. 4. Identify the gross and microscopic features of Hydatidiform mole and Choriocarcinoma. 5. Correlate the morphology with the pathophysiology and clinical features of Hydatidiform mole and Choriocarcinoma. 	<p style="text-align: center;">OSPE & Structured Viva</p>

Pathology

At the end of these 2 hours of practical sessions, the students of the 4th year MBBS will be able to:

Topic	Teaching Strategy	Duration	Learning Objectives	Assessment Pattern
<p style="text-align: center;">Ovarian tumor</p>	<p style="text-align: center;">Practical # 22</p>	<p style="text-align: center;">2 hours</p>	<ol style="list-style-type: none"> 1. Identify the microscopic features of Mucinous and Serous ovarian tumors with their points of identification and correlate them with their pathophysiology and clinical features. 2. Identify the microscopic features of Granulosa cell tumor and Sertoli Leydig cell tumors, and teratoma with their points of identification and correlate them with their pathophysiology and clinical features. 3. Identify the microscopic features of Teratoma with its points of identification. 4. Correlate the morphology with the pathophysiology and clinical features of Teratoma. 	<p style="text-align: center;">OSPE & Structured Viva</p>

Pathology

At the end of these 2 hours of practical sessions, the students of the 4th year MBBS will be able to:

Topic	Teaching Strategy	Duration	Learning Objectives	Assessment Pattern
Tumor of the Breast	Practical # 23	2 hours	<ol style="list-style-type: none"> 1. Identify the gross and microscopic features of Fibroadenoma of the breast with its points of identification and correlate them with its pathophysiology and clinical features. 2. Identify the gross and microscopic features of Phyllodes tumors with their points of identification and correlate them with their pathophysiology and clinical features. 3. Identify the gross and microscopic features of Breast Carcinoma with its points of identification. 4. Correlate the morphology with the pathophysiology, clinical features, and complications of Breast Carcinoma. 	OSPE & Structured Viva

Pathology

At the end of these 2 hours of practical sessions, the students of the 4th year MBBS will be able to:

Topic	Teaching Strategy	Duration	Learning Objectives	Assessment Pattern
<p style="text-align: center;">Testicular Lesions</p>	<p style="text-align: center;">Practical # 24</p>	<p style="text-align: center;">2 hours</p>	<ol style="list-style-type: none"> 1. Identify the microscopic features of the undescended testis with its points of identification and correlate them with the changes in spermatogenesis in such cases. 2. Identify the gross features of Testicular torsion with its points of identification. 3. Identify the gross features of Hydrocele and Hematocele with their points of identification and correlate them with their pathophysiology and clinical features. 4. Identify the microscopic features of Epididymitis with its points of identification. 5. Identify the gross and microscopic features of Seminoma with its points of identification and correlate them with its pathophysiology and clinical features. 	<p style="text-align: center;">OSPE & Structured Viva</p>

Pathology

At the end of these 2 hours of practical sessions, the students of the 4th year MBBS will be able to:

Topic	Teaching Strategy	Duration	Learning Objectives	Assessment Pattern
Benign Prostatic Hyperplasia & Prostatic Adenocarcinoma	Practical # 25	2 hours	<ol style="list-style-type: none"> 1. Identify the gross and microscopic features of Benign Prostatic Hyperplasia with its points of identification. 2. Correlate the morphology with the pathophysiology and clinical features of Benign Prostatic Hyperplasia. 3. Identify the gross and microscopic features of Prostatic Adenocarcinoma with its points of identification and correlate with the pathophysiology, clinical features, and complications. 	OSPE & Structured Viva



Pharmacology

At the end of these 1-hour interactive lectures, the students of the 4th year MBBS will be able to:

Topic	Teaching Strategy	Duration	Learning Objectives	Assessment Pattern
Estrogens and Anti-Estrogens	Interactive Lecture # 28	1 hour	<ol style="list-style-type: none"> 1. Outline the physiological functions of estrogen. 2. Classify Estrogen and Anti-estrogens. 3. Explain the mechanism of action of Ethinyl estradiol, Tamoxifen, and Anastrozole. 4. List the pharmacokinetics, clinical uses, common adverse effects & contraindications of these drugs 	MCQs, SEQs & Structured Viva
Progestins and Anti-Progestins	Interactive Lecture # 29	1 hour	<ol style="list-style-type: none"> 1. Outline the physiological functions of progesterone. 2. Classify Progestins and Anti-Progestins. 3. Explain the mechanism of action of L- Norgestrel and Mifepristone. 4. List the pharmacokinetics, clinical uses, common adverse effects & contraindications of these drugs 	MCQs, SEQs & Structured Viva
Androgens, Anabolic steroids, and Anti-androgens	Interactive Lecture # 30	1 hour	<ol style="list-style-type: none"> 1. Outline the physiological functions of androgens. 2. Classify androgens and anti-androgens. 3. Explain the mechanism of action of Testosterone, Flutamide, and Finasteride. 4. List the pharmacokinetics, clinical uses, common adverse effects & contraindications of these drugs 	MCQs, SEQs & Structured Viva

Pharmacology

At the end of these 1-hour interactive lectures, the students of the 4th year MBBS will be able to:

Topic	Teaching Strategy	Duration	Learning Objectives	Assessment Pattern
Hormonal Contraception and Chemical Contraception in Men	Interactive Lecture # 31	1 hour	<ol style="list-style-type: none"> 1. State the types of preparations used for oral contraception. 2. Explain the mechanism of action of oral preparations (combination of estrogens and progestin), progestin therapy alone, and chemical contraception in men. 3. List the clinical indications of these drugs. 4. List common adverse effects and contraindications of these drugs. 5. Summarize the beneficial effects of Female Oral Contraceptives. 	MCQs, SEQs & Structured Viva
Drugs Therapy in Pregnancy	Interactive Lecture # 32	1 hour	<ol style="list-style-type: none"> 1. Recognize the main pharmacological factors that control the passage of drugs from mother to fetus. 2. List the drugs that can be used during pregnancy. 	MCQs, SEQs & Structured Viva
Teratogenic Drugs	Interactive Lecture # 33	1 hour	<ol style="list-style-type: none"> 1. Define the term Teratogen. 2. Explain FDA teratogenic risk categories with examples. 3. List the drugs with significant teratogenic effects on the fetus. 	MCQs, SEQs & Structured Viva

Pharmacology

At the end of these 1-hour interactive lectures, the students of the 4th year MBBS will be able to:

Topic	Teaching Strategy	Duration	Learning Objectives	Assessment Pattern
Uterine Motility Drugs and Tocolytics	Interactive Lecture # 34	1 hour	<ol style="list-style-type: none"> 1. Outline the pathophysiology of Uterine motility. 2. Classify the drugs used to increase and decrease uterine motility. 3. Explain the mechanism of action of Oxytocin, Magnesium Sulphate, Nifedipine, and Terbutaline. 4. List the pharmacokinetics, clinical uses, common adverse effects & contraindications of these drugs 	MCQs, SEQs & Structured Viva
Drugs used during lactation and possible effects on the nursing infant	Interactive Lecture # 35	1 hour	<ol style="list-style-type: none"> 1. Recognize the main pharmacological factors that control the passage of drugs from milk to the baby. 2. List the significant effects of drugs on the nursing infant. 3. List the drugs that can suppress and augment lactation. 	MCQs, SEQs & Structured Viva

Pharmacology

At the end of these 2 hours of small group discussion sessions, the students of the 4th year MBBS will be able to:

Topic	Teaching Strategy	Duration	Learning Objectives	Assessment Pattern
Polycystic ovarian syndrome	Tutorial # 22	2 hours	<ol style="list-style-type: none"> 1. Discuss the pharmacological management of the given case. 2. Discuss the rationale for prescribing the drugs for the pharmacological management of the given case. 	OSPE & Structured Viva
Hormonal Contraceptives (COCPs and POPs)	Tutorial # 23	2 hours	<ol style="list-style-type: none"> 1. Discuss the pharmacological management of the given case. 2. Discuss the rationale for prescribing the drugs for the pharmacological management of the given case. 	OSPE & Structured Viva
Misuse of anabolic steroids	Tutorial # 24	2 hours	<ol style="list-style-type: none"> 1. Discuss the adverse effects associated with the misuse of anabolic steroids. 	OSPE & Structured Viva
Teratogenic Drugs	Tutorial # 25	2 hours	<ol style="list-style-type: none"> 1. Identify the different fetal anomalies caused by the given teratogenic drug. 	OSPE & Structured Viva
Pharmacological Management of Primary Infertility	Tutorial # 26	2 hours	<ol style="list-style-type: none"> 1. Discuss the pharmacological management of the given case. 2. Discuss the rationale for prescribing Clomiphene citrate for the pharmacological management of the given case. 	OSPE & Structured Viva
Hormone Replacement Therapy (HRT)	Tutorial # 27	2 hours	<ol style="list-style-type: none"> 1. Discuss the pharmacological management of the given case. 2. Discuss the rationale for prescribing the drugs for the pharmacological management of the given case. 	OSPE & Structured Viva

Pharmacology

At the end of these 2 hours of practical sessions, the students of the 4th year MBBS will be able to:

Topic	Teaching Strategy	Duration	Learning Objectives	Assessment Pattern
Natural Remedies for PCOS (Black Cohosh and Melatonin)	Practical # 13	2 hours	<ol style="list-style-type: none"> List different herbal remedies used for polycystic ovarian syndrome (PCOS) along with the examples. List the uses of herbal remedies (Black Cohosh and Melatonin) used for PCOS. 	OSPE & Structured Viva
Identification of different Contraceptives (Oral, Parenteral & Implanted Contraceptives)	Practical # 14	2 hours	<ol style="list-style-type: none"> Discuss the pharmacological management of the given case. Discuss the rationale for prescribing the drugs for the pharmacological management of the given case. List different types of contraceptive drugs along with the examples. Identify different contraceptives. List the advantages and disadvantages of using different methods of contraception. 	OSPE & Structured Viva

Community Medicine

At the end of these 1-hour interactive lectures, the students of the 4th year MBBS will be able to:

Topic	Teaching Strategy	Duration	Learning Objectives	Assessment Pattern
Introduction to Reproductive Health	Interactive Lecture # 39	1 hour	<ol style="list-style-type: none"> 1. Define reproductive health. 2. List the components of reproductive health. 3. Define maternal mortality. 4. Explain the risk factors and causes of maternal mortality. 5. Discuss the strategies to reduce the maternal mortality rate. 	MCQs, SEQs, OSPE & Structured Viva
Safe motherhood	Interactive Lecture # 40	1 hour	<ol style="list-style-type: none"> 1. Define safe motherhood. 2. List the components of safe motherhood. 3. Define antenatal care. 4. Discuss the comprehensive antenatal care plan. 	MCQs, SEQs, OSPE & Structured Viva
Breastfeeding	Interactive Lecture # 41	1 hour	<ol style="list-style-type: none"> 1. Explain the benefits of breastfeeding. 2. Explain the significance of exclusive breastfeeding. 3. Describe the composition of human milk. 4. Differentiate between Human milk and Cow's milk in the context of their composition, nutritional content, and benefits for infants. 	MCQs, SEQs, OSPE & Structured Viva

Community Medicine

At the end of these 1-hour interactive lectures, the students of the 4th year MBBS will be able to:

Topic	Teaching Strategy	Duration	Learning Objectives	Assessment Pattern
Sexually Transmitted Diseases	Interactive Lecture # 42	1 hour	<ol style="list-style-type: none"> 1. Define sexually transmitted diseases (STDs). 2. List the common types and risk factors of STDs. 3. Discuss the prevention and management of STDs. 4. Explain the importance of addressing reproductive and sexual health in achieving sustainable development goals. 	MCQs, SEQs, OSPE & Structured Viva
Introduction to Biostatistics and Types of Data	Interactive Lecture # 43	1 hour	<ol style="list-style-type: none"> 1. Define Biostatistics. 2. Describe the basic concepts and uses of Biostatistics. 3. Define the data types with examples. 	MCQs, SEQs, OSPE & Structured Viva
Sampling methods	Interactive Lecture # 44	1 hour	<ol style="list-style-type: none"> 1. Define Sampling 2. Explain probability and non-probability sampling techniques. 3. Describe all sampling methods with examples. 	MCQs, SEQs, OSPE & Structured Viva
Summary measures	Interactive Lecture # 45	1 hour	<ol style="list-style-type: none"> 1. Define the measures of central tendency and measures of dispersion. 2. Describe all summary measures with examples and their applications. 	MCQs, SEQs, OSPE & Structured Viva

Community Medicine

At the end of these 1-hour interactive lectures, the students of the 4th year MBBS will be able to:

Topic	Teaching Strategy	Duration	Learning Objectives	Assessment Pattern
Data Presentation Methods and Tests of Significance	Interactive Lecture # 46	1 hour	<ol style="list-style-type: none"> 1. Describe the method of tabular data presentation. 2. Define the types of graphical presentation of data. 3. Describe the two common statistical tests of significance, i.e., the chi-square test and the t-test. 	MCQs, SEQs, OSPE & Structured Viva
Primary Health Care – I	Interactive Lecture # 47	1 hour	<ol style="list-style-type: none"> 1. Define primary health care and other important terms related to health care. 2. Describe the levels of healthcare. 3. Explain the importance of intersectoral coordination. 4. Describe the content and essential components of primary healthcare. 	MCQs, SEQs, OSPE & Structured Viva
Primary Health Care – II	Interactive Lecture # 48	1 hour	<ol style="list-style-type: none"> 1. List the elements of primary health care. 2. Explain the core principles of primary health care. 3. Discuss the structure of primary healthcare. 4. Explain the constraints of primary health care. 	MCQs, SEQs, OSPE & Structured Viva
Mental Health	Interactive Lecture # 49	1 hour	<ol style="list-style-type: none"> 1. Define mental health. 2. List the causes of mental illnesses. 3. Discuss the common mental health problems in Pakistan. 4. Explain the different levels of prevention of mental illness 	MCQs, SEQs, OSPE & Structured Viva

Community Medicine

At the end of these 1-hour interactive lectures, the students of the 4th year MBBS will be able to:

Topic	Teaching Strategy	Duration	Learning Objectives	Assessment Pattern
Drug/Substance Abuse	Interactive Lecture # 50	1 hour	<ol style="list-style-type: none"> 1. Define drug abuse, drug dependence & drug addiction. 2. Enumerate the criteria of a drug addict. 3. Discuss the magnitude of the problem of drug addiction. 4. Describe the prevention and control of drug addiction. 	MCQs, SEQs, OSPE & Structured Viva



Community Medicine Field Visit*

At the end of these Community Field Visits, the students of the 4th year MBBS will be able to:

Family Planning Association of Pakistan	<ol style="list-style-type: none"> 1. Participants will gain insights into the diverse range of reproductive health and family planning services offered by R-FPAP. 2. Participants will observe the integrated approach employed in the delivery of reproductive healthcare services.
Fatimid Blood Transfusion Services	<ol style="list-style-type: none"> 1. Participants will understand the processes and protocols implemented at Fatimid Blood Transfusion Services. 2. Participants will observe the various stages of blood collection, testing, processing, and storage, emphasizing the importance of maintaining high standards in blood transfusion services.

*List of proposed field visits of Community Medicine

Medicine & Allied

At the end of these 1-hour interactive lectures, the students of the 4th year MBBS will be able to:

Topic	Teaching Strategy	Duration	Learning Objectives	Assessment Pattern
Gestational Diabetes	Interactive Lecture # 21	1 hour	<ol style="list-style-type: none"> 1. Identify the symptoms and signs of Gestational Diabetes. 2. To make a differential diagnosis of Gestational Diabetes. 3. To discuss and formulate a treatment plan for Gestational Diabetes. 	MCQs
Hypertension in pregnancy	Interactive Lecture # 22	1 hour	<ol style="list-style-type: none"> 1. Identify the symptoms and signs of hypertension in pregnancy. 2. To make a differential diagnosis of hypertension in pregnancy. 3. To discuss and formulate a treatment plan for hypertension in pregnancy. 	MCQs

Surgery

At the end of these 1-hour interactive lectures, the students of the 4th year MBBS will be able to:

Topic	Teaching Strategy	Duration	Learning Objectives	Assessment Pattern
Breast Lump	Interactive Lecture # 21	1 hour	<ol style="list-style-type: none"> 1. Enumerate the risk factors for breast carcinoma. 2. Identify the clinical features and presentation of breast lumps. 3. Discuss the principles of management of breast lumps. 4. Describe the preventive measures, screening strategies, and patient counseling, including breast self-examination and routine mammography. 	MCQs
Scrotal Swellings	Interactive Lecture # 22	1 hour	<ol style="list-style-type: none"> 1. Classify scrotal swellings. 2. Describe the epidemiology and risk factors associated with common scrotal swellings in adults and children. 3. Recognize the clinical features of different scrotal swellings. 4. Outline management principles for various scrotal swellings, including conservative, medical, and surgical. 	MCQs

Surgery

At the end of these 1-hour interactive lectures, the students of the 4th year MBBS will be able to:

Topic	Teaching Strategy	Duration	Learning Objectives	Assessment Pattern
Testicular Tumors	Interactive Lecture # 23	1 hour	<ol style="list-style-type: none"> 1. Describe the epidemiology and risk factors of testicular carcinoma 2. Classify testicular tumors based on histopathology 3. Identify the clinical features of testicular carcinoma 4. Explain the diagnostic approach, including tumor markers (AFP, β-hCG, LDH). 5. Outline the principles of management, including radical inguinal orchiectomy, chemotherapy, radiotherapy, and follow-up strategies. 	MCQs
Benign Prostatic Hyperplasia	Interactive Lecture # 24	1 hour	<ol style="list-style-type: none"> 1. Describe the anatomy of the prostate and explain the pathophysiology of Benign Prostatic Hyperplasia. 2. Identify the clinical features of BPH, differentiating between obstructive and irritative lower urinary tract symptoms (LUTS). 3. Outline the appropriate investigations for BPH. 4. Discuss the principles of management of BPH, including conservative, medical (alpha-blockers, 5-alpha reductase inhibitors), and surgical options such as TURP. 	MCQs

Gynecology and Obstetrics

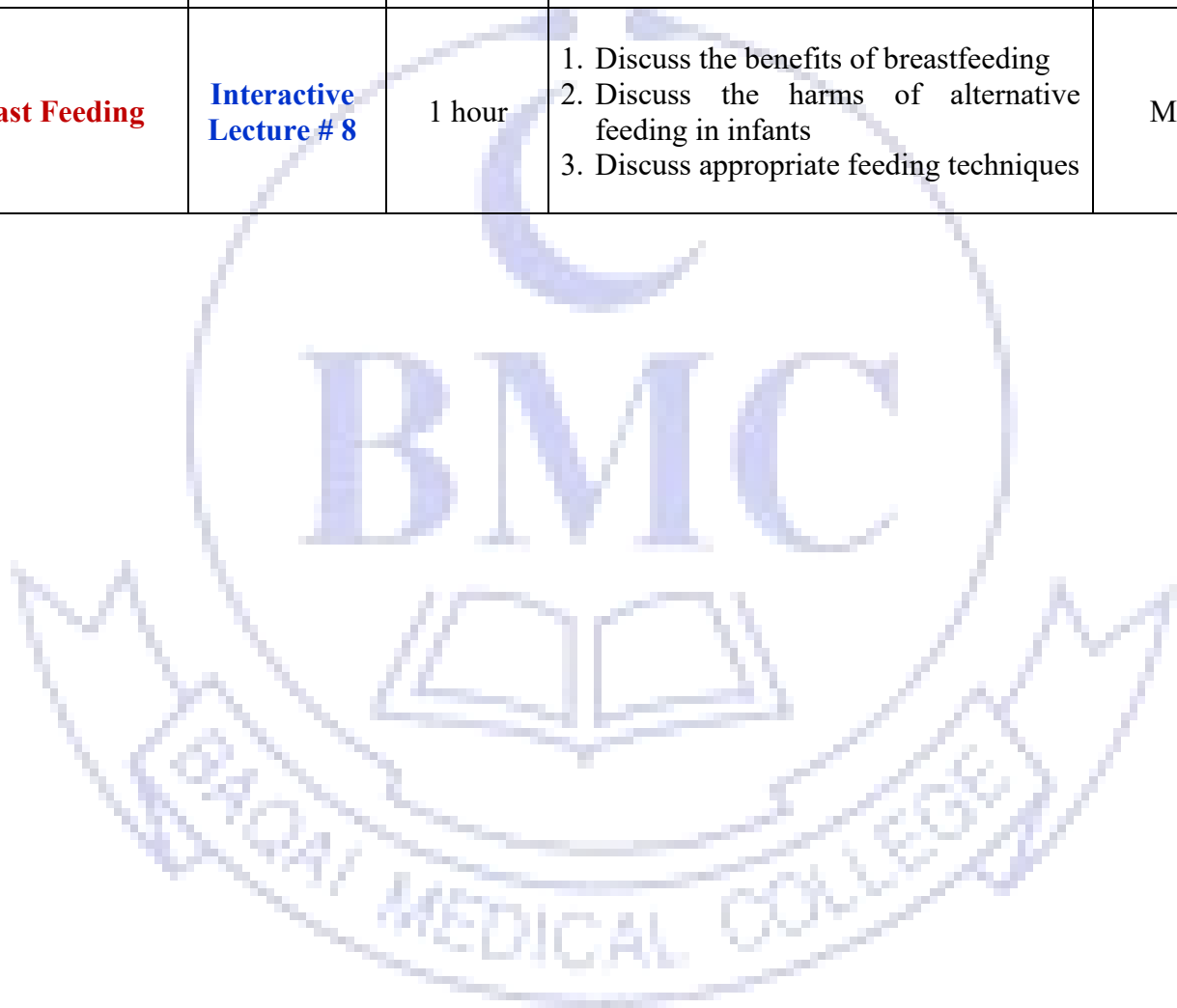
At the end of this 1-hour interactive lecture, the students of the 4th year MBBS will be able to:

Topic	Teaching Strategy	Duration	Learning Objectives	Assessment Pattern
Pathophysiology of Pelvic Inflammatory Disease (PID)	Interactive Lecture # 7	1 hour	<ol style="list-style-type: none"> 1. Define Pelvic inflammatory disease. 2. Describe the pathogenesis of pelvic inflammatory disease. 	MCQs
Tuberculosis Pelvic Inflammatory Disease	Interactive Lecture # 8	1 hour	<ol style="list-style-type: none"> 1. Discuss the pathophysiology of pelvic tuberculosis. 2. Explain the consequences of pelvic tuberculosis. 	MCQs
Polycystic Ovarian Syndrome	Interactive Lecture # 9	1 hour	<ol style="list-style-type: none"> 1. Define Polycystic Ovarian Syndrome (PCOS). 2. Discuss the morphology of PCOS. 	MCQs
Pathogenesis of Polycystic Ovarian Syndrome	Interactive Lecture # 10	1 hour	<ol style="list-style-type: none"> 1. Discuss the Pathogenesis of PCOS. 2. Differentiate adolescent PCOS from adult PCOS based on its diagnostic criteria. 	MCQs

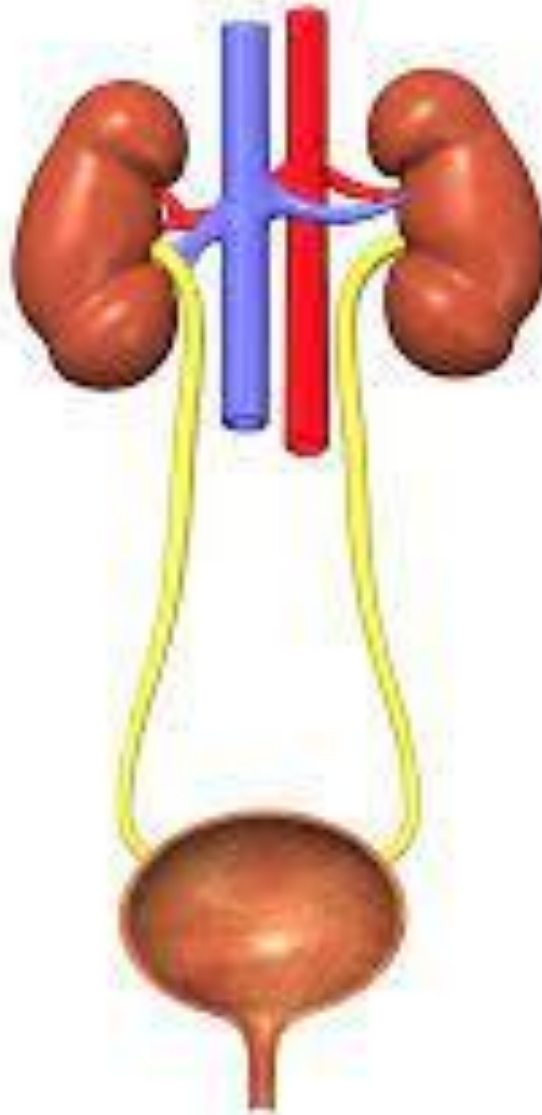
Pediatrics

At the end of this 1-hour interactive lecture, the students of the 4th year MBBS will be able to:

Topic	Teaching Strategy	Duration	Learning Objectives	Assessment Pattern
Breast Feeding	Interactive Lecture # 8	1 hour	<ol style="list-style-type: none"> 1. Discuss the benefits of breastfeeding 2. Discuss the harms of alternative feeding in infants 3. Discuss appropriate feeding techniques 	MCQs



RENAL MODULE



Module V

Renal Module

INTRODUCTION TO MODULE – V



<i>Module – V</i>	
<i>Renal Module</i>	
System	Renal System
Duration	4 Weeks (11 th August 2026 to 4 th September 2026)
Assessment Dates	Monday 7 th September 2026
Assessment Pattern	MCQs, SEQs & OSPE

*The Assessment pattern and dates are tentative (Subject to change)

MODULE RATIONALE

The Renal module revisits renal anatomy, physiology, and acid–base balance and integrates them with pathology, pharmacology, and internal medicine. Spiral integration enhances clinical reasoning related to fluid, electrolyte, and acid–base disorders, enabling students to manage common renal conditions encountered in clinical practice.

MODULE LEARNING OUTCOMES

At the end of this module, the students of the 4th year MBBS will be able to:

1. Explain renal mechanisms involved in fluid, electrolyte, and acid–base homeostasis.
2. Correlate renal pathophysiology with clinical presentations of kidney diseases.
3. Interpret renal function tests, urinalysis, and imaging findings.
4. Differentiate acute and chronic renal disorders and glomerular from tubular diseases.
5. Apply initial management strategies for common renal and electrolyte disorders.
6. Assess indications for referral, dialysis, and preventive nephrology care.



Pathology

At the end of these 1-hour interactive lectures, the students of the 4th year MBBS will be able to:

Topic	Teaching Strategy	Duration	Learning Objectives	Assessment Pattern
Clinical manifestations of renal diseases	Interactive Lecture # 92	1 hour	<ol style="list-style-type: none"> 1. Define different terms, e.g., azotemia, uremia, urinary tract infection, nephrolithiasis, and nephrosclerosis. 2. Describe the major renal syndromes: acute nephritic syndrome, nephrotic syndrome, rapid progressive glomerulonephritis, acute renal failure, chronic renal failure, and renal tumors. 	MCQs, SEQs & Structured Viva
Glomerular Diseases	Interactive Lecture # 93	1 hour	<ol style="list-style-type: none"> 1. Classify Glomerular diseases. 2. Explain the pathologic response of the Glomerulus to injury. 3. Discuss the etiological causes, pathogenesis, and morphology of Primary glomerular disease. 4. Comprehend pathogenesis, morphology, and clinical manifestations of the Glomerular diseases secondary to systemic diseases. 	MCQs, SEQs & Structured Viva
Glomerulonephritis	Interactive Lecture # 94	1 hour	<ol style="list-style-type: none"> 1. Define and classify Glomerulonephritis. 2. Comprehend focal segmental glomerulonephritis, membranous glomerulonephritis, post-streptococcal glomerulonephritis, and rapidly progressive glomerulonephritis based on their etiology, pathogenesis, clinical features, and morphology. 	MCQs, SEQs & Structured Viva

Pathology

At the end of these 1-hour interactive lectures, the students of the 4th year MBBS will be able to:

Topic	Teaching Strategy	Duration	Learning Objectives	Assessment Pattern
Nephrotic and Nephritic Syndrome	Interactive Lecture # 95	1 hour	<ol style="list-style-type: none"> Describe the causes, pathophysiology, morphology, and clinical manifestations of Nephrotic syndrome. Discuss Nephritic syndrome based on its causes, pathogenesis, morphology, and clinical features. Discuss the etiology, pathophysiology, clinical features, and morphology of minimal change disease. 	MCQs, SEQs & Structured Viva
Renal Tubular and Interstitial Diseases	Interactive Lecture # 96	1 hour	<ol style="list-style-type: none"> Describe the causes, pathogenesis, morphology, and clinical features of acute renal tubular injury/necrosis. Enumerate the causes of Tubulointerstitial Nephritis. Discuss the pathogenesis, clinical, and morphological features of Tubular-interstitial Nephritis. Differentiate between Acute and Chronic Pyelonephritis based on causes, pathogenesis, clinical features, and morphology. Explain the causes, pathogenesis, and clinical features of Drug-induced Tubulo-nephritis. 	MCQs, SEQs & Structured Viva

Pathology

At the end of these 1-hour interactive lectures, the students of the 4th year MBBS will be able to:

Topic	Teaching Strategy	Duration	Learning Objectives	Assessment Pattern
Diseases involving Renal Blood Vessels	Interactive Lecture # 97	1 hour	<ol style="list-style-type: none"> 1. Differentiate the causes, pathogenesis, clinical features, and morphology of Nephrosclerosis and Malignant Nephrosclerosis. 2. Discuss the pathogenesis, morphology, and clinical course of Renal artery stenosis. 3. Define and classify Thrombotic Microangiopathies. 4. Differentiate Hemolytic Uremic Syndrome (HUS) and Thrombotic Thrombocytopenic purpura (TTP) based on their pathology, and clinical and morphological features. 	MCQs, SEQs & Structured Viva
Renal Neoplasms	Interactive Lecture # 98	1 hour	<ol style="list-style-type: none"> 1. Classify benign and malignant renal tumors. 2. Summarize the pathogenesis and morphology of benign renal tumors. 3. Discuss the types, etiology, pathogenesis, clinical features, and morphology of Renal Cell Carcinoma. 4. Explain the causes, pathogenesis, morphology, and clinical features of Wilms Tumor. 	MCQs, SEQs & Structured Viva

Pathology

At the end of these 1-hour interactive lectures, the students of the 4th year MBBS will be able to:

Topic	Teaching Strategy	Duration	Learning Objectives	Assessment Pattern
Cystic Diseases of the Kidney	Interactive Lecture # 99	1 hour	<ol style="list-style-type: none"> 1. Classify renal cystic diseases. 2. Differentiate between adult and childhood polycystic kidney disease in terms of etiology, pathophysiology, clinical manifestations, and morphology. 3. Describe the types, etiology, pathology, clinical features, and morphology of cystic diseases of the renal medulla. 4. Discuss the causes, pathogenesis, morphological and clinical features of simple renal cysts, multi-cystic renal dysplasia, and acquired (dialysis-associated) cystic diseases. 	MCQs, SEQs & Structured Viva
Nephropathy due to Systemic diseases	Interactive Lecture # 100	1 hour	<ol style="list-style-type: none"> 1. Discuss Diabetic nephropathy based on causes, pathogenesis, clinical features, morphology, and its complications. 2. Explain the causes, pathogenesis, clinical features, and morphology of nephropathy due to amyloidosis. 3. Describe the causes, pathogenesis, morphology, and clinical features of nephropathy due to SLE. 4. Summarize the pathogenesis and clinical features of HIV-induced nephropathy. 	MCQs, SEQs & Structured Viva

Pathology

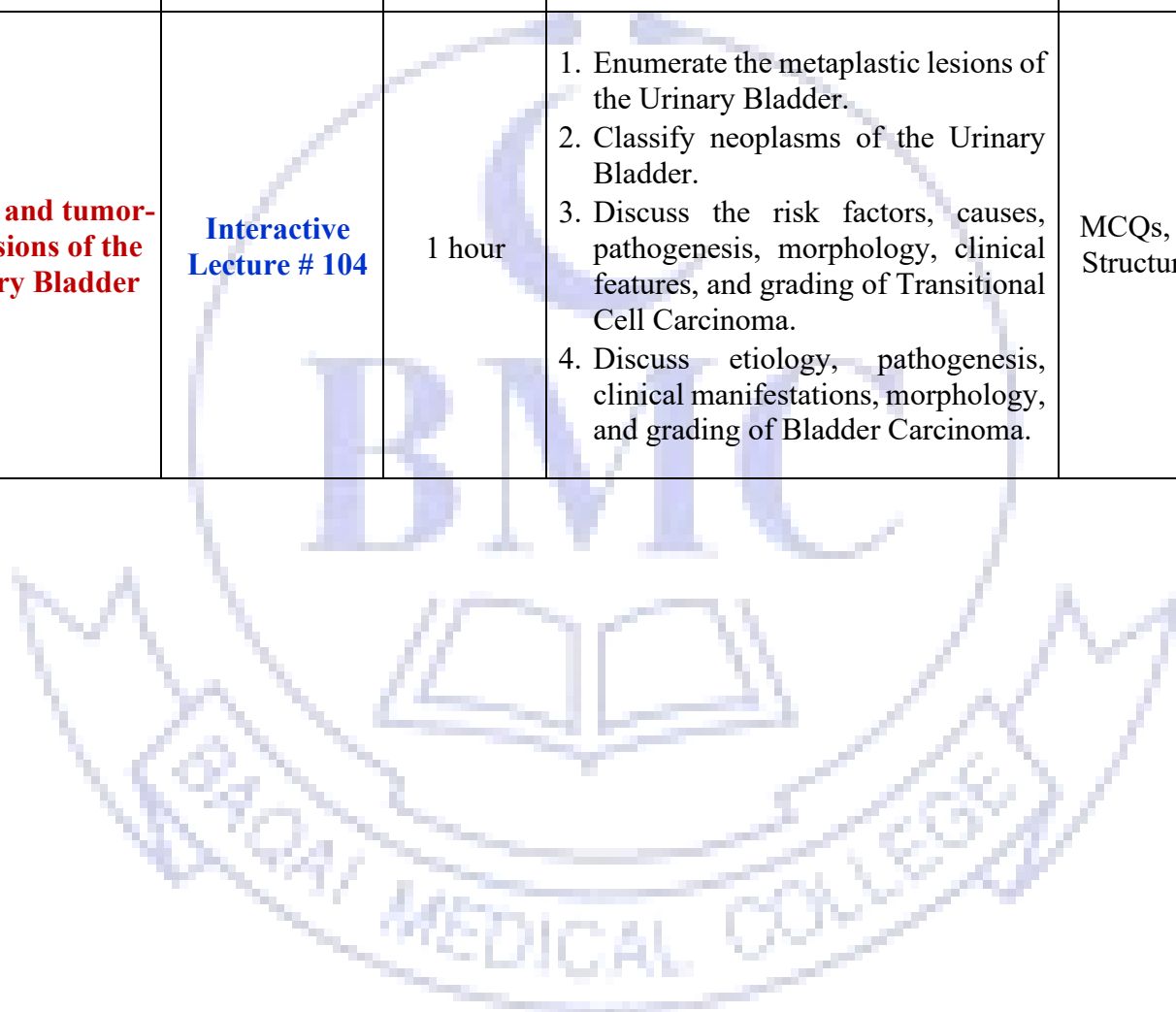
At the end of these 1-hour interactive lectures, the students of the 4th year MBBS will be able to:

Topic	Teaching Strategy	Duration	Learning Objectives	Assessment Pattern
Renal Failure	Interactive Lecture # 101	1 hour	<ol style="list-style-type: none"> 1. Define renal failure. 2. Discuss the causes, risk factors, pathogenesis, clinical features, and morphology of acute renal failure. 3. Describe the predisposing factors, pathogenesis, clinical features, and morphology of chronic renal failure. 4. Comprehend the complications of renal failure. 	MCQs, SEQs & Structured Viva
Urinary Outflow Obstruction	Interactive Lecture # 102	1 hour	<ol style="list-style-type: none"> 1. Define Obstructive Uropathy. 2. Enumerate the major causes of Urinary outflow obstruction. 3. Discuss the causes, pathogenesis, clinical features, and morphology of Hydro-nephrosis. 4. Define and classify Urolithiasis. 5. Describe the types, causes, pathogenesis, morphology, and clinical features of Urolithiasis. 	MCQs, SEQs & Structured Viva
Urinary Tract Infections	Interactive Lecture # 103	1 hour	<ol style="list-style-type: none"> 1. Classify urinary tract infections. 2. Differentiate between acute and chronic pyelonephritis based on causes, pathogenesis, morphology, clinical features, and complications. 3. Discuss the causes, pathogenesis, morphology, and clinical features of Cystitis. 4. Discuss the etiology, pathogenesis, clinical manifestations, and morphology of Malakoplakia. 	MCQs, SEQs & Structured Viva

Pathology

At the end of these 1-hour interactive lectures, the students of the 4th year MBBS will be able to:

Topic	Teaching Strategy	Duration	Learning Objectives	Assessment Pattern
Tumor and tumor-like lesions of the Urinary Bladder	Interactive Lecture # 104	1 hour	<ol style="list-style-type: none"> 1. Enumerate the metaplastic lesions of the Urinary Bladder. 2. Classify neoplasms of the Urinary Bladder. 3. Discuss the risk factors, causes, pathogenesis, morphology, clinical features, and grading of Transitional Cell Carcinoma. 4. Discuss etiology, pathogenesis, clinical manifestations, morphology, and grading of Bladder Carcinoma. 	MCQs, SEQs & Structured Viva



Pathology

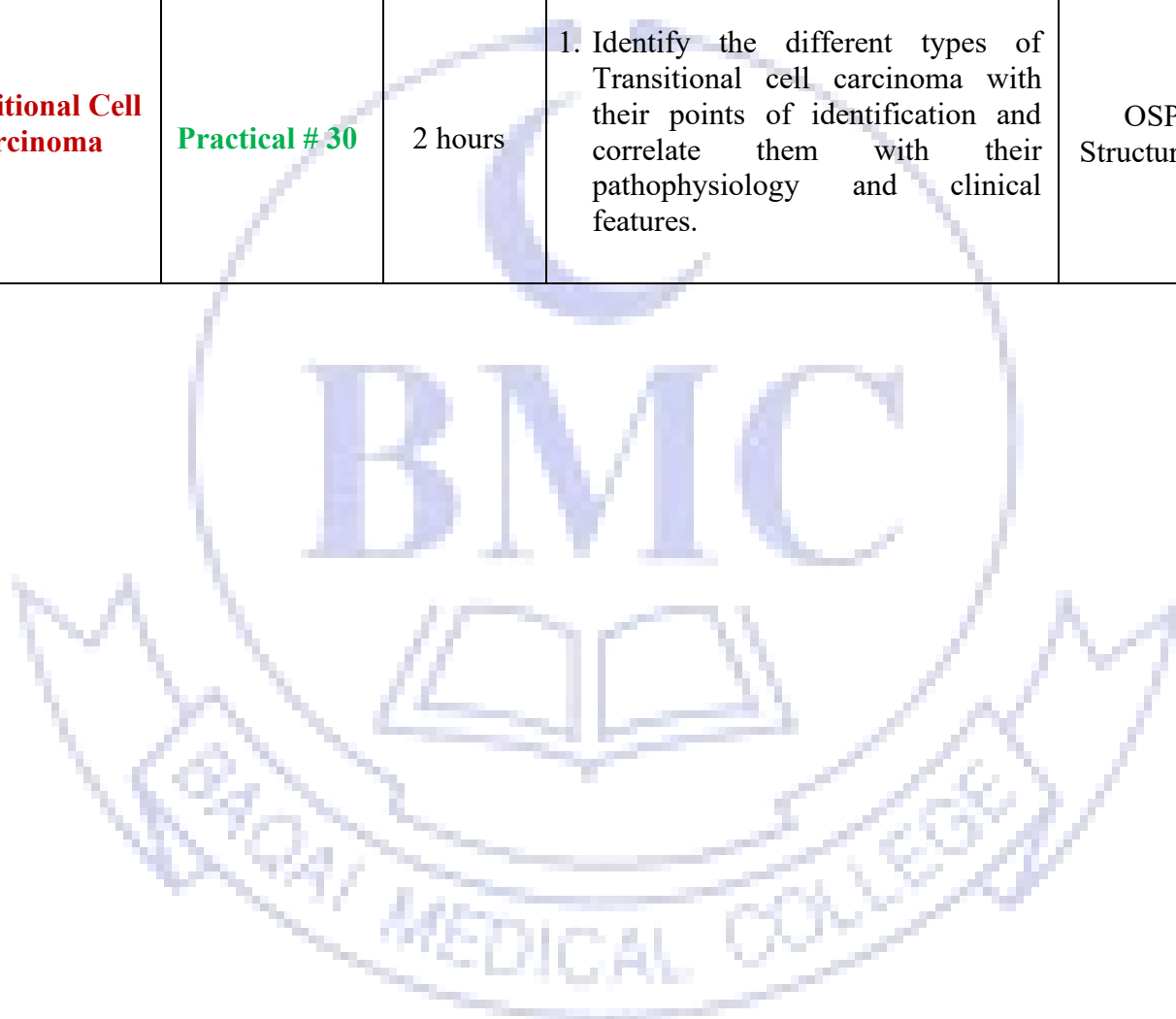
At the end of these 2-hour practical sessions, the students of the 4th year MBBS will be able to:

Topic	Teaching Strategy	Duration	Learning Objectives	Assessment Pattern
Morphological changes of different renal disorders	Practical # 26	2 hours	1. Recognize the morphological changes of glomerulonephritis, nephropathy, nephrosclerosis, minimal change disease, acute tubular injury, and renal failure.	OSPE & Structured Viva
Manifestations of Glomerular Diseases	Practical # 27	2 hours	1. Classify glomerular diseases. 2. Differentiate between primary and secondary glomerular diseases in terms of their causes, mechanisms, and clinical manifestations. 3. Identify the differentiating gross and microscopic features of primary and secondary glomerular diseases with their points of identification and correlate them with their pathophysiology and clinical features.	OSPE & Structured Viva
Renal Tumors	Practical # 28	2 hours	1. Identify the different types of renal tumors with their points of identification and correlate them with their pathophysiology and clinical features.	OSPE & Structured Viva
Urolithiasis	Practical # 29	2 hours	1. Identify the different types of renal stones with their points of identification and correlate them with their pathophysiology and clinical features.	OSPE & Structured Viva

Pathology

At the end of these 2-hour practical sessions, the students of the 4th year MBBS will be able to:

Topic	Teaching Strategy	Duration	Learning Objectives	Assessment Pattern
Transitional Cell Carcinoma	Practical # 30	2 hours	1. Identify the different types of Transitional cell carcinoma with their points of identification and correlate them with their pathophysiology and clinical features.	OSPE & Structured Viva



Pharmacology

At the end of these 1-hour interactive lectures, the students of the 4th year MBBS will be able to:

Topic	Teaching Strategy	Duration	Learning Objectives	Assessment Pattern
Diuretics - I	Interactive Lecture # 36	1 hour	<ol style="list-style-type: none"> 1. Define diuretics. 2. Classify diuretics. 3. Explain the mechanism of action of Furosemide. 4. List the pharmacokinetics, clinical uses, common adverse effects & contraindications of this drug 	MCQs, SEQs & Structured Viva
Diuretics - II	Interactive Lecture # 37	1 hour	<ol style="list-style-type: none"> 1. Explain the mechanism of action of Hydrochlorothiazide, Mannitol, and Spironolactone. 2. List the pharmacokinetic properties of these drugs. 3. List common clinical uses of these drugs. 4. List common adverse effects and contraindications of these drugs. 	MCQs, SEQs & Structured Viva
Antidiuretics	Interactive Lecture # 38	1 hour	<ol style="list-style-type: none"> 1. Classify antidiuretic hormone agonists and antagonists. 2. Explain the mechanism of action of Desmopressin and Conivaptan. 3. List the pharmacokinetics, clinical uses, common adverse effects & contraindications of these drugs 	MCQs, SEQs &

Pharmacology

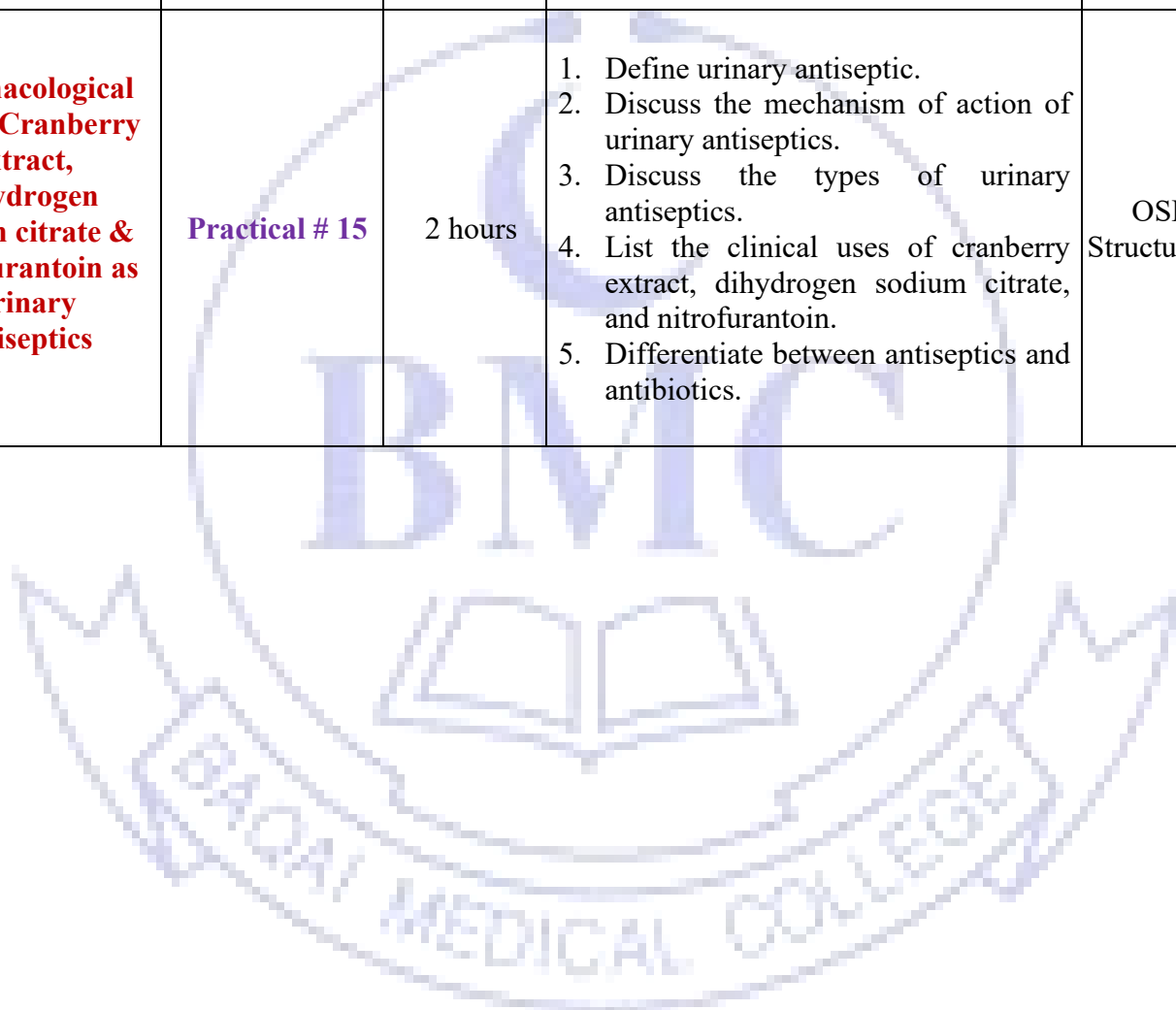
At the end of these 2 hours of Tutorial sessions, the students of the 4th year MBBS will be able to:

Topic	Teaching Strategy	Duration	Learning Objectives	Assessment Pattern
Prescription Writing on Diuretics	Tutorial # 27	2 hours	<ol style="list-style-type: none"> 1. Discuss the rationale for prescribing the drugs for the pharmacological management of the given case. 2. Discuss the pharmacological management of the given case. 	OSPE & Structured Viva
Prescription writing on Diabetes Insipidus	Tutorial # 28	2 hours	<ol style="list-style-type: none"> 1. Discuss the rationale for prescribing the drugs for the pharmacological management of the given case. 2. Discuss the pharmacological management of the given case. 	OSPE & Structured Viva
Prescription writing on UTI & Sexually Transmitted Disease	Tutorial # 29	2 hours	<ol style="list-style-type: none"> 1. Discuss the rationale for prescribing the drugs for the pharmacological management of the given case. 2. Discuss the pharmacological management of the given case. 	OSPE & Structured Viva
Pharmacological role of Cranberry extract, dihydrogen sodium citrate & Nitrofurantoin as Urinary antiseptics	Practical # 15	2 hours	<ol style="list-style-type: none"> 1. Define urinary antiseptic. 2. Discuss the mechanism of action of urinary antiseptics. 3. Discuss the types of urinary antiseptics. 4. List the clinical uses of cranberry extract, dihydrogen sodium citrate, and nitrofurantoin. 5. Differentiate between antiseptics and antibiotics. 	OSPE & Structured Viva

Pharmacology

At the end of these 2 hours of practical sessions, the students of the 4th year MBBS will be able to:

Topic	Teaching Strategy	Duration	Learning Objectives	Assessment Pattern
Pharmacological role of Cranberry extract, dihydrogen sodium citrate & Nitrofurantoin as Urinary antiseptics	Practical # 15	2 hours	<ol style="list-style-type: none"> 1. Define urinary antiseptic. 2. Discuss the mechanism of action of urinary antiseptics. 3. Discuss the types of urinary antiseptics. 4. List the clinical uses of cranberry extract, dihydrogen sodium citrate, and nitrofurantoin. 5. Differentiate between antiseptics and antibiotics. 	OSPE & Structured Viva



Community Medicine

At the end of these 1-hour interactive lectures, the students of the 4th year MBBS will be able to:

Topic	Teaching Strategy	Duration	Learning Objectives	Assessment Pattern
Introduction to Environmental Health / Air Pollution	Interactive Lecture # 51	1 hour	<ol style="list-style-type: none"> 1. Define environmental health. 2. List the various environmental factors that can affect human health. 3. Define air pollution and its primary sources. 4. Discuss major air pollutants and their effect on human health. 	MCQs, SEQs, OSPE & Structured Viva
Water pollution	Interactive Lecture # 52	1 hour	<ol style="list-style-type: none"> 1. Define water pollution and list the types of water pollutants. 2. Explain the environmental health risks of water pollution. 3. Define Water Purification. 4. Discuss different types of water purification methods. 	MCQs, SEQs, OSPE & Structured Viva
Noise pollution/ Radiations	Interactive Lecture # 53	1 hour	<ol style="list-style-type: none"> 1. Define noise pollution. 2. Explain the common environmental noise sources and their effects on human health. 3. Explain the hazards of radiation. 4. Describe the methods and strategies aimed at controlling radiation exposure. 	MCQs, SEQs, OSPE & Structured Viva

Community Medicine

At the end of these 1-hour interactive lectures, the students of the 4th year MBBS will be able to:

Topic	Teaching Strategy	Duration	Learning Objectives	Assessment Pattern
Housing	Interactive Lecture # 54	1 hour	<ol style="list-style-type: none"> 1. Explain the role of housing as a determinant of health and its impact on well-being. 2. List the housing quality parameters. 3. Describe the common housing hazards and their impact on human health. 4. Discuss the problems of urban, rural, and slum housing. 	MCQs, SEQs, OSPE & Structured Viva
Snake Bite	Interactive Lecture # 55	1 hour	<ol style="list-style-type: none"> 1. Enumerate the risk factors of snake bite incidents. 2. Describe the signs and symptoms of a snake bite. 3. Discuss the management and prevention strategies for snake bites. 	MCQs, SEQs, OSPE & Structured Viva
Demography	Interactive Lecture # 56	1 hour	<ol style="list-style-type: none"> 1. Define terms related to demography. 2. Differentiate between fertility and fecundity. 3. List the causes of high fertility. 4. Calculate the basic fertility measures. 	MCQs, SEQs, OSPE & Structured Viva

Community Medicine

At the end of these 1-hour interactive lectures, the students of the 4th year MBBS will be able to:

Topic	Teaching Strategy	Duration	Learning Objectives	Assessment Pattern
Mortality & Morbidity	Interactive Lecture # 57	1 hour	<ol style="list-style-type: none"> 1. Differentiate between mortality and morbidity. 2. Explain the reasons for high mortality in the past and the causes of mortality decline. 3. Discuss the health indicators of Pakistan. 	MCQs, SEQs, OSPE & Structured Viva
Population Pyramid	Interactive Lecture # 58	1 hour	<ol style="list-style-type: none"> 1. Discuss the population pyramid. 2. Explain the interpretation of the population pyramid. 3. Describe the demographic transition and its public health importance. 	MCQs, SEQs, OSPE & Structured Viva

Community Medicine Field Visit*

At the end of these Community Field Visits, the students of the 4th year MBBS will be able to:

<p style="text-align: center;">Water Treatment Plant</p> <p style="text-align: center;">Gulshan E Iqbal, Karachi</p>	<ol style="list-style-type: none"> 1. Participants will explore the German and French water treatment technologies utilized at the plant. 2. Participants will observe the day-to-day operational procedures of the Water Treatment Plant, from water intake to the final distribution
<p style="text-align: center;">Slaughterhouse Landhi,</p> <p style="text-align: center;">Bhens Colony, Karachi.</p>	<ol style="list-style-type: none"> 1. Participants will gain firsthand insights into the ethical animal handling practices employed at the Slaughterhouse in Landhi, Bhens Colony, Karachi. 2. Participants will observe the procedures and protocols in place to ensure humane treatment, emphasizing the facility's commitment to ethical standards in the meat production process.

*List of proposed Community Medicine field visits.

Medicine & Allied				
At the end of these 1-hour interactive lectures, the students of the 4th year MBBS will be able to:				
Topic	Teaching Strategy	Duration	Learning Objectives	Assessment Pattern
Laboratory Interpretation of Renal Profile	Interactive Lecture # 23	1 hour	<ol style="list-style-type: none"> 1. Define Renal Profile and Its Clinical Importance 2. Identify the Key Components of a Renal Profile 3. Interpret Renal Profile Results in Clinical Context 4. Discuss the Clinical Applications of Renal Profile 5. Explain the Limitations and Further Investigations 	MCQs
Urinary Tract Infection	Interactive Lecture # 24	1 hour	<ol style="list-style-type: none"> 1. Identify the symptoms and signs of urinary tract infection (UTI). 2. Make a differential diagnosis. 3. Discuss and formulate a treatment plan. 	MCQs
Nephrotic Syndrome	Interactive Lecture # 25	1 hour	<ol style="list-style-type: none"> 1. Describe the clinical features along with the etiopathology of Nephrotic Syndrome. 2. Discuss the necessary investigations for Nephrotic Syndrome. 	MCQs
Nephritic Syndrome	Interactive Lecture # 26	1 hour	<ol style="list-style-type: none"> 1. Describe the clinical features along with the etiopathology of Nephritic Syndrome. 2. Discuss the necessary investigations for Nephritic Syndrome. 	MCQs

Medicine & Allied

At the end of these 1-hour interactive lectures, the students of the 4th year MBBS will be able to:

Topic	Teaching Strategy	Duration	Learning Objectives	Assessment Pattern
Renal Failure	Interactive Lecture # 27	1 hour	<ol style="list-style-type: none"> 1. Define and classify Renal Failure 2. Differentiate between acute kidney injury (AKI) & chronic kidney disease 3. Identify risk factors for renal failure 4. Recognize clinical features 5. Outline diagnostic investigations 6. Discuss complications of renal failure. 	MCQs



Surgery & Allied

At the end of these two 1-hour interactive lectures, the students of the 4th year MBBS will be able to:

Topic	Teaching Strategy	Duration	Learning Objectives	Assessment Pattern
Urolithiasis	Interactive Lecture 25	1 hour	<ol style="list-style-type: none"> 1. Describe the pathophysiology of Urolithiasis 2. Identify risk factors and etiological factors of Urolithiasis 3. Recognize clinical presentation of Urolithiasis 4. Outline the diagnostic approach to Urolithiasis 5. Discuss management strategies of Urolithiasis. 	MCQs
Hematuria	Interactive Lecture 26	1 hour	<ol style="list-style-type: none"> 1. Identify common causes of hematuria. 2. Recognize key clinical features of hematuria. 3. Outline the diagnostic approach to hematuria. 4. Describe initial management principles of hematuria. 	MCQs
Urinary tract infections	Interactive Lecture 27	1 hour	<ol style="list-style-type: none"> 1. Identify common etiological organisms and risk factors, 2. Recognize clinical features of UTI and complicated UTIs. 3. Outline the diagnostic approach of UTI. 4. Describe evidence-based management of UTI. 5. prophylactic therapy and addressing modifiable risk factors. 	MCQs

Surgery & Allied

At the end of these two 1-hour interactive lectures, the students of the 4th year MBBS will be able to:

Topic	Teaching Strategy	Duration	Learning Objectives	Assessment Pattern
Malignant Lesions of the Urinary Tract	Interactive Lecture 28	1 hour	<ol style="list-style-type: none"> 1. Classify malignant lesions of the urinary tract, including renal cell carcinoma, transitional cell (urothelial) carcinoma, and squamous cell carcinoma. 2. Identify major risk factors and etiological associations of malignant lesions of the urinary tract 3. Recognize clinical features of urinary tract malignancies. 4. Describe the principles of management of malignant lesions of the urinary tract. 	MCQs

Pediatrics

At the end of this 1-hour interactive lecture, the students of the 4th year MBBS will be able to:

Topic	Teaching Strategy	Duration	Learning Objectives	Assessment Pattern
Hematuria	Interactive Lecture # 9	1 hour	<ol style="list-style-type: none"> 1. Define hematuria 2. Classify the causes of hematuria 3. Interpret basic investigations of hematuria. 4. Outline management of common conditions 	MCQs
Urinary tract infection	Interactive Lecture # 10	1 hour	<ol style="list-style-type: none"> 1. Recall the causative organisms of urinary tract infections 2. Classify urinary tract infections 3. Describe clinical features of urinary tract infections 4. Describe the pathophysiology of urinary tract infections 5. Describe management of urinary tract infections 	MCQs

- Please note that the Study guides of Ophthalmology and ENT are separately available for ready reference for the Special Senses Module.



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