



2024

BAQAI MEDICAL COLLEGE 4TH YEAR MBBS



STUDY GUIDE

ENDOCRINOLOGY MODULE

SPIRAL II – INTEGRATED CURRICULUM
STUDY GUIDE FOR THE STUDENTS OF
4th YEAR MBBS SESSION 2024- 2025



BAQAI MEDICAL COLLEGE
BAQAI MEDICAL UNIVERSITY

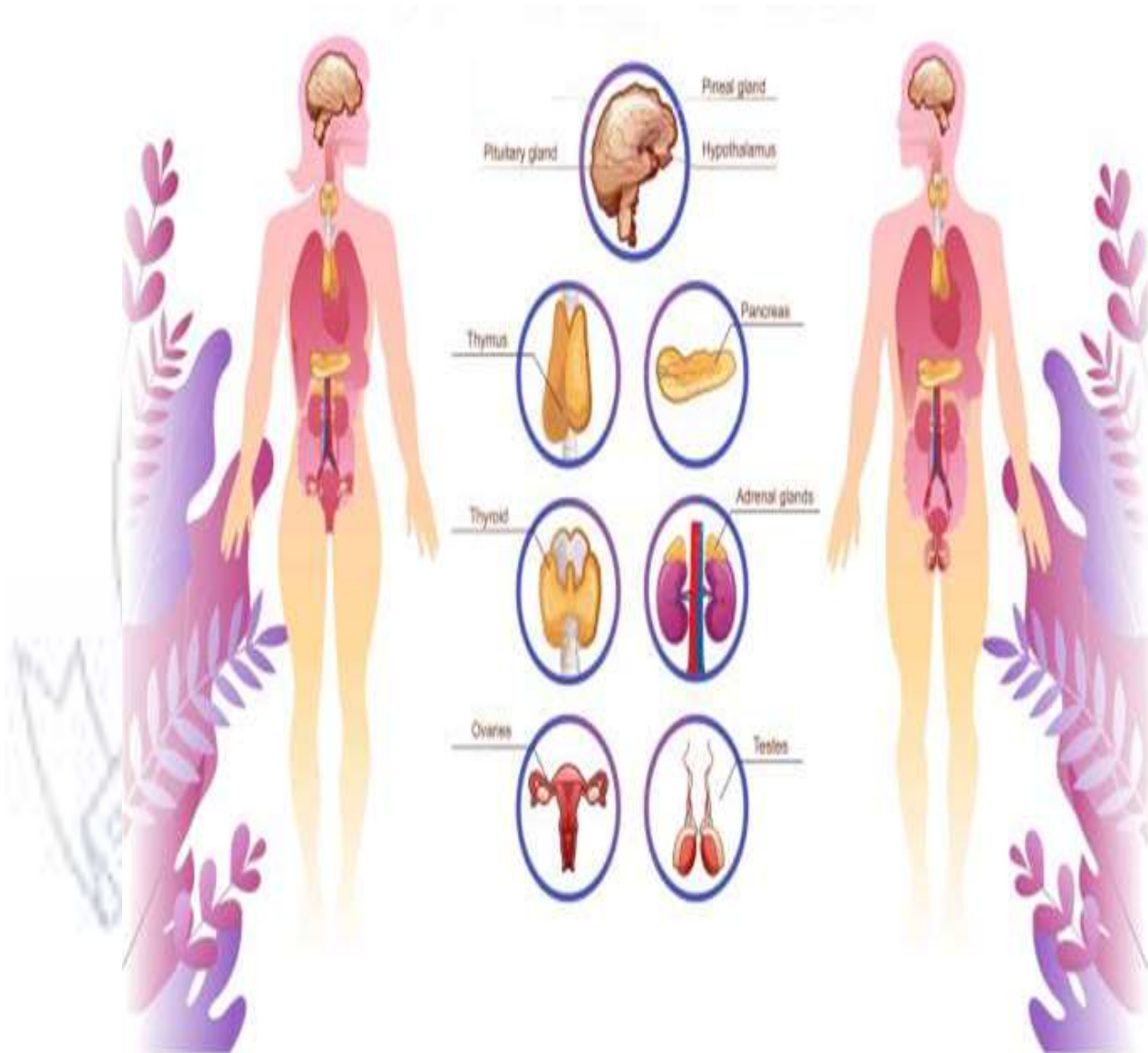
51-Deh Tor, Gadap Road, Superhighway. P.O Box: 2407, Karachi-75340, Pakistan.

(092-21)34410-293 to 298, 34410-427 to 430

Fax: (092-21)34410-317, 34410-431

Email: info@baqai.edu.pk, Web: www.baqai.edu.pk/

INTEGRATED MODULAR COURSE STUDY GUIDE



ENDOCRINOLOGY

Table of Contents



S No	Details	Page No
1.	Preface	4
2.	Vision & Mission of BMU & BMC	5
3.	Curriculum Integration Committee (CIC) Spiral II	6
4.	Teaching Methodologies	7
5.	Introduction to Module – III	9
6.	Learning Objectives of Pathology	10
7.	Learning Objectives of Pharmacology & Therapeutics	18
8.	Learning Objectives of Community Medicine	24
9.	Learning Objectives of Medicine	27
10.	Learning Objectives of Surgery	28
11.	Learning Objectives of Pediatrics	30
12.	Learning Objectives of Obstetrics & Gynecology	30
13.	Learning Objectives of Bioethics & Research	31
14.	Assessment Method	32
15.	Suggested Reading Books	33
16.	Suggested Website & Search Engine	36
16.	Weekly Timetables	39



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.

<i>Vision</i>	<i>Mission</i>
	
<i>Baqai Medical University</i>	
<p>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”.</p>	<p>The mission of Baqai Medical University is to be recognized as a center of excellence in education, research, patient care, and community services by producing highly capable and knowledgeable professionals.</p>
<i>Baqai Medical College</i>	
<p>Our vision is to enhance access and excellence in medical education and research, with the aim of capacity building of students and faculty through innovations, and science and technology competencies, to achieve rapid and sustainable health. The medical graduate thus produced, will be informed, and trained enough to serve the community better, and to be an advisor to the national and international health organizations.</p>	<p>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.</p>

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 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.

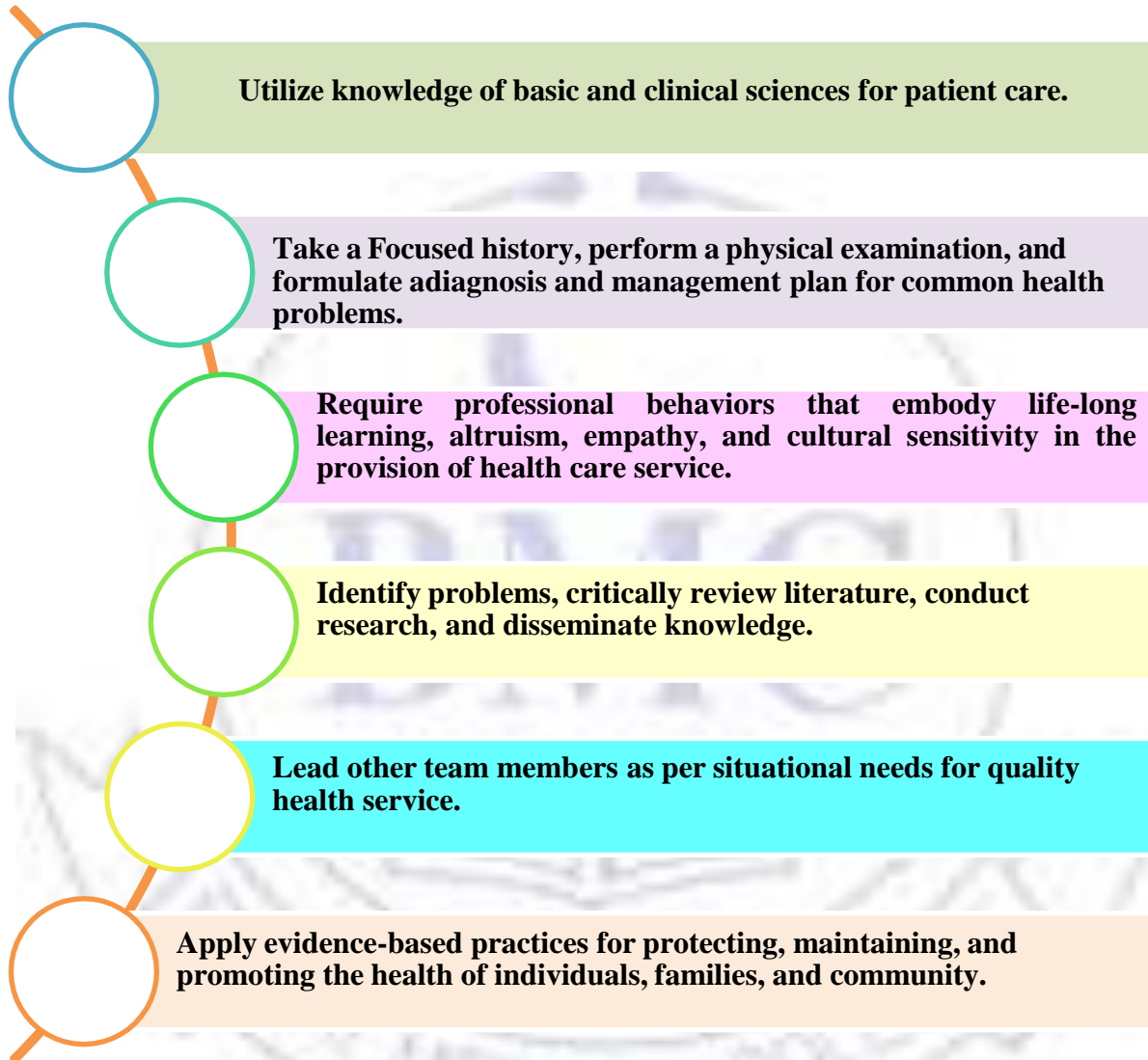
Hence, the Integrated Curriculum (SPIRAL-II) for 4th year MBBS embodies a paradigm shift in medical education, where integration, correlation, and multidisciplinary collaboration converge to cultivate competent and compassionate healthcare professionals. Join us as we embark on this transformative journey,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



Integration is Key

OUTCOMES OF THE MBBS PROGRAM

The Baqai University graduate of the MBBS program will be able to:



BAQAI MEDICAL COLLEGE

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, MPhil, CHPE	Professor
Dr. Muhammad Rizwan drmrizwan@baqai.edu.pk	MBBS, M Phil, CHPE, CHQP	Associate Professor
Dr. Maeesa Sajeel drmaeesasajeel@baqai.edu.pk	MBBS, M Phil, M.S, CHPE, CHQP	Associate Professor
Dr. Sarah Azhar drsarahazhar@baqai.edu.pk	MBBS, M Phil, CHPE	Assistant Professor
Dr. Ghazal Irfan dirfan@baqai.edu.pk	MBBS, DI LH & BT, M Phil, CHPE	Assistant Professor
Dr. Muhammad Khan drmuhammadkhan@baqai.edu.pk	MBBS, M Phil, MCPS, DCP, DIP, CHPE	Assistant Professor
Dr. Munazza Rashid dr.munazzarashid@baqai.edu.pk	MBBS, Ph. D	Assistant Professor
Dr. Nadeem Umer Baqai nadeemumerbaqai@baqai.edu.pk	MBBS, DIP	Senior Lecturer
Dr. Sana Mubarak	BDS, M. Sc., CHPE	Senior Lecturer
Muhammad Rizwan muhammadrizwan@bmu.edu.pk	M. Sc, M Phil	Senior Lecturer
Dr. Yasir Rishi yasirrishi@bmu.edu.pk	MBBS, CHPE.	Lecturer
Dr. Tooba Khan	MBBS, CHPE.	Lecturer
Dr. Rozina Khan	MBBS, CHPE.	Lecturer

DEPARTMENT OF PHARMACOLOGY & THERAPEUTICS

<i>Name</i>	<i>Qualifications</i>	<i>Designation</i>
Prof. Dr. Shaikh Nadeem Ahmed dr.nadeem_ahmed@baqai.edu.pk	MBBS, M Phil	Chairman & Professor
Prof. Dr. Asif Ahmed dr.asifahmed@baqai.edu.pk	MBBS, Ph. D	HOD & Professor
Dr. Faraz Saleem dsaleem@baqai.edu.pk	BDS, M Phil	Assistant Professor
Dr. Urooj Zafar urooj.aamir@baqai.edu.pk	MBBS	Assistant Professor
Dr. Izrum Shafi Rajput dr.izrumshafi@baqai.edu.pk	BDS, M Phil	Senior Lecturer
Dr. Syeda Javeria Ikram dr.javeriaikram@baqai.edu.pk	BDS, M Phil	Senior Lecturer
Dr. Hina Masood hinamasood@baqai.edu.pk	MBBS	Senior Lecturer
Dr. Sehrish Mahmood sehrishmahmood@baqai.edu.pk	MBBS	Lecturer
Dr. Humaira Arif humairaarif@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 drnaziajameel@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
Dr. Muneer Ahmed muneerahmed@baqai.edu.pk	MBBS	Senior Lecturer
Dr. Amara Memon dr.amaraaltaf@baqai.edu.pk	MBBS, MPH	Senior Lecturer
Muhammad Jaffar muhammadjafferbmu@gmail.com		Assistant Director Field Program

DEPARTMENT OF OPHTHALMOLOGY		
<i>Name</i>	<i>Qualifications</i>	<i>Designation</i>
Prof. Mir Amjad Ali	MBBS, FCPS	Professor

DEPARTMENT OF ENT

<i>Name</i>	<i>Qualifications</i>	<i>Designation</i>
Prof. Dr. Muhammad Shaheen Malik	MBBS, DLO, FCPS (ENT)	HOD & Professor
Dr. Muhammad Khalid	MBBS, DLO, FCPS (ENT)	Assistant Professor
Dr. Maria Mehmood	MBBS, FCPS (ENT)	Assistant Professor
Dr. Rehana Babar	MBBS, FCPS (ENT)	Assistant Professor
Dr. Muhammad Ahsan Khan	MBBS	Senior Lecturer

DEPARTMENT OF MEDICAL EDUCATION

<i>Name</i>	<i>Qualifications</i>	<i>Designation</i>
Dr. Shams Nadeem Alam	MBBS, FRCS, MHPE	Director DME, BMU
Dr. Saima Qamar Naqvi	MBBS, FCPS, MHPE	Deputy Director DME, BMC

DEPARTMENT OF MEDICINE

<i>Name</i>	<i>Qualifications</i>	<i>Designation</i>
Prof Jameel Ahmed jameelahmed@baqai.edu.pk		Dean & Chair Medicine
Prof Karim Kammeruddin drkarim@baqai.edu.pk		Professor
Dr. Adil Khan adilkhan@baqai.edu.pk		Associate Professor
Dr. Mussarrat Riaz mussarratriaz@baqai.edu.pk		Associate Professor
Dr. Masooda Fatima masoodafatima@baqai.edu.pk		Assistant Professor
Dr. Dania Faisal daniafaisal@baqai.edu.pk		Assistant Professor
Dr. Saqib Ur Rehman saqiburrehman@baqai.edu.pk		Assistant Professor
Dr. Amanullah amanullah808040@gmail.com		Assistant Professor
Dr. Saima Askari saimaaskari@baqai.edu.pk		Assistant Professor Endocrinology
Dr. Anita Haroon dr.anitaharoon@gmail.com		Assistant Professor Nephrology
Dr. Sumayyah Liaquat sumayyahliaquat@yahoo.com		Assistant Professor Neurology
Dr. Adeel Ahmed adeelahmed@baqai.edu.pk		Senior Registrar Gastroenterology

DEPARTMENT OF SURGERY

<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
Dr. Muhammad Abid Owais drabidowais@baqai.edu.pk	MBBS, FCPS	Associate Professor
Dr. M. Danish Muneeb drdanishmuneeb@baqai.edu.pk	MBBS, FCPS	Associate Professor
Dr. Sidra Abbass drsidraabbass@baqai.edu.pk	MBBS, FCPS	Associate Professor
Dr. Zubia Masood zubiamasood@baqai.edu.pk	MBBS, FCPS, MHPE	Associate Professor
Dr. Bashir Ahmed drbashirahmed@baqai.edu.pk	MBBS, FCPS	Associate Professor, Pediatric Surgery
Dr. Shafatullah drshafatullah@baqai.edu.pk	MBBS, MS	Associate Professor, Plastic Surgery
Dr. Abdul Ghaffar drabdulghaffar@baqai.edu.pk	MBBS, MCPS, FCPS	Assistant Professor
Dr. Muhammad Naveed navhumhs@hotmail.com	MBBS, FCPS	Assistant Professor, Orthopedic Surgery
Dr. Tanveer Ahmed tanveerjunejo@gmail.com	MBBS, FCPS	Assistant Professor, Urology
Dr. S. M. Abdullah Bukhari smab.1986@gmail.com	MBBS, FCPS	Senior Registrar
Dr. Asad Hanif Shaikh drasadhanif@gmail.com	MBBS, FCPS	Senior Registrar, Orthopedic Surgery

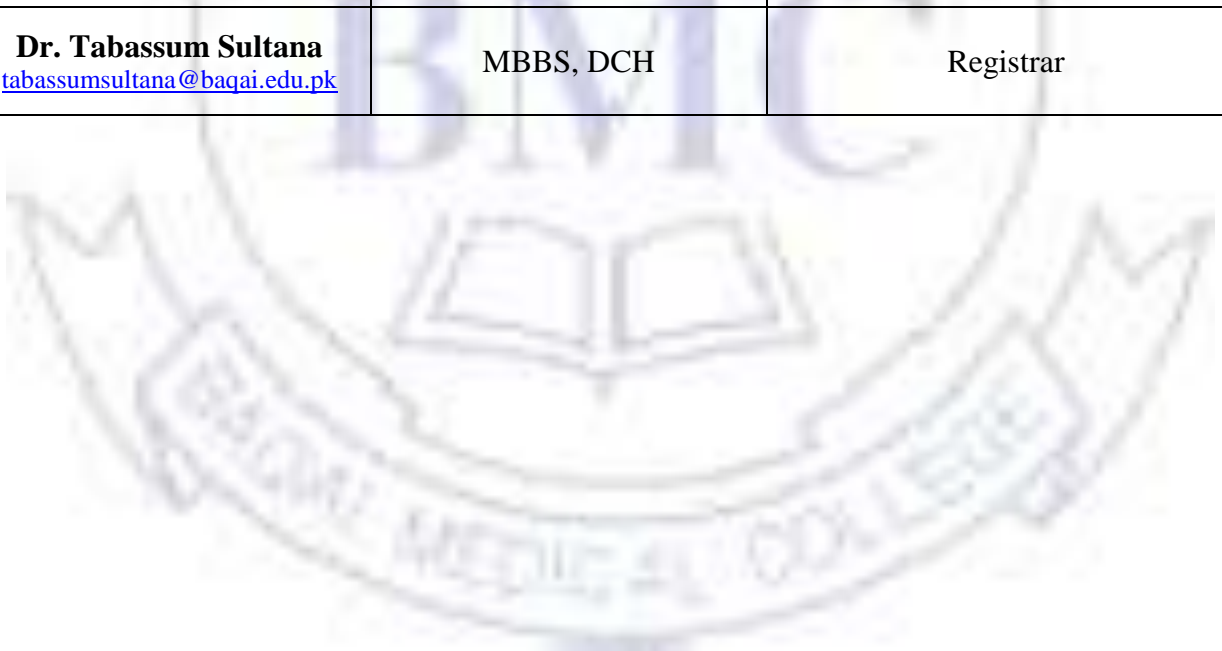
DEPARTMENT OF GYNECOLOGY & OBSTETRICS

<i>Name</i>	<i>Qualifications</i>	<i>Designation</i>
Prof Dr. Farrukh Naheed drfarrukhnaheed@baqai.edu.pk	MBBS, MCPS, FCPS	HOD & Professor
Dr. Musharraf Jahan drmusharafjahan@baqai.edu.pk	MBBS, MCPS, FCPS	Associate Professor
Dr. Nikhat Ahsan nikhatahsan@baqai.edu.pk	MBBS, MCPS, FCPS	Associate Professor
Dr. Saadia Akram saadiaakram@baqai.edu.pk	MBBS, FCPS	Assistant Professor
Dr. Nazish Ali drnazishgeo@gmail.com	MBBS, FCPS	Assistant Professor
Dr. Farah Liaquat syedafarah2009@hotmail.com	MBBS, FCPS	Assistant Professor
Dr. Naila Qamar naila54@hotmail.com	MBBS, FCPS	Assistant Professor



DEPARTMENT OF PEDIATRICS

<i>Name</i>	<i>Qualifications</i>	<i>Designation</i>
Dr. Arshad Hamid Khan drarshadhamid@baqai.edu.pk	MBBS, MCPS. DCH, MD	HOD & Associate Professor
Dr Tahira Saeed tahirasaeed@baqai.edu.pk	MBBS, FCPS	Assistant Professor
Dr Saba Sohrab dr.sabasohrab@baqai.edu.pk	MBBS, FCPS, MRCPCH	Assistant Professor
Dr Areeba Tanveer dr.areebatanveer@baqai.edu.pk	MBBS, FCPS	Assistant Professor
Dr Madiha Abid madhiaabid@baqai.edu.pk	MBBS, FCPS	Senior Registrar
Dr. Tabassum Sultana tabassumsultana@baqai.edu.pk	MBBS, DCH	Registrar



CURRICULUM INTEGRATION COMMITTEE (CIC)

Name	Designation
Prof. Dr. Nazia Jameel	Head CIC Spiral II
Dr. Sarah Azhar	Head CIC Spiral II
Dr. Maeesa Sajeel	Member, 4th-year MBBS Class Coordinator
Dr. Abdul Ghaffar	Member, Department of Surgery & Allied
Dr. Amara Altaf	Member, Department of Community Medicine
Dr. Dania Faisal	Member, Department of Medicine & Allied
Dr. Faraz Saleem	Member, Department of Pharmacology
Dr. Hina Amjad	Member, Department of Pharmacology
Dr. Nasima Iqbal	Member, Department of Pathology
Dr. Nikhat Ahsan	Member, Department of Obstetrics & Gynecology
Dr. Rehana Babar	Member, Department of ENT
Dr. Saadia Akram	Member, Department of Obstetrics & Gynecology
Dr. Tahira Saeed	Member, Department of Pediatrics
Dr. Zulfiqar H. Naqvi	Member, Department of Community Medicine
Ms. Maria Rahim	Member, Department of Research

TEACHING METHODOLOGIES

		
<p>Interactive Lectures</p>	<p>Case-based Learning</p>	<p>Student's Presentations</p>
		
<p>Flipped Classroom</p>	<p>Small group discussions</p>	<p>Practical demonstration</p>
		
<p>Hands-on practice of clinical skills in a simulated environment</p>	<p>Virtual teaching sessions</p>	<p>Self-directed learning</p>

Module III

Endocrinology

INTRODUCTION TO MODULE – III

<i>Module – III</i>	
<i>Endocrinology</i>	
System	Endocrine System
Duration	6 Weeks (From 15 th July 2024 to 22 nd August 2024)
Assessment Dates	*Friday 23 rd August 2024
Assessment Pattern	MCQs, SEQs & OSPE

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

Pathology

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

Topic	Teaching Strategy	Duration	Learning Objectives
Introduction to Endocrine Disorders & Hyperpituitarism	Interactive Lecture # 1	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.
Hypopituitarism	Interactive Lecture # 2	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.
Hyperthyroidism	Interactive Lecture # 3	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.

Pathology

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

Topic	Teaching Strategy	Duration	Learning Objectives
Hypothyroidism & Goiter	Interactive Lecture # 4	1 hour	<ol style="list-style-type: none"> List the causes of Hypothyroidism. Explain the pathophysiology and clinical features of Cretinism. Discuss the pathophysiology, clinical features, and laboratory diagnosis of Myxedema. Differentiate between Diffuse (Non-toxic) and Multinodular Goiter based on their causes, pathophysiology, morphology, clinical features, and laboratory diagnosis.
Inflammatory disorders of the thyroid gland	Interactive Lecture # 5	1 hour	<ol style="list-style-type: none"> Define and classify thyroiditis. Discuss the pathophysiology, clinical course, and morphology of Hashimoto's Thyroiditis. Comprehend the pathophysiology, clinical features, and morphology of Subacute Lymphocytic Thyroiditis. Describe the pathophysiology, clinical features, and morphology of Granulomatous (de Quervain) thyroiditis.
Neoplasms of the thyroid gland	Interactive Lecture # 6	1 hour	<ol style="list-style-type: none"> Classify the neoplasms of the thyroid gland. Describe the pathophysiology, clinical features, and morphology of the Follicular adenoma. Comprehend the causes, pathogenesis, morphology, and clinical features of Papillary Carcinoma. Discuss the causes, pathogenesis, morphology, and clinical features of Follicular Carcinoma. Summarize the causes, pathogenesis, morphology, and clinical features of Anaplastic and Medullary Carcinoma.

Pathology

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

Topic	Teaching Strategy	Duration	Learning Objectives
Diabetes Mellitus	Interactive Lecture # 7	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.
Complications of Diabetes Mellitus	Interactive Lecture # 8	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 the pathophysiology, morphology, and clinical features of the chronic complications of Diabetes Mellitus.
Pancreatic Neuroendocrine Tumors	Interactive Lecture # 9	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.

Pathology

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

Topic	Teaching Strategy	Duration	Learning Objectives
Hyperaldosteronism & Adrenogenital Syndrome	Interactive Lecture # 10	1 hour	<ol style="list-style-type: none"> 1. List the causes of Hyperadrenalism. 2. Differentiate between Primary and Secondary Hyperaldosteronism based on their causes, pathophysiology, clinical features, morphology, and diagnostic findings. 3. Discuss the causes, pathophysiology, morphology, and clinical features of Adrenogenital Syndrome.
Cushing Syndrome	Interactive Lecture # 11	1 hour	<ol style="list-style-type: none"> 1. Enumerate the causes of Hypercortisolism. 2. Comprehend Cushing Syndrome based on its pathophysiology, clinical features, morphology, and diagnostic findings. 3. Discuss the complications of Cushing Syndrome.
Adrenocortical insufficiency	Interactive Lecture # 12	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.

Pathology

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

Topic	Teaching Strategy	Duration	Learning Objectives
Neoplasms of the Adrenal gland	Interactive Lecture # 13	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 the causes, pathophysiology, morphology, and clinical features of Pheochromocytoma.
Disorders of the Parathyroid gland	Interactive Lecture # 14	1 hour	<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 & and morphology of secondary hyperthyroidism. 4. Discuss the causes, pathophysiology, and clinical and morphological features of hypoparathyroidism. 5. Summarize the pathophysiology and clinical features of pseudo-hypoparathyroidism.
Multiple Endocrine Neoplasia Syndrome	Interactive Lecture # 15	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.

Pathology

At the end of these 2¼ hours Practical sessions, the students of 4th year MBBS will be able to:

Topic	Teaching Strategy	Duration	Learning Objectives
Pituitary Adenoma	Practical # 1 (Task-based learning)	2 ½ 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.
Disorders of the Thyroid gland	Practical # 2 (Task-based learning)	2 ½ hours	<ol style="list-style-type: none"> 1. Identify the gross and microscopic features of Graves' disease with their points of identification. 2. Identify the gross and microscopic features of multinodular goiter with their points of identification. 3. Identify the gross and microscopic features of Hashimoto's thyroiditis with their points of identification.
Neoplasms of the Thyroid gland	Practical # 3 (Task-based learning)	2 ½ hours	<ol style="list-style-type: none"> 1. Identify the gross and microscopic features of Follicular adenoma. 2. Identify the gross and microscopic features of Papillary Carcinoma. 3. Identify the gross and microscopic features of Follicular Carcinoma. 4. Identify the gross and microscopic features of Medullary Carcinoma.
Complications of Diabetes Mellitus	Practical # 4 (Task-based learning)	2 ½ hours	<ol style="list-style-type: none"> 1. Identify the microscopic features of Severe Renal hyaline arteriosclerosis. 2. Identify the microscopic features of diffuse nodular Diabetic glomerulosclerosis. 4. Identify the gross features of Diabetic Nephrosclerosis.

Pathology

At the end of these 2¼ hours Practical sessions, the students of 4th year MBBS will be able to:

Topic	Teaching Strategy	Duration	Learning Objectives
Adrenocortical Neoplasm	Practical # 5 (Task-based learning)	2 ½ hours	<ol style="list-style-type: none"> 1. Identify the gross and microscopic features of Adrenocortical adenoma with their points of identification. 2. Identify the gross and microscopic features of Adrenocortical carcinoma with their points of identification
Waterhouse-Friderichsen syndrome and Pheochromocytoma	Practical # 6 (Task-based learning)	2 ½ hours	<ol style="list-style-type: none"> 1. Identify the microscopic features of Waterhouse-Friderichsen syndrome with its points of identification. 2. Identify the gross and microscopic features of Pheochromocytoma with their points of identification.
Parathyroid adenoma and Pancreatic endocrine tumor	Practical # 7 (Task-based learning)	2 ½ hours	<ol style="list-style-type: none"> 1. Identify the microscopic features of Parathyroid adenoma with its points of identification. 2. Identify the microscopic features of the Pancreatic endocrine tumor (Islet cell tumor) with its points of identification.

Pharmacology

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

Topic	Teaching Strategy	Duration	Learning Objectives
Pituitary Hormones and Hypothalamic regulators	Interactive Lecture # 1	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 somatotropin, octreotide, β-hCG, Follitropin, bromocriptine, Leuprolide, vasopressin, and oxytocin. 5. List the pharmacokinetics of these drugs. 6. List the clinical uses of these drugs. 7. List the common adverse effects and contraindications of these drugs.
Drugs used to treat Thyroid Disorders	Interactive Lecture # 2	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. List the pharmacokinetics of Thyroxine. 5. List drug-drug interactions of Thyroxine. 6. List common adverse effects and contraindications of Thyroxine. 7. Explain the mechanism of action of Methimazole, Iodide, and Propylthiouracil used in hyperthyroidism. 8. List the pharmacokinetics of these drugs. 9. List drug-drug interactions of these drugs. 10. List common adverse effects and contraindications of these drugs.

Pharmacology

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

Topic	Teaching Strategy	Duration	Learning Objectives
Oral Hypoglycemics 1	Interactive Lecture # 3	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 of Glibenclamide and Metformin. 6. List common adverse effects and contraindications of Glibenclamide and Metformin.
Oral Hypoglycemics 2	Interactive Lecture # 4	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.
Insulin Therapy	Interactive Lecture # 5	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.

Pharmacology

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

Topic	Teaching Strategy	Duration	Learning Objectives
Pharmacological Management of Diabetic Emergencies	Interactive Lecture # 6	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 of these drugs. 6. List the common adverse effects and contraindications of these drugs.
Corticosteroids 1 (Glucocorticoids agonist and its antagonist)	Interactive Lecture # 7	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 glucocorticoid agonist (Prednisone) and antagonist (Mifepristone). 4. List the pharmacokinetics of Prednisone and Mifepristone. 5. List clinical uses of Prednisolone and Mifepristone. 6. List common adverse effects and contraindications of these drugs.

Pharmacology

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

Topic	Teaching Strategy	Duration	Learning Objectives
Corticosteroids 2 (Mineralocorticoid agonist and its antagonist)	Interactive Lecture # 8	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 of Fludrocortisone and Spironolactone 5. List clinical uses of Fludrocortisone and Spironolactone. 6. List common adverse effects and contraindications of these drugs.



Pharmacology

At the end of these 2 ½ hours small group discussion sessions, the students of 4th year MBBS will be able to:

Topic	Teaching Strategy	Duration	Learning Objectives
Prescription writing on Hyperprolactinemia	Tutorial # 1 (TBL)	2 ½ 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.
Prescription Writing on Hyperthyroidism	Tutorial # 2 (TBL)	2 ½ 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.
Prescription Writing on Hypothyroidism	Tutorial # 3 (TBL)	2 ½ 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.

Pharmacology

At the end of these 2 ½ hours small group discussion sessions, the students of 4th year MBBS will be able to:

Topic	Teaching Strategy	Duration	Learning Objectives
Prescription writing of various types of insulin	Tutorial # 4 (TBL)	2 ½ 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.
Prescription writing of hypoglycemia	Tutorial # 5 (TBL)	2 ½ 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.
Prescription writing on Diabetic Ketoacidosis	Tutorial # 6 (TBL)	2 ½ 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.
Prescription writing on Corticosteroids (Cushing's Disease)	Tutorial # 7 (TBL)	2 ½ 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.
Prescription writing on Corticosteroids (Addison's Disease)	Tutorial # 8 (TBL)	2 ½ 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.

Pharmacology

At the end of these 2 ½ hours practical sessions, the students of 4th year MBBS will be able to:

Topic	Teaching Strategy	Duration	Learning Objectives
Pharmaceutical Solutions	Practical # 1 (Task-based learning)	2 ½ hours	<ol style="list-style-type: none"> 1. Define Solutions 2. List the components of solutions. 3. Classify Solutions with examples.
Dextrose solution	Practical # 2 (Task-based learning)	2 ½ hours	<ol style="list-style-type: none"> 1. Define Dextrose Solution. 2. Demonstrate the steps of preparation and dispensing of Dextrose Solution. 3. Draw the label for dispensing of the dextrose solution. 4. List the clinical uses of dextrose solution.
Insulin Therapy	Practical # 3 (Task-based learning)	2 ½ hours	<ol style="list-style-type: none"> 1. Define Insulin. 2. List different types of insulin. 3. List the different types of insulin administrative techniques. 4. Demonstrate the steps for the unit calculation of insulin therapy.

Community Medicine

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

Topic	Teaching Strategy	Duration	Learning Objectives
Introduction to Communicable Diseases	Interactive Lecture # 1	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.
Malaria/ Rabies	Interactive Lecture # 2	1 hour	<ol style="list-style-type: none"> 1. Explain the causes and common features of malaria and rabies. 2. Describe modes of transmission and prevention strategies for malaria and rabies.
Poliomyelitis / Tuberculosis	Interactive Lecture # 3	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.
Immunization	Interactive Lecture # 4	1 hour	<ol style="list-style-type: none"> 1. Define immunization. 2. Explain types of immunization. 3. Briefly discuss the launching of EPI in Pakistan. 4. Describe those infectious diseases included in the EPI schedule.

Community Medicine

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

Topic	Teaching Strategy	Duration	Learning Objectives
Introduction to Non-communicable Diseases	Interactive Lecture # 5	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.
Major Non-Communicable Diseases- I	Interactive Lecture # 6	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.
Major Non-Communicable Diseases- II	Interactive Lecture # 7	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
Introduction to epidemiology	Interactive Lecture # 8	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.
Epidemiological study designs	Interactive Lecture # 9	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.

Community Medicine

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

Topic	Teaching Strategy	Duration	Learning Objectives
Causation and association	Interactive Lecture # 10	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.
Parasitology	Interactive Lecture # 11	1 hour	<ol style="list-style-type: none"> 1. Describe the epidemiology of major parasitic diseases. 2. Describe preventive strategies for major parasitic infections.
Entomology/ Vector-borne diseases	Interactive Lecture # 12	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.

Community Medicine Field Visit*

At the end of these Community Field Visits, the students of 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 understanding of comprehensive respiratory healthcare delivery.

*List of proposed field visits of Community Medicine

Medicine

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

Topic	Teaching Strategy	Duration	Learning Objectives
Introduction to Endocrinology & Pituitary Disorders	Interactive Lecture # 1	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.
Introduction to Thyroid Disorders	Interactive Lecture # 2	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 them with the facilitator.
Diabetes Mellitus	Interactive Lecture # 3	1 hour	<ol style="list-style-type: none"> 1. Identify the signs and symptoms of Diabetes Mellitus. 2. Make differential diagnosis. 3. Discuss and formulate the treatment plan.
Cushing Syndrome	Interactive Lecture # 4	1 hour	<ol style="list-style-type: none"> 1. Identify the signs and symptoms of Cushing Syndrome. 2. Make differential diagnosis. 3. Discuss and formulate the treatment plan

Surgery

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

Topic	Teaching Strategy	Duration	Learning Objectives
Benign Thyroid diseases	Interactive Lecture # 1	1 hour	<ol style="list-style-type: none"> 1. Comprehend the development and anatomy of the thyroid gland. 2. Explain the pathophysiology of thyroid gland enlargement. 3. Describe the causes of Benign thyroid swelling (Goiter). 4. Explain the features of the thyroid gland with hyper and hypothyroid functions. 5. Discuss how to select the appropriate investigations of the thyroid gland. 6. Discuss when to operate on benign thyroid swelling. 7. Describe thyroidectomy.
Hyperthyroidism	Interactive Lecture # 2	1 hour	<ol style="list-style-type: none"> 1. Define Hyperthyroidism 2. Enumerate the causes of Hyperthyroidism. 3. Describe the signs and symptoms of Hyperthyroidism. 4. Summarize the drugs used in Hyperthyroidism. 5. Name the surgical options available for these cases.

Surgery

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

Topic	Teaching Strategy	Duration	Learning Objectives
Clinical aspects of Hyperparathyroidism and Hypoparathyroidism	Interactive Lecture # 3	1 hour	<ol style="list-style-type: none"> 1. Describe the development and anatomy of the parathyroid glands 2. Discuss the role of the parathyroid gland in calcium regulation. 3. Enlist the causes of hypercalcemia. 4. Describe the etiology and clinical presentation of various types of hyperparathyroidism. 5. Order appropriate investigations for parathyroid swellings 6. Describe tetany.
Diabetic foot	Interactive Lecture # 4	1 hour	<ol style="list-style-type: none"> 1. Describe the epidemiology and complications of diabetes. 2. Define diabetic foot, diabetic lesions, and diabetic foot ulcer (dfu). 3. Discuss the etiology and risk factors contributing to the development of diabetic foot ulcers. 4. Enlist the investigations required sequentially. 5. Identify the correct procedures for the appropriate management of diabetic foot. 6. Describe briefly the main therapeutic strategies and multidisciplinary approaches necessary for diabetic foot ulcers treatment.

Pediatrics

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

Topic	Teaching Strategy	Duration	Learning Objectives
Congenital Hypothyroidism	Interactive Lecture # 1	1 hour	<ol style="list-style-type: none"> 1. Define Hypothyroidism. 2. Discuss the risk factors, prevalence, association, and consequences of Hypothyroidism in neonates and children. 3. List the clinical features of Congenital Hypothyroidism. 4. Describe the diagnosis and management of Hypothyroidism. 5. Explain the importance of a neonatal screening program for congenital Hypothyroidism.

Gynecology and Obstetrics




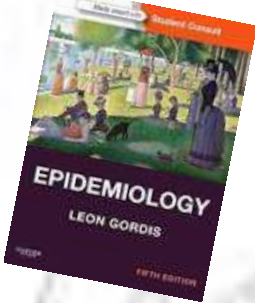
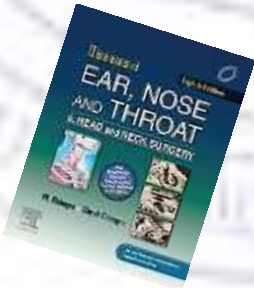
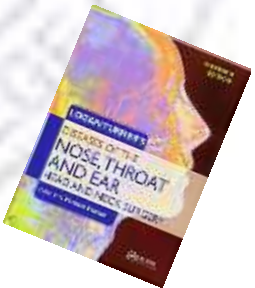
At the end of this 1-hour interactive lecture, the students of 4th year MBBS will be able to:

Topic	Teaching Strategy	Duration	Learning Objectives
Endocrine disorders in the menstrual cycle	Interactive Lecture # 1	1 hour	<ol style="list-style-type: none"> 1. Appreciate the role of the hypothalamic-pituitary-ovarian axis in normal reproductive health. 2. Classify the endocrine disorders affecting the menstrual cycle. 3. Discuss the clinical approach in evaluating different endocrine disorders affecting the menstrual cycle.

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>	
ENT			
<p>Diseases of Ear, Nose and Throat 8th Edition P.L. Dhingra & Shruti Dhingra</p>		<p>Logan Turner's Diseases of the Nose, Throat and Ear, Head and Neck Surgery 11th Edition Musheer Hussain</p>	

SUGGESTED READING BOOKS

OPHTHALMOLOGY			
<p>Clinical Ophthalmology 4th Edition Shafi M. Jatoi</p>		<p>ABC of Eyes 4th Edition P. Shah, P.T. Khaw & A.R. Elkington</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 style="text-align: center;">https://www.medscape.com</p>	<p style="text-align: center;">https://www.PathologyOutlines.com</p>
	
<p style="text-align: center;">https://pubmed.ncbi.nlm.nih.gov</p>	<p style="text-align: center;">https://scholar.google.com</p>
	
<p style="text-align: center;">https://medlineplus.gov</p>	<p style="text-align: center;">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 directed to maintain their practical journals and logbooks for formative assessment.

2. Summative Assessment

- Modular Exam:

With reference to the Assessment Policy of BMC, dated 14-06-21) (Point 5: Process; Summative assessment points a, b & d); a single modular exam will be conducted at the end of each module which will include all the subjects of basic medical sciences.

*Module exam will be assessed by any of the following assessment methods:

- BCQ
- SEQ
- OSPE

- Annual Exam:

- Internal Evaluation = 20%
- Final Exam= 80%

Theory: MCQs, EMQs & SAQs Practical: Viva & OSPE





Baqai Medical College
Baqai Medical University

51-Deh Tor, Gadap Road, Superhighway. P.O Box: 2407, Karachi-75340, Pakistan.

(092-21)34410-293 to 298, 34410-427 to 430

Fax: (092-21)34410-317, 34410-431

Email: info@baqai.edu.pk, Web: www.baqai.edu.pk/

Endocrinology Module
14th Week (From 15th July 2024 to 19th July 2024)

Day	Lecture 1 8:30 – 9:30	Lecture 2 9:30 – 10:30	10:30 - 10:45	Clinics 10:45 – 1:45	1:45 - 2:00	Practical / Small Group Discussion 2:00– 4:30	
Monday 15-7-24	2nd Integrated Module Assessment (Theory)		T E A B R E A K	Clinics	P R A Y E R S	2nd Integrated Module Assessment (OSPE)	
Tuesday 16-7-24	Tentative Holiday on the account of 9th Moharram			-			Tentative Holiday on the account of 9th Moharram
Wednesday 17-7-24	Tentative Holiday on the account of 10th Moharram			-			Tentative Holiday on the account of 10th Moharram
Day 59 Thursday 18-7-24	Hypopituitarism & Posterior Pituitary Syndromes [Pathology] (Dr. Muhammad Rizwan) [Pathology Lecture Hall]	Pituitary hormones & Hypothalamic regulators [Pharmacology] (Dr Faraz Saleem) [Pathology Lecture Hall]		Clinics			Group A & B: Pathology Group C & D: Pharmacology
Day 60 Friday 19-7-24	8: 30 – 9: 30	9: 30 – 10: 30	10:30 – 1:30		1:30- 2:00	2:00 – 4:30	
	Hyperpituitarism [Pathology] (Dr. Maesa Sajeel) [Pathology Lecture Hall]	Introduction to Endocrinology & Pituitary Disorders [Medicine] (Dr. Dania Faisal) [Lecture Hall 13]	Clinics		Jumma Prayers	Group C & D: Pathology Group A & B: Pharmacology	

Pathology (Practical): Pituitary Adenomas

Facilitator: Dr. Nadeem Baqai

Venue: Pathology Museum

Pharmacology (Tutorial): Prescription writing on Hyper-prolactinoma

Facilitator: Dr. S Javeria Ikram

Venue: Pharma Lecture Hall

Endocrinology Module
15th Week (From 22nd July 2024 to 26th July 2024)

Day	Lecture 1 8:30 – 9:30	Lecture 2 9:30 – 10:30	10:30 - 10:45	Clinics 10:45 – 1:45	1:45 - 2:00	Practical / Small Group Discussion 2:00– 4:30
Day 61 Monday 22-7-24	Inflammatory disorders of the Thyroid gland [Pathology] (Dr. Sarah Azhar) [Pathology Lecture Hall]	Hypothyroidism & Goiter [Pathology] (Dr. Muhammad Khan) [Pathology Lecture Hall]	T E A B R E	Clinics	P R A Y E R S	Introduction to Communicable Diseases & Malaria/ Rabies [Community Medicine] (Dr. Muneer Ahmed) [Com Med Lecture Hall 1]
Day 62 Tuesday 23-7-24	Hyperthyroidism [Pathology] (Dr. Ghazal Irfan) [Pathology Lecture Hall]	Drugs used to treat thyroid disorders. [Pharmacology] (Dr. Izrum Shafi Rajput) [Pathology Lecture Hall]		Clinics		Group A: Pharmacology (T1) Group B: Pharmacology (T2) Group C: SDL Group D: Pathology
Day 63 Wednesday 24-7-24	Poliomyelitis/ Tuberculosis [Community Medicine] (Dr. Muneer Ahmed) [Com Med Lecture Hall 1]	Hyperthyroidism [Surgery] (Dr. Sidra Abbass) [LRC, Dept. of Surgery]		Clinic		Group A: Pharmacology (T2) Group B: SDL Group C: Pathology Group D: Pharmacology (T1)
Day 64 Thursday 25-7-24	Benign Thyroid diseases [Surgery] (Dr. Danish Muneeb) [LRC, Dept. of Surgery]	Immunization [Community Medicine] (Dr. Muneer Ahmed) [Com Med Lecture Hall 1]	Group A: Community Field Visit			
			A K	Clinics	S	Group B: Pathology Group C: Pharmacology (T1) Group D: Pharmacology (T2)
Day 65 Friday 26-7-24	8: 30 – 9: 30	9: 30 – 10: 30	10:30 – 1:30		1:30- 2:00	2:00 – 4:30
	Introduction to Thyroid Disorders [Medicine] (Dr. Saima Askari) [Lecture Hall 13]	Congenital Hypothyroidism [Pediatrics] (Dr. Arshad Hamid Khan) [Pathology Lecture Hall]	Clinics		Jumma Prayers	Group A: Pathology Group B: Pharmacology (T1) Group C: Pharmacology (T2) Group D: SDL

Pathology (Practical): Goiter, Hashimoto's Thyroiditis & Graves' disease **Facilitator:** Dr. Tooba Khan

Pharmacology (Tutorial 1): Prescription writing on Hyperthyroidism

Facilitator: Dr. Izrum Shafi Rajput

Venue: Pathology Museum

Pharmacology (Tutorial 2): Prescription writing on Hypothyroidism

Facilitator: Dr. Sehrish Mehmood

Venue: Pharma Lecture Hall

Venue: Pharmacology Lab

Endocrinology Module
16th Week (From 29th July 2024 to 2nd August 2024)

Day	Lecture 1 8:30 – 9:30	Lecture 2 9:30 – 10:30	10:30 – 10:45	Clinics 10:45 – 1:45	1:45 – 2:00	Practical / Small Group Discussion 2:00– 4:30
Day 66 Monday 29-7-24	Diabetes Mellitus [Pathology] (Prof. Dr. Nasima Iqbal) [Pathology Lecture Hall]	Oral Hypoglycemics- I [Pharmacology] (Dr. Urooj Aamir) [Pathology Lecture Hall]	T E A B R E	Clinics	P R	Thyroid Neoplasms [Pathology] (Dr. Munazza Rashid) [Pathology Lecture Hall]
Day 67 Tuesday 30-7-24	Complications of Diabetes Mellitus I [Pathology] (Dr. Muhammad Rizwan) [Pathology Lecture Hall]	Oral Hypoglycemics- II [Pharmacology] (Prof. Dr. Asif Ahmed) [Pathology Lecture Hall]		Clinics	A Y E	Group A: Pathology Group B: Pharmacology (T) Group C: Pharmacology (P) Group D: SDL
Day 68 Wednesday 31-7-24	Introduction to Non-communicable Diseases [Community Medicine] (Dr. S Nauman Raza) [Com Med Lecture Hall 1]	Insulin Therapy [Pharmacology] (Prof. Dr. Shaikh Nadeen) [Pathology Lecture Hall]		Clinic	R S	Group A: SDL Group B: Pathology Group C: Pharmacology (T) Group D: Pharmacology (P)
Day 69 Thursday 1-8-24	Complications of Diabetes Mellitus II [Pathology] (Dr. Maeesa Sajeel) [Pathology Lecture Hall]	Major Noncommunicable Diseases I [Community Medicine] (Dr. S Nauman Raza) [Com Med Lecture Hall 1]	Group B: Community Field Visit			
			A K	Clinics	S	Group A: Pharmacology (P) Group C: Pathology Group D: Pharmacology (T)
Day 70 Friday 2-8-24	8: 30 – 9: 30	9: 30 – 10: 30	10:30 – 1:30		1:30-2:00	2:00 – 4:30
	Pharmacological Management of Diabetic Emergencies [Pharmacology] (Dr. S. Javeria Ikram) [Pathology Lecture Hall]	Diabetes Mellitus [Medicine] (Dr. Saima Askari) [Lecture Hall 13]	Clinics		Jumma Prayers	Group A: Pharmacology (T) Group B: Pharmacology (P) Group C: SDL Group D: Pathology

Pathology (Practical): Tumors of the Thyroid gland

Pharmacology (Tutorial): Prescription writing on Hypoglycemia

Pharmacology (Practical): Pharmaceutical Solutions

Facilitator: Dr. Sana Mubarak

Facilitator: Dr. Humaira Arif

Facilitator: Dr. Samreen Mujahid

Venue: Pathology Museum

Venue: Pharma Lec Hall

Venue: Pharma Lab

Endocrinology Module
17th Week (From 5th August 2024 to 9th August 2024)

Day	Lecture 1 8:30 – 9:30	Lecture 2 9:30 – 10:30	10:30 – 10:45	Clinics 10:45 – 1:45	1:45 – 2:00	Practical / Small Group Discussion 2:00– 4:30
Day 71 Monday 5-8-24	Pancreatic Neuroendocrine Tumors [Pathology] (Dr. Sarah Azhar) [Pathology Lecture Hall]	Diabetes Foot [Surgery & Allied] (Dr. Shafat Ullah) [LRC, Dept. of Surgery]	T E A B R E	Clinics	P R A Y E R S	Group A: Pharmacology (P) Group B: SDL Group C: Pathology Group D: Pharmacology (T)
Day 72 Tuesday 6-8-24	Disorders of the Parathyroid Gland [Pathology] (Dr. Muhammad Khan) [Pathology Lecture Hall]	Clinical Aspects of Hyper & Hypoparathyroidism [Surgery & Allied] (Dr. Shafat Ullah) [LRC, Dept. of Surgery]		Clinics	Group A: SDL Group B: Pathology Group C: Pharmacology (T) Group D: Pharmacology (P)	
Day 73 Wednesday 7-8-24	Major Noncommunicable Diseases II [Community Medicine] (Dr. S Nauman Raza) [Com Med Lecture Hall 1]	Multiple Endocrine Neoplasia Syndrome [Pathology] (Dr. Ghazal Irfan) [Pathology Lecture Hall]		Clinic	Group A: Pathology Group B: Pharmacology (T) Group C: Pharmacology (P) Group D: SDL	
Day 74 Thursday 8-8-24	Adrenal Insufficiency [Pathology] (Dr. Munazza Rashid) [Pathology Lecture Hall]	Introduction to Epidemiology [Community Medicine] (Prof. Dr. S. Imtiaz Jafry) [Com Med Lecture Hall 1]	Group C: Community Field Visit			
			A K	Clinics	S	Group A: Pharmacology (T) Group B: Pharmacology (P) Group D: Pathology
Day 75 Friday 9-8-24	8: 30 – 9: 30	9: 30 – 10: 30	10:30 – 1:30		1:30- 2:00	2:00 – 4:30
	Hyperaldosteronism & Adrenogenital Syndrome [Pathology] (Dr. Muhammad Rizwan) [Pathology Lecture Hall]	Corticosteroid - I [Pharmacology] (Dr. Sehrish Mehmood) [Pathology Lecture Hall]	Clinics		Jumma Prayers	Group A & B: Pharmacology Prescription writing on Diabetic Ketoacidosis (Dr. S. Javeria Ikram) [Pharma Lecture Hall] Group C & D: Pathology Pancreatic Endocrine Tumor & Parathyroid Adenoma (Dr. M. Yasir Rishi) [Patho Lecture Hall]

Pathology (Practical): Complications of Diabetes Mellitus

Pharmacology (Tutorial): Prescription writing of various types of Insulin

Pharmacology (Practical): Insulin Therapy

Facilitator: Dr. Rozina Khan

Facilitator: Dr. Humaira Arif

Facilitator: Dr. Samreen Mujahid

Venue: Pathology Museum

Venue: Pharma Lecture Hall

Venue: Pharma Lab

Endocrinology Module
18th Week (From 12th August 2024 to 16th August 2024)

Day	Lecture 1 8:30 – 9:30	Lecture 2 9:30 – 10:30	10:30 - 10:45	Clinics 10:45 – 1:45	1:45 - 2:00	Practical / Small Group Discussion 2:00– 4:30
Day 76 Monday 12-8-24	Cushing Syndrome [Pathology] (Prof. Dr. Nasima Iqbal) [Pathology Lecture Hall]	Corticosteroid - II [Pharmacology] (Dr. Humaira Arif) [Pathology Lecture Hall]	T E A B R E	Clinics	P R A Y E R S	Group A & B: Pathology Pancreatic Endocrine Tumor & Parathyroid Adenoma (Dr. M. Yasir Rishi) [Patho Lecture Hall] Group C & D: Pharmacology Prescription writing on Diabetic Ketoacidosis (Dr. S. Javeria Ikram) [Pharma Lecture Hall]
Day 77 Tuesday 13-8-24	Neoplasms of the Adrenal Gland [Pathology] (Dr. Maesa Sajeel) [Pathology Lecture Hall]	Major Noncommunicable Diseases II [Community Medicine] (Dr. S Nauman Raza) [Com Med Lecture Hall 1]		Clinics		Group A: Research Group B: SDL Group C: Pathology Group D: Pharmacology
Wednesday 14-8-24	Independence Day of Pakistan			Clinic		Independence Day of Pakistan
Day 78 Thursday 15-8-24	Cushing Syndrome [Medicine] (Dr. Masooda Fatima) [Lecture Hall 13]	Introduction to Epidemiology [Community Medicine] (Prof. Dr. S. Imtiaz Jafry) [Com Med Lecture Hall 1]	Group D: Community Field Visit			
			A K	Clinics	S	Group A: Pathology Group B: Pharmacology Group C: Research
Day 79 Friday 16-8-24	8: 30 – 9: 30	9: 30 – 10: 30	10:30 – 1:30		1:30- 2:00	2:00 – 4:30
	CBL		Clinics		Jumma Prayers	Group A: SDL Group B: Pathology Group C: Pharmacology Group D: Research

Pathology (Practical): Waterhouse-Friderichsen syndrome & Pheochromocytoma
Pharmacology (Tutorial): Prescription writing of Cushing's Disease
Pharmacology (Practical): Dextrose Solution

Facilitator: Dr. Nadeem Baqai
Facilitator: Dr. Izrum Shafi Rajput
Facilitator: Dr. Hina Masood

Venue: Pathology Museum
Venue: Pharma Lecture Hall
Venue: Pharma Lab

Endocrinology Module
19th Week (From 19th August 2024 to 23rd August 2024)

Day	Lecture 1 8:30 – 9:30	Lecture 2 9:30 – 10:30	10:30 - 10:45	Clinics 10:45 – 1:45	1:45 - 2:00	Practical / Small Group Discussion 2:00– 4:30
Day 80 Monday 19-8-24	Epidemiological Study Designs [Community Medicine] (Dr. S.M. Zulfiqar Naqvi) [Com Med Lecture Hall 1]	Endocrine disorders in the Menstrual Cycle [Gynecology & Obstetrics] (Dr. Nikhat Ahsan) [Pathology Lecture Hall]	T E A B R E	Clinics	P R A Y E R S	Group A: Pharmacology Group B: Research Group C: SDL Group D: Pathology
Day 81 Tuesday 20-8-24	Causation & Association [Community Medicine] (Dr. S.M. Zulfiqar Naqvi) [Com Med Lecture Hall 1]	How to search Evidence on Prevention? (Evidence-based Medicine) [Pathology Lecture Hall]		Clinics		Group A & B: Pharmacology Prescription Writing on Addison's Disease (Dr. Sehrish Mehmood) [Pharma Lecture Hall] Group C & D: Pathology Adrenocortical Tumors (Dr. Tooba Khan) [Pathology Museum]
Day 82 Wednesday 21-8-24	Parasitology [Community Medicine] (Dr. Amara Altaf) [Com Med Lecture Hall 1]	Research		Clinic		Group A & B: Pathology Adrenocortical Tumors (Dr. Tooba Khan) [Pathology Museum] Group C & D: Pharmacology Prescription Writing on Addison's Disease (Dr. Sehrish Mehmood) [Pharma Lecture Hall]
Day 83 Thursday 22-8-24	Revision Class [Pathology] (Prof. Dr. Nasima Iqbal) [Pathology Lecture Hall]	Entomology/ Vector-borne diseases [Community Medicine] (Dr. Amara Altaf) [Com Med Lecture Hall 1]		A K		Clinics
Friday 23-8-24	8: 30 – 9: 30	9: 30 – 10: 30	10:30 – 1:30		1:30- 2:00	2:00 – 4:30
	3rd Integrated Module Assessment (Theory)		Clinics		Jumma Prayers	3rd Integrated Module Assessment (OSPE)