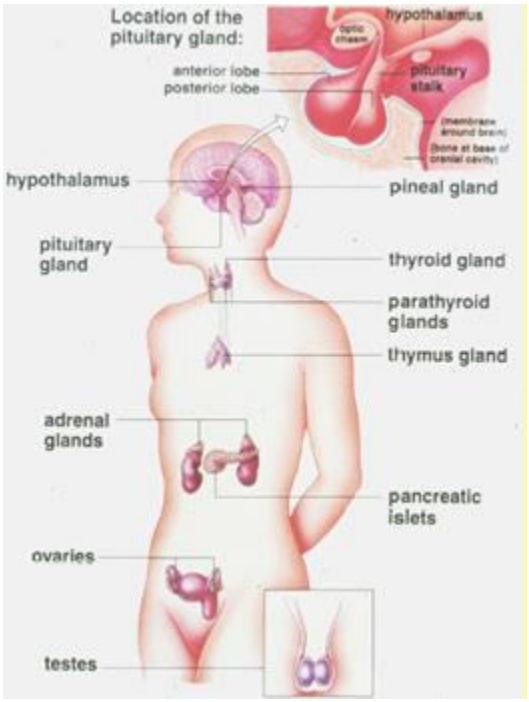
ENDOCRINE MODULE

STUDY GUIDE

MBBS YEAR II

2022-2023



BAQAI MEDICAL COLLEGE

BAQAI MEDICAL UNIVERSITY

51-Deh Tor, Gadap Road, Super Highway. 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/

Contents

LIST OF ABBREVIATIONS

Ana-Lect	Anatomy Lecture	CBL	Case Based Learning
DSL	Directed Self Learning	SDL	Self-directed learning
SGD	Small Group Discussion	DSL	Directed Self learner

PW	Practical Work	OSCE	Objective Structured Clinical Examination
MCQ	Multiple Choice Question	Phy-Lect	Physiology Lecture
BMU	Baqai Medical University	Bio-Lect	Biochemistry Lecture
BMC	Baqai Medical College	PEaRLS	**P**rofessionalism, **E**thics, **R**esearch, **L**eadership,Communication **S**kills.
LGIF	Large group interactive format	SGIF	Short group interactive format
TS	Teaching strategy		

BAQAI MEDICAL UNIVERSITY VISION STATEMENT

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.

BAQAI MEDICAL UNIVERSITY MISSION STATEMENT

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, and use of technological advancements and providing.

BAQAI MEDICAL COLLEGE MISSION STATEMENT

The mission of the Baqai medical college is to produce medical graduates, who are accomplished and responsible individuals and have skills for problem solving, clinical judgment, research &

leadership for 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 five years MBBS program, The Baqai Medical College graduate will be able to:

- Write and report focused history, perform physical examination, formulate a diagnosis and management plan for common health problems.
- Utilize knowledge of basic and clinical sciences for patient care.
- Apply evidence-based practices for protecting, maintaining and promoting the health of individuals, families and community.
- Identify problems, critically review literature, conduct research and disseminate knowledge.
- Lead other team members as per situational needs for quality health service.

Acquire professional behaviours that embodies lifelong learning, altruism, empathy and cultural sensitivity in provision health care service.

2nd Year MBBS Modular Committee

Dr. Rashid (Anatomy)	Chairman 2nd Modular Committee and Head of CBL Team
Dr. Shahid Pervez (Anatomy)	2nd Year MBBS Study Guide Team coordinator
Dr. Benish (Biochemistry)	2nd Year MBBS Study Guide Team member-1
Dr. Asma Siddiqui (Physiology)	2nd Year MBBS Study Guide Team member-2
Dr. Mubashara (Anatomy)	Time table developing team member-1
Dr. Saba Abrar (Physiology)	Time table developing team member-2
Dr. Farhan Sabir (Biochemistry)	Time table developing team member-3
Dr. Adnan (Physiology)	2nd year MBBS Assessment Team Coordinator
Ms. Eraj (Biochemistry)	Assessment Team Member-1

Dr. Mubashara (Anatomy)	Assessment Team Member-2
Dr. Saba Abrar (Physiology)	2nd year MBBS CBL Team Coordinator
Ms. Eraj (Biochemistry)	CBL Team member-1
Dr. Saba Ikram (Anatomy)	CBL Team member-2
Dr. Nauman (Community Medicine)	Member
Dr. Muhammad Salman khan (Pathology)	Member
Dr. Hina (Pharmacology)	Member
Dr. Rafay (Forensic Medicine)	Member
Dr. Sidra (Surgery & allied)	Member
Dr. Anita Haroon (Medicine & Allied)	Member
Ms. Eraj Abbas (Research)	Member
Dr. Saadia (Gynae & Obs)	Member
Department of Medical education	All Members

DEPARTMENT OF ANATOMY			
Faculty Name	Qualifications	Designation	**Contact Details**
Prof. Dr. Muhammad Rashid Ahmed	MBBS, M.Phil, Ph.D	HOD	drrashidahmed@baqai.edu.pk
Prof. Dr. Syed Inayat Ali	MBBS, M.Phil	Professor	drinayatali@baqai.edu.pk
Dr. Shahid Pervez	MBBS, M.Phil	Associate Prof	sshaikh@baqai.edu.pk
Dr. Tayyaba Kazmi	MBBS, M.Phil	Associate Prof	drtayyabakazmi@baqai.edu.pk
Dr. Mubashara Tahseen	MBBS	Lecturer	mhubasaratahseen@baqai.edu.pk
Dr. Saba Ikram	MBBS	Lecturer	sabaakram@baqai.edu.pk

Teaching Faculty

DEPARTMENT OF PHYSIOLOGY			
Faculty	Qualification	Designation	**Contact Details**
Prof. Dr. Qamar Aziz	MBBS, M.Phil, PhD	Professor & Chairman	drqamaraziz@baqai.edu.pk
Dr. Ruqaya	M.Sc, M.Phil, PhD	Associate professor	ruqayakhan@baqai.edu.pk
Dr. Syed Adnan Ahmed	MBBS, M.Phil	Assistant Professor	dradnan ahmed@ baqai.edu.pk
Dr. Saba Abrar	MBBS, M.Phil	Assistant Professor	drsabaabrar@ baqai.edu.pk
Ms. Nida Lathiya	M.Sc, M.Phil, PhD	Assistant Professor	nidalathiya@ baqai.edu.pk
Dr. Muhammad Ali.	MBBS, M.Phil	Senior Lecturer	muhammadali@ baqai.edu.pk
Dr. Saiyeda Asma Bilquis	MBBS	Senior Lecturer	asma.bilquis@ baqai.edu.pk
Dr. Sobia Khan Nabeel	MBBS	Lecturer	sobianabeel@ baqai.edu.pk
Dr. Saba leeza	MBBS	Lecturer	sabaleeza@bmu.edu.pk

DEPARTMENT OF BIOCHEMISTRY			
Faculty Name	Qualifications	Designation	**Contact Details**
Prof. Dr. Iftikhar Ahmed	MBBS, MPhil, Ph.D	Chairperson	dr.iftikhar@baqai.edu.pk
Prof. Dr.Asher Fawwad	MBBS, D.D.M, MPhil, Ph.D	HOD	asherfawwad@baqai.edu.pk
Dr. Kahkashan Perveen	M.Sc, MPhil, Ph.D	Associate. Prof	dr.kahkashan@baqai.edu.pk
Dr. Iffat Ara Aziz	M.B.B.S, M.Phil	Assist. Prof	iffataziz@baqai.edu.pk
Mr. Muhammad Jamal	M.Sc, MPhil	Senior Lecturer	jamal@bmu.edu.pk
Ms. Eraj Abbas	M.Sc, MPhil	Senior Lecturer	eraj@bmu.edu.pk
Dr. Benish Zafar	M.B.B.S	Lecturer	benishzafar@baqai.edu.pk
Dr. Farhan Sabir	M.B.B.S/D.D.M.	Lecturer	farhansabir@baqai.edu.pk

DEPARTMENT OF FORENSIC MEDICINE			
Faculty Name	Qualifications	Designation	**Contact Details**
Prof. Dr. Tariq mirza	MBBS, MCPS, M.Phil	Chairperson	drtmirza@baqai.edu.pk
Dr Jan e alam	MBBS,DMJ	Assistant professor	janealam@baqai.edu.pk
Dr Rafay ahmed Siddiqui	MBBS	Lecturer	rafaya@baqai.edu.pk
Dr Sumaiya Mukhtar	MBBS	Demonstrator	dr.sumaiyamukhtar@gmail.com

DEPARTMENT OF COMMUNITY MEDICINE			
Faculty Name	Qualifications	Designation	**Contact Details**
PROF. DR SYED IMTIAZ AHMED JAFRY	MBBS, MPH	HEAD	drimtiazjafry@baqai.edu.pk
PROF. DR. NAZIA JAMEEL	MBBS, MPH	PROFESSOR	drnaziajameel@baqai.edu.pk
DR MUNIR AHMED SHAIKH	MBBS, MPH	ASSISTANT PROFESSOR	munirshaikh@baqai.edu.pk
DR SYED MUHAMMAD ZULFIQAR HAIDER NAQVI	MBBS, MSBE	ASSISTANT PROFESSOR	zulfiqarnaqvi@baqai.edu.pk
DR SYED NAUMAN RAZA	MBBS, MPH	ASSISTANT PROFESSOR	naumanraza@baqai.edu.pk
DR MUNEER AHMED	MBBS, MASTER OF TROPICAL MEDICINE, DIP (DERM), DIP (DIAB)	SENIOR LECTURER	muneerahmed@baqai.edu.pk
DR MUHAMMAD DANISH AHMED	MBBS	DEMONSTRATOR	drmdanishahmed@bmu.edu.pk

DEPARTMENT OF PATHOLOGY			
Faculty Name	Qualifications	Designation	**Contact Details**
Prof. Dr. Muhammad Rafiq Khanani	MBBS,FC Path(H), M.Phil, Ph.D	Chairman	Rafiq.khanani@baqai.edu.pk
Dr. Muhammad Rizwan	MBBS, M.Phil (Haem.)	Associate Professor (Hematology)	drmrizwan@baqai.edu.pk
Dr. Muhammad Akbar Hassan	MBBS, MCPS (patho), M.Phil. (Micro)	Associate professor (Microbiology)	drakbarhassan@baqai.edu.pk
Dr Nasima Iqbal	MBBS, M.Phil	Associate Professor	drnasimaiqbal@baqai.edu.pk
Dr. Iram Nazir	MBBS, M.Phil	Assistant professor (Hematology)	driramnazir@baqai.edu.pk
Dr. Khushbakht Nawaz	MBBS, M.Phil	Assistant professor	drkhushbakht@baqai.edu.pk
Dr. Maeesa Sajeel	MBBS, M.Phil, (Haem), MS (T.Med)	Assistant Professor (Hematology)	drmaeesasajeel@baqai.edu.pk
Dr. Muhammad Salman Khan	MBBS, M.Phil	Assistant Professor	drsalmankhan@baqai.edu.pk
Dr. Rana Zeeshan Haider	M.Sc (Hem), Ph.D (Hem)	Assistant Professor	rana.haider@baqai.edu.pk

Dr. Sarah Azhar	MBBS, M.Phil (Histopathology)	Assistant Professor	drsarahazhar@baqai.edu.pk
Dr. Ghazal Irfan	MBBS, DLH & BT	Sr. Lecturer	dirfan@baqai.edu.pk
Dr. Nadeem Umar Baqai	MBBS	Sr. Lecturer	nadeemumerbaqai@baqai.edu.pk
Dr. Muhammad Yasir Rishi	MBBS	demonstrator	yasirrishi@bmu.edu.pk
Dr. Sidra Izhar	MBBS,MCPS, M.Phil,	demonstrator	sidraizhar@bmu.edu.pk
Dr. Tooba khan	MBBS	demonstrator	toobakhan@bmu.edu.pk

DEPARTMENT OF PHARMACOLOGY			
Faculty Name	Qualifications	Designation	**Contact Details**
Prof. Dr. Sheikh Nadeem Ahmed	MBBS, M.Phil	Chairman	dr.nadeem_ahmed@baqai,edu.pk
Prof. Dr. Asif Ahmed	MBBS, Ph.D	Head	drasifahmed@baqai.edu.pk
Dr. Hina Masood	MBBS	Sr. Lecturer	hinamasood@baqai.edu.pk
Dr. Lubna Ali	MBBS	Lecturer	drlubnajahanzaib@baqai.edu.pk
Dr. Sehrish Mehmood	MBBS	Demonstrator	sehrishmehmood@baqai.edu.pk
Dr. Sumreen Mujahid	M.Phil, Pharm D	Clinical Pharmacist	sumreenfawaz@baqai.edu.pk

DEPARTMENT OF ANAESTHESIOLOGY			
Faculty Name	Qualifications	Designation	**Contact Details**
Dr. Ghulam Murtaza	MBBS, MCPS	Assistant Professor & Head	ghulammurtaza@baqai.edu.pk
Dr. Syed Jawaid Hussain	MBBS, MCPS	Assistant Professor	N/A
Dr. Tariq Hussain Mughal	MBBS, MCPS	Assistant Professor	N/A

DEPARTMENT OF GYNAE & OBS.			
Faculty Name	Qualifications	Designation	**Contact Details**
Prof. Dr. Farrukh Naheed	MBBS, FCPS,MCPS	Head	drfarrukhnaheed@baqai.edu.pk
Dr. Musharraf Jahan	MBBS, FCPS	Associate Professor	drmusharrafjahan@baqai.edu.pk
Dr. Nikhat Ashraf Ahsan	MBBS, FCPS	Associate Professor	nikhatahsan@baqai.edu.pk
Dr. Sarwat Jehan	MBBS, MCPS,FCPS	Associate Professor	N/A
Dr. Farah Liaquat	MBBS, FCPS	Assist. Prof	N/A
Dr. Hafiza Yasmeen Abbas	MBBS, FCPS	Assistant Prof.	N/A
Dr. Nazish Ali	MBBS, FCPS	Assistant Prof	N/A
Dr. Saadia Akram	MBBS, FCPS	Assistant Prof	saadiaakram@baqai.edu.pk
Dr. Naila Qamar	MBBS, FCPS	Sr. Registrar	N/A
Dr. Yasmin Akhtar	MBBS	Registrar	N/A

DEPARTMENT OF FAMILY MEDICINE			
Faculty Name	Qualifications	Designation	**Contact Details**
Dr. Faisal Ahmed	MBBS, MRCP, MRCGP,DPD	Assoc Prof & Head	faisal.ahmed@baqai.edu.pk
Dr. Asma Niaz	MBBS,MCPS,DCN	Sr. Registar	N/A
Dr. Naseem Amin Dhedi	MBBS, MRCGP,FCPS	Sr. Registrar	nasimdhedhi@hotmail.com

DEPARTMENT OF SURGERY			
Faculty Name	Qualifications	Designation	**Contact Details**
Prof. Dr. Khalid Ahmad	MBBS, FCPS	Chairman	drkhalidahmed@baqai.edu.pk
Prof. Dr. Muhammad Aslam Siddiqui	MBBS, Dip (Ortho, MS Ortho)	Head (Orthopedics)	draslamsiddiqui@baqai.edu.pk
Prof. Dr. Ghulam Mustafa Kaim Khani	MBBS, FCPS	Professor (Orthopedics)	ghulammustafa@baqai.edu.pk
Prof. Dr. Muhammad Saddique Arain	MBBS, FRCS	Professor	N/A
Dr. Ahmed Ali	MBBS, MS (Ortho)	Associate Prof. (Ortho)	drahmedali@baqai.edu.pk
Dr. Bashir Ahmed Soomro	MBBS, FCPS	Associate Prof (Paed. Surgery)	drbashirahmed@baqai.edu.pk
Dr. Muhammad Abid Owais	MBBS, FCPS	Associate Prof	drabidowais@baqai.edu.pk
Dr. Shafaat Ullah	MBBS, DSS 9 Plastic Surgery), MS (Gen. Surgery)	Associate Prof. 9 Plastic Surgery)	drshafaatullah@baqai.edu.pk
Dr. Syeda Saima Qamar	MBBS, FCPS	Associate Prof	saima.qamar@baqai.edu.pk

Dr. Faizan Iqbal	MBBS, FCPS	Assistant Prof (Ortho)	faizaniqbal@baqai.edu.pk
Dr. Saeed Mazhar	MBBS, FCPS	Assistant Prof (Neuro-surgery)	N/A
Dr. Sidra Abbas	MBBS, FCPS	Assistant Professor	drsidraabbas@baqai.edu.pk
Dr. Abdul Ghaffar Arain	MBBS, MCPS (Fem. M), FCPS	Sr. Registrar	drabdulghaffar@baqai.edu.pk
Dr. Rabail Bashir keerio	MBBS, FCPS	Sr. registrar	rabail.bashir@baqai.edu.pk

DEPARTMENT OF MEDICINE			
Faculty Name	Qualifications	Designation	**Contact Details**
Prof. Dr. Jameel Ahmed	MBBS, FRCP	Chairman	jameelahmed@baqai.edu.pk
Prof. Dr. Abdul Basit	MBBS,MRCP, FRCP	Director BIDE (Diabetology)	abdulbasit@baqai.edu.pk
Prof. Dr. Inam Rasool	MBBS,MCPS, FCPS	Professor & Director (Psychiatry)	inamrasool@baqai.edu.pk
Prof. Dr. Muhammad Yakoob Ahmedani	MBBS, FCPS	Professor (Diabetology)	yakoobahmedani@baqai.edu.pk
Prof. Dr. Tahir Hussain	MBBS, MRCP	Professor	drtahirhussain@baqai.edu.pk
Dr. Adil Khan	MBBS, MCPS, FCPS	Associate Professor	adilkhan@baqai.edu.pk
Dr. Musarrat Riaz	MBBS, FCPS (Med), FCPS (Endo)	Associate Professor	musarratriaz@baqai.edu.pk
Dr. Syed Iftikhar Haider	MBBS, MS (Gastro)UK, MD	Associate Professor	driftikharhaider@baqai.edu.pk
Dr. Amanullah khan	MBBS, FCPS	Assistant Professor	amanullah@baqai.edu.pk

Dr. Anita Haroon	MBBS, FCPS	Assistant Professor (Nephrology)	haroonharoon@baqai.edu.pk
Dr. Dania Faisal	MBBS, FCPS	Assistant Professor	daniafaisal@baqai.edu.pk
Dr. Mahira Shafi	MBBS, FCPS	Assistant Professor (Psychiatry)	mahirashafi@baqai.edu.pk
Dr. Masooda Fatima Riaz	MBBS, FCPS	Assistant Professor	masoodafatima@baqai.edu.pk
Dr. Muhammad Saqib ur Rehman	MBBS, FCPS	Assistant Professor	saqibrehman@baqai.edu.pk
Dr. Muhammad Zahid Shah	MBBS, MD	Assistant Professor	zahidshah@baqai.edu.pk
Dr. Nadia Farooq	MBBS, FCPS	Assistant professor (Dermatology)	nadiafarooq@baqai.edu.pk
Dr. Rana Tabassum Ansari	MBBS, FCPS	Assistant Professor	ranatabassum@baqai.edu.pk
Dr. Saba Nasreen	MBBS	Assistant Professor (Dermatology)	sabanasreen@baqai.edu.pk
Ms. Azra Shaheen	M.A Psychology	Assistant Professor (Psychiatry)	azra@baqai.edu.pk
Dr. Abdul Lateef	MBBS, DCN	Sr. Registrar (neurology)	N/A

Dr. Adeel ahmed	MBBS, FCPS	Sr. Registrar	adeelahmed@baqai.edu.pk
Dr. Mehmood Khurasany	MBBS, M.Sc (C.D)	Sr. Registrar	N/A
Dr. Kinza Hussain	MBBS	Registrar (Dermatology)	N/A
Dr. Uroosa Khan	MBBS	Registrar	N/A
Dr. Muhammad Hammad Shaikh	MBBS	CMO	N/A
Dr. Zohaib ur Rehman	MBBS	CMO	zohaibrehman@baqai.edu.pk

Introduction:

The Endocrine Module is the third module for 2nd Year MBBS Integrated Modular Curriculum for MBBS program. It will give an introduction and awareness about the curriculum of endocrine system in general along with the teaching and learning environment. This module includes basic anatomical, physiological and biochemical concepts in relation to the endocrine system and its link with clinical aspects related to the diseases of endocrine system. It also includes the basis of research and orientation about the clinical sciences. The curriculum will be delivered in the form of interactive large and small group formats including lectures, SGDs, practical and DSL.

Duration	6 weeks
Dates	05-07-2022 to 12-08-2022
Placement in Course	3rd Module of 2nd Year MBBS
EOA (End of module Assessment)	15th August, 2022 (Subject to minor changes)

Distribution of Teaching Activities

Learning Objectives:

ANATOMY			
LEARNING OBJECTIVES	TEACHING STRATEGY	DURATION	VENUE
HYPOTHALAMUS & PITUITARY GLAND (LEC-1)			
• Name the master endocrine glands of body? • Describe the location and relation of hypothalamus? • Describe the location and relations of pituitary gland? • Describe the functions of hypothalamus and pituitary gland? • Describe the blood supply of hypothalamus and pituitary gland?	LGIS	45 minutes	Lecture Hall-2 Block-A
EMBRYOLOGY OF HYPOTHALAMUS & PITUITARY GLAND (EMB LEC-1)			
• Define the sources of the development of hypothalamus and pituitary gland? • Describe the formation of Rathke's pouch and infundibulum? • Describe the derivatives of	LGIS	1 hour	Lecture Hall-2 Block-A

Rathke's pouch and infundibulum?			
HISTOLOGY OF HYPOTHALAMUS & PITUITARY GLAND (HIS LEC-1)			
• Describe the parts of hypothalamus and pituitary gland? • Describe the cells of hypothalamus and each part of pituitary gland? • Describe the features of different cells of hypothalamus and their secretions? • Describe the characteristic features of different cells of pituitary and their secretions?	LGIS	45 minutes	Lecture Hall-2 Block-A
GROSS ANATOMY OF THYROID & PARATHYROID (LEC-2)			
• Describe the structure of thyroid and parathyroid and identify their location & relations. • Describe their nerve supply, blood supply, functions & vasculature.	LGIS	1 hour	Lecture Hall-2 Block-A
HISTOLOGY OF THYROID & PARATHYROID (HIS LEC-2)			

• Describe the microscopic structure of thyroid and parathyroid. • Discuss the structure of follicle and parafollicle cells. • Differentiate between thyroid and parathyroid follicles.	LGIS	1 hour	Lecture Hall-2 Block-A
EMBRYOLOGY OF THYROID & PARATHYROID (EMB LEC-2)			
• Describe the development of thyroid and parathyroid glands. • Define the congenital anomalies of thyroid and parathyroid glands.	LGIS	1 hour	Lecture Hall-2 Block-A
SLIDES OF THYROID GLAND (PW-1)			
• Describe the histological features of thyroid gland. • Detail of the microanatomy of follicle and parafollicle cells. • Differentiate between thyroid and parathyroid follicles.	SGIS	2 hours	Histology Lab, 1st floor, Block-A
ADRENAL GLAND (LEC-3)			
• Describe the structure of adrenal gland and identify their location & relations.	LGIS	1 hour & 45 minutes	Lecture Hall-2 Block-A

• Describe their nerve supply, blood supply, functions & vasculature.			
HISTOLOGY OF ADRENAL GLAND (HIS LEC-3)			
• Describe the microscopic structure of adrenal gland. • Discuss the structure of cortex and medulla.	LGIS	1 hour	Lecture Hall-2 Block-A
EMBRYOLOGY OF ADRENAL GLAND (EMB LEC-3)			
• Describe the development of adrenal gland. • Define the congenital anomalies of adrenal gland.	LGIS	1 hour	Lecture Hall-2 Block-A
SLIDE OF ADRENAL GLAND (PW-2)			
• Describe the microscopic structure of adrenal gland. • Discuss the various layers of cortex and medulla.	SGIS	2 hours	Histology Lab, 1st floor, Block-A
PANCREAS (LEC-4)			
• Describe the anatomical structure of pancreas. • Discuss the relation of pancreas with other abdominal viscera. • Describe the blood supply and nerve supply of pancreas.	LGIS	1 hour	Lecture Hall-2 Block-A

• Discuss the applied aspect of pancreas.			
EMBRYOLOGY OF PANCREAS (EMB LEC-4)			
• Describe the development of pancreas. • Define the congenital anomalies of pancreas.	LGIS	1 hour	Lecture Hall-2 Block-A
HISTOLOGY OF PANCREAS (HIS LEC-4)			
• Describe the microscopic structure of pancreas. • Discuss the structure of pancreatic acinus. • Differentiate between exocrine and endocrine pancreas. • Describe the islet of Langerhans.	LGIS	1 hour	Lecture Hall-2 Block-A
THYMUS (LEC-5)			
• Describe the anatomical structure of thymus. • Discuss the relation of thymus. • Describe the blood supply and nerve supply of thymus.	LGIS	1 hour	Lecture Hall-2 Block-A
SLIDE OF THYMUS (PW-3)			
• Describe the parts of thymus?	SGIS	2 hours	Histology Lab, 1st floor, Block-A

• Describe the cells of each part of thymus? • Describe the characteristic features of different cells of thymus.			
PINEAL GLAND (LEC-6)			
• Describe the development and congenital anomalies of pineal gland. • Summarize the location, structure, relation, blood supply, venous drainage and lymphatic drainage of pineal gland? • Describe the microscopic features of pineal gland in detail.	LGIS	45 minutes	Lecture Hall-2 Block-A

PHYSIOLOGY			
LEARNING OBJECTIVES	TEACHING STRATEGY	DURATION	VENUE
OVERVIEW OF ENDOCRINES (LEC-1)			
• Give the Introduction to The Human Endocrine System. • Discuss the locations of different endocrine glands.	LGIS	1 hour	Lecture hall # 2, Ground floor, A-block.

• Describe the various hormones released and their specific functions. • Discuss the positive and negative feedbacks of all the endocrine hormones.			
FUNCTIONS OF HYPOTHALAMIC HORMONES (LEC-2)			
• Discuss the main function of the hypothalamus. • Discuss the physiological anatomy, functions and disorders of hypothalamus. • Describe the nuclei, connections & functions of Hypothalamus**,** disorders of hypothalamic functions.	LGIS	1 hour	Lecture hall # 2, Ground floor, A-block.
CLASSIFICATION OF HORMONES (LEC-3)			
• Identify the three major classes of hormones on the basis of chemical structure • Compare and contrast intracellular and cell membrane hormone receptors • Describe signaling pathways that involve cAMP and IP3	LGIS	45 min	Lecture hall # 2, Ground floor, A-block.

• Identify several factors that influence a target cell's response • Discuss the role of feedback loops and humeral, hormonal, and neural stimuli in hormone control.			
POSTERIOR PITUITARY HORMONE (LEC-4)			
• List the hormones produced in posterior pituitary. • Describe the structural differences b/w vasopressin and oxytocin • Describe the physiological functions of vasopressin • Explain the difference in the physiological role b/w vasopressin receptor types and the receptor specificity of desmopressin.	LGIS	1 hour	Lecture hall # 2, Ground floor, A-block.
ANTERIOR PITUITARY HORMONE (LEC-5)			
• Name the various anterior pituitary hormones. • Describe their sites of action.	LGIS	2 hour	Lecture hall # 2, Ground floor, A-block.

• Discuss the mechanism of interaction of anterior pituitary with the hypothalamus.			
FUNCTIONS OF GROWTH HORMONE (LEC-6)			
• Discuss the types of growth hormone. • Describe its mechanism and site of action. • Explain the functions of growth hormone on body. • Discuss the role in human body. • Discuss the various factors stimulating and reducing its production.	LGIS	1 hour	Lecture hall # 2, Ground floor, A-block.
FUNCTION OF THYROID HORMONES 1 (LEC-7)			
• Describe the physiological anatomy of thyroid gland. • Define the basic regulatory functions in the body of thyroid hormones. • Discuss the various types and their physiological levels in circulation.	LGIS	45 min	Lecture hall # 2, Ground floor, A-block.
FUNCTION OF THYROID HORMONES 2 (LEC-8)			
• Discuss the outcomes of raised levels.	LGIS	1 hour	Lecture hall # 2, Ground

• Describe the effects of thyroxine on our body.			floor, A-block.
REGULATION OF THYROID HORMONES (LEC-9)			
• Describe the regulation of thyroid hormone secretion (endocrine axis). The hypothalamus secretes thyrotropin releasing hormone (TRH) and this positively impacts. • Describe how the thyroid hormones are transported in the plasma and briefly describe the peripheral conversion of T 4 to T 3 or reverse T 3. • Describe briefly the effects of thyroid hormone and the consequences.	LGIS	2 hour	Lecture hall # 2, Ground floor, A-block.
REGULATION OF CALCIUM METABOLISM (LEC-10)			
• Understand the regulation of calcium homeostasis including the role of parathyroid hormone, cholecalciferol, and calcitonin. • Describe the symptoms of hypercalcemia and	LGIS	1 hour	Lecture hall # 2, Ground floor, A-block.

hypocalcemia and list possible causes.			
FUNCTION OF PARATHYROID HORMONE (LEC-11)			
• Describe the physiological anatomy of parathyroid hormone. • Define the regulatory functions. • Describe the hormones produced by parathyroid gland. • Discuss the outcomes of deranged parathormone levels in our body.	LGIS	2 hour	Lecture hall # 2, Ground floor, A-block.
ROLE OF CALCITONIN (LEC-12)			
• Understand the roles of PTH, vitamin D and calcitonin in calcium homeostasis and bone remodeling. • Explain the role of calcitonin in osteoblastic activity.	LGIS	1 hour	Lecture hall # 2, Ground floor, A-block.
ROLE OF VITAMIN D3 (LEC-13)			
• Describe the source of synthesis & release of vitamin D3.	LGIS	1 hour	Lecture hall # 2, Ground floor, A-block.

• Explain the activation of vitamin from sunlight. • Discuss the functions of Vitamin D3 and their benefits.			
PRACTICAL			
BMI	SGIS	2 hours	Physiology lab, 1st floor, A-block
SGT			
• Regulation of calcium metabolism.	SGIS	2 hours	Lecture hall # 2, Ground floor, A-block.
FUNCTION OF ALDOSTERONE (LEC-14)			
• Describe the physiological anatomy of glands involved. • Discuss the functions of aldosterone in fluid & electrolyte regulation. • Discuss the physiological effects of aldosterone in the body. • Explain the Renin-Angiotensin system.	LGIS	2 hours	Lecture hall # 2, Ground floor, A-block.
FUNCTION OF ADRENAL ANDROGEN (LEC-15)			
• Discuss the physiological anatomy of glands &	LGIS	1 hour	Lecture hall # 2, Ground

release of adrenal androgen. • Discuss the role in secondary sexual characteristic development. • Explain the factors involved in release of adrenaline and nor-adrenaline.			floor, A-block.
REGULATION OF ADRENAL HORMONE (LEC-16)			
• Describe the location and structure of the adrenal glands. • Describe the hormones produced by the adrenal cortex and adrenal medulla. • Summarize the target cells and effects.	LGIS	1 hour	Lecture hall # 2, Ground floor, A-block.
FUNCTION OF ALDOSTERONE & CORTISOL (LEC-17)			
• Describe the combined effects of aldosterone, angiotensin II and antidiuretic hormone on kidney function. • Explain the functions of cortisol in the body.	LGIS	1 hour	Lecture hall # 2, Ground floor, A-block.

• Discuss cortisol as 'stress hormone'.			
PANCREATIC HORMONES (LEC-18)			
• Describe the physiological Anatomy of Pancreas. • To be able to differentiate b/w exocrine & endocrine functions of Pancreas. • To be able to enlist the hormones produced by the pancreas & the pancreatic cells that produces them. • To know the structure & synthesis of Insulin. • To know the actions of Insulin.	LGIS	1 hour	Lecture hall # 2, Ground floor, A-block.
REGULATION OF ISLETS HORMONES (LEC-19)			
• Explain the role of the pancreatic endocrine cells in the regulation of blood glucose. • Describe the location and structure of the pancreas, and the morphology and function of the pancreatic islets.	LGIS	2 hours	Lecture hall # 2, Ground floor, A-block.

• Compare and contrast the function and regulation of insulin and glucagon.			
FUNCTIONS OF INSULIN & GLUCAGON (LEC-20)			
• Explain the relationship between metabolic syndrome and diabetes mellitus. • Differentiate Type 1 and Type 2 diabetes mellitus • Explain the early signs of diabetes. • Compare the causes and development of hypoglycemia and hyperglycemia. • Describe the common degenerative effects of diabetes mellitus.	LGIS	2 hours	Lecture hall # 2, Ground floor, A-block.
THYMUS & PINEAL GLANDS (LEC-21)			
• Describe the physiological anatomy of thymus and pineal glands. • Describe their respective functions in our body. • Discuss the types of cells in thymus gland and the hormone released.	LGIS	1 hour	Lecture hall # 2, Ground floor, A-block.

• Describe the location and structure of the pineal gland. • Discuss the function of melatonin.			

BIOCHEMISTRY			
LEARNING OBJECTIVES	TEACHING STRATEGY	DURATION	VENUE
HORMONES (LEC-1)			
• Define hormone. • Enlist different endocrine glands and their general features. • Classify hormones according to their biochemical structure. • Describe the modes of action employed by different hormones to execute their function.	LGIS	2 hours	Lecture Hall-2 Block-A
THYROID HORMONE SYNTHESIS (LEC-2)			
• List the hormones produced by the thyroid gland. • Describe the biosynthesis of thyroid hormones.	LGIS	2 hours	Lecture Hall-2 Block-A

• Relate the function of iodine with biosynthesis of thyroid hormones.			
THYROID FUNCTION TESTS-1 (LEC-3)			
• Identify the indications for performing thyroid function tests • Classify thyroid function tests based on various functions of the gland • Outline the interpretation of the results of radioactive uptake studies, T_3 suppression test, TSH stimulation test, and TRH stimulation test involved in assessing primary function of thyroid gland.	LGIS	1 hour	Lecture Hall-2 Block-A
THYROID FUNCTION TESTS-2 (LEC-4)			
• Outline the interpretation of the results of blood levels of thyroid hormones i.e. T_3, T_4 and TSH. • Relate the importance of measuring BMR, cholesterol level in plasma, serum creatinine levels, serum CK levels and uric acid level with that of	LGIS	1 hour	Lecture Hall-2 Block-A

assessing the metabolic effects brought about by either high or low amount of thyroid hormones • Outline the results of immunological tests used for diagnosing autoimmune thyroid diseases i.e. precipitation test, tanned red cell haemagglutination test and complement fixation test.			
ESTIMATION OF SERUM GLUCOSE-1 (PW-1)			
• Name the reagents to be used in the experiment. • Follow the instructions to prepare the stock standard solutions and the sample. • Identify the importance of using Folin Wu test tube for estimating glucose. • Describe the principle of the reaction taking place in the experiment. • Note the readings of transmittance and optical density of stock standard	SGIS	2 hours	Biochemistry lab, 1st floor, A-block

solutions and sample by using spectrophotometry. • Calculate the concentration of stock standard solutions of 'S' test tubes.			
ESTIMATION OF SERUM GLUCOSE-2 (PW-2)			
• Calculate the concentration of stock standard solutions of 'S' test tubes. • Construct the graph to obtain the concentration of glucose for the sample. • Interpret the result of whether the sample is hypoglycemic/hyperglycemic or within the normal range.	SGIS	2 hours	Biochemistry lab, 1st floor, A-block
ADRENAL GLAND HORMONE SYNTHESIS (LEC-5)			
• Describe the synthesis and metabolism of steroid hormones produced by adrenal cortex.	LGIS	1 hour	Lecture Hall-2 Block-A
CATECHOLAMINE SYNTHESIS (LEC-6)			
• Identify the location of catecholamine synthesis in adrenal gland. • Describe the synthesis and metabolism of	LGIS	2 hours	Lecture Hall-2 Block-A

catecholamines produced by adrenal medulla.			
INSULIN & ITS SYNTHESIS (LEC-7)			
• Describe briefly the structure of insulin. • Identify the commercial production and use of insulin. • Describe the biosynthesis of insulin.	LGIS	1 hour	Lecture Hall-2 Block-A
INSULIN & ITS METABOLIC EFFECTS (LEC-8)			
• Discuss the factors involved in regulation of insulin release. • Describe the mechanism of action of insulin. • Describe the metabolic effects of insulin.	LGIS	1 hour	Lecture Hall-2 Block-A
GLUCAGON & ITS METABOLIC EFFECTS (LEC-9)			
• Recognize that glucagon is a single polypeptide chain structure. • Identify the factors involved in stimulation and inhibition of glucagon. • Recall the mode of action of glucagon. • Describe the metabolic effects of glucagon.	LGIS	2 hours	Lecture Hall-2 Block-A

HOMEOSTASIS OF BLOOD GLUCOSE-1 (LEC-10)			
• Identify the events which occur as blood sugar rises and falls. • Describe the hormonal regulation of blood glucose via insulin, glucagon and cortisol.	LGIS	1 hour	Lecture Hall-2 Block-A
BLOOD GLUCOSE & ITS CLINICAL SIGNIFICANCE (SGT-1)			
• Discuss the conditions which increase and decrease the blood glucose levels.	SGIS	1.75 hours	Lecture Hall-2 Block-A
HOMEOSTASIS OF BLOOD GLUCOSE-2 (LEC-11)			
• Describe the hormonal regulation of blood glucose via growth hormone, thyroid hormones. • Identify that epinephrine is involved in autoregulation of blood glucose in hypoglycemia levels.	LGIS	1 hour	Lecture Hall-2 Block-A
GLYCOSURIA (LEC-12)			
• Define Glycosuria. • Define renal threshold for glucose and state its range. • Classify types of glycosuria	LGIS	45 min.	Lecture Hall-2 Block-A

• List common causes in each type of glycosuria.			
DIABETES MELLITUS & ITS TYPES (LEC-13)			
• Define diabetes mellitus and classify it. • Discuss the short term and long-term complications of diabetes mellitus.	LGIS	2 hours	Lecture Hall-2 Block-A
BIOCHEMICAL DERANGEMENTS IN DIABETES MELLITUS (SGT-2)			
• Discuss the metabolic derangements that occur in diabetes mellitus • Correlate clinical features of Diabetes mellitus with derangements in biochemical parameters.	SGIS	2 hours	Lecture Hall-2 Block-A

PATHOLOGY			
LEARNING OBJECTIVES	TEACHING STRATEGY	DURATION	VENUE
ABNORMALITIES OF GROWTH HORMONE (LEC-1)			
• Define Gigantism & Dwarfism. • Explain the Etiology & Pathogenesis of gigantism & dwarfism. • Explain the clinical manifestations of gigantism & dwarfism.	LGIS	2 hours	Lecture Hall-2 Block-A

• Enlist the laboratory findings of gigantism & dwarfism.			
HYPOTHYROIDISM & HYPERTHYROIDISM (LEC-2)			
• Define Hypothyroidism & Hyperthyroidism. • Explain the etiology & pathogenesis of hypothyroidism & hyperthyroidism. • Explain the clinical manifestations of hypothyroidism & hyperthyroidism. • Enlist the laboratory findings of hypothyroidism & hyperthyroidism.	LGIS	1 hour	Lecture Hall-2 Block-A
ABNORMALITIES OF ADRENAL GLAND-1 (LEC-3)			
• Define Addison's disease. • Explain the etiology & pathogenesis of Addison's disease. • Enlist the clinical findings of Addison's disease. • Enlist the laboratory findings of Addison's disease.	LGIS	1 hour	Lecture Hall-2 Block-A
ABNORMALITIES OF ADRENAL GLAND-2 (LEC-4)			
• Define Cushing Syndrome.	LGIS	45 min	Lecture Hall-2

• Explain the etiology & pathogenesis of Cushing syndrome. • Enlist the clinical findings of Cushing syndrome. • Enlist the laboratory findings of Cushing syndrome.			Block-A

COMMUNITY MEDICINE			
LEARNING OBJECTIVES	TEACHING STRATEGY	DURATION	VENUE
DIABETES MELLITUS (LEC-1)			
• Define and classify diabetes. • Enumerate the determinants of diabetes mellitus.	LGIS	1 hour	Lecture Hall-2 Block-A
PREVENTION OF DIABETES (LEC-2)			
• Describe prevention of diabetes mellitus. • Explain management of diabetes mellitus.	LGIS	1 hour	Lecture Hall-2 Block-A
OBESITY (LEC-3)			
• Define and classify obesity. • Enumerate the determinants and hazards of obesity.	LGIS	1 hour	Lecture Hall-2 Block-A
PREVENTION OF OBESITY (LEC-4)			

• Describe the prevention of obesity. • Explain the management and control of obesity.	LGIS	1 hour	Lecture Hall-2 Block-A

RESEARCH			
LEARNING OBJECTIVES	TEACHING STRATEGY	DURATION	VENUE
INFORMED CONSENT AND ITS SIGNIFICANCE-1 (LEC-1)			
• Define informed consent. • Summarize the ways of establishing informed consent.	LGIS	1 hour	Lecture Hall-2 Block-A
INFORMED CONSENT AND ITS SIGNIFICANCE-2 (LEC-2)			
• Explain the content of an informed consent form.	LGIS	1 hour	Lecture Hall-2 Block-A
RESEARCH PROJECT & ITS COMPONENTS (LEC-3)			
• Define research synopsis. • List the components of a research project.	LGIS	45 min	Lecture Hall-2 Block-A

PEARLS			
LEARNING OBJECTIVES	TEACHING STRATEGY	DURATION	VENUE
(LEC-1)			
	LGIS	1 hour	Lecture Hall-2 Block-A
(LEC-2)			
•	LGIS	45 min	Lecture Hall-2

			Block-A
(LEC-3)			
	LGIS	1 hour	Lecture Hall-2 Block-A
(LEC-4)			
	LGIS	45 min	Lecture Hall-2 Block-A
(LEC-5)			
	LGIS	45 min	Lecture Hall-2 Block-A

BIOETHICS			
LEARNING OBJECTIVES	TEACHING STRATEGY	DURATION	VENUE
INFORMED CONSENT AND REFUSAL OF TREATMENT(LEC-1)			
• Describe four principles of health care ethics. • Define informed consent. • Discuss the elements of informed consent. • Enumerate the types of informed consent.	LGIS	45 minutes	Lecture Hall-2 Block-A

PHARMACOLOGY			
LEARNING OBJECTIVES	TEACHING STRATEGY	DURATION	VENUE
INTRODUCTION TO ENDOCRINE PHARMACOLOGY (LEC-1)			

• Describe the physiology of endocrinology diseases & disorders. • Explain the pathophysiology of endocrinology diseases/disorders. • Discuss and understand the mechanistic pharmacology of endocrinology diseases/disorders.	LGIS	1 hour	Lecture Hall-2 Block-A
OVERVIEW OF PHARMACOLOGY OF HYPERGLYCEMIA (LEC-2)			
• Describe the physiology of hyperglycemia. • Explain the pathophysiology of hyperglycemia. • Discuss and understand the mechanistic pharmacology of hyperglycemia.	LGIS	45 min	Lecture Hall-2 Block-A

SURGERY			
LEARNING OBJECTIVES	TEACHING STRATEGY	DURATION	VENUE
HYPOTHYROIDISM (LEC-1)			
• Describe the clinical anatomy of thyroid gland.	LGIS	1 hour	Lecture Hall-2 Block-A

• Describe the various signs and symptoms in patients with hypothyroidism. • Describe the pathophysiology of hypothyroidism.			
GOITER (LEC-2)			
• Describe the clinical anatomy of thyroid gland. • Justify proper steps of history taking in patients with neck swelling. • Describe the various sign and symptoms in patients with goiter. • Describe the pathophysiology of goiter.	LGIS	1 hour	Lecture Hall-2 Block-A
HYPERPARATHYROIDISM (LEC-3)			
• Describe the clinical anatomy of parathyroid gland. • Describe the various signs and symptoms in patients with hyperparathyroidism. • Describe the pathophysiology of hyperparathyroidism.	LGIS	1 hour	Lecture Hall-2 Block-A
ADENOMA (LEC-4)			

• Describe the classification of benign and malignant tumors. • Justify proper steps of history taking in patients with lumps. • Describe the various sign and symptoms in patients with adenoma. • Describe the pathophysiology of adenoma.	LGIS	45 min	Lecture Hall-2 Block-A
METABOLIC RESPONSE TO INJURY (LEC-5)			
• Describe the basic metabolic response to injury. • Enlist the metabolic changes during injury and sepsis. • Describe the metabolic priorities for survival during a critical illness.	LGIS	45 min	Lecture Hall-2 Block-A
DIABETIC FOOT (LEC-6)			
• Describe the metabolic changes in diabetes. • Enlist the causes of diabetic foot.	LGIS	1 hour	Lecture Hall-2 Block-A

• Enumerate the clinical signs and symptoms of diabetic foot.			

MEDICINE			
LEARNING OBJECTIVES	TEACHING STRATEGY	DURATION	VENUE
BASICS OF PITUITARY GLAND (LEC-1)			
• Identify the location and parts of pituitary gland. • Enlist the hormones secreted by pituitary gland and their function. • Recognize the diseases caused by deficiency/ excess of pituitary gland hormones.	LGIS	1 hour	Lecture Hall-2 Block-A
OVERVIEW OF DIABETES MELLITUS (LEC-2)			
• Define diabetes. • Classify types of DM.	LGIS	45 min	Lecture Hall-2 Block-A
GROWTH HORMONE DISORDER (LEC-3)			
• Define short stature. • Know the pathophysiology of normal growth.	LGIS	45 min	Lecture Hall-2 Block-A
GROWTH HORMONE DISORDER (LEC-4)			
• List down the causes of short stature.	LGIS	45 min	Lecture Hall-2 Block-A
DYSFUNCTION OF THYROID GLAND-1 (LEC-5)			

• Identify the location and parts of thyroid gland. • Describe the steps of the synthesis of thyroid hormones. • Enlist the effect/action of thyroid hormones.	LGIS	45 min	Lecture Hall-2 Block-A
HYPERTENSION (LEC-6)			
• Define hypertension. • List down the endocrine causes of hypertension. • Enumerates the complications of untreated hypertension.	LGIS	45 min	Lecture Hall-2 Block-A
DYSFUNCTION OF THYROID GLAND-2 (LEC-7)			
• Recognize the diseases caused by deficiency of thyroid gland hormones. • Recognize the diseases caused by excess of thyroid gland hormones.	LGIS	45 min	Lecture Hall-2 Block-A
BASICS OF ADRENAL GLAND (LEC-8)			
• Identify the different parts of Adrenal glands. • Enlist the hormones secreted by adrenal glands.	LGIS	1 hour	Lecture Hall-2 Block-A

• Enumerates the functions of hormones secreted by adrenal glands.			
DYSFUNCTION OF ADRENAL GLAND (LEC-9)			
• Recognize the diseases caused by deficiency of adrenal gland hormones. • Recognize the diseases caused by excess of adrenal gland hormones.	LGIS	45 min	Lecture Hall-2 Block-A
WEIGHT GAIN (LEC-10)			
• Define BMI. • Define the normal, over weight and obesity cutoffs. • List down causes of obesity including endocrine causes. • Describe the complications of obesity.	LGIS	1 hour	Lecture Hall-2 Block-A
INSULIN (LEC-11)			
• Describe the mechanism of action of insulin. • Enumerates the effects of insulin deficiency. • Identify the effects of high insulin level.	LGIS	45 min	Lecture Hall-2 Block-A
OVERVIEW OF DIABETES MELLITUS (LEC-12)			

• Enlist sign and symptoms of DM. • Enumerate the effects of insulin on metabolism.	LGIS	45 min	Lecture Hall-2 Block-A
HYPOGLYCEMIA (LEC-13)			
• Define hypoglycemia. • Classify levels of hypoglycemia. • Enlist causes of hypoglycemia.	LGIS	45 min	Lecture Hall-2 Block-A

PAKISTAN STUDIES			
LEARNING OBJECTIVES	TEACHING STRATEGY	DURATION	VENUE
TWO NATION THEORY & QUAID-E-AZAM (LEC-1)			
• Describe Quaid-e-Azam's views on the Two Nation Theory.	LGIS	45 minutes	Lecture Hall-II Block-A
HAZARAT SHAH WALI ULLAH (LEC-2)			
• Write and explain the services of Hazrat Shah Wali Ullah.	LGIS	45 minutes	Lecture Hall-II Block-A
SHIEKH AHMED SIRHINDI (LEC-3)			
• Write and explain the services of Sheikh Ahmad.	LGIS	45 minutes	Lecture Hall-II Block-A
SIR SYED AHMED KHAN (LEC-4)			
• Write and explain the educational, political, religious, social and literary services of Aligarh	LGIS	45 minutes	Lecture Hall-II Block-A

Movement (Sir Syed Ahmed Khan).			

CBL			
LEARNING OBJECTIVES	TEACHING STRATEGY	DURATION	VENUE
ACROMEGALY-I (CBL-1)			
• Relate the symptoms and laboratory tests to the affected endocrine gland and the hormones. • Identify the manifestations of acromegaly which are normal or abnormal in this patient. • Understand the neuronal and vascular connections between hypothalamus and pituitary gland.	SGIS	2 hours	Lecture Hall-II Block-A
ACROMEGALY-II (CBL-2)			
• Elucidate the action of growth hormone and role of somatomedins in bone growth. • Comprehend feedback control of growth hormone secretion.	SGIS	2 hours	Lecture Hall-II Block-A

• Differentiate between Gigantism, acromegaly and dwarfism. • Describe the hormones secreted by pituitary gland, their mechanism of action and their regulation.			
THYROTOXICOSIS-I (CBL-3)			
• Describe the effects of thyroid hormones on metabolic functions of body. • Describe the effects of thyroid hormone on CVS. • Describe the causes, symptoms and treatment of hyperthyroidism.	SGIS	1.75 hours	Lecture Hall-II Block-A
THYROTOXICOSIS-II (CBL-4)			
• Differentiate between Grave's disease, goiter and cretinism. • Describe the physiological basis of various signs and symptoms in the patient. • Describe the pathophysiology of thyrotoxicosis and consequent laboratory findings.	SGIS	2 hours	Lecture Hall-II Block-A

BAQAI MEDICAL COLLEGE
TIME TABLE FOR 2nd YEAR MBBS
ENDOCRINE MODULE
Week 1

DAYS	8:30-9:30	9:30-10:15	10:15-10:30	10:30-11:30	11:30-12:30	12:30-1:15	1:15-1:30	1:30-3:30
	Reproduction Module Exam							
DAY 1	PHYSIO Overview of endocrines	ANATOMY Hypothalamus & Pituitary Gland	Tea break	PHYSIO Functions Hypothalamic hormone	PEARLS	PHYSIO Classification of hormones	Lunch & Prayer	BIOCHEM HORMONES
DAY 2	EMBRYOLOGY Hypothalamus & Pituitary Gland	BIOETHICS		PHYSIO Posterior Pituitary hormone	Medicine Basics of Pituitary glands	Pakistan Studies		PHYSIO Anterior Pituitary hormone
DAY 3	PHYSIO Functions of Growth Hormone	HISTOLOGY Hypothalamus & Pituitary Gland		PHARMACOLOGY Introduction to Endocrine Pharmacology	SDL	Medicine Overview of diabetes mellitus		PATHO Abnormalities of Growth Hormone
DAY 4	RESEARCH	Medicine Growth hormone disorder		COMMUNITY MEDICINE Obesity hazards	SDL		1:00-1:30 Lunch & Prayer	CBL Based on the topics covered earlier
DAY 5	**Anatomy Gross anatomy of thyroid / parathyroid gland**	**Medicine Growth hormone disorder**	**Tea break**	**COMMUNITY MEDICINE Obesity hazards**	**Anatomy Thyroid**		**SDL**	**Lunch & Prayer**	**Biochem Thyroid hormone synthesis**

BAQAI MEDICAL COLLEGE
TIME TABLE FOR 2nd YEAR MBBS
ENDOCRINE MODULE
Week 2

DAYS	8:30-9:30	9:30-10:15	10:15-10:30	10:30-11:30	11:30-12:30	12:30-1:15	1:15-1:30	1:30-3:30

DAY 6	ANATOMY Embryology of Thyroid gland	PHYSIO Regulation of Thyroid hormones	Tea break	PHYSIO Function of Thyroid hormones	Patho Hypothyroidism and hyperthyroidism	Medicine Dysfunction of thyroid gland	Lunch & Prayer	Anatomy Formative Assessment QUIZ Based on the topics covered earlier
DAY 7	PHYSIO Regulation of Calcium Metabolism	Surgery Hypothyroidism		COMM. MED Prevention of Obesity Dr. Nazia	SURGERY Goiter	P.ST		PHYSIO Function of Parathyroid hormone
DAY 8	PHYSIO Role of calcitonin	Surgery Hyperparathyroidism		PHYSIO Role of Vitamin D3	SDL			CBL
DAY 9	SGT Anatomy	Medicine Hypertension		PRACTICAL A, B & C Identification of Thyroid gland (Histology) BMI (Physiology) Biochemistry		BIOCHEM Adrenal Hormone Synthesis		SGT PHYSIO Regulation of Calcium Metabolism
DAY 10	ANATOMY Adrenal Gland			PRACTICAL A, B & C Identification of Thyroid gland (Histology) BMI (Physiology) Biochemistry		SDL	1:00-1:30 Lunch & Prayer	PRACTICAL A, B & C Identification of Thyroid gland (Histology) BMI (Physiology) Biochemistry

BAQAI MEDICAL COLLEGE
TIME TABLE FOR 2nd YEAR MBBS
ENDOCRINE MODULE
Week 3

DAYS	8:30-9:30	9:30-10:15	10:15-10:30	10:30-11:30	11:30-12:30	12:30-1:15	1:15-1:30	1:30-3:30
DAY 11	ANATOMY Histology Adrenal gland		Tea break	BIOCHEMISTRY Adrenal gland hormone synthesis	SDL	PEARL	Lunch & Pr	PHYSIOLOGY Function of aldosterone

DAY 12	PHYSIOLOGY Function of adrenal androgen	MEDICINE Clinical presentation of hormonal dysfunction ADDISON'S DISEASE		PATHOLOGY Abnormalities of adrenal gland I	SDL	P.STUDIES	ay er	ANATOMY SGT
DAY 13	ANATOMY Embryology Adrenal gland	PATHOLOGY Abnormalities of adrenal gland II		MEDICINE Clinical presentation of hormonal dysfunction Conn's syndrome	PHYSIOLOGY Regulation of adrenal hormone	SDL		FORMATIVE ASSESSMENT BIOCHEMISTRY
DAY 14	PRACTICAL A,B & C Histology Identification of slide of ADRENAL GLAND Biochem- Physiology : CBL		RANG FESTIVAL CLASSES SUSPENDED					
DAY 15	PRACTICAL A,B & C Histology Identification of slide of ADRENAL GLAND Biochem- Physiology : CBL		RANG FESTIVAL CLASSES SUSPENDED					

BAQAI MEDICAL COLLEGE
TIME TABLE FOR 2nd YEAR MBBS

DAYS	8:30-9:30	9:30-10:15	10:15-10:30	10:30-11:30	11:30-12:30	12:30-1:15	1:15-1:30	1:30-3:30
DAY 16	PHYSIOLOGY Function of Aldosterone & Cortisol	Medicine Cushing disease	Tea break	BIOCHEMISTRY Adrenal gland hormone synthesis	ANATOMY Histology Adrenal gland	PEARL	Lunch & Prayer	BIOCHEMISTRY Catecholamine synthesis
DAY 17	ANATOMY Pancreas	SURGERY Adenoma		Physiology Pancreatic hormones	ANATOMY Pancreas Embryo	P.STUDIES		Physiology Regulation of islets hormones
DAY 18	ANATOMY Pancreas Histo	SURGERY Metabolic response to injury		BIOCHEMISTRY Insulin & its synthesis	Medicine	SDL		Physiology Functions of insulin & glucagon
DAY 19	BIOCHEMISTRY Insulin & metabolic effects	PHARMACOLOGY Overview of pharmacology of hyperglycemia		SDL	PRACTICAL A,B & C Histology Identification of slide of ADRENAL GLAND Biochem- Physiology : CBL			BIOCHEMISTRY Glucagon & its metabolic effects

DAY 20	BIOCHEMISTRY Homeostasis of blood sugar-I	Medicine HYPOGLYCEMIA		SDL	PRACTICAL A,B & C Histology Identification of slide of ADRENAL GLAND Biochem- Physiology : CBL	1:00-1:30 Lunch & Prayer	PRACTICAL A,B & C Histology Identification of slide of ADRENAL GLAND Biochem- Physiology : CBL

ENDOCRINE MODULE
Week 5
BAQAI MEDICAL COLLEGE
TIME TABLE FOR 2nd YEAR MBBS
ENDOCRINE MODULE
Week 6

DAYS	8:30-9:30	9:30-10:15	10:15-10:30	10:30-11:30	11:30-12:30	12:30-1:15	1:15-1:30	1:30-3:30
DAY 21	ASHURA HOLIDAYS							
DAY 22								
DAY 23	Biochemistry Homeostasis of blood sugar-II	Medicine	Tea Break	Surgery Diabetic Foot	Community Medicine Prevention of Diabetes	Biochemistry Glycosuria	Lunch & Prayr Time	Anatomy LRC
DAY 24	ANATOMY Thymus	Research Measures of central tendency		PRACTICAL A & B Histology Identification of slide of Thymus Biochem-		ANATOMY Pineal glands		Biochemistry DM Its types & de arrangements & complications
DAY 25	Physiology Thymus & Pineal Glands	Medicine		PRACTICAL A & B Histology Identification of slide of Thymus Biochem-		12:30-1:00 SDL	1:00-1:30	CBL

Distribution and Duration* of Teaching Activities Amongst Different Disciplines

S. No.	Disciplines	Large Group Interactive Session	Small Group Interactive Session		Total hours
		Lectures	SGT	PW	
1.	Anatomy	14	4	6	24
2.	Physiology	26.5	2	2	30.5
3.	Biochemistry	18.5	3.75	3.75	26
4.	Pharmacology	1.75			1.75
5.	Pathology	4.75			4.75
6.	Com. Med	4			4
5.	Research	1.75			1.75
6.	Family Medicine	0			0
7.	Medicine	10.5			10.5
8.	Nephrology	0			0
9.	Emergency medicine	0			0
10.	Radiology	0			0
11.	Surgery	5.25			5.25

12.	Paediatric surgery	0		0
13.	Gynae & Obs	0		0
14.	Behavioral sciences	0		0
15.	Bioethics	0.45		0.45
16.	PEARLS	4.25		4.25
17.	Patient safety	0		0
18.	Infection control	0		0
19.	Skill Lab	0		0
20.	CBL		7.75	7.75
21.	SDL	15.25		15.25
22.	Pakistan Studies	3		3
23.	Islamiat	0		0
24.	Formative Assessment	6		6

* calculated in hours

Assessment Type:

Summative Assessment

- SEQs
- MCQs
- OSPE