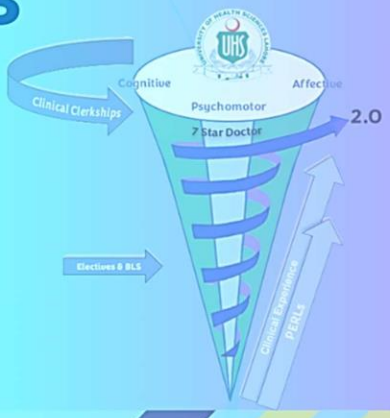
MODULAR INTEGRATED CURRICULUM 2K23



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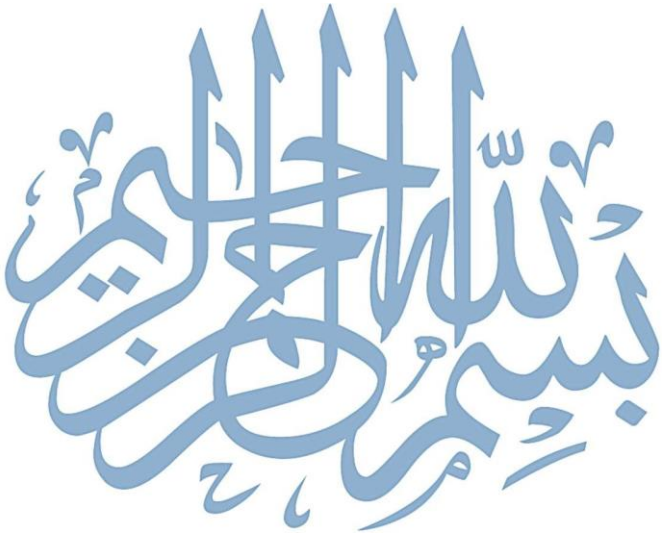
بسم الله الرحمن الرحيم

Principal's Message

Dear Students and Faculty,
It is with great pride and enthusiasm that we embark on this transformative journey together at our newly established medical college. This is a moment of new beginnings, brimming with possibilities, and an opportunity to shape a future grounded in academic excellence, innovation, and compassionate care.

To our students, you are stepping into a world where knowledge meets responsibility. Medicine is more than a profession; it is a calling to serve humanity with integrity and empathy. We are committed to nurturing not just your intellect but also your values, so you may emerge as competent and compassionate healthcare professionals. As you navigate this rigorous yet rewarding journey, remember that perseverance, curiosity, and a spirit of service will be your guiding stars.

To our esteemed faculty, your dedication and expertise form the cornerstone of this institution. Together, let us inspire our students, foster a culture of inquiry, and build a learning environment that emphasizes collaboration, critical thinking, and lifelong learning. You have the unique opportunity to shape the minds and hearts of future leaders in healthcare, and I am confident that your unwavering commitment will pave the way for their success.

Our first block of study marks the foundation of an academic experience that integrates the principles of holistic education with cutting-edge medical training. It is designed to challenge, motivate, and inspire both students and faculty. Let this guide serve as a roadmap, helping us achieve our shared goals while upholding the highest standards of education and care.

The journey ahead will undoubtedly present challenges, but it is in overcoming these that we find growth. Let us work together to create a legacy of excellence that will guide generations to come. With determination, collaboration, and a shared vision, I have no doubt that we will achieve greatness together.
Welcome to the start of an extraordinary chapter.

Warm regards,

Prof. Dr. Shireen Khawar
Principal

Vision, of Queen Medical College

Improving health through excellence in teachings and learnings, leaderships and innovations in health care practice and research.

Mission, of Queen Medical College

To make a valuable contribution to the undergraduate medical education in the country, by developing core knowledge, practical skills and ethical attitudes towards patient's care in our graduates.

To produce health care professionals who will enhance and extend quality of life in diverse clinical settings, offering the best in terms of efficacy and safety. To strive to attain high standards in education, researches and clinical cares and develop tomorrow's health care leaders who practice patient centered medicine of highest professional standard.

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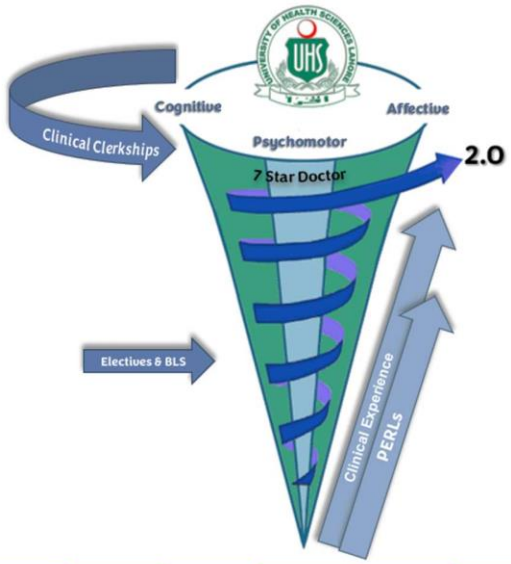
BLOCK-1



Foundation Module 1

Table of Contents

List of Abbreviations

Abbreviations	Subjects
A	Anatomy
Ag	Aging
B	Biochemistry
BS	Behavioral sciences
C	Civics
CSIM	Clinical Skills In Medicine
CM	Community Medicine
P	Physiology
Ph	Pharmacology
Pa	Pathology
FM	Forensic Medicine
ENT	Ear Nose Throat
O	Ophthalmology
Psy	Psychiatry
M	Medicine
S	Surgery
Pe	Pediatrics
GO	Gynecology and Obstetrics
QI	Quran and islamiyat
PERLs	Professionalism, Ethics, Research, Leadership

MODULE RATIONALE

Tomorrow's doctor is required to acquire competencies, which could align his knowledge base and skill set for his professional practices. The foundation of knowledge needs to commence from 'The Cell'. The cell is a structural and functional unit of life and has a role in normal homeostasis ensuring appropriate cellular functions. Hence, this module has been designed to introduce a blend of molecular, genetic, anatomical, physiological, and psychosocial information essential for developing a perspective on the function of the human body in health and disease. Besides, an initial orientation to pharmacology and pathology subject has been provided so that students are able to use this information in the coming modules.

MODULE OUTCOMES

- Describe the microscopic features of nerve cells, muscle cells, general features of epithelia of the body.
- Appraise the functional characteristics of various components of cell membrane and organelles of cell.
- Differentiate between the dynamics of various transport mechanisms along the cell membrane.
- Compare the functional differences between RBCs, WBCs and blood groups.
- Explain the significance of homeostatic mechanisms in keeping body's internal environment nearly constant.
- Appraise the formation and functions of autonomic nervous system.
- Correlate the structural design of each organ to its function.
- Acquire information about the different fascial planes in the different regions of the body & their surgical importance.
- Use descriptive anatomical terms of position to describe the different body structures in relation to each other.
- Describe the movements of body using proper anatomical terms of movement.
- Describe and demonstrate the various bony landmarks.
- Describe the types of joints and correlate them to the mechanisms of movement.
- Classify the bone, joints and muscles based on the structure, function, phylogenetic origin.
- Describe the structures associated with muscles and explain their functional correlations.
- Classify and describe the cardiovascular system and correlate it functionally.

- Amplify the anatomical basis for radiological, cross-sectional, anatomy.
- Correlate clinicopathologically the apoptosis in health & diseases.

THEMES

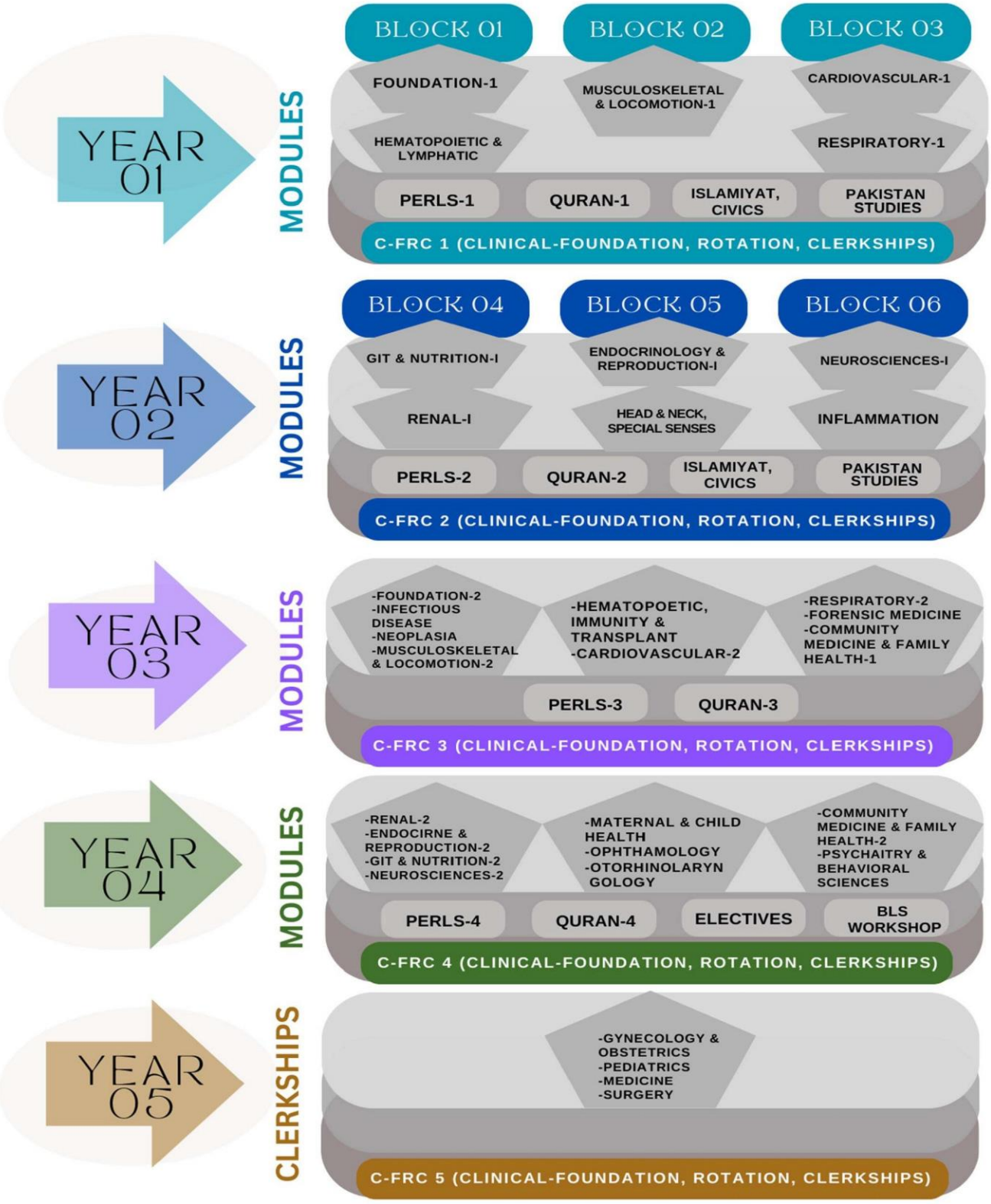
- Cell structure
- Cell transport and signaling
- Cell chemistry
- Homeostasis and blood
- Autonomic nervous system
- Body movement
- Muscles
- Growth and development

SYLLABUS OF FOUNDATION-1 MODULE

Curriculum Framework

Curriculum 2K23 *version 2.0*

CURRICULUM FRAMEWORK



Over View of Curriculum

Curriculum 2K23 version 2.0 has been purposefully developed and using the expertise of a group of medical educationists from the affiliated colleges, with the input of subject experts & healthcare leaders to have outcomes which are not only locally contextualized but also globally acceptable. With the final professional profile as the foundational underpinning for a framework, the need for precisely defined competencies and outcomes becomes a must.

University of Health Sciences Lahore emphasizing on the knowledge base, attributes, professional behaviours, and skills set that the yield of the doctors which are brought forth into the healthcare landscape of the country possess at the time of graduating from its affiliated colleges.

A competency is a blend of background knowledge, skills, and attitude that enables a professional to perform as a job requirement.

The competency framework defined during the development of Curriculum **2K23** version 2.0 has further been categorized into the competencies and behavioral descriptors required to enter the clinical segment of the competency continuum and the exit competencies at the end of the 5-year program.

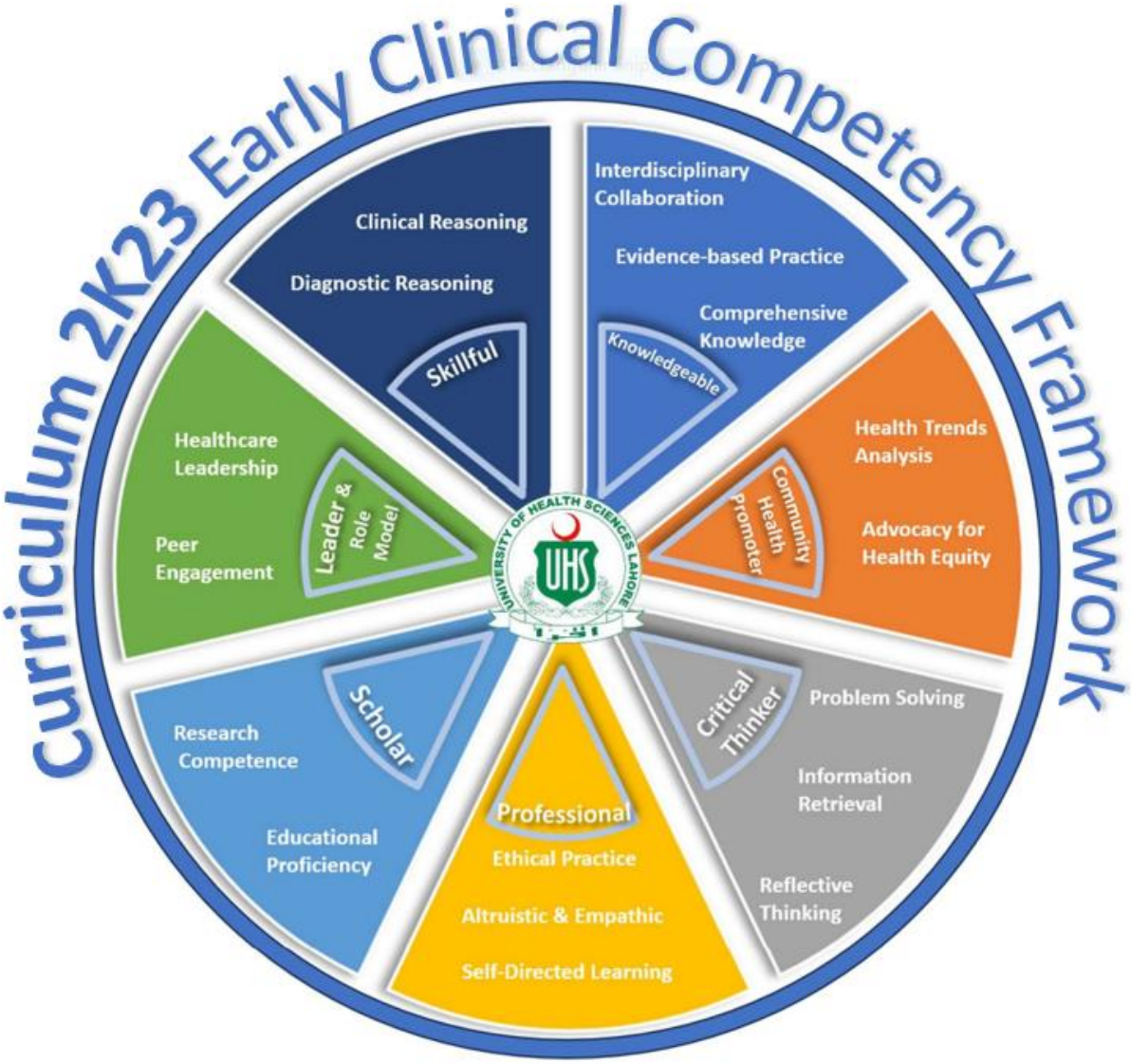
Current edition of **Curriculum 2K23** version 2.0 contains the competency framework for the preclinical years. This framework elaborates the competencies, sub competencies and their behavioral descriptors which the student must possess before entering the clinical years. The module and assessments of the C-FRC and the early clinically oriented activities that have commenced in the first two years will help steer the students to achieve these goals.

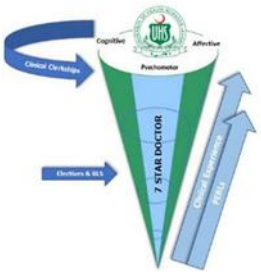
Competency framework anchors the professional requirements, training benchmarks and societal expectations in a concise manner. The relatable aspect of attainment sets the path for the institutional implementation. The students should be capable of a deeper understanding of the concepts of competencies and what professional requirements do they need to fulfill before every next stage of their educational journey and skill acquisition. The departments of Medical Education should not only

endorse these expectations but should also help establish a culture of professing to the community and stakeholders for an upkeep of laid down standards. The professed standards defined by the regulatory authority, community or religious integrity.

The current chapter contains the competency framework for the 'Preclinical' years, only. This may serve as a base guideline framework for the institutional designing for their undergraduate training protocols. The sub competencies and their behavioral descriptors are all aligned to the requirements of the 7-star doctor which has been defined by the national regulatory authority and mentioned verbatim in chapter 5. The same set of sub competencies and their behavioral descriptors will diversify into the attributes, clinical competencies, and sub competencies for the remainder of the competency framework which will follow in the next and final version.

The current framework scopes the behaviour requirements and attributes to be achieved. However, all the affiliate institutions have the latitude to further define the sub competencies and their behavioral descriptors to be achieved, based on their own institutional core values and ideology.





Core Competencies & Sub- Competencies to be achieved before entering the 3rd Year

Competency	Sub Competency	Behavioral Descriptors for Early Clinical Years
Skillful	**Clinical Reasoning**	1. Demonstrate the ability to apply fundamental scientific knowledge to clinical scenarios, such as patient histories and hypothetical case presentations showcasing the integration of theoretical learning into practical clinical reasoning. 2. Critically assess and evaluate existing medical literature and research to inform decision-making in hypothetical patient scenarios during preclinical case studies. 3. Engage in collaborative problem-solving exercises with peers, actively participating in preclinical problem-based discussions to enhance clinical reasoning skills through dialogue and debate.
	Diagnostic reasoning	1. Apply foundational knowledge from basic sciences to critically evaluate the clinical scenarios, to formulate differential diagnoses during preclinical case discussions.
Knowledgeable	**Holistic Understanding and Comprehensive Knowledge**	1. Demonstrate a thorough understanding of normal and abnormal structures and functions of the body. 2. Apply comprehensive knowledge in identifying molecular, cellular, biochemical, and physiological mechanisms. 3. Evaluate the impact of growth, development, and aging. 4. Explain the various etiological causes and causative agents for specific injuries, illnesses, and diseases. 5. Identify and analyse biological and social determinants and risk factors of diseases. 6. Recognize and explain patterns of normal and abnormal human behavior
	Synthesis of Interdisciplinary Knowledge	1. Integrate knowledge from various medical disciplines to inform hypothetical clinical decision-making and synthesize information for a comprehensive understanding of hypothetical patient cases. 2. Apply a holistic approach by considering the interconnectedness of biological, social, and psychological factors in theoretical healthcare scenarios, and propose integrated solutions to hypothetical clinical problems using interdisciplinary knowledge.
	Evidence Based	1. Critically assess and evaluate existing medical literature and research to inform decision-making in hypothetical patient scenarios during preclinical case studies.

	Practice	2. Integrate knowledge from various scientific disciplines to develop comprehensive and evidence- based explanations for medical phenomena encountered in preclinical coursework.
Community Health Promoter	**Health Trends Analysis**	1. Critically review scientific literature to stay informed about health trends.
	Advocacy for Health Equity, Promotion, and Prevention	1. Engage in discussions on health disparities and social determinants of health. 2. Demonstrate an understanding of community health concerns
Critical thinking	**Information Retrieval**	1. Seeks information from various academic sources, including textbooks, research articles, and online resources.
	Problem solving	1. Critically assesses experimental data during laboratory sessions, showing attention to detail and an understanding of its relevance to medical concepts. 2. Demonstrates effective identification and analysis of medical issues during case-based and problem based discussions. 3. Applies logical reasoning to propose viable solutions in problem-solving exercises. 4. Displays adaptability in integrating knowledge to address complex medical challenges. 5. Shows proficiency in utilizing evidence-based strategies to resolve clinical puzzles during preclinical training.
	Reflective Thinking	1. Sets specific learning goals, creates plans to achieve them, and reflects on progress regularly. 2. Reflects on problem-solving processes, identifying strategies that were effective and areas for refinement.
Professional	**Self-directed Learning**	1. Regularly evaluates personal academic progress and adjusts study strategies accordingly. 2. Actively engages in collaborative peer study groups to enhance learning. 3. Demonstrates effective use of technology to manage and organize study materials.
	Altruistic and Empathetic:	1. Displays empathy and understanding in peer, faculty, and staff interactions.
	Ethical Practice	1. Demonstrates self and professional accountability, honesty, and ethical behaviour. 2. Uphold principles of academic integrity in all

		coursework. 3. Consistently exhibits professional conduct, respecting academic and ethical standards, serving as a positive example for classmates.
Scholar	**Research Competency**	1. Displays foundational skills in research, including the identification of researchable problems, formulation of clear research questions, and engagement in literature reviews, setting the groundwork for future research endeavors.

	Educational Proficiency	1. Demonstrates consistent high performance in coursework, showcasing a deep understanding of foundational medical sciences during preclinical years. 2. Actively engages in self-directed learning, displaying a strong commitment to mastering educational content and fostering a solid academic foundation in the early years of MBBS.
Leader and Role Model	**Healthcare Leadership**	1. Demonstrating effective communication and teamwork skills during PBLs, simulations or practical sessions. 2. Actively seeks collaboration on group projects, fostering teamwork and collective problem-solving skills.
	Peer Engagement	1. Actively seeks opportunities to assist peers in understanding complex medical concepts, displaying a collaborative and supportive attitude that fosters a culture of shared learning and growth.

Institutional Implementation

Curriculum 2K23 version 2.0 requires to be implemented by all institutions based on their own unique identity but with true letter and spirit.

Competency framework should be adopted, translated, and implemented through all the methodologies and integrated into all the educational processes of the institutions.

The pre-clinical competency framework will serve as the main scaffold for developing the clinical competencies and clerkship related attributes. So, the significance of implementing this is foundational for developing a seven-star doctor.

MODULAR INTEGRATED CIRRICULUM 2K23

version 2.0

PLANNER

YEAR 1

Year 1					
Week	BLOCKS	Modules	Spirals		
1 2 3 4 5 6 7 8	Block 1	**Module 1 : Foundation-1** **03rd March 2025 –25th April 2025**	PERLs	C FRC	Quran , Islamiyat & Pak Studies
9 10		Eid ul Fitr 31.3.2025—03.4.2025			
11 12 13 14		**Module 2: Haematopoeitic & Lymphatic** **29th April 2025 – 16th May 2025** Space for Spirals & CIA	PERLs	C FRC	Quran , Islam & Pak Stud
15		Block Exam 1			
16 17 18 19	Block 2	**Module 3: Musculoskeletal & Locomotion-1** **28 th May 2025 –6th August 2025**	PERLs	C FRC	Quran , Islam & Pak Studies
		Eid ul Azha 7.6.2025-9.6.2025			
20 21 22		**Summer Break** **01 July,25 - 30 July,25**			
23 25 25 26		**Module 3 (continues): Musculoskeletal & Locomotion-1** **28 th May 2025 –6th August 2025**	PERLs	C FRC	Quran , Islamiyat & Pak Studies
27		**Space for Spirals & CIA**			
28		Block Exam 2			
29 30 31 32 33 34 35	Block 3	**Module 4: Cardiovascular-1** **10th Sep 2025 – 24th October 2025**	PERLs	C FRC	Quran , Islamiyat & Pak Studies
36 37 38 39		**Module 5: Respiratory-1** **28th October 2025 – 14th November 2025**			
40		Space for Spirals & CIA			
41		Block Exam 3			
42 43 44 45	Prep Leave				
46 47 48 49 50 51	Professional Exam				

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YEAR-1
FOUNDATION MODULE

Week 1
Theme: Orientation

<table>
<tr><th>Day</th><th>08:30 – 09:30</th><th colspan="2">09:30- 11:00</th><th colspan="2">11:00-12:00</th><th>12:00-01:30</th><th>01.30-2.30</th></tr>
<tr><td>Monday</td><td>Receiving Kit</td><td colspan="2">Welcome address, White Coat ceremony, Introduction of students and HOD
Main Auditorium</td><td colspan="2">Department of medical education
Lecture Hall</td><td>Campus Tour</td><td>Refreshments</td></tr>
<tr><td rowspan="2">Tuesday</td><td colspan="3">08:00- 11:00</td><td rowspan="5">11:00 - 11.30

Break</td><td colspan="3">11:30-02:30</td></tr>
<tr><td>IT\Library

<u>Muhammad Nadir/ Abdul Razzaq</u></td><td>Group Dynamics& Leadership
<u>Dr. Syed Hasan Shoaib</u></td><td>Study Skills
<u>Dr. Sadaf Sajid</u></td><td>IT\Library

Muhammad Nadir/ Abdul Razzaq</td><td>Group Dynamics& Leadership
<u>Dr. Syed Hasan Shoaib</u></td><td>Study Skills
<u>Dr. Sadaf Sajid</u></td></tr>
<tr><td>Group 1</td><td>Group 2</td><td>Group 3</td><td>Group 2</td><td>Group 3</td><td>Group 1</td></tr>
<tr><td>Wednesday</td><td>IT\Library</td><td>Group Dynamics & Leadership</td><td>Study Skills</td><td colspan="3">Visit to Anatomy, Physiology and Biochemistry department in three batches (40mins each)
Group 1-2-3
Anatomy Group-1 Biochemistry Group-2 Physiology Group-3 | Anatomy Group-2 Biochemistry Group-3 Physiology Group-1 | Anatomy Group-3 Biochemistry Group-1 Physiology Group-2
11:30-12:30 | 12:30-1:30 | 1:30-02:30
Venue: Anatomy- Physiology- Biochemistry Departments</td></tr>
<tr><td></td><td>Group 3</td><td>Group 1</td><td>Group 2</td><td></td></tr>
<tr><td rowspan="2">Thursday</td><td colspan="3">08:00- 11:00</td><td colspan="3">11:30-02:30</td></tr>
<tr><td colspan="3">Meet the Mentors</td><td>Introduction of co-curricular clubs/committees Lecture Hall</td><td>Introduction of co-curricular clubs/committees Lecture Hall</td><td>Open Session with students</td></tr>
<tr><td rowspan="2">Friday</td><td colspan="3">08-00-12.00</td><td colspan="3"></td></tr>
<tr><td colspan="5">Visit to Hospital
Medical facilities available to students
Introduction to Foundation Module</td><td>12:00-01:00
Jumma Prayer</td></tr>
</table>

Venue for Workshops:	
IT/ Library	IT lab (QMC)
Study Skills	Tutorial Room 1 (QMC)
Group Dynamics and Leadership	Tutorial Room 2 (QMC)

Detail of Group A, B, C (for visit to clinical and basic science departments)	
Group	**Roll #**
1	1-33
2	34-66
3	67-100

NORMAL STRUCTURE					
THEORY					
CODE	**GROSS ANATOMY** **SPECIFIC LEARNING OUTCOMES**	**TOTAL HOURS = 15** **DISCIPLINE**	**TOPIC**	**Teaching strategy**	**Assessment strategy**
F-A-001	Briefly describe the applied branches ofanatomy Describe the "Anatomical Position" Describe the anatomical planes of body. Describe the terms of relationship,commonly used in Anatomy. Describe the anatomical terms usedspecifically for Limbs. Describe the terms related to movements.	General Anatomy	Introduction toGeneral Anatomy	**Interactive lecture** **SGD**	**MCQS**
F-A-002	Describe, identify, and exemplify the general morphological features of bones. Describe the developmental classification ofbones. Describe the regional classification of bones. Describe the morphological classification of bones. Describe and exemplify Sesamoid, Pneumatic, Wormian and Heterotopic bones. Describe the general features of adulttypical long bone. Describe the types of epiphyses Discuss the general concept of ossification (primary and secondary centers and rule ofossification) Describe the relationship of growing end of bones with the direction ofnutrient foramen Describe the blood supply of various typesof bones Describe the salient features of common types of fractures and basic concept of healing offracture.	General Anatomy	Bones (Osteology)	**Interactive lecture** **SGD**	**MCQ'SSEQ'S**
F-A-003	Describe the general features of cartilageand its importance in gross anatomy. Describe the subtypes and gross features ofHyaline, elastic and fibro Cartilage. Differentiate thethree types of cartilages	General Anatomy	Cartilage (Chondrology)	**Interactive lecture** **SGD**	**MCQ'SSEQ'S**

F-A-004	Describe and exemplify the structural classification of Joints (synovial, cartilaginous & fibrous) along with their sub-classification. Describe the components and characteristicfeatures of a Synovial Joints. Describe the blood supply, innervation of Synovial Joints, cartilaginous joints, and fibrous joints. List the factors stabilizing a synovialjoint. Define common joint injuries and diseases	General Anatomy	Joints (Arthrology)	**Interactive lecture** **SGD**	**MCQ'S** **SEQ'S**
F-A-005	Describe the structure and function of Skin on the basis of its two layers; Epidermis and Dermis Describe the structure of Hair as an appendage of skin. Describe the structure of Nail as anappendage of skin. Describe the structure of Sweat andSebaceous Glands Describe the structure and function ofSuperficial Fascia Describe the structure, function, andmodifications of Deep Fascia Describe important clinical correlates ofskin (skin infections, sebaceous cyst, skin burns andskin grafting)	General Anatomy	Integumentary System	**Interactive lecture**	**MCQ'S**
F-A-006	Classify and describe Muscle Tissue based on Structure, Function and Development Describe Somatic and Visceral Muscles Describe and differentiate the Red andWhite Variety of Skeletal Muscles Classify and describe the skeletal muscles based on architecture. Classify skeletal muscle based on action. Describe the parts of a skeletal muscle. Describe and differentiate the basic organization of innervation to skeletal, smooth, and cardiac muscle. Describe thestructure of Synovial Bursae Comprehendthe meaning of Hypertrophy, Hemiplegia,quadriplegia, paraplegia, hemiparesis	General Anatomy	Muscle Tissue (Myology)	**Interactive lecture** **SGD**	**MCQ'S** **SEQ'S**

F-A-007	Classify the types of blood circulation. Classify and exemplify various types of blood vessels. Describeand exemplify various types of anastomoses. Explain the importance of End Arteries Describe the general organization ofLymphatic Circulation Define the terms: Lymphoid Tissue, Tissue Fluid, Lymphatic, Capillaries, Lymph and Lymphatic Vessels Define the terms; Lymphangitis, Lymphadenitis. Define neuron. Describe the anatomical structure of aneuron. Classify neurons based on morphology with examples.	General Anatomy	Vascular System (Angiology)	**Interactive lecture** **SGD**	**MCQ'S** **SEQ'S**
F-A-008	Classify neurons based on function. Describe the components of the centralnervous system. Describe the components of the peripheralnervous system. Name the supporting cells (neuroglia) of thecentral nervous system. Describe the structure and functions of theneuroglia of the central nervous system. Enumerate the supporting cells (neuroglia)of the peripheral nervous system. Describe the structure and functions of the neuroglia of the peripheral nervous system. Enlist the cranial nerves I to XII Describe the types of nerve fibers carried byand distribution of the cranial nerves. Describe the formation, types of modalitiescarried by, and distribution of the spinal nerves. Explain Dermatome (s) Explain Myotome (s) Describe the formation of Plexuses. Differentiate between Somatic and Visceralnervous system. Define Receptors Describe the functions of receptors.	General Anatomy	Nervous Tissue (Neurology)	**Interactive lecture** **SGD**	**MCQ'S** **SEQ'S**

	Classify sensory receptors based onmodality (with location) Define Effectors Describe the functions of effectors. Describe ANS (Autonomic Nervous System) and differentiate between sympathetic and parasympathetic nervoussystem				
F-A-009	Identify displacement of fracture segmentsof the bone Identify dislocation of joints	Imaging in Anatomy		**Interactive lecture**	**MCQ'S**

CODE	EMBRYOLOGY & POST-NATAL DEVELOPMENT	TOTAL HOURS = 25		Teaching strategy	Assessment strategy
	SPECIFIC LEARNING OUTCOMES	DISCIPLINE	Topic		
F-A-010	Define Chromosome Theory of inheritance Enlist different stages ofMitosis and Meiosis Compare and contrast Mitosis and Meiosis Enlist the numerical chromosomal anomalies Describe the anatomical basisfor numerical chromosomal abnormalities. Describe the clinical presentation of numerical chromosomal abnormalities	Embryology	Cell division and Chromosomal abnormalities	**Interactive lecture**	**MCQ'S**
F-A-011	Describe the Process of spermatogenesis and spermiogenesis Describe the embryological basis for Abnormal gametes	Embryology	Gametogenesis Spermatogenesis	**Interactive lecture**	**MCQ'S**
F-A-012	Describe the Prenatal and postnatal maturation of oocyte	Integrate with Gynecology	Gametogenesis Oogenesis	**Interactive lecture**	**MCQ'S**
F-A-013	Describe the significance of arresteddevelopment of oocyte	Embryology	Gametogenesis Oogenesis	**Interactive lecture**	**MCQ'S**
F-A-014	Compare and contrast oogenesis andspermatogenesis		Gametogenesis	**Interactive lecture**	**MCQ'S**
F-A-015	Describe the hormonal control of femalereproductive cycles Enumerate and describe the steps of theovarian cycle Describe the process of ovulation Describe the formation, function andfate of corpus luteum Define Mittelschmerz pain Define menstrual cycle Describe the phases	Integrate with Gynecology	Female Reproductive Cycle	**Interactive lecture**	**MCQ'S**
F-A-016	Describe the transportation of Oocyte	Embryology	Transportation of gametes	**Interactive lecture**	**MCQ'S**
F-A-017	Describe the Prenatal and postnatal maturation of oocyte		Fertilization	**Interactive lecture**	**MCQ'S**
	Define contraception Explain the mechanisms of following contraceptive techniques: 1. Barrier methods 2. Hormonal methods				

F-A-018	3. Intrauterine device (IUD) 4. Emergency contraceptive pills (ECPs) Male and female sterilization	Integrate with physiology	Contraception		
F-A-019	Describe the anatomical and physiological basis of male and female infertility Define assisted reproductive techniques Describe the mechanisms of In vitro fertilization (IVF) & embryo transfer Explain the correlation of multiple births with assisted reproductive techniques	Integrate with Gynecology	Infertility & assisted reproductiv etechniques	**Interactive lecture** **SGD**	**MCQ'S** **SEQ'S**
F-A-020	Describe the process of cleavage of embryo and blastocyst formation Describe the origin and uses of embryonic stem cells and the techniques of obtaining these cells from the embryo (reproductive cloning & therapeutic cloning) Explain the embryological basis of spontaneous abortion.	Embryology	Cleavage, blastocyst formation	**Interactive lecture** **SGD**	**MCQ'S** **SEQ'S**
	Compare and contrast the villi.	Integrate with Gynecology			
	Describe the process of Compaction.Describe the Formation of morula (division into inner and outer cell mass)	Embryology		**Interactive lecture** **SGD**	
F-A-021	Describe the Uterus at the time of implantation (decidua reaction) Illustrate the concept of Implantation. Describe the Abnormal implantation/ extra uterine implantations. Define the Molar pregnancy. Describe the formation of amniotic cavity, embryonic disc, and umbilical vesicle Describe the formation of chorionic sac	Embryology	Implantation Week 2 of Development	**Interactive lecture** **SGD**	**SEQ'S**
F-A-022	Describe the Establishment ofuteroplacental circulation.		Utero-Placental circulation	**Interactive lecture** **SGD**	**SEQ'S**
F-A-023	Describe the Formation & fate of primitive streak. Draw a concept map highlighting the sequence of events responsible for transformation of bilaminar germ disc into trilaminar germ disc. Describe the embryology behind sacrococcygeal teratoma and justify its clinical picture. Describe the molecular factors responsible for gastrulation.	Embryology Integrate with Gynecology	Gastrulation	**Interactive lecture** **SGD**	**MCQ'S** **SEQ'S** **OSPE**

	Describe the Invagination and movement of PR notochordal cells Describe the Notochordal plate formation Describe the Neurogenetic			**Interactive lecture** **SGD**	**MCQ'S** **SEQ'S**
F-A-024	canal formation Describe the fate of the notochord Describe the Establishment of body axis Draw and label the fate map establishment Describe the Fate mapestablishment Describe the molecular basis fornotochord formation Describe the role of notochord as aninducer Describe the embryological basis for situs inversus, Sirenomelia, holoprosencephaly Describe the development of trophoblast and chorionic villi during 3rd week of development	Embryology	Formation of notochord		
F-A-025	Describe the Formation of neuraltube from neural plate. Justify embryologically the clinical picture seen in various neural tube defects Describe the process of Migration of neural crest cells Enlist the Derivatives of neural tube anddescribe the fate of each Enlist the Derivatives of neural crest cells Enlist the ectodermal derivatives Describe the molecular and genetic factors for the process of neurulation Describe important Neural tube defects	Embryology	Derivatives of ectoderm	**Interactive lecture** **SGD**	**MCQ'S** **SEQ'S** **OSVE**
F-A-026	Describe the Differentiation of mesoderm into its constituting components Describe the Somite formation and its fate Describe the Estimation of age by somite's Describe the formation of intra-embryonic coelom	Integrate with pediatrics	Mesoderma lderivatives	**Interactive lecture** **SGD**	**MCQ'S** **SEQ'S** **OSVE**
F-A-027	Describe the processes of vasculogenesis & angiogenesis Explain the features of primordial cardiovascular system Describe the anatomical justificationfor Capillary hemangiomas	Integrate with Cardiology	Early development of CVS	**Interactive lecture** **SGD**	**MCQ'S** **SEQ'S**

F-A-028	Describe the Cephalo-caudal folding Describe the Lateral folding	Integrate with Gynecology	Folding of embryo	**Interactive lecture** **SGD**	**MCQ'S** **SEQ'S**
F-A-029	Enlist the derivatives of germ layers Enlist and Describe the Derivatives of intermediate and lateral plate mesoderm Enlist & Describe the Derivatives of endoderm	Embryology	Germ layer derivatives	**Interactive lecture** **SGD**	**MCQ'S** **SEQ'S**
	Enlist & describe the derivatives of ectoderm	Integrate with Gynecology/ Pediatrics			
F-A-030	Describe the Regulation of embryonic development by Homeoboxgenes	Embryology	Control of the embryonic development	**Interactive lecture** **SGD**	**MCQ'S** **SEQ'S**
F-A-031	Enlist the characteristic features of theembryo during		Folding of Embryo	**Interactive lecture** **SGD**	**MCQ'S** **SEQ'S**
	2nd month Describe the criteria for estimating thedevelopmental staging in human embryos Explain the estimation of gestational & embryonic age		Embryonic period		
F-A-032	Explain the measurement and characteristics of fetus/Key eventsduring Embryonic Period. Describe the Overview of External appearance of fetus during fetal period. Enlist developmental horizons during fetal life event. Describe Viability of fetuses and low birth weight babies Explain the factors influencing fetal growth Describe the clinical problems encountered by babies born with IUGR (Intra Uterine Growth Restriction)		Fetal Period	**Interactive lecture** **SGD**	**MCQ'S** **SEQ'S** **OSVE**
F-A-033	Tabulate the criteria for estimatingfertilization age during the fetal period Describe the procedures for assessingfetal status Describe the clinical picture of IUGR & factors resulting in IUGR (Intra Uterine Growth Restriction) Define Pre-eclampsia	Integrate with Gynecology	Fetal Status	**Interactive lecture** **SGD**	**MCQ'S** **SEQ'S** **OSVE**
F-A-034	List the fetal membranes Describe the macroscopic & microscopic features of Decidua Enlist the various parts of decidua Functionally correlate the parts of the decidua with its structure Describe the Changes in the trophoblast leading tothe development of placenta Describe the Structure (macroscopic & microscopic) of placenta	Integrate with Gynaecology	Placenta	**Interactive lecture** **SGD**	**MCQ'S** **SEQ'S** **OSVE**

	Enlist & correlate the Functions of placenta with its structure Describe the Microscopic anatomy of Placental membrane Describe the Placental circulation (fetal& maternal) Embryologically justify the hemolytic disease of the neonate (Erythroblastosis fetalis) Describe the functions of placenta				
	Describe the Formation & fate of Umbilical cord Describe the Cord abnormalities Justify embryologically the clinical features observed in Absence of umbilical artery Describe the formation			**Interactive lecture** **SGD**	**MCQ'S** **SEQ'S** **OSPE** **OSVE**
F-A-035	and circulation of Amniotic fluid Describe the Procedure of diagnostic amniocentesis Explain the significance of amniotic fluid Describe the factors responsible for Polyhydramnios and oligohydramnios Describe the consequences of oligohydramnios and polyhydramnios Define Amniotic Bands Explain the formation and fate of umbilical vesicle (yolk sac) Define Physiological Umbilical Hernia	Integrate with Gynecology	Fetal membranes		
F-A-036	Describe the development of Dizygotic twins Describe the development of Monozygotic twins Describe the fetal membranes in twin pregnancy Describe Fetus Papyraceous Explain the zygosity of the twins Describe the characteristics of various types of conjoined monozygotic twins		Multiple pregnancies	**Interactive lecture** **SGD**	**MCQ'S** **SEQ'S** **OSVE**
F-A-037	Define preterm Birth Describe parturition & three stages of Labor. Describe the Various methods of prenatal diagnosis Describe the Fetal therapy Describe Maternal serum Screening Corelate levels of Alpha feto protein levels and fetal anomalies		Prenatal diagnosis and fetal therapy	**Interactive lecture** **SGD**	**MCQ'S** **SEQ'S**
	Describe stem cell transplantation andgene therapy				
F-A-038	Define morphogens, protein kinases,notch delta pathway, transcription factors, epigenetics	Embryology	Molecular regulations andsignaling pathways	**Interactive lecture**	**MCQ'S** **SEQ'S**

F-A-039	Define teratology and causes of birthdefects Define genomic imprinting Define human disorders associated with genetic mutations Describe birth defects caused by genetic factors: numerical and structural anomalies Define and enlist the teratogens Describe the role of following in causing teratogenicity in humans: 1. Drugs 2. Environmental agents 3. Chemicals & heavy metals 4. Infectious agents 5. Radiation 6. Hormones 7. Maternal diseases Describe the basis for male-mediated teratogens Describe prevention of birth defects		Teratogenicity	**Interactive lecture** **SGD**	**MCQ'S** **SEQ'S** **OSVE**

CODE	MICROSCOPIC ANATOMY (HISTOLOGY AND PATHOLOGY)	TOTAL HOURS = 08		Teaching strategy	Assessment strategy
	SPECIFIC LEARNING OBJECTIVES	DISCIPLINE	TOPIC		
F-A-040	Describe different types ofmicroscopies Describe Staining methods and theirsignificance	Basic techniquein Histology	Introduction tomicroscopy &Basic staining technique	**SGD**	**MCQ'S** **OSPE**
F-A-041	Describe the electron microscopic structure and fluid mosaic model of plasma membrane Draw the fluid mosaic model of plasma membrane Describe the structure of glycocalyx coat and lipid raft and correlate it with function	Basic Histology	Cell membrane	**Interactive lecture**	**MCQ'S**
	Describe different types of membraneproteins and their functions			**Interactive lecture**	**MCQ'S**
	Explain different modes of transport across the cell membrane			**Interactive lecture**	**MCQ'S**
	List the membranous and non-membranous cellular organelles Describe the structure of the following cellular organelles and correlate with their function: 1. Ribosomes 2. Endoplasmic reticulum (rough & smooth) 3. Golgi apparatus 4. Lysosomes 5. Proteasomes 6. Mitochondria 7. Peroxisomes Describe the structural components of cytoskeleton, and correlate them with theirfunctions Explain the histological basis of immotile cilia syndrome	Basic Histology	Cell membrane	**Interactive lecture**	**MCQ'S**
F-A-042	Describe the histological features of cytoplasmic inclusions	Integrate with Pathology	Cell organelles		
	Describe the structure of nuclear envelope and nuclear pores	Integrate with Physiology		**Interactive lecture**	**MCQ'S**

F-A-043	Describe the structure ofchromatin Describe the structure of chromosomeDescribe the structure of nucleolus Describe the structure and types of DNA (Deoxy Ribonucleic Acid) and RNA (Ribonucleic Acid) Describe the histological basis for apoptosis and necrosis	Histology	Cell nucleus	**Interactive lecture** **SGD**	**MCQ'S** **SEQ'S**
	Describe structure of different types ofcell junctions	Integrate with Pathology		**Interactive lecture**	**MCQ'S** **SEQ'S**
	Describe the cell cycle & cell division Define important clinicopathological terms:				
F-A-044	Atresia, Hypertrophy, Atrophy, Hyperplasia, Metaplasia, Anaplasia, Neoplasia, Inflammation, Metastasis		Epithelium	**Interactive lecture**	**MCQ'S** **SEQ'S** **OSPE** **OSVE**
	Describe the histological structure and function of basement membrane (light andelectron) Draw and label a diagram illustrating the electron microscopic structure of basementmembrane Describe the basal surface modifications of epithelia Describe the electron microscopic structure and functions of intercellular junctions (lateral surface modifications) and give their locations	Histology		**SGD**	**MCQ'S** **SEQ'S** **OSPE**
	Describe the Biochemical composition of the basolateralmodifications				
	Describe the electron microscopic structure & functions of the following apical cell surface specializations: 1. Microvilli 2. Stereocilia Cilia	Integrat ewith Biochem istry		**Interactive lecture** **SGD**	**MCQ'S** **SEQ'S** **OSPE** **OSVE**

	Classify and exemplify the epithelia with their histological structure, locationsand functions	Integrat ewith Patholog y			**MCQ'S** **SEQ'S** **OSPE** **OSVE**
	Describe the structure of exocrineglands Explain the mechanism oftransport across the epithelia Describe the classification of exocrine glands on the basis of: 1. Shape of secretory portionsand ducts 2. Mode of secretionType of secretion	Histolog y		**Interactive lecture** **SGD**	**MCQ'S** **SEQ'S**
F-A-045	Describe the composition and list the constituents of connective tissue Classify the connective tissue with examples Describe the composition of ground substance of connective tissue	Histolog y	Connective tissue	**Interactive lecture** **SGD**	**MCQ'S** **SEQ'S** **OSVE**
	Describe the composition, distribution, and function of glycosaminoglycans in connective tissue Describe connective tissue fibers, cells. Define Fibrosis			**Interactive lecture** **SGD**	**MCQ'S** **SEQ'S**
	Describe the structure, distribution, and functions of thecells of macrophage mononuclear phagocytic system	Integrate with Biochemis try/ Physiolog y		**Interactive lecture** **SGD**	**MCQ'S** **SEQ'S**
	Describe the role of macrophages in innate immunity & formation of foreign body Giant cell Describe the structure & functions of Mast cells. Role of Mast cells in immediate hypersensitivity reactions. Describe structure of Plasma cells and their role in antibody formation.			**Interactive lecture**	**MCQ'S**

	Describe the types of adiposetissue (white & brown), their histogenesis, locations andfunction	Histology		**Interactive lecture**	**MCQ'S**
	Describe lipid storage and mobilization in and from adipocytes and compare the brownand white adipose tissue	Integrat ewith Patholog y		**Interactive lecture**	**MCQ'S**

PRACTICAL

CODE	ANATOMY	TOTAL HOURS = 03		Teaching strategy	Assessment strategy
	SPECIFIC LEARNING OBJECTIVES	DISCIPLINE	TOPIC		
F-A-046	Demonstrate the anatomical terms of position and movement, in particular on limbs.	Anatomy	Osteology Imaging and cross-sectional Anatomy Arthrology	SGD	MCQ'S SEQ'S OSPE
	Demonstrate various anatomical movements of body Identify various elevations and anatomical landmarks on bones. Identify and interpret normal radiographs of various body regions Identify and interpret joint dislocations and displaced fracture bone segments radiographically.			SGD	MCQ'S SEQ'S OSPE

CODE	EMBRYOLOGY	TOTAL HOURS = 05		Teaching strategy	Assessment strategy
	SPECIFIC LEARNINGOBJECTIVES	DISCIPLINE	TOPIC		
	Calculate fertilization age, gestationalage, embryonic/fetal age and expected date of delivery.			SGD	OSPE
	On models, charts, aborted embryos an dfetal specimens, identify the: Events of embryonic period, i.e., cleavage, morula and blastula formation, yolk sac, amniotic cavity, connecting stalk,			SGD	OSPE

F-A-047	Gastrulation (notochord & primitive streak, three germ layers and their parts/derivatives), angiogenesis, neurulation, somites and embryonic age determination based on it, chorionic villi (primary, secondary & tertiary), developmental defects (sacrococcygealteratoma, neural tube defects) Placenta and it's positional & Implatational variations, umbilical cord and its contentsFetal features during fetal period. Determine age of fetus based on these features.	Anatomy	Embryology	**SGD**	**OSPE**
	Describe the USG (Ultrasonography) report for the: Fetal features, fetal age estimation, placental attachment with variations, fetal membranes and multiple pregnancies				
	Gastrulation (notochord & primitive streak, three germ layers and their parts/derivatives), angiogenesis, neurulation, somites and embryonic age determination based on it, chorionic villi (primary, secondary & tertiary), developmental defects (sacrococcygeal teratoma, neural tube defects) fetal features during fetal period. Determine age of fetus based on these features.			**SGD**	**OSPE**
	Describe the USG (Ultrasonography) report for the:				
	Fetal features, fetal age estimation, placental attachmentwith variations, fetal membranes and multiple pregnancies				**OSPE**
CODE	**HISTOLOGY**	**TOTAL HOURS =14**		**Teaching strategy**	**Assessment strategy**
	SPECIFIC LEARNING OBJECTIVES	**DISCIPLINE**	**TOPIC**		
F-A-048	Describe different types of staining techniques and theirs i g n i f i c a n c e w i t h s p e c i a l emphasis on H&E (Hematoxylin and Eosin) staining	Microscopic Anatomy	Staining techniques	**SGD**	**MCQ'S**
F-A-049	Enlist important features of different parts of light microscope		Microscope	**SGD**	**OSPE**
F-A-050	Identify and draw & label different cell shapes underthe microscope		Cell shape	**SGD**	**MCQ'S** **SEQ'S**
F-A-051	Identify under light microscope and Draw & Label the following types of epithelia: 1. Simple squamous 2. Simple cuboidal 3. Simple columnar (ciliated & non-ciliated) 4. Pseudostratified columnar (ciliated & non-ciliated) 5. Stratified squamous (keratinized & nonkeratinized) 6. Stratified cuboidal 7. Stratified columnar 8. Transitional		Epithelium	**SGD**	**MCQ'S** **SEQ'S** **OSPE**

F-A-052	Identify under light microscope and Draw & Label serous & mucous s e c r e t i n g glands under light microscope	Microscopic Anatomy	Epithelium	**SGD**	**MCQ'S** **SEQ'S** **OSPE**
F-A-053	Identify under light microscope and Draw & Label the various types of connective tissue		Connective tissue	**SGD**	**MCQ'S** **SEQ'S** **OSPE**

NORMAL FUNCTION					
THEORY					
CODE	**MEDICAL PHYSIOLOGY**	**TOTAL HOURS = 40**		**Teaching strategy**	**Assessment strategy**
	SPECIFIC LEARNING OBJECTIVES	**DISCIPLINE**	**TOPIC**		
F-P-001	Define Homeostasis Explain control system of body by giving examples Differentiate between Extracellular andIntracellular Fluids Explain the positive and negative feedbackmechanisms with examples Explain the significance of feed forward/ adaptive control/delayed negative feedback mechanisms Explain thestructure of cell membrane Enlist the types of cell membrane proteins Enumerate thefunctions of membrane proteins Define and enumerate the functions of cell Glycocalyx	Medical Physiology	Cell Biology	**Interactive lecture** **SGD** **SDL**	**SEQ'S** **MCQ'S** **OSVE**
	Enlist membranous and non-membranous organelles Enlist the self-replicative organelles Differentiate between the functions of smooth and rough endoplasmic reticulum Explain the functions of Golgi apparatus Enlist the enzymes of lysosomes Explain the functions of lysosomes Enlist the enzymes of peroxisomes Explain the functions of peroxisomes Enumerate the components and functions of cytoskeleton Define and enlist types of endocytosis Explain the mechanism of pinocytosis Classify different transportmechanisms Compare the composition of Na (Sodium), K (Potassium) and Cl (Chloride) in extracellular and intracellular fluid			**Interactive lecture** **SGD** **SDL**	**SEQ'S** **MCQ'S** **OSVE**
	Define and enlist different types of diffusion Explain the process of facilitated diffusion with the aid of diagram Define and classify different types of active transport Describeprimary and secondary active transport with examples Explain voltage and ligand gated channels with examples Name Na, K channel Blockers. Discuss functions and significance of Na/K ATPase pump.			**Interactive lecture** **SGD** **SDL**	**SEQ'S** **MCQ'S** **OSVE**
F-P-002	Enumerate the functions of blood Explain the composition of blood Enumerate theplasma proteins	Medical Physiology	Blood	**Interactive lecture** **SGD** **SDL**	**SEQ'S** **MCQ'S** **OSVE**
	Discuss functions of plasma proteins Describe the pathophysiology of edema			**Interactive lecture**	**SEQ'S** **MCQ'S**

F-P-003	Discuss the characteristics of red blood cells Explain different types of Bone marrows Enumerate the different sites of erythropoiesis at different ages Explain the stages of erythropoiesis Enumerate factors that regulate erythropoiesis Discuss the site and role of erythropoietin in red blood cell production Explain the significance of vitamin B12 and folic acid in maturation of red blood cell		Red Blood Cells	**Interactive lecture** **SGD** **SDL**	**SEQ'S** **MCQ'S** **OSVE** **PRESENTATION** **POSTERS**
F-P-004	Enumerate the types of normal hemoglobin in different ages of life Explain the role of Iron in Hemoglobin formation. Define blood indices, give their normal values & enumerate the conditions in which these values are disturbed	Medical Physiology	Hemoglobin	**Interactive lecture** **SGD** **SDL**	**SEQ'S** **MCQ'S** **PRESENTATION** **POSTERS**
	Enlist the abnormal types of hemoglobin			**Interactive lecture**	**SEQ'S** **MCQ'S**
F-P-005	Enumerate the types of white blood cells Describe thecharacteristics and functions of Neutrophils Explain the process of defense against invading agent by neutrophils Define leukocytosis and leukopenia Explain the effects of leukemia on body Explain the process of defense against invading agent by macrophages Discuss different lines of defense during inflammation	Medical Physiology	White Blood Cells	**Interactive lecture** **SGD** **SDL**	**SEQ'S** **MCQ'S** **PRESENTATION** **POSTERS**
	Explain the functions of neutrophils and macrophages in spread ofinflammation (walling off effect) Define the Reticuloendothelial system Enlist the different components of Reticuloendothelial system Explain the characteristics and functions of basophils Explain the characteristics and functions of eosinophils and enlist conditions in which these cells are raised.			**Interactive lecture** **SGD** **SDL**	**SEQ'S** **MCQ'S** **PRESENTATION** **POSTERS**
F-P-006	Enumerate different blood group types. Explain thebasis of ABO and Rh blood system Explain the Landsteiner law	Medical Physiology	Blood Types	**Interactive lecture** **SGD** **SDL**	**SEQ'S** **MCQ'S** **PRESENTATION** **POSTERS**
F-P-007	Discuss Components of ANS (Autonomic nervous system) Explain the physiological anatomy of sympathetic and parasympathetic nervous system Describe the types of adrenergic and cholinergic receptors and their functions Explain the effects of sympathetic and parasympathetic on various organs/ system of body	Medical Physiology Also integrate with Anatomy part of ANS	Autonomic nervous system	**Interactive lecture** **SGD** **SDL**	**SEQ'S** **MCQ'S** **PRESENTATION** **POSTERS**

PRACTICAL

CODE	PHYSIOLOGY	TOTAL HOURS = 12		Teaching strategy	Assessment strategy
	SPECIFIC LEARNING OBJECTIVES	DISCIPLINE	TOPIC		
F-P-008	Explain laboratory/clinical procedure to the subject. Obtain verbal consent from subject before starting aprocedure. Reassure the subject after the procedure.	Medical Physiology	Consent	**Demonstration** **Role play**	**TABLEVIVA**
F-P-009	Determine Erythrocyte Sedimentation Rate andpacked cell volume		RBCs (Red Blood Cells)	**Demonstrate on+ performance**	**OSPE**
F-P-010	Determination of blood group		Blood Group	**Demonstration+ performance**	**TABLEVIVA** **OSPE**
F-P-011	Interpret Total Leucocyte Count, Differential Leucocyte Count (normal & abnormal) in a CBC (Complete Blood Count) report generated by AutomatedCell Counter Identify various types of WBCs in a prepared DLC (Differential Leukocyte Count)		WBCs (White Blood Cells)	**Demonstration+ performance**	**TABLEVIVA** **OSPE**

THEORY

CODE	MEDICAL BIOCHEMISTRY	TOTAL HOURS = 36		Teaching strategy	Assessment strategy
	SPECIFIC LEARNING OBJECTIVES	DISCIPLINE	TOPIC		
F-B-001	Differentiate between different types of cells. Explain the concept of organization of cells to tissue, tissues to organ, organs to system. Differentiate between the eukaryotic and prokaryotic cell	Biochemistry Cell Biology	Structure of cell	**Lecture**	**MCQ'S**
F-B-002	Describe the composition and structure of cell on biochemical basis and justify it as fluid mosaic model. Describe the structure and function of cell membrane with particular reference to the role of • Lipids • Carbohydrates • Proteins		Cell Membrane	**SGD** **Flipped classroom**	**MCQ'S**

	Explain why the cell membrane is called fluid mosaic model			**Lecture**	**SEQ'S**
F-B-003	Discuss the various ways of cell- to-cell communication and tothe environment. Describe cell to cell communications. Cell signaling pathways (only G protein signaling I e. Gs, Gi and Gq) Describe cell to cell adhesion.		Signal transductio n	**Interactive lecture** **Role play**	**SEQ's MCQ'S**
F-B-004	Explain the biochemical markers and importance of subcellular organelles and their inherited disorders especially: 1. cell disease 2. Refsum disease 3. Parkinsonism 4. Progeria		Subcellular organelles	**Flipped classroom**	**SEQ's MCQ'S**
F-B-005	Describe the chemistry of purines and pyrimidinesand their linkage in nucleic acid synthesis and their metabolism		Chemistry of purine and pyrimidines	**Lecture**	**SEQ's** **MCQ'S**
F-B-006	Discuss the organization of DNA with special reference to Watson and crick model, composition,structure, role of Pairing Describe the structural forms of DNA		DNA (Deoxy Ribonucleic Acid)	**Interactive lecture** **SGD**	**MCQ'S**
F-B-007	Discuss the structure of different types of RNAs with special reference to composition, linkage, functions of RNA, micro-RNA Illustrate the structure and functions of various types of RNAs Describe the functions of various small RNAs present in cell	Biochemistry Cell Biology	RNA (Ribonucleic Acid)	**Group presentation time**	**MCQ'S**
F-B-008	Explain the structure and nomenclature of nucleotides, biomedical importance of natural and synthetic analogues Interpret the role of synthetic analogues of	Biochemistry Cell Biology	Nucleotides	**Interactive lecture** **SGD**	**SEQ's MCQ'S**
	nucleotides in medicine based on sign/symptoms anddata e.g Methotrexate, 5 Flurouracil and Allupurinol.				
F-B-009	Explain the higher organization of DNA. Difference between DNA, chromatid and chromosome		Chromosome	**Interactive lecture** **SGD**	

F-B-010	Describe enzymes with reference to: 1. Active sites 2. Specificity 3. Catalytic efficiency 4. Cofactor 5. Coenzyme 6. Holoenzyme 7. Apoenzyme 8. Prosthetic group 9. Zymogens 10. Location		Enzymes		
	Classify enzymes according to the reaction they catalyze and their nomenclature			**Interactive lecture**	**SEQ'S** **VIVA**
	Explain the mechanism of enzyme action from reactants to products (catalysis).			**Interactive lecture**	**VIVA** **MCQ'S**
	Discuss the effect of various factors on enzymatic activity: 1. Substrate concentration 2. Temperature 3. PH 4. Enzyme concentration			**Interactive lecture**	**SEQ'S**
	Explain the regulation of enzymatic activity (Michaelis Menten and Line weaver Burk's equation). Discuss inhibitors of enzymatic activity (with special reference to Km/V max) 1. Competitive 2. Non competitive 3. uncompetitive	Biochemistry Cell Biology		**Interactive lecture**	**SEQ'S** **MCQ'S**
	Explain the application of enzyme in clinical diagnosis and therapeutic use			**TBL**	**MCQ'S**
F-B-011	Classify amino acids based on polarity, nutritional importance and glucogenic/Ketogenic properties		Amino acids	**Interactive lecture**	
	Explain the structure, physical, chemical properties ofamino acids and their biomedical importance				
F-B-12	Classify proteins on the basis of functions, solubility and physicochemical properties 1. Explain its biomedical importance 2. Distinguish between class A and B proteins		Protein	**Interactive lecture**	**SEQ'S** **VIVA**
	Explain the structural levels of proteins 1. Differentiate between alpha helix and beta pleated protein structures 2. Identify bonding at different levels of proteins			**Interactive lecture**	**SEQ'S** **VIVA**

	Describe the role of chaperons in protein folding 1. Interpret disorders related to proteinmisfolding on basis of given data 2. Describe the biochemical basis of Alzheimer's disease/ prion disease	Biochemistry Cell Biology		**Interactive lecture**	**SEQ'S** **VIVA**
F-B-13	Classify and explain the bio-chemical role of each class of plasma proteins		Plasma proteins	**Interactive lecture**	**SEQ'S**
F-B-14	Explain the structure and biochemical role of immunoglobulins 1. Describe the production, structure and functions of B cells, plasma cells, and antibodies (IgA, IgD, IgE, IgG, and IgM). 2. Discuss the functions of the cytokines (Interleukins (ILs), Tumor Necrosis Factor (TNFs), IFs, Platelet derived growth factor (PDGF), and Platelet activating factor (PAF)). 3. Interpret multiple myeloma on basis of given data		Immunoglobulins	**Interactive lecture**	**SEQ'S** **TBL**

PRACTICAL

CODE	BIOCHEMISTRY	TOTAL HOURS = 09		Teaching strategy	Assessment strategy
	SPECIFIC LEARNING OBJECTIVES	DISCIP LINE	TOPIC		
F-B-015	Demonstrate the step taken to prevent or rectify theLaboratory Hazards	Biochemistry	Lab hazards	Demonstration	OSPE
F-B-016	Identify the structure of cells under microscope		cell	Demonstration+ performance	OSPE TABLE VIVA
F-B-017	Identify the methods of isolation of cell organelles'		Cell organelles	Demonstration	OSPE TABLE VIVA
F-B-018	Identify the different parts of equipment i.e., centrifuge, Microlab, Electrophoresis, Hot Oven, water bath		Equipment	Demonstration+ performance	OSPE TABLE VIVA
F-B-019	Detection of amino acids by paper chromatography		Chromatography Solutions	Demonstration+ performance	OSPE TABLE VIVA
	Prepare different types of solution Molar, Molal, Normal and %			Demonstration+ performance	OSPE TABLE VIVA
THEORY					
CODE	PATHOLOGY	TOTAL HOURS = 12		Teaching strategy	Assessment strategy
	SPECIFIC LEARNING OBJECTIVES	DISCIPLINE	TOPIC		
F-Pa-001	Discuss the significance of pathology.	General Pathology	Cell Injury	Interactive lecture	MCQ'S
	Discuss the causes of cell injury. Identify the types of cell injury. Describe the mechanism of cell injury. Identify the types of cell death.Define necrosis and apoptosis.Describe different types of necrosis. Compare apoptosis with necrosis. Identify different types and mechanism of cellular adaptations to stress Discuss the mechanism and types of intracellular accumulations and pathological calcifications				

F-Pa-002	Enumerate the microbes causing infectious diseases.Describe the structure of bacterial cell Differentiate cell walls of gram positive and gram-negative bacteria. Compare the structure of bacterial cell and virus Discuss the growth curve of bacteria. Enlist steps of viral replication Identify types of bacterial infections Enlist stages of bacterial pathogenesis	General Microbiology	Introduction to Microorganisms	**Interactive lecture**	**MCQ'S**
	Discuss the determinants of bacterialpathogenesis			**Interactive lecture**	**MCQ'S**
F-Pa-003	Define sterilization and disinfection. Describe the principles of sterilization anddisinfection. Describe clinical uses of common disinfectants and their mode of sterilization Discuss physical and chemical agents of sterilization		Sterilization & Disinfection	**Interactive lecture**	**MCQ'S** **Activity**

PHARMACOLOGY AND THERAPEUTICS

THEORY

CODE	SPECIFIC LEARNING OBJECTIVES	TOTAL HOURS = 04		Teaching strategy	Assessment strategy
		DISCIPLINE	TOPIC		
F-Ph-001	Definitions of Pharmacology, drug, pro-drug, placebo, active principles, sources of drugs; Brief outline of Absorption, Distribution, Metabolism and Excretion	General Pharmacology	Absorption, Distribution, Metabolism and Excretion of drugs	**Interactive lecture**	**MCQ'S**
F-Ph-002	Definitions of receptor, agonist, partial agonist, inverse agonist, antagonist and types of receptors and second messengers; Diagrammatic concept of signaling mechanisms	General Pharmacology	Basic terminologies of Pharmacology	**Interactive lecture**	**MCQ'S**
F-Ph-003	Pharmacological aspects of Autonomic Receptors (types of autonomic receptors, important sites and actions)		Autonomic System	**Interactive lecture**	**MCQ'S**

COMMUNITY MEDICINE & PUBLIC HEALTH

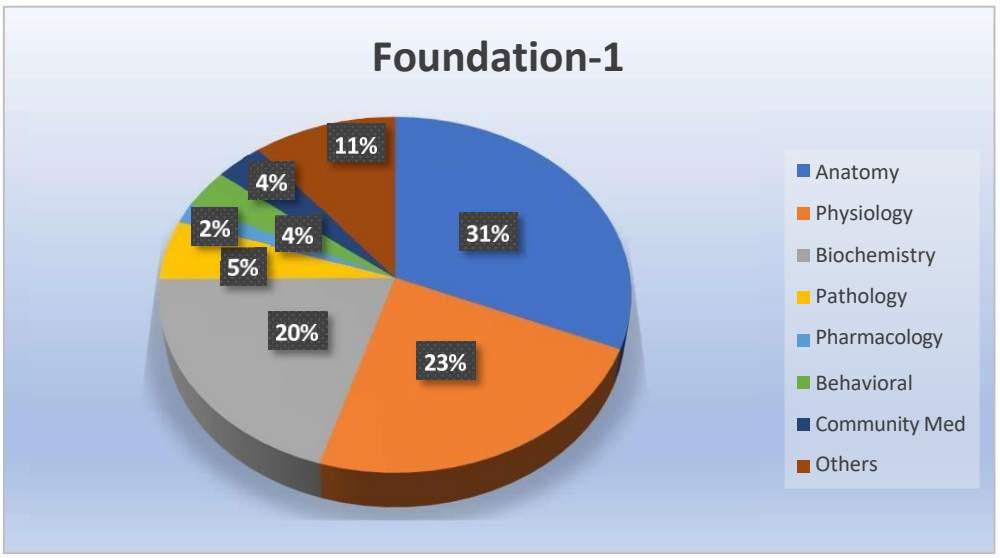
THEORY

CODE	SPECIFIC LEARNING OBJECTIVES	TOTAL HOURS = 08		Teaching strategy	Assessment strategy
		DISCIPLINE	TOPIC		

F-CM-001	Describe the changing concepts and new philosophyof health Explain responsibility for health	Community Medicine and Public Health	Concept of Health	**Interactive lecture**	**MCQ'S**
F-CM-002	Explain dimensions and determinants of health andtheir role in achieving positive health Discuss concept of health and wellbeing Describe the Physical quality of Life Index & Human Development Index		Positive Health Dimensions, Health Determinants	**Interactive lecture**	**MCQ'S**
F-CM-003	Describe the importance of health indicatorsClassify health indicators Calculate Morbidity and Mortality Describe Disability indicators Compare indicators among countries		Health indicators	**Interactive lecture**	**MCQ'S**
F-CM-004	Conceptualize disease causation and natural history of disease	Community Medicine and Public	Disease causation	**Interactive lecture**	**MCQ'S**
	Explain Germ theory & multifactorial causation Describe Epidemiological Triad Discuss Web of disease causation Describe Gradient of infection	Health		**Interactive lecture**	**MCQ'S**
F-CM-005	Describe principles of prevention and control on prevalent diseases Explain difference between elimination and eradication Describe disease surveillance, types and cycle Explain Primary, secondary, & tertiary prevention Describe five levels of interventions	Community Medicine and Public Health	Disease Prevention	**Interactive lecture**	**MCQ'S**
IMPACT (EPIDEMIOLOGY, SOCIOLOGY/SOCIETY, COMMUNITY MEDICINE & PUBLIC HEALTH)					
THEORY					
CODE	**SPECIFIC LEARNING OBJECTIVES**	**TOTAL HOURS = 08**		**Teaching strategy**	**Assessment strategy**
		DISCIPLINE	**TOPIC**		
F-BhS-001	Identify the Biological Basis of human behavior and discuss social behavior Describe processes such as neurobiology of memory, emotions, sleep, learning, motivation, sex, arousal, reward and punishment		Biological Basis of Behavior	**Interactive lecture**	**MCQ'S**

F-BhS-002	Identify the burden of mental illness on the person,family and society Describe Intellectual disability, Mental Disorders and Personality Disorders	Behavioral Sciences	Psychological Disorders	**Interactive lecture**	**MCQ'S**
F-BhS-003	Identify the role of psychosocial factors in various illnesses Describe psychosocial aspects of various system diseases such as Cardio-vascular system (CVS), Central Nervous System (CNS), Gastro IntestinalTract (GIT), Respiration, renal, endocrine and Cancer		Psychology and Disease	**Interactive lecture**	**MCQ'S**
F-BhS-004	Identify the behavioral factors associated with pharmacological treatment of diseases Discuss Health belief model, treatment complianceand its psychosocial factors, social factors in drugs prescription and drug resistance		Behavioral Factors & Pharmacological Treatment	**Interactive lecture**	**MCQ'S**
F-BhS-005	Identify the rehabilitation work for patients on dialysis and any kind of physical disability Discuss the care requirements in chronic debilitating conditions like Diabetes, Multi-infarcts Dementia, chronic renal disease, limb amputation	Behavioral Sciences	Palliative Care	**Interactive lecture**	**MCQ'S**
F-BhS-006	Identify the various physiological effects of stress Explain ANS response to stress, Describe Behavioural manifestations of stress, Stressrelated multiple sclerosis and autoimmune diseases		Stress	**Interactive lecture**	**MCQ'S**

AGING					
THEORY					
CODE	**SPECIFIC LEARNING OBJECTIVES**	**TOTAL HOURS = 01**		**Teaching strategy**	**Assessment strategy**
		DISCIPLINE	**TOPIC**		
F-Ag-001	Discuss telomeres and telomerase and their clinical significance in aging.	Geriatrics Integrate with Biochemistry	Process of Aging	**Interactive lecture**	**MCQ'S**



Module Weeks	Recommended Minimum Hours
08	223

Time Table with Assessment Schedules

Queens Medical College, Kasur

Timetable 1st Year MBBS (Session-2024-25)

Week 1
Theme: Orientation

<table>
<tr><th>Day</th><th>08:30 – 09:30</th><th colspan="2">09:30- 11:00</th><th colspan="2">11:00-12:00</th><th>12:00-01:30</th><th>01.30-2.30</th></tr>
<tr><td>Monday</td><td>Receiving Kit</td><td colspan="2">Welcome address, White Coat ceremony, Introduction of students and HOD
Main Auditorium</td><td colspan="2">Department of medical education
Lecture Hall</td><td>Campus Tour</td><td>Refreshments</td></tr>
<tr><td rowspan="2">Tuesday</td><td colspan="3">08:00- 11:00</td><td rowspan="5">11:00-11.30

Break</td><td colspan="3">11:30-02:30</td></tr>
<tr><td>IT\Library

<u>Muhammad Nadir/ Abdul Razzaq</u></td><td>Group Dynamics & Leadership
<u>Dr. Syed Hasan Shoaib</u></td><td>Study Skills
<u>Dr. Sadaf Sajid</u></td><td>IT\Library

Muhammad Nadir/ Abdul Razzaq</td><td>Group Dynamics& Leadership
<u>Dr. Syed Hasan Shoaib</u></td><td>Study Skills
<u>Dr. Sadaf Sajid</u></td></tr>
<tr><td>Group 1</td><td>Group 2</td><td>Group 3</td><td>Group 2</td><td>Group 3</td><td>Group 1</td></tr>
<tr><td>Wednesday</td><td>IT\Library</td><td>Group Dynamics & Leadership</td><td>Study Skills</td><td colspan="3">Visit to Anatomy, Physiology and Biochemistry department in three batches (40mins each)
Group 1-2-3
Anatomy Group-1 Biochemistry Group-2 Physiology Group-3 | Anatomy Group-2 Biochemistry Group-3 Physiology Group-1 | Anatomy Group-3 Biochemistry Group-1 Physiology Group-2
11:30-12:30 | 12:30-1:30 | 1:30-02:30
Venue: Anatomy- Physiology- Biochemistry Departments</td></tr>
<tr><td>Group 3</td><td>Group 1</td><td>Group 2</td></tr>
<tr><td rowspan="2">Thursday</td><td colspan="3">08:00- 11:00</td><td colspan="3">11:30-02:30</td></tr>
<tr><td colspan="3">Meet the Mentors</td><td>Introduction of co-curricular clubs/committees Lecture Hall</td><td>Introduction of co-curricular clubs/committees Lecture Hall</td><td>Open Session with students</td></tr>
<tr><td rowspan="2">Friday</td><td colspan="3">08-00-12.00</td><td colspan="3">12:00-01:00</td></tr>
<tr><td colspan="4">Visit to Hospital
Medical facilities available to students
Introduction to Foundation Module</td><td colspan="3">Jumma Prayer</td></tr>
</table>

Detail of Group A, B, C (for visit to clinical and basic science departments)	
Group	**Roll #**
1	1-33
2	34-66
3	67-100
Venue for Workshops:	
IT/ Library	IT lab (QMC)
Study Skills	Tutorial Room 1 (QMC)
Group Dynamics and Leadership	Tutorial Room 2 (QMC)

Queens Medical College, Kasur

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Week 2-Theme: Cellular Basis of Life

Days	8:00- 9:00	9:00 – 9:45	9:45- 10:30	10:30 – 11:15	11:15-11:45	11:45 – 12:30	12:30-1:45	1:45 – 3.00
Monday	Medical Education Workshop **F-O-007 + PERLs 1-07** Personal Development Plan + Strategic Planning Dr. Shoaib	Physiology LGIS F-P-001 Structure of Cell Membrane/ membrane protein types & functions Prof. Tanzeela Waqar	Biochemistry LGIS **F-B-001+ F-B-002** Structure of a cell + Biochemical Basis of Structure and Function of Cell Dr. Hassan	General Anatomy SGIS **F-A-002** Osteology: Bones Classification Dr. Naeem Shehzad	**Break**	**Com. Medicine LGIS** **F-CM-002** Health Determinants Dr. Rizwan ullah	Physiology LGIS Cellular organelles Dr. Tanzila	**Practical** **Batch A: Anatomy Histology A: Anatomy F- 040+048+ 049+050** Microscopy basics **Batch B: Physiology: F-P- 008:** Lab Use protocol. **Batch C: Biochemistry** F- B-015 Lab hazards **Batch D: Clinical Skill Lab** Hand washing **All Demo**
Tuesday	**SGIS** **Batch A: Anatomy F-A-002+009** Fractures + Healing + imaging. **Batch B: Physiology F-P-001** Cell organelles. **Batch C: Biochemistry**: **F-B-002** Cell Membrane **Batch D**: Anatomy Practical **Anatomy F- 040+048+ 049+050** Microscopy basics **All Demo**	Physiology LGIS **F-P-001+ F-A-042** Cytoskeleton, structure, and function Prof. Tanzeela Waqar	PERL Workshop **PERLs1-02** Communication Skills Dr. Shoaib	Behavioural Sciences Hands-On Session **F-O-007** Metacognitive Strategies for Learning Prof. Dr. Altaf Qadir		Behavioural Sciences LGIS **F-BhS-006** Stress Management Techniques/ ANS response to stress, behavioral Manifestations Prof. Dr. Altaf Qadir	Histology/Pathology LGIS F-A-042 Histological basis of immotile cilia syndrome, cytoplasmic Inclusions Prof. M. Yasoob	**Practical** **Batch B: Anatomy Histology A: Anatomy F- 040+048+ 049+050** Microscopy basics **Batch C: Physiology: F-P- 008:** Lab Use protocol. **Batch D: Biochemistry** F- B-015 Lab hazards **Batch A: Clinical Skill Lab** Hand washing **All Demo**
Wednesday	**SGIS** **Batch B : Anatomy F-A 002+009** Fractures + Healing + imaging. **Batch C: Physiology F-P-001** Cell organelles. **Batch D: Biochemistry**: : **F-B-002** Cell Membrane **Batch A**: Anatomy Practical **Anatomy F- 040+048+ 049+050** Microscopy basics **All Demo**	Physiology LGIS **F-P-001 + F-A-042** SER, RER, Golgi bodies Prof. Tanzeela Waqar	Biochemistry LGIS **F-B-002+F-A-041** Stru. Function of Cell membrane with role of lipids, carbohydrates & Proteins Dr. Gul-e-Raana	General Anatomy SGIS **F-A-002** Osteology: Features of long bone + types of epiphyses Dr. Naeem Shehzad		**Mentoring Session**		**Practical** **Batch C: Anatomy Histology A: Anatomy F- 040+048+ 049+050** Microscopy basics **Batch D: Physiology: F-P- 008:** Lab Use protocol. **Batch A: Biochemistry** F- B-015 Lab hazards **Batch B: Clinical Skill Lab** Hand washing **All Demo**
Thursday	**SGIS** **Batch C: Anatomy F-A-002+009** Fractures + Healing + imaging. **Batch D: Physiology F-P-001** Cell organelles. **Batch A: Biochemistry**: **F-B-002** Cell Membrane **Batch** B: Anatomy Practical **Anatomy F- 040+048+ 049+050** Microscopy basics **All Demo**	Physiology LGIS **F-P-001 + F-A-042** Lysosomes, peroxisomes Dr. Shaista	Biochemistry LGIS **F-B-002 + F-A-041** Fluid Mosaic Model Dr. Gul-e-Raana	Com. Medicine LGIS F-CM-003 Health Indicators Demos		Pathology LGIS **F-Pa-001** Cell Injury Prof. Farooq Aziz	Histology LGIS **F-A-042+043** Cell Nucleus+ DNA/RNA Prof. M. Yasoob	**Practical** **Batch D: Anatomy Histology A: Anatomy F- 040+048+ 049+050** Microscopy basics **Batch A: Physiology: F-P- 008:** Lab Use protocol. **Batch B: Biochemistry** F- B-015 Lab hazards **Batch C: Clinical Skill Lab** Hand washing **All Demo**
Fri	**8:00- 9:00**	**9:00-9:40**	**9:40- 10:20**	**10:20-11:00**	**11:00-11:20**	**11:20-03:00**		

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Timetable 1st Year MBBS (Session-2024-25)

	SGIS **Batch D: Anatomy F-A-002+009** Fractures + Healing + imaging. **Batch A: Physiology F-P-001** Cell organelles. **Batch B: Biochemistry**: **F-B-002** Cell Membrane **Batch C**: Anatomy Practical **Anatomy F- 040+048+ 049+050** Microscopy basics **All Demo**	Physiology LGIS **F-P-001** Endocytosis Pinocytosis Dr. Shaista	Biochemistry LGIS **F-B-002+ F-A-041** Fluid Mosaic Model Dr. Gul-e-Raana	Pathology LGIS **F-Pa-002 + F-A-043** Cell death Prof. Farooq Aziz	Break	**Integrated Seminar** **by** **Medical Education Department**

Week 3 -Theme: Cell Signaling and transport

Days	8:00- 9:00	9:00 – 9:45	9:45- 10:30	10:30 – 11:15	11:15-11:45	11:45 – 12:30	12:30-1:45	1:45 – 3.00
Monday	Test Physiology All Faculty	Physiology LGIS **F-P-001** Transport Mechanisms Classification Dr. Usama	Biochemistry LGIS **F-B-003** Cell to Cell Communication Dr. Hassan	Anatomy LGIS F-A-004 Arthrology: Synovial Joints + joint injuries + diseases Dr. Naeem Shahzad	**Break**	**Pharmacology LGIS** Orientation **F-Ph002** Basic Terminology on Pharmacology Dr. Fauzia	Embryology LGIS **F-A-011** Spermatogenesis + abnormal gametes Dr. M. Amin	**Practical** **Batch A: Anatomy Histology** Anatomy F-A-051-Epithelia- 1-4 **Batch B: Physiology:** Physiology F-P- 009: ESR **Batch C: Biochemistry** F-B-016 Cell Structure **Batch D: Clinical Skill Lab** Radial Pulse **All Demo**
Tuesday	**SGIS** **Batch A: Anatomy F-A- 002+009** Fractures + Healing + imaging. **Batch B: Physiology F-P-001** Cell organelles. **Batch C: Biochemistry**: **F-B- 002** Cell Membrane **Batch D**: Anatomy Practical F-A-051-Epithelia- 1-4 **All Demo**	Physiology LGIS **F-P-001** Diffusion Dr. Usama	Biochemistry LGIS **F-B-003** Cell to cell communication Dr. Hassan	Embryology/O bgyn LGIS Spermiogenesis Dr Amin		PERL Workshop **PERLs1-03** Responsibility towards institutions and profession Dr. Shoaib	Embryology LGIS **F-A-012** Oogenesis: Prenatal and Postnatal maturation of oocytes Dr. M. Amin	**Practical** **Batch B: Anatomy Histology** Anatomy F-A-051-Epithelia- 1-4 **Batch C: Physiology:** Physiology F-P- 009: ESR **Batch D: Biochemistry** F-B-016 Cell Structure **Batch A: Clinical Skill Lab** **Radial Pulse** **All Demo**
Wednesday	**SGIS** **Batch B: Anatomy F-A 002+009** Fractures + Healing + imaging. **Batch C: Physiology F-P-001** Cell organelles. **Batch D: Biochemistry**: : **F-B- 002** Cell Membrane **Batch A**: Anatomy Practical F-A-051-Epithelia- 1-4 **All Demo**	Physiology LGIS **F-P-001** Active Transport Dr. Usama	Biochemistry LGIS **F-B-003** Cell Signalling pathways Dr. Gul e Raana	Com. Medicine LGIS F-CM-004 Disease Causation Dr. Amber Arshad		Behavioural Sciences LGIS F-BhS-002 Psychological Disorder Prof. Dr. Altaf Qadir	Histology LGIS **F-A-044** Epithelium- basement membrane + intracellular junctions+ Biolateral Modification Dr. M. Yasoob	**Practical** **Batch C: Anatomy Histology** Anatomy F-A-051-Epithelia- 1-4 **Batch D: Physiology:** Physiology F-P- 009: ESR **Batch A: Biochemistry** F-B-016 Cell Structure **Batch B: Clinical Skill Lab** **Radial Pulse** **All Demo**
Thursday	**SGIS** **Batch C: Anatomy F-A- 002+009** Fractures + Healing + imaging. **Batch D: Physiology F-P-001** Cell organelles. **Batch A: Biochemistry**: **F-B-002** Cell Membrane **Batch** B: Anatomy Practical F-A-051-Epithelia- 1-4 **All Demo**	Physiology LGIS **F-P-001** Gated Channels/ Na/ATPase Pump Dr. Shaista	Biochemistry LGIS **F-B-003** Cell Signaling pathways Dr. Gul e Raana	Behavioural Sciences LGIS		Quran Describe Unity of Allah in being Ms. Ulfat	Pathology LGIS Necrosis Dr. Zubaira	**Practical** **Batch D: Anatomy Histology** Anatomy F-A-051-Epithelia- 1-4 **Batch A: Physiology:** Physiology F-P- 009: ESR **Batch B: Biochemistry** F-B-016 Cell Structure **Batch C: Clinical Skill Lab** **Radial Pulse** **All Demo**

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	8:00- 9:00	9:00-9:40	9:40- 10:20	10:20-11:00	11:00-11:40	11:40-12:20	12:20-01:00	01:00-- 1:30	1:30-3:00
Friday	**SGIS** **Batch D: Anatomy F-A- 002+009** Fractures + Healing + imaging. **Batch A: Physiology F-P-001** Cell organelles. **Batch B: Biochemistry**: **F-B-002** Cell Membrane **Batch C**: Anatomy Practical F-A-051-Epithelia- 1-4 **All Demo**	Physiology LGIS **F-P-002** Blood: Functions &Composition Prof. Tanzeela Waqar	Biochemistry LGIS **F-B-003** Cell to cell adhesions Dr. Hassan	Pathology LGIS **F-Pa-001** Apoptosis + clinicopathological Terms Dr. Zubairia	Break	Anatomy Dissection **F-A-004** Arthrology: Joint classification Dr. M. Amin	Physiology LGIS Gated Chanels 2 Dr. Shaista Husain	**Jumm a Prayer**	**Self-Directed Learning**

Week 4 Theme: Basis of proteins + nucleotides

Days	8:00- 9:00	9:00 – 9:45	9:45- 10:30	10:30 – 11:15	11:15-11:45	11:45 – 12:30	12:30-1:45	1:45 – 3.00
Monday	**Test** Anatomy All Faculty	Physiology LGIS F-P-002 Plasma Protein: Types & Functions Dr. Shaista	Biochemistry LGIS **F-B-004** Subcellular organelles – Biochemical markers & Imp. Dr. Hassan	Anatomy LGIS F-A-006 Myology Dr. Naeem Shahzad	Break	ISLAMIYAT Understand the basic principles of Islam. Ms. Ulfat	PERL Workshop **PERLs1-04** Teamwork Dr. Shoaib	**Practical** **Batch A: Anatomy Histology F-A-051** Epithelia- 5-8 **Batch B: Physiology: F-P- 009:** Packed Cell Volume **Batch C: Biochemistry** F-B-017 Cell Organelles **Batch D: Clinical Skill Lab** Respiratory Rate measurement **All Demo**
Tuesday	**SGIS** **Batch A: Anatomy F-A-002+009** Fractures + Healing + imaging. **Batch B: Physiology F-P-001** Cell organelles. **Batch C: Biochemistry**: **F-B-002** Cell Membrane **Batch D**: Anatomy Practical **F-A-051** Epithelia- 5-8 **All Demo**	Physiology LGIS **F-P-002** Edema: Pathophysiology Dr. Shaista	Biochemistry LGIS **F-B-005** Chemistry of purine & pyramidine Dr. Gul e Raana	Embryology/O bgyn LGIS Gamete abnormalities Dr. Amin		Embryology/O bgyn LGIS **F-A-015** Female reproductive Cycle Dr. Naeem Shahzad	Embryology LGIS **F-A-016** Transportation of gametes Dr. M. Amin	**Practical** **Batch B: Anatomy Histology F-A-051** Epithelia- 5-8 **Batch C: Physiology: F-P- 009:** Packed Cell Volume **Batch D: Biochemistry** F-B-017 Cell Organelles **Batch A: Clinical Skill Lab** Respiratory Rate measurement **All Demo**
Wednesday	**SGIS** **Batch B : Anatomy F-A 002+009** Fractures + Healing + imaging. **Batch C: Physiology F-P-001** Cell organelles. **Batch D: Biochemistry**: : **F-B-002** Cell Membrane **Batch A**: Anatomy Practical **F-A-051** Epithelia- 5-8 **All Demo**	Physiology LGIS **F-P-002** RBCs Characteristics + Bone Marrow types Dr. Usama	Biochemistry LGIS **F-B-005** Linkage of purine & pyrimidine link with NA Synthesis Dr. Gul e Raana	Pak Study Describe brief the salient features of the Pakistan movement (1)		**Com. Medicine LGIS** **F-CM-005** Disease Prevention Dr. M. Irfan	Histology LGIS **F-A-045** Connective Tissue- Constituents + Classification Dr. M. Yasoob	**Practical** **Batch C: Anatomy Histology F-A-051** Epithelia- 5-8 **Batch D: Physiology: F-P- 009:** Packed Cell Volume **Batch A: Biochemistry** F-B-017 Cell Organelles **Batch B: Clinical Skill Lab** Respiratory Rate measurement **All Demo**

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Thursday	**SGIS** **Batch C: Anatomy F-A-002+009** Fractures + Healing + imaging. **Batch D: Physiology F-P-001** Cell organelles. **Batch A: Biochemistry**: **F-B-002** Cell Membrane **Batch** B: Anatomy Practical **F-A-051** Epithelia- 5-8 **All Demo**	Physiology LGIS **F-P-002** Erythropoiesis stages + factors Prof. Tanzeela Waqa	Biochemistry LGIS **F-B-005** Purine & pyrimidine metabolism Dr. Gul e Raana	Com. Medicine LGIS F-CM-005 Disease Prevention Dr. Sadia Shahzad		Quran Describe Unity of Allah in attributes Ms. Ulfat	Pathology LGIS Intracellular equitation Dr. Gazala	**Practical** **Batch D: Anatomy Histology F-A-051** Epithelia- 5-8 **Batch A: Physiology: F-P- 009:** Packed Cell Volume **Batch B: Biochemistry** F-B-017 Cell Organelles **Batch C: Clinical Skill Lab** Respiratory Rate measurement **All Demo**	
Friday	**8:00- 9:00**	**9:00-9:40**	**9:40- 10:20**	**10:20-11:00**	**11:00-11:40**	**11:40-12:20**	**12:20-01:00**	**01:00-- 1:30**	**1:30-2:30**
	SGIS **Batch D: Anatomy F-A-002+009** Fractures + Healing + imaging. **Batch A: Physiology F-P-001** Cell organelles. **Batch B: Biochemistry**: **F-B-002** Cell Membrane **Batch C**: Anatomy Practical **F-A-051** Epithelia- 5-8 **All Demo**	Physiology LGIS **F-P-002** Erythropoietin Prof. Tanzeela Waqa	Biochemistry LGIS **F-B-006** DNA Organization Dr. Hassan	Pathology LGIS **F-Pa-003** Pathological calcifications Dr. Gazala	Break	Behavioural Sciences LGIS **F-BhS-003** Psychology and Disease Prof. Dr. Altaf Qadir	Anatomy LGIS **F-A-008** Neurology: Structure of neuron + classification Dr. Naeem Shahzad	**Jumma Prayer**	**Self-Directed Learning**

Week 5 Theme: Embryo Development

	8:00- 9:00	**9:00 – 9:45**	**9:45- 10:30**	**10:30 – 11:15**	**11:15-11:45**	**11:45 – 12:30**	**12:30-1:45**	**1:45 – 3.00**
Monday	**Test** Biochemistry All Faculty	Physiology LGIS **F-P-002** B12 and folic acid in red cell maturation Prof. Tanzeela Waqar	Biochemistry LGIS **F-B-006** Structural forms of DNA Dr. Hassan	Anatomy- Movement and synovial joints Dr. Neam		Embryology LGIS **F-A-017** Gamete Transport Prof. M. Amin	Histology CT – Functions Dr. Yaqub	**Practical** **Batch A: Anatomy Histology F-A-052** Secretory glands **Batch B: Physiology: F-P-010:** Blood Group Determination **Batch C: Biochemistry** F-B-018 Cell Equipment **Batch D: Clinical Skill Lab** Blood Pressure **All Demo**
Tuesday	**SGIS** **Batch A: Anatomy F-A-002+009** Fractures + Healing + imaging. **Batch B: Physiology F-P-001** Cell organelles. **Batch C: Biochemistry**: **F-B-002** Cell Membrane **Batch D**: Anatomy Practical **F-A-052** Secretory glands **All Demo**	Physiology LGIS **F-P-004** Hemoglobin in different ages, Normal indices, Enlist abnormal Hb Dr. Shaista	Biochemistry LGIS **F-B-007** RNA Structure and Types Dr. Hassan	Pharmacology LGIS F-Ph002 Pharmacokinetics Dr. Waleed	Break	Embryology LGIS **F-A-017** Capacitation and Acrosome Reaction Prof. M. Amin	Com. Medicine LGIS Calculate morbidity and mortality indicators Dr. Irfan	**Practical** **Batch B: Anatomy Histology F-A-052** Secretory glands **Batch C: Physiology: F-P-010:** Blood Group Determination **Batch D: Biochemistry** F-B-018 Cell Equipment **Batch A: Clinical Skill Lab** Blood Pressure **All Demo**

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Wednesday	**SGIS** **Batch B : Anatomy** **F-A 002+009** Fractures + Healing + imaging. **Batch C: Physiology F-P-001** Cell organelles. **Batch D: Biochemistry**: : **F-B- 002** Cell Membrane **Batch A**: Anatomy Practical **F-A-052** Secretory glands **All Demo**	Physiology LGIS **F-P-004** Role of iron in Hb formation Dr. Shaista	Biochemistry LGIS **F-B-007** RNA Types: Structure & Function Dr. Hassan	Histology LGIS **F-A-045** Connective Tissue- Ground Substance + Glycosaminoglycans + Fibers – Define fibrosis Dr. M. Amin		Embryology LGIS Fertilization IVF and infertility Dr. Amin	Pak Study Describe brief the salient features of the Pakistan movement (2)	**Practical** **Batch C: Anatomy Histology F-A-052** Secretory glands **Batch D: Physiology: F-P-010:** Blood Group Determination **Batch A: Biochemistry** F-B-018 Cell Equipment **Batch B: Clinical Skill Lab** Blood Pressure **All Demo**	
Thursday	**SGIS** **Batch C: Anatomy F-A-002+009** Fractures + Healing + imaging. **Batch D: Physiology F-P-001** Cell organelles. **Batch A: Biochemistry**: **F-B-002** Cell Membrane **Batch** B: Anatomy Practical **F-A-052** Secretory glands **All Demo**	Physiology LGIS **F-P-005** WBC types- Neutrophils: characteristics & Functions Prof. Tanzeela Waqar	Biochemistry LGIS **F-B-008** Nucleotides- Nomenclature & Structure Dr. Gul e Raana	PERL Workshop P ERLs1-04 Digital Identity and Footprint Dr. Sadaf Sajid		Embryology LGIS Cleavage and blastocyst formation Dr. Naem	Islamyat Explain the concept of the Islamic state Ms. Ulfat	**Practical** **Batch D: Anatomy Histology F-A-052** Secretory glands **Batch A: Physiology: F-P-010:** Blood Group Determination **Batch B: Biochemistry** F-B-018 Cell Equipment **Batch C: Clinical Skill Lab** Blood Pressure **All Demo**	
Friday	**8:00- 9:00**	**9:00-9:40**	**9:40- 10:20**	**10:20-11:00**	**11:00-11:40**	**11:40-12:20**	**12:20-01:00**	**01:00-- 1:30**	**1:30-2:30**
	SGIS **Batch D: Anatomy F-A-002+009** Fractures + Healing + imaging. **Batch A: Physiology F-P-001** Cell organelles. **Batch B: Biochemistry**: **F-B-002** Cell Membrane **Batch C**: Anatomy Practical **F-A-052** Secretory glands **All Demo**	Physiology LGIS **F-P-005** Defense process by neutrophils+ Leukocytosis + Leukopenia Dr. Usama	Biochemistry LGIS **F-B-008** Nucleotides – Biomedical Importance Dr. Hassan	Pathology LGIS **F-Pa-002** Sterilization and disinfection Dr. Ashraf	Break	Behavioural Sciences LGIS **F-BhS-004** Behavioural factors and Pharmacologic al Treatment Prof. Dr. Altaf Qadir	Embryology LGIS **F-A-020** Compaction + morula formation- Basis of abortion(villi) Dr. M. Amin	**Jumma Prayer**	**Self-Directed Learning**

Week 6 Theme: Implantation and defects

	8:00- 9:00	**9:00 – 9:45**	**9:45- 10:30**	**10:30 – 11:15**	**11:15-11:45**	**11:45 – 12:30**	**12:30-1:45**	**1:45 – 3.00**
Monday	**Test** Anatomy All Faculty	Physiology LGIS **F-P-005** Defence process by macrophages Dr. Usama	Biochemistry LGIS **F-B-009** Chromosome Dr. Hassan	Ageing LGIS Theories of Aging Dr. Hassan	Break	Histology LGIS **F-A-045** Role of macrophages in innate immunity- Mast cells **Dr. Naeem**	Embryology LGIS **F-A-021** Week 2: Amniotic cavity, embryonic disc + umbilical vessels- Chorionic sac Dr. M. Amin	**Practical** **Batch A: Anatomy Histology F-A-053** Connective Tissue **Batch B: Physiology: F-P- 011:** TLC/DLC Interpretation **Batch C: Biochemistry** F-B-019 Chromatography **Batch D: Clinical Skill Lab** Donning and Doffing **All Demo**
Tuesday	**SGIS** **Batch A: Anatomy F-A-002+009** Fractures + Healing + imaging.	Physiology LGIS **F-P-005** Lines of defense: Role of neutrophils & macrophages	Biochemistry LGIS **F-B-010**	Com. Medicine LGIS Disability indicators Dr. Irfan		Anatomy LGIS **F-A-022** Uteroplacental circulation **Dr. Naeem**	Embryology LGIS **F-A-023**	**Practical** **Batch B: Anatomy Histology F-A-053** Connective Tissue **Batch C: Physiology: F-P- 011:** TLC/DLC Interpretation

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Timetable 1st Year MBBS (Session-2024-25)

	Batch B: Physiology F-P-001 Cell organelles. **Batch C: Biochemistry**: **F-B- 002** Cell Membrane **Batch D**: Anatomy Practical **-A- 053** Connective Tissue **All Demo**	Dr. Usama	Enzymes Classification + Mechanism of Action Dr. Gul e Raana				Primitive streak + gastrulation- sacrococcygeal teratoma Dr. M. Amin	**Batch D: Biochemistry** F-B-019 Chromatography **Batch A: Clinical Skill Lab** Donning and Doffing **All Demo**	
Wednesday	**SGIS** **Batch B : Anatomy F-A 002+009** Fractures + Healing + imaging. **Batch C: Physiology F-P-001** Cell organelles. **Batch D: Biochemistry**: : **F-B- 002** Cell Membrane **Batch A**: Anatomy Practical **-A- 053** Connective Tissue **All Demo**	Physiology LGIS **F-P-005** Reticuloendothelial System Prof. Shireen	Biochemistry LGIS **F-B-010** Enzymes with reference to other factors Dr. Gul e Raana	Behavioral Sciences LGIS		Anatomy/Physiology/ Biochemistry/Obgyn **F-A-021** Case Based Learning Abnormal / Extrauterine implantation- Molar-Ectopic Dr. M. Amin	Embryology LGIS Ectopic Pregnancy Dr. Amin	**Practical** **Batch C: Anatomy Histology F-A-053** Connective Tissue **Batch D: Physiology: F-P- 011:** TLC/DLC Interpretation **Batch A: Biochemistry** F-B-019 Chromatography **Batch B: Clinical Skill Lab** Donning and Doffing **All Demo**	
Thursday	**SGIS** **Batch C: Anatomy F-A-002+009** Fractures + Healing + imaging. **Batch D: Physiology F-P-001** Cell organelles. **Batch A: Biochemistry**: **F-B-002** Cell Membrane **Batch** B: Anatomy Practical **-A- 053** Connective Tissue **All Demo**	Physiology LGIS **F-P-005** Basophils & Eosinophils Dr. Shaista	Biochemistry LGIS **F-B-010** Effect of factors on enzyme activity Dr. Gul e Raana	**Pharmacology LGIS** Pharmacodynamics Dr. Meneza		**Mentoring Session**		**Practical** **Batch D: Anatomy Histology F-A-053** Connective Tissue **Batch A: Physiology: F-P- 011:** TLC/DLC Interpretation **Batch B: Biochemistry** F-B-019 Chromatography **Batch C: Clinical Skill Lab** Donning and Doffing **All Demo**	
Friday	**8:00- 9:00**	**9:00-9:40**	**9:40- 10:20**	**10:20-11:00**	**11:00-11:40**	**11:40-12:20**	**12:20-01:00**	**01:00-- 1:30**	**1:30-2:30**
	SGIS **Batch D: Anatomy F-A-002+009** Fractures + Healing + imaging. **Batch A: Physiology F-P-001** Cell organelles. **Batch B: Biochemistry**: **F-B-002** Cell Membrane **Batch C**: Anatomy Practical **-A- 053** Connective Tissue **All Demo**	Physiology LGIS **F-P-006** Blood Groups Classification + Landsteiner Law Dr. Shaista	Biochemistry LGIS **F-B-010** Regulation and inhibitors of enzyme activity Dr. Gul e Raana	Pathology LGIS **F-Pa-002** Microbes Dr. Ambreen Nawaz	Break	Embryology / Paedriatics LGIS F-A-026 Mesodermal Derivatives + somite formation + Formation of Intra-embryonic coelom Dr. M. Amin		**Jumma Prayer**	**Self-Directed Learning**

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Timetable 1st Year MBBS (Session-2024-25)

Week 7 Theme: Fetal period

	8:00- 9:00	9:00 – 9:45	9:45- 10:30	10:30 – 11:15	11:15-11:45	11:45 – 12:30	12:30-1:45	1:45 – 3.00
Monday	**Test** Physiology All Faculty	Physiology LGIS **F-P-006** Basis of ABO Blood group + Basis of Rh Blood group Dr. Usma	Biochemistry LGIS Michelis Menten Equ Dr. Gul e Ranna	Physiology LGIS ABO incompatibility Dr. Usama	Break	Histology LGIS **F-A-045** Adipose Tissue Lipid Storage + mobilization from /in adipocytes Dr. M. Yasoob	Anatomy/Obgy/Pead LGIS **F-A-029 + 030+ 031** Derivatives of ecto/endo/mesoderm + Regulation of embryonic development+2nd Month Dr. Naeem	**Practical** **Batch A: Anatomy Histology** Re A-047: Embryonic/Fetal identif+Placenta+ USG report + Dates. **Batch B: Physiology: F- P-011:** WBCs - Slide **Batch C: Biochemistry** F-B-019 Solutions **Batch D: Clinical Skill Lab** SDL **All Demo**
Tuesday	**SGIS** **Batch A: Anatomy F-A- 002+009** Fractures + Healing + imaging. **Batch B: Physiology F-P-001** Cell organelles. **Batch C: Biochemistry**: **F-B- 002** Cell Membrane **Batch D**: Anatomy Practical Re A-047: Embryonic/Fetal identif+Placenta+ USG report + Dates. **All Demo**	Embryology /Obgyn LGIS **F-A-028** Cephalocaudal folding/lateral folding/folding of embryo Prof. M. Amin	Physiology LGIS Rs. Incompatibility Dr. Usama	Biochemistry LGIS Enzyme Inhibitors Dr. Gul e Raana		Com. Medicine LGIS Multi factorial causation Dr. Amber	Embryology LGIS **F-A-034** Placenta, Placental membrane, circulation+ Hemolytic disease Dr. M. Amin	**Practical** **Batch B: Anatomy Histology** Re A-047: Embryonic/Fetal identif+Placenta+ USG report + Dates. **Batch C: Physiology: F- P-011:** WBCs - Slide **Batch D: Biochemistry** F-B-019 Solutions **Batch A: Clinical Skill Lab** SDL **All Demo**
Wednesday	**SGIS** **Batch B : Anatomy F-A 002+009** Fractures + Healing + imaging. **Batch C: Physiology F-P-001** Cell organelles. **Batch D: Biochemistry**: : **F-B- 002** Cell Membrane **Batch A**: Anatomy Practical Re A-047: Embryonic/Fetal identif+Placenta+ USG report + Dates. **All Demo**	Physiology LGIS **F-P-007** Autonomic Nervous System – Components + Physiological anatomy: SN and PNS Prof. Tanzeela Waqar	Pathology LGIS Microbes Dr. Ambreen	Physiology LGIS Sympathetic Nervous System Dr. Tanzeela		**Pharmacology LGIS** Pharmacodynamics Dr. Meneza	Embryology/Obgyn LGIS **F-A-032+033** Embryonic Period/fetal growth Dr. M. Amin	**Practical** **Batch C: Anatomy Histology** Re A-047: Embryonic/Fetal identif+Placenta+ USG report + Dates. **Batch D: Physiology: F- P-011:** WBCs - Slide **Batch A: Biochemistry** F-B-019 Solutions **Batch B: Clinical Skill Lab** SDL **All Demo**
Thursday	**SGIS** **Batch C: Anatomy F-A- 002+009** Fractures + Healing + imaging. **Batch D: Physiology F-P-001** Cell organelles. **Batch A: Biochemistry**: **F-B-002** Cell Membrane **Batch** B: Anatomy Practical Re A-047: Embryonic/Fetal identif+Placenta+ USG report + Dates. **All Demo**	**Expository Writing** To write expository essays using planning, prewriting, organizing, drafting, revising, editing, and proofreading strategies.	**IT** Word, Google Docs), internet search strategies, and using online libraries (e.g., PubMed, Google Scholar).	Quran Describe concept of Shirk (1) Ms. Ulfat		Anatomy LGIS **F-A-008** Neurology: Neuron structure and classification Components of CNS and PNS Dr. Naeem	Embryology/Obgyn LGIS **F-A-035+036+037** Amniotic fluid+ amniocentesis+ AF abnormalities Multiple pregnancies and Preterm Birth Dr. M. Amin	**Practical** **Batch D: Anatomy Histology** Re A-047: Embryonic/Fetal identif+Placenta+ USG report + Dates. **Batch A: Physiology: F- P-011:** WBCs - Slide **Batch B: Biochemistry** F-B-019 Solutions **Batch C: Clinical Skill Lab** SDL **All Demo**
Friday	**8:00- 9:00**	**9:00-9:40**	**9:40- 10:20**	**10:20-11:00**	**11:00-11:40**	**11:40-12:20**	**12:20-01:00**	**01:00– 1:30** / **1:30-2:30**

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Timetable 1st Year MBBS (Session-2024-25)

	SGIS **Batch D: Anatomy F-A- 002+009** Fractures + Healing + imaging. **Batch A: Physiology F-P-001** Cell organelles. **Batch B: Biochemistry**: **F-B-002** Cell Membrane **Batch C**: Anatomy Practical Re A-047: Embryonic/Fetal identif+Placenta+ USG report + Dates. **All Demo**	Biochemistry LGIS **F-B-013** Plasma Proteins Dr. Hasan	Biochemistry LGIS **F-B-014** Immunoglobins + Interpret Multiple Myeloma Dr. Faheem	Pathology LGIS Bacterial Cell Vs viral Replication Dr. Sheama	Break	Embryology LGIS **F-A-039** Teratology, genomic imprinting, genetic mutations, genetic factors, male-mediated defects Dr. M. Amin	**Jumma Prayer**	**Self-Directed Learning**

Week 8 Fetal period

Days	8:00- 9:00	9:00 – 9:45	9:45- 10:30	10:30 – 11:15	11:15-11:45	11:45 – 12:30	12:30-1:45	1:45 – 3.00
Monday	**Test** Anatomy All Faculty	Biochemistry LGIS **F-B-011** Explain + Interpret single gene defect i.e. emphysema Dr. Hassan	Embryology /Cardiology LGIS **F-A-027** Early development of CVS Prof. M. Amin	Histology Fibroblast and plasma cells Dr. Yaqub	Break	Physiology LGIS Para synthetic Nervous system Dr. Shaista	PERL LGIS Test Demo	**Practical** **Batch A: Anatomy Histology** **Batch B: Pathology:** **Batch C: Biochemistry** **Batch D: Clinical Skill Lab** SDL **All Demo**
Tuesday	**SGIS** **Batch A: Anatomy F-A-002+009** Fractures + Healing + imaging. **Batch B: Physiology F-P-001** Cell organelles. **Batch C: Biochemistry**: **F-B-002** Cell Membrane **Batch D**: Anatomy Practical **All Demo**	Biochemistry LGIS **F-B-001** Aminoacids classification, importance, properties Dr. Faheem	**PE RL LGI S F-PE RL-006** Scientific Method Prof. Sadia Shahzad	Histology LGIS Loose and dense connective tissue Dr. Neam		Pathology LGIS Growth curve of bacteria Dr. Iqbal	Physiology LGIS Para synthetic Nervous system Dr. Shaista	**Practical** **Batch B: Anatomy Histology** **Batch C: Pathology:** **Batch D: Biochemistry** **Batch A: Clinical Skill Lab** SDL **All Demo**
Wednesday	**SGIS** **Batch B: Anatomy F-A 002+009** Fractures + Healing + imaging. **Batch C: Physiology F-P-001** Cell organelles. **Batch D: Biochemistry**: : **F-B-002** Cell Membrane **Batch A**: Anatomy Practical **All Demo**	Biochemistry LGIS **F-B -012** Proteins classification, structural levels with role of chaperons Dr. Faheem	Embryology/Obgyn LGIS **F-A-035** Umbilical cord, abnormalities, absent cord/ Umbilical Vesicle + Physiological Umbilical Hernia Prof. M. Amin	Physiology LGIS Abnormality of autoimmune System Dr. Usama		Embryology/Obgyn Teratogenous Dr. Amin	Pharmacology LGIS Autonomic Systme Dr. Muneeza	**Practical** **Batch C: Anatomy Histology** **Batch D: Pathology:** **Batch A: Biochemistry** **Batch B: Clinical Skill Lab** SDL **All Demo**

Queens Medical College, Kasur

Timetable 1st Year MBBS (Session-2024-25)

Thursday	**SGIS** **Batch C: Anatomy F-A-002+009** Fractures + Healing + imaging. **Batch D: Physiology F-P-001** Cell organelles. **Batch A: Biochemistry**: **F-B-002** Cell Membrane **Batch** B: Anatomy Practical **All Demo**	Pathology LGIS Determinants of bacterial pathogenies Dr. Iqbal	Physiology LGIS Types of Receptors' Dr. Tanzeela	Behavioural Sciences LGIS			Physiology LGIS **F-P-007** Types of receptors + functions Dr. Shaista	Biochemistry LGIS **F-B-012** Proteins classification, structural levels Dr. Faheem	**Practical** **Batch D: Anatomy Histology** **Batch A: Pathology:** **Batch B: Biochemistry** **Batch C: Clinical Skill Lab** SDL **All Demo**
	8:00- 9:00	**9:00-9:40**	**9:40- 10:20**	**10:20-11:00**	**11:00-11:40**	**11:40-12:20**	**12:20-01:00**	**01:00-- 1:30**	**1:30-2:30**
Friday	**SGIS** **Batch D: Anatomy F-A-002+009** Fractures + Healing + imaging. **Batch A: Physiology F-P-001** Cell organelles. **Batch B: Biochemistry**: **F-B-002** Cell Membrane **Batch C**: Anatomy Practical **All Demo**	Embryology/Obgyn Practical F-A-032+033+047 Abnormal fetal growth, fertilization, EDD calculations Prof. M. Amin	Test Biochemistry	**Expository Writing** Introduction to citation management tools (e.g., Zotero, Mendeley) for referencing sources in essays.	Quran Describe concept of Shirk (2) Ms. Ulfat	Break	Test Pharmacology, Pathology. Community Medicine, Behavioral Sciences All Faculty	Jumma Prayer	Self- Directed Learning

Queens Medical College, Kasur

Timetable 1st Year MBBS (Session-2024-25)

Date Sheet 1st Year MBBS (Session-2024-25) Foundation Module Exam

Monday	**8:00- 9:15**	**9:15 - 10:00**	**10:00- 10:45**	**10:45-11:30**	**11:30-12:00**	**12:00-12:45**	**12:45-13:30**	**1:30 – 2:30**
	Anatomy **LGIS**	**Anatomy** **LGIS**	**Biochemistry** **LGIS**	**Biochemistry** **LGIS**	-	**Physiology** **LGIS**	**Physiology** **LGIS**	**CSF**
Tuesday	Theory Paper **9:00 am - 12:00 pm** **Anatomy** 25 MCQs and 5 SEQs							
Wednesday	Theory Paper **9:00 am - 12:00 pm** **Physiology** 25 MCQs and 5 SEQs							
Thursday	Biochemistry **9:00 am - 12:00 pm** Theory Paper **Biochemistry** 25 MCQs and 5 SEQs							
Friday	Theory Paper **9:00 am - 12:00 pm** 40 MCQs							
	Pharmacology		**Pathology**		**Community Medicine**		**Behavioral Sciences**	

- Practical Exam Shall be taken in batches during Practical times in relevant departments (----------)
- Viva Shall be taken in SGIS Sessions in relevant departments (----------)

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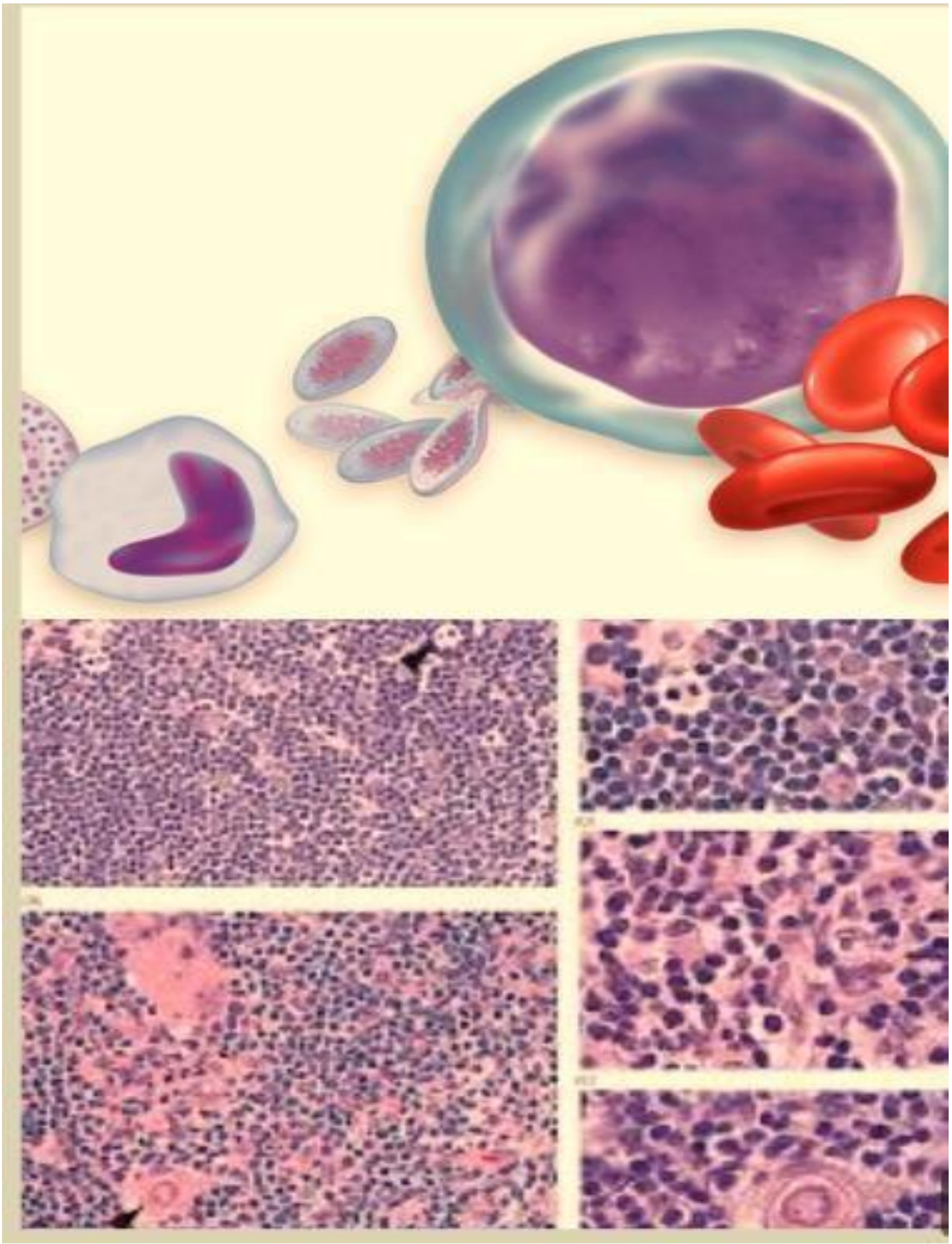
Timetable 1st Year MBBS (Session-2024-25)

MBBS 1st Professional

Block-1

Theme	Subject	Written Exam			Oral/Practical/Clinical Exam			
		MCQ (1 mark)	SEQ (5 mark each)	Marks	OSPE (8 marks each observed)	OSCE (8 marks each observed)	OSVE (16 marks each observed)	Marks
Normal Structure	Anatomy applied/clinical	20	03	35	03	-	01	40
Normal Function	Physiology applied/clinical	22	02	32	02	-	01	32
	Biochemistry applied/clinical	22	02	32	02	-	01	32
Disease Burden & Prevention	Community Medicine & Public Health	05	-	05	-	-	-	-
	Behavioral Sciences	05	-	05	-	-	-	-
Pathophysiology & pharmacotherapeutics	Pathology	06	-	06	-	-	-	-
	Pharmacology	05	-	05	-	-	-	-
CFRC	CF-1-2	-	-	-	-	01	-	08
PERLs	PERLs-1-2	-	-	-	-	01	-	08
Total		**85**	**7x5=35**	**120**	**07 stations x 08 = 56**	**02 stations x 08 = 16**	**03 stations x 16=48**	**120**



MODULE NO. 02

HEMATOPOIETIC & LYMPHATIC

MODULE RATIONALE

"Blood is Life". Unlike any other organ, components of blood and immunity reflect/reveal disease processes in other organs as well. Therefore, studying blood is like opening a book to all aspects of medicine. Hence, this module has been designed to enable students to have a basic understanding about the normal structure, function and biochemistry of blood, immune and Lymphatic systems. Not only that, but students would also learn, when normal physiology and composition of blood and immune system is disturbed, what disorders result in our community. Emphasis has been given to incorporate deranged laboratory findings into the
clinical problem solving.

MODULE OUTCOMES

- Explain the function of all the organs / structures involved in this system and the mechanisms controlling them. (Spleen, lymph nodes, thymus, bone marrow, RBC's, WBCs and platelets
- Explain the etiology and pathogenesis of common blood & lymphatic diseases, particularly those of importance in Pakistan.
- Explain the rationale for the use of common therapeutic agents for the diseases relatedto Blood and immunity.
- Describe the role of immunity in the body
- Discuss the working & uses of laboratory instruments in diagnostic lab visit
- Relate red cell indices with health and disease
- Recognize ABO/RH blood grouping system
- Describe the role of Reticuloendothelial system in the body
- Describe the events of hemostasis
- Extrapolate the biochemical aspects of plasma proteins
- Discuss the pharmacological treatment of iron deficiency anemia
- Discuss Blood composition and function
- Discuss the role of liver in hemolytic anemia
- Practice history taking of a patient presented with blood disorders

THEMES

- Red blood cell
- Platelets
- White blood cell

CLINICAL RELEVANCE

- Aplastic anemia
- Hemolytic anemia
- Blood loss anemia
- Nutritional anemia
- Polycythemia
- Hemoglobinopathies
- Jaundice
- Acute and chronic lymphocytic and myelogenous Leukemia
- Allergy (Type I, Type II & Type III)

SYLLABUSOF
HEMATOPOIETIC & LYMPHATIC MODULE

NORMAL STRUCTURE					
THEORY					
CODE	**GROSS ANATOMY**	**TOTAL HOURS = 02**		**Teaching strategy**	**Assessment strategy**
	SPECIFIC LEARNING OUTCOMES	**DISCIPLINE**	**TOPIC**		
HL-A-001	Identify and describe the componentsof the Hematopoietic & Lymphoid Tissue and their function	Human Anatomy	Hematopoietic & Lymphoid Tissue	**SGD**	**MCQ'S SEQ'S**
	Location, coverings, relations of Spleen			**SGD**	**OSPE**
	Origin, course branches and distribution of Splenic artery			**SGD**	**MCQ'S SEQ'S OSVE**
	Venous drainage of Spleen, Portal vein formation,tributaries, and area of drainage.			**SGD**	**MCQ'S SEQ'S OSPE OSVE**
	Location and relations of Thymus. related changes in Thymus			**SGD**	**MCQ'S SEQ'S OSPE OSVE**
CODE	**EMBRYOLOGY & POST-NATALDEVELOPMENT**	**TOTAL HOURS =01**		**Teaching strategy**	**Assessment strategy**
	SPECIFIC LEARNING OUTCOMES	**DISCIPLINE**	**TOPIC**		
HL-A-002	Intrauterine Development of spleen	Embryology	Developmental Anatomy of Spleen	**Interactive lecture**	**MCQ'S SEQ'S OSVE**
PRACTICAL					
CODE	**HISTOLOGY**	**TOTAL HOURS = 02**		**Teaching strategy**	**Assessment strategy**
	SPECIFIC LEARNING OBJECTIVES	**DISCIPLINE**	**TOPIC**		
HL-A-003	Light microscopic structure of Spleen, thymus, Lymph nodes, tonsils and Mucosa Associated Lymphoid Tissue (MALT) including appendix.	Histology	Histological features of lymph node, spleen & thymus	**Interactive lecture** **SGD**	**MCQ'S SEQ'S OSPE**

NORMAL FUNCTION					
THEORY					
CODE	MEDICAL PHYSIOLOGY	**TOTAL HOURS = 20**		**Teachingstrategy**	**Assessment strategy**
	SPECIFIC LEARNING OBJECTIVES	DISCIPLINE	TOPIC		**Poster presentation in all**
HL-P-001	Define, classify and explain anemia on the basis of morphology and cause	Medical Physiology	Anemia	**Lecture SGD TBL**	**MCQ'S SEQ'S OSVE**
	Discuss the effects of anemia on the body			**SDL**	**OSPE**
HL-P-002	Define polycythemia		Polycythemia	**Lecture**	**MCQ'S SEQ'S**
	Explain types of polycythemias			**SGD**	**MCQ'S SEQ'S OSVE**
	Discuss the effects of polycythemia on the body			**SDL**	**MCQ'S SEQ'S OSVE**
HL-P-003	Define hemostasis		Hemostasis	**Lecture**	**MCQ'S SEQ'S OSVE OSPE**
	Describe the mechanisms by which hemostasis is secured			**SGD SDL**	**MCQ'S SEQ'S**
HL-P-004	Discuss the characteristics and functions of platelets		Platelets	**Lecture SGD**	**MCQ'S SEQ'S**
	Explain the mechanism of formation of platelet plug			**SDL**	**MCQ'S SEQ'S**
HL-P-005	Enlist the clotting factors in blood		Coagulation factors	**Lecture**	**MCQ'S SEQ'S OSPE**
	Explain the conversion of Prothrombin to Thrombin & formation of Fibrin Fibers			**SGD**	**MCQ'S SEQ'S OSPE**
	Explain the Intrinsic & extrinsic clotting pathway.			**SDL**	**MCQ'S SEQ'S OSPE OSVE**
	Name & explain the mechanism of anticoagulants used in laboratory.			**Lecture**	**MCQ'S SEQ'S OSPE**

	Explainthe factors that prevent intravascularcoagulation			**Lecture**	**MCQ'S SEQ'S**
	Explain the role of Calcium ions in Intrinsic and Extrinsic pathways			**Lecture SGD**	**MCQ'S SEQ'S OSVE**
	Enlist the vitamin K dependent clotting factors			**Lecture**	**MCQ'S SEQ'S OSVE**
	Explain the prothrombin time, International Normalized Ratio (INR), and its clinical significance.			**Lecture**	**MCQ'S SEQ'S OSPE TABLE VIVA**
HL-P-006	Enlist and explain the conditions that cause excessivebleeding	Integrated with Medicine	Coagulation disorders	**Lecture**	**MCQ'S SEQ'S OSPE**
	Define thrombocytopenia			**Lecture**	**MCQ'S SEQ'S**
	Enlist the causes and consequences ofThrombocytopenia			**Lecture**	**MCQ'S SEQ'S**
HL-P-007	Define immunity	Medical Physiology	Immunity	**Lecture SGD SDL**	**MCQ'S SEQ'S**
	Classify immunity			**Lecture**	**MCQ'S SEQ'S**
	Explain humoral immunity			**Lecture SGD**	**MCQ'S SEQ'S**
	Explain Innate immunity.			**Lecture SGD**	**MCQ'S SEQ'S**
	Elaborate cell mediated immunity.			**Lecture SGD**	**MCQ'S SEQ'S OSVE**
	Describe the structure of antigen and immunoglobulin			**Lecture SGD**	**MCQ'S SEQ'S OSVE**
	Describe the role of Helper T-cells in cell mediated immunity			**Lecture**	**MCQ'S SEQ'S**
	Enlist the types of Immunoglobulins along with their functions			**Lecture**	**MCQ'S SEQ'S OSVE**
	Explain the role of memory cells in enhancing antibody response (secondary response)			**Lecture**	**MCQ'S SEQ'S**
	Describe the mechanism of action of antibodies			**Lecture**	**MCQ'S SEQ'S OSVE**

	Elaborate the complement system.			**Lecture**	**MCQ'S SEQ'S OSVE**
	Elaborate Immune tolerance			**Lecture**	**MCQ'S SEQ'S**
HL-P-008		Medical Physiology	Tolerance		
	Explain the process of clone selection during T cell processing			**Lecture**	**MCQ'S SEQ'S**
	Discuss the failure of tolerance mechanism			**Lecture**	**MCQ'S SEQ'S**
HL-P-009	Discuss immunization.	Medic Physiology Integrate with Pediatrics	Immunization	**Lecture**	**MCQ'S SEQ'S**
	Define passive Immunity		Immunization	**Lecture**	**MCQ'S SEQ'S**
	Explain features and physiological basis of delayed reaction allergy.			**Lecture**	**MCQ'S SEQ'S**
	Explain features and physiological basis of AtopicAllergy			**Lecture**	**MCQ'S SEQ'S**
	Explain features and physiological basis of Anaphylaxis, urticaria and Hay fever.			**Lecture**	**MCQ'S SEQ'S**
HL-P-010	Discuss the pathophysiology, features and treatment ofABO and RH incompatibility. Enlist the changes that take place in the stored Blood.	Medical Physiology	Blood group Incompatibility	**Lecture**	**MCQ'S SEQ'S OSPE ROLE PLAY**
HL-P-011	Discuss the features and complications of mismatchedblood transfusion reaction Describe the Hazards of blood transfusion.	Integrate with Pathology	Blood mismatch Transfusion reactions	**Lecture**	**MCQ'S SEQ'S**
	Elaborate the Transplantation of Tissues and Organs			**Lecture**	**MCQ'S SEQ'S**
HL-P-012	Explain the process of tissue typing	Medical Physiology Integrate with Nephrology	Transplantation of tissues	**Lecture**	**MCQ'S SEQ'S**
	Explain the prevention of Graft Rejection by suppressing immune system			**Lecture**	**MCQ'S SEQ'S**

THEORY					
CODE	**MEDICAL BIOCHEMISTRY**	**TOTAL HOURS = 19**		**Teaching strategy**	**Assessment strategy**
	SPECIFIC LEARNING OBJECTIVES	**DISCIPLINE**	**TOPIC**		

HL-B-001	Explain the steps of synthesis of hemoglobin and interpretPorphyrias on basis of sign symptoms and data. Discuss the biochemical role and types of hemoglobin 1. Differentiate Hemoglobin and myoglobin 2. Explain oxygen dissociation curve of hemoglobin and myoglobin and factors regulating them 3. Interpret Carbon monoxide (CO) toxicity on the basis of sign and symptoms 4. Explain the role of 2,3 Bisphosphoglycerate (2,3 BPG) in fetal circulation	Medical Biochemistry	Hemoglobin and its types/ RBCs	**Lecture**	**SEQ'S MCQ'S**
HL-B-002	Discuss haemoglobinopathies and their biochemical andgenetic basis with special emphasis on sickle cell anemia, Thalassemia and methemoglobinemia a) Discuss the following types of anemia on the basis of signs and symptoms and laboratory data: 1. Hypochromic microcytic 2. Normochromic microcytic 3. Normochromic normocytic 4. Macrocytic (megaloblastic)	Medical Biochemistry Integrate with Pathology	Hemoglobin pathies/ RBCs/ Homeostasis	**InteractiveLecture**	**SEQ'S MCQ'S**

HL-B-003	Explain the iron metabolism with mechanism of absorption and factors affecting it. 1. Interpret Iron deficiency anemia on basis of given data and microscopic findings 2. Interpret folic acid and cobalamin in relation to anemias on given dataand microscopic findings 3. Discuss biochemical role of pyridoxine and vitamin C in microcytic anemia	Medical Biochemistry Integrate with medicine	Iron Metabolism/ RBCs	**Lecture**	**SEQ'S MCQ'S**
HL-B-004	Discuss the degradation of heme in macrophages of reticuloendothelial system 1. Describe the formation of bile pigments, their types and transport 2. Discuss the fate of bilirubin		Heme Degradation /RBCs	**Interactive Lecture**	**SEQ'S MCQ'S**

HL-B-005	Discuss hyperbilirubinemias and their biochemical basis 1. Differentiate types of jaundice on basis of sign/symptoms and data 2. Evaluate the genetic basis of jaundice on the basis of lab investigations	Medical Biochemistry	Hyperbilirubinemia anemias / RBCs/ Blood Groups	**Lecture** **SGD**	**SEQ'S** **MCQ'S**
HL-B-006	Classify and explain the biomedical importance of each class of plasma proteins		Plasma Proteins/ Homeostasis	**Lecture**	**SEQ'S** **MCQ'S**
HL-B-007	Explain the structure and biochemical role of immunoglobulins 1. Describe the production, structure and functions ofB cells, plasma cells, and antibodies (IgA, IgD, IgE, IgG, and IgM). 2. Discuss the functions of the cytokines(ILs, TNFs, IFs, PDGF, and PAF). Interpret multiple myeloma on basis ofgiven data		Immunoglobinulins/ WBCs/ Immunity	**Lecture** **SGD**	**SEQ'S** **MCQ'S**
HL-B-008	Explain and interpret pedigree of singlegene defect i.e. sickle cell anemia (Autosomal recessive) and Beta Thalassemia (X linked recessive)		Genetics	**Lecture** **SGD** **ROLE PLAY**	**SEQ'S** **MCQ'S**

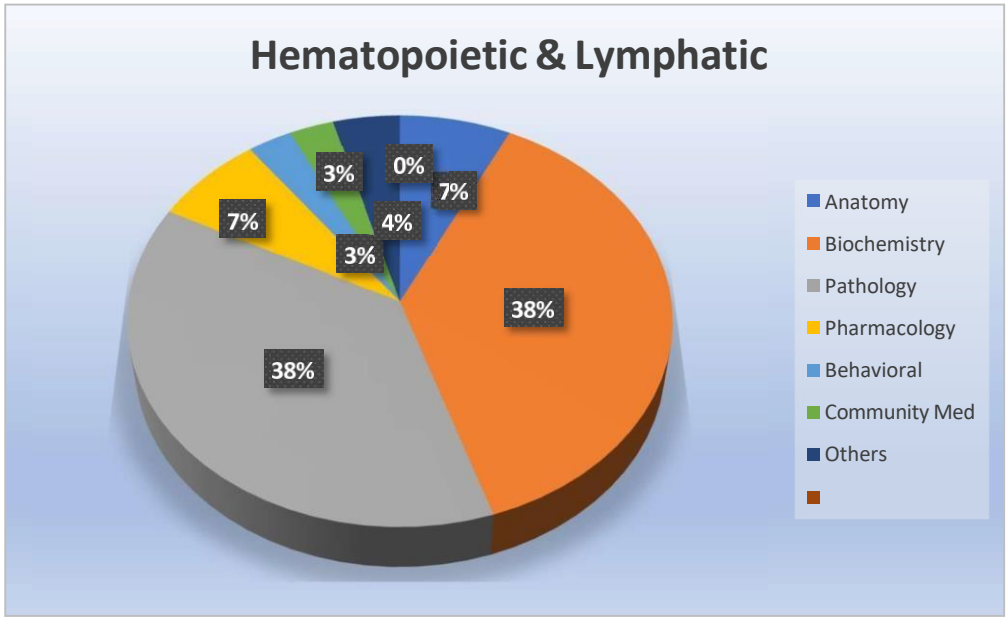
PRACTICAL

CODE	**SPECIFIC LEARNING OBJECTIVES**	**TOTAL HOURS = 6+6=12**		**Teaching strategy**	**Assessment strategy**
		DISCIPLINE	**TOPIC**		
HL-P-013	Interpret the Red Blood Cell Count, Hemoglobin concentration, Hematocrit and RBC Indices by Automated Cell Counter	Medical Physiology	Bleeding/ Clotting time	**Lecture**	**SEQ'S** **MCQ'S**
	Interpret the TotalLeucocyte Count Differential Leucocyte Count Platelet Count by Automated Cell Counter.				
HL-P-014	Determine Bleeding Time. Determine Clotting Time.		Jaundice & Anemias/ RBCs/ Homeostasis	**Lecture**	**SEQ'S** **MCQ'S**

HL-B-009	Interpret types of jaundice on the basisof data Perform estimation of bilirubin	Medical Biochemistry	Jaundice & Anemias/ RBCs/ Homeostasis	**Demonstration+ Performance**	**OSPE**

PATHOPHYSIOLOGY AND PHARMACOTHERAPEUTICS					
THEORY					
CODE	**SPECIFIC LEARNING OBJECTIVES**	**TOTAL HOURS = 2+5=07**		**Teaching strategy**	**Assessment strategy**
		DISCIPLINE	**TOPIC**		
HL-Ph-001	Describe the oral and parenteral iron preparations including their pharmacokinetics, uses, adverse effects	Pharmacology & Therapeutics	Anemia	**Interactive lecture**	**MCQ'S**
	Vitamin B12 preparations, Iron Antidotes			**Interactive lecture**	**MCQ'S**
HL-Pa-001	Should know the terms: Hematopoietic growth factors, their name, mechanism of actions, uses and adverse effects	Pathology	Blood Cells, Platelets and Blood Group	**Interactive lecture**	**MCQ'S**
	Define and classify anemias according to underlying mechanism and Mean Corpuscular Volume/ Mean Corpuscular Hemoglobin (MCV/MCH)			**Interactive lecture**	**MCQ'S**
	Discuss the causes and investigationsof iron deficiency anemia and megaloblastic anemia			**Interactive lecture**	**MCQ'S**
	Classify the benign and malignant disorders of WBCs			**Interactive lecture**	**MCQ'S**
	Discuss the causes leading to reactiveleukocytosis			**Interactive lecture**	**MCQ'S**
	Interpretation of anemias on the basis ofperipheral blood smear and bone marrow findings			**Interactive lecture**	**MCQ'S**
	Classify bleeding disorders			**Interactive lecture**	**MCQ'S**
	Discuss first line laboratory investigations for bleeding disorders			**Interactive lecture**	**MCQ'S**
	Describe the basic concept of blood grouping and acute hemolytic transfusion reaction			**Interactive lecture**	**MCQ'S**

DISEASE PREVENTION AND IMPACT					
THEORY					
CODE	**SPECIFIC LEARNING OBJECTIVES**	**TOTAL HOURS = 05**		**Teaching strategy**	**Assessment strategy**
		DISCIPLINE	**TOPIC**		
HL-CM-01	Describe the nutritional aspects of irondeficiency anemia and psychological aspects ofdiseases	Community Medicine and Public Health	Anemia	**Interactive lecture**	**MCQ'S**
HL-CM-02	Enlist most common blood bornediseases in Pakistan Describe the routes of spread of blood borne diseases		communicable diseases	**Interactive lecture**	**MCQ'S**
HL-CM-03	Genetic counseling of parents		Genetic disease s	**Interactive lecture**	**MCQ'S**
HL-BhS-01	Psychological Counselling of patients and their families	Behavioral Sciences	Counselling , informational care	**Interactive lecture**	**MCQ'S**
HL-BhS-02	Identify and deal with the various psychosocial aspects of Hematopoietic System disorders (such as Sickle Cell Disease, Hemophilia, and Conditions of the Blood) on Individual, Family and Society.		Personal, Psychosocial and vocational issues	**Interactive lecture**	**MCQ'S**
AGING					
THEORY					
CODE	**SPECIFIC LEARNING OBJECTIVES**	**TOTAL HOURS = 01**		**Teaching strategy**	**Assessment strategy**
		DISCIPLINE	**TOPIC**		
HL-Ag-01	Discuss the role of platelets in Platelet-Rich Plasma (PRP) treatment in old age (for skin, hairs and joints)	Biochemistry /Dermatology	Platelet Rich Plasma Therapy	**Interactive lecture**	**MCQ'S**
HL-Ag-02	Explain the role of glutathione in skin whitening		Glutathione	**Interactive lecture**	**MCQ'S**



Module Weeks	Recommended Minimum Hours
03	69

Time Table with Assessment Schedules

Queens Medical College, Kasur

Timetable 1st Year MBBS (Session-2024-25)

Block-1

Module-2 Hematopoietic & Lymphatic

(Theme: Red Cell)

Week 1

s	8:00- 9:00	9:00 – 9:45	9:45- 10:30	10:30 – 11:15	11:15-11:45	11:45 – 12:30	12:30-1:15	1:15 – 3.00	
	OSPE (Combined) 9 am to 12 pm Venue Batch A: Anatomy Laboratory Batch B: Physiology Laboratory Batch C: Biochemistry Laboratory								
	8:00 – 10: 00 AM		**10: 00 – 12: 00 PM**		**12: 00 – 2: 00 PM**				
	OSVE Batch A: Anatomy OSVE- Foundation Module Batch B: Physiology OSVE- Foundation Module Batch C: Biochemistry OSVE- Foundation Module		OSVE Batch C: Anatomy OSVE- Foundation Module Batch A: Physiology OSVE- Foundation Module Batch B: Biochemistry OSVE- Foundation Module		OSVE Batch B: Anatomy OSVE- Foundation Module Batch C: Physiology OSVE- Foundation Module Batch A: Biochemistry OSVE- Foundation Module				
	Practical Batch A: Anatomy Histology Batch B: Physiology: Batch C: Biochemistry Batch D: Clinical Skill Lab General physical examination (Nail examination+ skin color changes) All Demo	Anatomy Dissection HL-A-001 Components of Hematopoietic and Lymphoid Tissue A:Dr.Mohsin B:Dr.Haris C:Dr. Saddam	Physiology LGIS HL-P-001 Anemias- define, classify, morphology+ cause Effect of anemia of Body Dr. Tanzeela	Biochemistry LGIS HL-B-001 Hemoglobin synthesis Oxygen dissociation curve Dr. Hassan	**Break**	Biochemistry LGIS HL-B-001 Carbon monoxide (CO) toxicity Dr. Anam	Quran Oneness of Allah (SWT) (Tawheed) Impact of Tawheed in human life	Practical Batch C: Anatomy Histology Batch D: Physiology: Batch A: Biochemistry Batch B: Clinical Skill Lab General physical examination (Nail examination+ skin color changes) All Demo	
	Practical Batch B: Anatomy Histology Batch C: Physiology: Batch D: Biochemistry Batch A: Clinical Skill Lab General physical examination (Nail examination+ skin color changes) All Demo	Com. Medicine LGIS HL-CM-001 Iron Def.Anemia- nutritional and Psychological effects Prof. Sadia	Embryology LGIS HL-A-002 Intrauterine development of Spleen Dr. Shaista	Biochemistry LGIS HL-B-001 2,3 BPG in fetal circulation Dr. Anam	Biochemistry LGIS HL-B-002 Hemoglobinopathies + biochemical and genetic basis ref to diseases into with Pathology Dr. Iqbal Javaid	Physiology LGIS HL-P-002 Polycythemias-Def + Types - Effect of polycythemia of Body Prof. M Amin	Pathology LGIS HL-Pa- 001 & 002 Anemia- classifiy+ MCV/MCHC Interpret Anemia via peripheral blood smear + BM Dr. Iqbal Javaid	Practical Batch D: Anatomy Histology Batch A: Physiology: Batch B: Biochemistry Batch C: Clinical Skill Lab General physical examination (Nail examination+ skin color changes) All Demo	
	8:00- 9:00	**9:00-9:40**	**9:40- 10:20**	**10:20-11:00**	**11:00-11:40**	**11:40-12:20**	**12:20-01:00**	**01:00– 1:30**	**1:30-3:00**
	PBL Session	SDL	PERL Identify various components of a given research manuscript using the IMRAD structure	Pak-Study Explain the basis for the creation of Pakistan	Break	Islamyat Explain the Quran as a guide for modern society and scientific development	Quran Oneness of Allah (SWT) (Tawheed) Impact of Tawheed in human life	**Jumm a Prayer**	**Self-Directed Learning**

(Theme: Platelet)
Week 2

Days	8:00- 9:00	9:00 – 9:45	9:45- 10:30	10:30 – 11:15	11:15-11:45	11:45 – 12:30	12:30-1:15	1:15 – 3.00	
Monday	**Test** Physiology All Faculty	Pharmacology LGIS HL-Ph-001 Oral Iron preparations Pharmacokinetics, adverse effects + uses Dr. Fozia	Biochemistry LGIS HL-B-003 Iron Metabolism- Role of pyridoxine & vitamin C in microcytic anemia into with medicine	Physiology LGIS HL-P-003 Hemostasis- definition + mechanisms Dr.Usama	Break	Islamyat Explain the Quran as a guide for modern society and scientific development	Pak-Study Explain the basis for the creation of Pakistan	Practical Batch A: Anatomy Histology HL-A- 003 Spleen & thymus Batch B: Physiology: HL- P-013: CBC interpretation Batch C: Biochemistry Batch D: Clinical Skill Lab Venipuncture and blood collection All Demo	
Tuesday	SGIS Batch A: Anatomy - HL-A- 001: Portal Vein Formation Batch B: Physiology HL-P- 005 Clotting pathways Batch C: Biochemistry: F-B-004: Hyperbilirubinemias Batch D: PERLs: Leadership Discuss the role of non-verbal communication, including body language, facial expressions, and gestures, in effectively conveying messages and building rapport in healthcare settings All Demo	PERL PERLs1-04 Discuss the basic structure of a research manuscript using the IMRAD format (Introduction, Methods, Results,	Biochemistry LGIS HL-B-004 Heme degradation Dr. Hassan	Physiology LGIS HL-P-004 Platelets-Chara & Functions + platelet plug formation Dr. Tanzeela		Pathology LGIS HL-Pa-001 Anemia: Causes/Invest for (iron def + megaloblastic)	Behavioural Sciences LGIS HL-BhS-002 Psychosocial aspects of hematopoietic disorders	Practical Batch B: Anatomy Histology HL-A- 003 Spleen & thymus Batch C: Physiology: HL- P-013: CBC interpretation Batch D: Biochemistry HL-B-09 Interpret jaundice Batch A: Clinical Skill Lab Venipuncture and blood collection All Demo	
Wednesday	SGIS Batch B Anatomy HL-A- 001: Portal Vein Formation Batch C: Physiology HL-P- 005 Clotting pathways Batch D: Biochemistry: F-B-004: Hyperbilirubinemias Batch:A PERLs: Leadership Discuss the role of non-verbal communication, including body language, facial expressions, and gestures, in effectively conveying messages and building rapport in healthcare settings All Demo	SDL	Biochemistry LGIS HL-B-004 Formation of Bile Pigments, types and Transport Dr. Hassan	Aging Derma/ Biochemistry LGIS HL-Ag-001 Platelet-rich Plasma treatment in old age		Patholaogy LGIS HL-Pa-001 Hematopoietic Growth factors	Physiology LGIS F-P-005 Clotting factors inc, vitamin K dependent + Clotting pathways Dr. Shaista	Practical Batch C: Anatomy Histology HL-A- 003 Spleen & thymus Batch D: Physiology: HL- P-013: CBC interpretation Batch A: Biochemistry HL-B-09 Interpret jaundice Batch B: Clinical Skill Lab Venipuncture and blood collection All Demo	
Thursday	SGIS Batch C: Anatomy HL-A- 001: Portal Vein Formation Batch A: Physiology HL-P- 005 Clotting pathways Batch B Biochemistry: : F-B- 004: Hyperbilirubinemias Batch:B PERLs: Leadership Discuss the role of non-verbal communication, including body language, facial expressions, and gestures, in effectively conveying messages and building rapport in healthcare settings All Demo	Aging Derma/ Biochemistry LGIS HL-Ag-001 Glutathione in skin whitening	Biochemistry LGIS HL-B-004 Fate of Bilirubin Dr. Hassan	Physiology LGIS HL-P-005 Clotting factors _ fibrin formation Role of Ca Ions in Clothing Pathways Dr. usama		Histology LGIS HL-A-002 Intrauterine development of Spleen+ Thymus Dr. Naeem Shahzad	Pharmacology LGIS HL-Ph-001 Intravenous Iron preparations Pharmacokinetics, adverse effects + uses	Practical Batch D: Anatomy Histology HL-A- 003 Spleen & thymus Batch A: Physiology: HL- P-013: CBC interpretation Batch B: Biochemistry HL-B-09 Interpret jaundice Batch C: Clinical Skill Lab Venipuncture and blood collection All Demo	
Friday	**8:00- 9:00**	**9:00-9:40**	**9:40- 10:20**	**10:20-11:00**	**11:00-11:40**	**11:40-12:20**	**12:20-01:00**	**01:00-- 1:30**	**1:30-2:30**
	SGIS Batch D: Anatomy HL-A- 001: Portal Vein Formation Batch A: Physiology HL-P- 005 Clotting pathways Batch B Biochemistry: : F-B-004: Hyperbilirubinemias Batch:C PERLs: Leadership Discuss the role of non-verbal communication, including body language, facial expressions, and gestures, in effectively conveying messages and building rapport in healthcare settings All Demo	Histology LGIS HL-A-002 Intrauterine development of Lymph nodes. Tonsils Dr. Naeem Shahzad	Quran Prophethood (Risalat) i. Explain Significance of Risalat	Biochemistry LGIS HL-B-005 Hyperbilirubinemias Genetic basis of Jaundice Dr. Gule- Rana	Break	Pathology LGIS HL-Pa-003 WBC disorders + causes of reactive Leukocytosis Dr. Ahmad Latif	Physiology LGIS HL-P-006 Thrombocytopenia- PT, INR, and Clinical Sig Dr. Tanzeela	**Jumma Prayer**	**Self-Directed Learning**

(Theme. White Cell)
Week 3

	8:00- 9:00	9:00 – 9:45	9:45- 10:30	10:30 – 11:15	11:15-11:45	11:45 – 12:30	12:30-1:15	1:15 – 3.00	
Monday	**Test** Biochemistry All Faculty	SDL	Biochemistry LGIS HL-B-006 Plasma Proteins Dr. Faheem	Physiology LGIS HL-P-007 Immunity overview- Cell-Mediated Immunity Dr. Shaista		**Quran** Prophethood (Risalat) i. Explain Significance of Risalat	Com. Medicine LGIS HL-CM-003 Genetic Counselling of parents- in Relation of Autosomal recessive+ X-Linked Dr. Rizwanullah	Practical Batch A: Anatomy Histology HL-A-003 Lymph node, Tonsil, MALT Batch B: Physiology: HL-P-013: Bleeding/Clotting Ti Batch C: Biochemistry HL- B-009 Bilirubin estimation Batch D: Clinical Skill Lab Pallor All Demo	
Tuesday	SGIS Batch A: Anatomy - HLA-A-001: Thymus+ Age related changes Batch B: Physiology HL-P-009 Anaphylaxis, urticaria, Hay fever Batch C: Biochemistry: HL B-007: Multiple myeloma Batch D: Behavioural Sciences HL-BhS-001 Psychological Counseling All Demo	Pathology LGIS HL-Pa-001 Bleeding disorder classification + 1st line investigations Dr. Ahmad Latif	Biochemistry LGIS HL-B-007 Immunoglobulins-structure + Biochemical role Dr. Gule-Rana	Biochemistry LGIS HL-B-007 B cells – production, structure and Functions Dr. Anam		Physiology LGIS HL-P-007 MOA Antibodies+ role of memory cells Dr. Usama	Physiology LGIS HL-P-007 Immunoglobulins	Practical Batch B: Anatomy Histology HL-A-003 Lymph node, Tonsil, MALT Batch C: Physiology: HL-P-013: Bleeding/Clotting Ti Batch D: Biochemistry HL- B-009 Bilirubin estimation Batch A: Clinical Skill Lab Pallor All Demo	
Wednesday	SGIS Batch B Anatomy HLA-A-001: Thymus+ Age related changes Batch C: Physiology HL-P-009 Anaphylaxis, urticaria, Hay fever Batch D: Biochemistry HL-B-007: Multiple myeloma Batch A: Behavioural Sciences HL-BhS-001 Psychological Counseling All Demo	Biochemistry LGIS HL-B-007 Plasma cells – production, structure and functions	Physiology LGIS Complement System	Biochemistry LGIS HL-B-007 Antibodies- production, structure and functions		Physiology LGIS HL-P-008 Immune tolerance	SDL	Practical Batch C: Anatomy Histology HL-A-003 Lymph node, Tonsil, MALT Batch D: Physiology: HL-P-013: Bleeding/Clotting Ti Batch A: Biochemistry HL- B-009 Bilirubin estimation Batch B: Clinical Skill Lab Pallor All Demo	
Thursday	SGIS Batch C: Anatomy HLA-A-001: Thymus+ Age related changes Batch D: Physiology HL-P-009 Anaphylaxis, urticaria, Hay fever Batch A Biochemistry: HL-B-007: Multiple myeloma Batch B: Behavioural Sciences HL-BhS-001 Psychological Counseling All Demo	Anatomy LGIS HL-A-001-003 Clinical Aspects Prof. Yasoob	Biochemistry LGIS HL-B-007 Cytokines Dr. Faheem	Biochemistry LGIS HL-B-008 Single gene defect pedigree- Autosomal Recessive Dr. Anam	Break	Physiology LGIS HL-P-008 Allergic Reactions-(delayed)	Physiology LGIS HL-P-008 Allergic Reactions- (atopic) Dr. Shaista	Practical Batch D: Anatomy Histology HL-A-003 Lymph node, Tonsil, MALT Batch A: Physiology: HL-P-013: Bleeding/Clotting Ti Batch B: Biochemistry HL- B-009 Bilirubin estimation Batch C: Clinical Skill Lab Pallor All Demo	
Friday	**8:00- 9:00**	**9:00-9:40**	**9:40- 10:20**	**10:20-11:00**	**11:00-11:40**	**11:40-12:20**	**12:20-01:00**	**01:00– 1:30**	**1:30-2:30**
	SGIS Batch D: Anatomy HLA-A-001: Thymus+ Age related changes Batch A: Physiology HL-P-009 Anaphylaxis, urticaria, Hay fever Batch B Biochemistry: HL-B-007: Multiple myeloma Batch C: Behavioural Sciences HL-BhS-001 Psychological Counseling All Demo	Biochemistry LGIS HL-B-008 Single gene defect pedigree- X-linked Dr. Anam	Biochemistry LGIS HL-B-001-008 Revision Class Dr. Hassan	PBL Session	Break	Physiology LGIS HL-P-011 Tissue Transplantation+ Rejection Dr. Usama	Physiology LGIS HL-P-010 Blood Transfusion Reactions	**Jumma Prayer**	**Self-Directed Learning**

MBBS 1st Professional

Block-1

Theme	Subject	Written Exam			Oral/Practical/Clinical Exam			
		MCQ (1 mark)	SEQ (5 mark each)	Marks	OSPE (8 marks each observed)	OSCE (8 marks each observed)	OSVE (16 marks each observed)	Marks
Normal Structure	Anatomy applied/clinical	20	03	35	03	-	01	40
Normal Function	Physiology applied/clinical	22	02	32	02	-	01	32
	Biochemistry applied/clinical	22	02	32	02	-	01	32
Disease Burden & Prevention	Community Medicine & Public Health	05	-	05	-	-	-	-
	Behavioral Sciences	05	-	05	-	-	-	-
Pathophysiology & pharmacotherapeutics	Pathology	06	-	06	-	-	-	-
	Pharmacology	05	-	05	-	-	-	-
CFRC	CF-1-2	-	-	-	-	01	-	08
PERLs	PERLs-1-2	-	-	-	-	01	-	08
Total		**85**	**7x5=35**	**120**	**07 stations x 08 = 56**	**02 stations x 08 = 16**	**03 stations x 16=48**	**120**

C-FRC

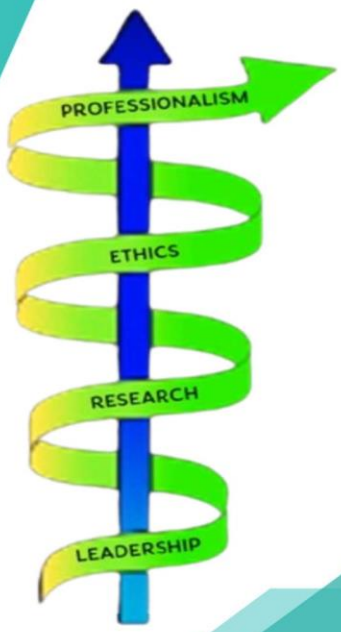
LOGBOOK

C-FRC-1
(YEAR-1)

FOUNDATION MODULE		
Objectives	**Skill**	**Miller's Pyramid Level Reflected**
Demonstrate steps of hand washing	Hand washing	Shows
Demonstrate the procedure of taking thepulse	Radial Pulse	Shows
Record the Respiratory Rate of patient	Respiratory Rate measurement	Shows
Demonstrate the procedure of taking theBlood Pressure	Blood Pressure	Shows
Demonstrate the process of wearing thegloves	Donning and Doffing	Shows

HEMATOPOEITC AND LYMPHATIC MODULE		
Objectives	**Skill**	**Miller's Pyramid Level Reflected**
Detail the steps of drawing blood from a vein.	*Venipuncture and blood collection	Knows how
Check for pallor in the conjunctiva, tongue, and palm of hands	Pallor	Shows

- These skills are at the 'Knows how' level of the miller's pyramid, meaning thereby that students need not perform them themselves but may develop a perception regarding them by observing performance/working on simulated patients/facilitation with video.



MODULAR INTEGRATED CURRICULUM 2K23

Version 2.0

PERLs

PROFESSIONALISM, ETHICS RESEARCH, LEADERSHIP SKILLS

DOMAIN	ATTRIBUTES	COMPETENCIES
Professionalism	Communicator	Demonstrate non-verbal, verbal, written and electronic communication skills with peers and teachers
		Develop an argument
	Caring & Empathic	Demonstrate respect of diversity in gender, age, culture, race, religion, disabilities, and sexual orientation for peers
	Responsible & Accountable	Follow the dress code and rules and regulation of the institution
		Demonstrate punctuality
		Discuss professional code of conduct
		Take responsibility of one's actions and be accountable to oneself
		Engage in orientation, co-curricular and extracurricular activities
	Team Player	Work respectfully and effectively with their peers and participate in different team roles
	Self-Aware	Identify personal strengths and areas of improvement
Ethics	Digital Citizen	Keep Personal & Professional data and information safe
		Understand cyberbullying, harassing, sexting.
		Design a professional digital footprint and use appropriate online etiquette and follow rules for every Internet resource
Research	Evidence Based Practitioner	Locate credible scientific data
Leadership	Resilient & Adaptable	Demonstrate healthy coping mechanisms to respond to stress
		Demonstrate patience and tolerance
	Self-directed Learner	Manage time effectively
		Identify the gap in own learning
		Set and track learning and improvement goals
		Identify and seek help as and when required to achieve the set goals

BLOCK-1

Code	Domain	Attribute	Specific Learning Outcome	Topic	Portfolio Entry
PERLs-1-01	PERLs	PERLs	Describe a Portfolio Describe types of portfolios Identify Portfolio entries Write reflection based on Gibbs reflective cycle	Reflective Writing	Reflective writing on portfolio outline development

PERLs-1-02	Professionalism	Communicator	Demonstrate non-verbal and verbal communication skills. Describe principles of Communication. Discuss types of Communication at professional level. Identify different Communication Styles. Explain the importance of nonverbal communication. Demonstrate active Listening. Describe assertive Communication techniques. Describe barriers to Effective Communication.	Verbal and nonverbal Communication Skills	Communication encounter with a peer or teacher
PERLs-1-03		Responsible & Accountable	Follow the dress code and rules and regulations of the institution. Demonstrate punctuality	Responsibility towards institution and the profession	Quiz on rules and regulations of the institution

PERLs-1-04		Team player	Describe characteristics of a team Describe types of teams Discuss stages of team development Identify various team roles Discuss barriers to effective teamwork	Teamwork	Self- evaluation through reflective writing
PERLs-1-05	Ethics	Digital Citizen	Maintain personal privacy while sharing information Identify cyberbullying, harassing, and sexting Describe cybersecurity laws Discuss digital rights and responsibilities	Digital Identity & footprint	Case discussion of cyberbullying
PERLs-1-06	Research	Evidence based practitioner	Discuss Science and scientific evidence	Difference between science, philosophy, art and Scientific method	Assignment on application of scientific method to a problem
PERLs-1-07	Leadership	Self-directed Learner	Identify gaps in learning through reflection	Strategic planning Personal development plans Goal Setting	Written gaps in being a learner with goals

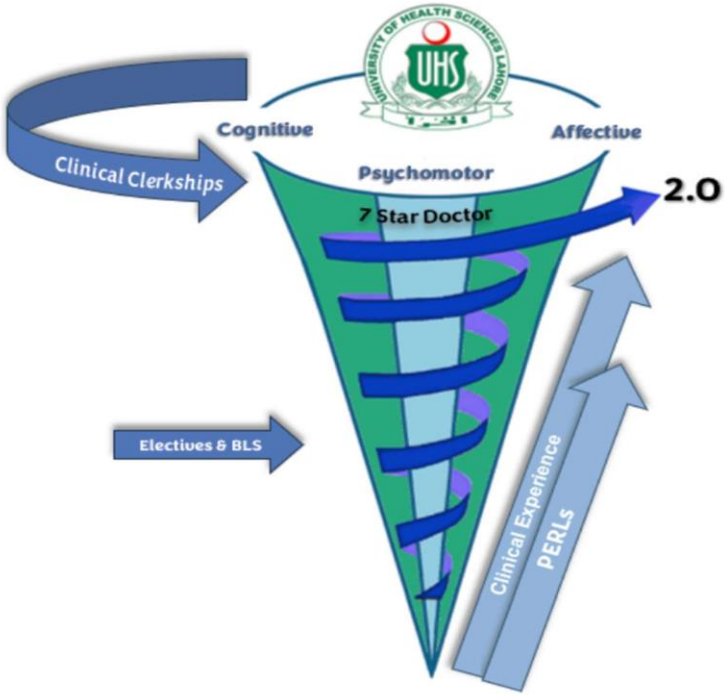
MODULAR INTEGRATED CURRICULUM 2K23

version 2.0

THE HOLY QURAN
PAKISTAN STUDIES
ISLAMIYAT
CIVICS

CURRICULUM
OF
The Holy Quran

MODULAR INTEGTARTED CURRICULUM 2K23 version 2.0



1. MODULE RATIONALE

The Holy Quran provides wisdom and knowledge to be followed in every applied component of modern civilization covering Ethical, Social, Legal, Financial and Healthcare Domains. The complete Quran encompasses the guidelines, all full of 'Hikmah' (wisdom) to deal with all practical scenarios encountering patients and health professionals. As the Holy Quran is the guiding light for humanity and a way of life for all the believers of one true Allah, therefore, understanding the message of this Holy Book is mandatory for realizing the duties which one has towards other human beings in general and the profession in particular. Holy Quran is a guide for the modern society and scientific development therefore, orbiting around Quranic doctrines and axioms of Hadith, all challenges faced by modern healthcare can be solved. Therefore, this longitudinal curriculum is developed so that all health professionals can get, as enunciated by the Holy Quran itself, "the best of this world as well as the best of the Hereafter".

2. VISION & MISSION

2.1 : Vision: Building the personality and character of health professionals in light of teachings of the Holy Quran and Sunnah, to alleviate human sufferings.

2.2 : Mission: Teaching Holy Quran and Sunnah to undergraduate students of Health Sciences, building their personality and character, enabling them to apply these principles in patient care and innovative research.

3. CURRICULUM DESIGN AND ORGANIZATION

3.1 : Course Aim: The Holy Quran course aims to imbibe Health profession students with professionalism, general and medical, based on Divine teachings. The professionals thus groomed shall be able to correlate religion with healthcare delivery and modern science with an understanding that evidence-based practice itself originated from the system by which the "Hadith" was preserved after centuries.

3.2 : Mode of Delivery: The module will be taught in the form of interactive lectures.

3.3 : Learning Experience: Classroom environment will be used.

3.4 : Attendance: Seventy five percent (75%) attendance is mandatory to be eligible to sit in the professional examination.

3.5 : Course Modules for Year 1 and Year 2

The curriculum will be taught under three Major Sections

- Faith
- Worship
- Specific Quranic Commandments

3.6 : Module Credit hours & Contact hours: This will be a three (03) credit hour course where each credit hour will be equivalent to eighteen (18) contact hours distributed over four years.

3.7 : Assessment Portfolio

The assessment will be done through student portfolios based on four written assignments and two quizzes per year. The portfolio submission to the Quran teacher will be mandatory for sending admission to the university and sitting in the professional examination. The assignments will be based on the topics discussed during the year. One will be given after first half of the course will be completed for the year and second will be given at the completion of the Quran course.

3.8 : Reference Material

- Translations of the Holy Quran approved by the Quran Board
- Six Authentic Books of Hadith

3.9. Module Faculty

At least one full time faculty member (Lecturer or above) will be hired for running the Holy Quran course throughout four years. The qualifications of the faculty member will be certified by the academic council of the college/institution to be declared as the teacher of Holy Quran course.

SYLLABUS OF THE HOLY QUR

Quran: Year-1

SECTION ONE: FAITH (AQAID)

LEARNING OUTCOMES

a. Oneness of Allah (SWT) (Tawheed)

i. Describe Unity of Allah in being
ii. Describe Unity of Allah in attributes
iii. Describe concept of Shirk
iv. Impact of Tawheed in human life

b. Prophethood (Risalat)

i. Explain Significance of Risalat
ii. Identify Prophets as role models
iii. Recognize finality of Prophethood - Prophet Muhammad (PBUH)

c. Belief in Hereafter (Aakhirat)

i. Appraise continuity of life beyond material world
ii. Concept of Doomsday and its various stages
iii. Concept of Day of Judgment and accountability in the Hereafter
iv. Concept of "Meezan"

d. Divine Revelations (Holy Books)

i. Explain the divine decree in sending the Holy Books
ii. Identify the Holy Quran as the only preserved & authenticated divine revelation to date
iii. Interpret Quran as Furqan

e. Angels

i. Discuss belief in angels and its significance
ii. Describe the universal role of angels (their specific duties)

f. Qadr

i. Identify Taqdeer as Knowledge of Allah
ii. Explain the concept of Faith in Good and Evil

CONTENTS

1. Oneness of Allah subhan wa taala (Tawheed)
2. Prophethood (Risalat)

3. Belief in Hereafter (Akhirat)
4. Devine revelations (Holy Books)

SECTION TWO: WORSHIP (IBADAAT)

LEARNING OUTCOMES

a. Prayer (Namaz)

i. Recognize the importance of physical purity (Taharah)
ii. Discuss the philosophy of prayer and its role in purification of soul
iii. Recognize the importance of prayer in building personal character - sense of duty, patience, perseverance, punctuality and self/social discipline
iv. Spiritual, moral and social impact of prayer in building of righteous community
v. Role in creating brotherhood, equality and unity in ummah
vi. Identify the conditions in which relaxation in prayer is allowed e.g. during operation, travelling etc.

b. Obligatory Charity (Zakat)

i. Identify obligatory importance of Zakat and other items as outlined under the title of 'Infaq-fee-sabilillah'
ii. Categorize the people who can be the beneficiaries of Zakat
iii. Role of zakat in eradication of greed and love of material world
iv. Effect of Zakat and sadaqat in circulation of wealth and alleviation of poverty
v. Explain the essence of zakat and sadaqat in building just communities
vi. Describe the role of state in collection and disbursement of zakat

c. Fasting (Roza)

i. Discuss the importance and significance of fasting
ii. Relate the Holy Quran and the month of Ramadan
iii. Role of fasting in building personal qualities like self-control, piety and soft corner for the poor and needy persons
iv. Identify the applications of "Taqwa" through fasting

d. Pilgrimage (Hajj)

i. Discuss the importance and significance of Hajj
ii. Identify the conditions in which Hajj becomes an obligation
iii. Role of manasik-e-Hajj in producing discipline and complete submission
iv. Recognize the importance of Hajj in uniting the ummah
v. Sacrifice for Allah subhan wa taala (essence of qurbani)

TOPIC AREAS
1. Prayer (Salah/Namaz) 2. Obligatory charity (Zakat) 3. Fasting (Saum/Roza) 4. Pilgrimage (Hajj)

Quran: Year-2

SECTION THREE: SPECIFIC QURANIC COMMANDMENTS

LEARNING OUTCOMES

a. Importance of the protection of Human life

i. Concept of the sanctity of human life in Quran and Sunnah

ii. Importance and significance of a single human being even during war

iii. Concept of punishment in regard to the killing of a human being, voluntarily or involuntarily

b. Jihad

i. Concept of Jihad and its significance (hikmat)

ii. Different forms of Jihad and their importance

iii. Principles and preparation of Jihad

iv. Devine reward of Jihad

c. Heirship/Inheritence (Virasat)

i. Heirship and division of wealth in accordance with divine teachings

ii. Heirs and their shares

iii. Legal aspect of virasat (Hud-e-Illahi)

d. Amar-bil-maroof-wa-Nahi-anil-munkar

i. Differentiation between Maroof and Munkar

ii. Importance and significance (effects of avoiding this principle)

iii. Necessary conditions of both amar-bil-maroof and nahi-anil-munkar

iv. The different stages and the necessary prerequisites

e. Hadood-e Illahee and taazeerat

i. Meaning and various types of hadood-e-Illahee

ii. Authority for fixation of limit (hudd)

iii. Criteria and permissible relaxation in fixing the limits

iv. Difference between 'Hadood', 'Qisas' and 'Tazeerat'. Punishments which are left to the court of law

v. Benefits for the good of community

f. Justice (Adal-o-insaf)

i. Justice of Allah subhan wa taala
ii. Importance of justice for the survival of community
iii. Need of justice to be prevailed irrespective of religion
iv. Devine reward for fair justice

g. Business (Bay-o-tijarat)

i. Importance of fair business and its necessary constituents
ii. Permissible and impermissible conditions of businesses
iii. Concept of loan in businesses

h. Interest (Riba or Sudi karobar)

i. Meaning of Riba or interest and its different forms
ii. Impact of Riba on a society in general
iii. Devine declaration and its punishment both in this world and Hereafter

i. Nikah-o-talaq

i. Basic rulings regarding marriage and divorce
ii. Importance of Nikah and its constituents
iii. Conditions of Nikah and various forms of prohibited/impermissible nikah
iv. Misconception of dowry
v. Talaq and its various forms
vi. Meaning of Khula and its conditions

CONTENTS

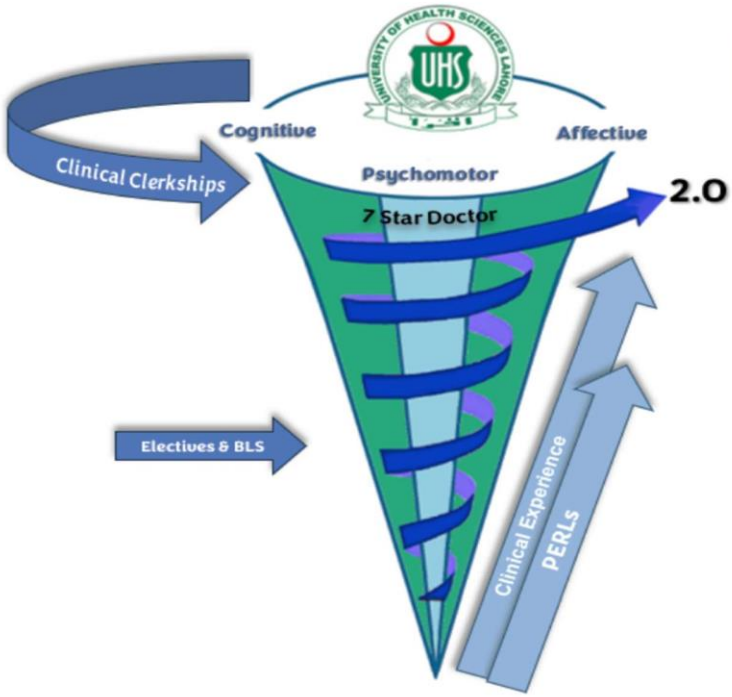
8. Interest (Riba or Sudi karobar)
9. Nikah-o-talaq

CURRICULUM

OF

Islamiyat & Pakistan Studies

MODULAR INTEGTARTED CURRICULUM 2K23 version 2.0



MODULE RATIONALE

This module comprises of Islamiyat & Pakistan Studies. All the medical or other curricula relate to our core context and internal fiber. The study of religion and country endorses all relevancy and competency acquisition for the purpose of service to humanity and community orientation.

ISLAMIYAT

A short course on Islamic Studies will be completed in First and Second year with an exam at the end of second year.

Course Content:

1. Understand the basic principles of Islam.
2. Explain the concept of the Islamic state.
3. Explain the Quran as a guide for modern society and scientific development.
4. Describe the life of the Holy Prophet Peace be upon him as an example to follow.
5. Explain ethics in the Islamic prospective.
6. Describe the rights of the individual in Islam.
7. Describe the rights of women and children in Islam.
8. Explain the contribution of Islamic scholars to science and medicine.
9. Understand Islam in terms of modern scientific development.
10. Explain the concept of Rizk-e-Hilal.
11. Explain the concept of Hukook-ul-Ibad.

PAKISTAN STUDIES

A short course on Pakistan Studies will be completed in First and Second year with an exam at the end of second year.

Course Content:

1. Describe brief the salient features of the Pakistan movement.
2. Explain the basis for the creation of Pakistan.
3. Give a brief account of the history of Pakistan.
4. Explain the ethnic and cultural distribution of the population of Pakistan.
5. Describe the Provinces and resources available in Pakistan.
6. Explain current problems faced by Pakistan.

7. Describe the social, economic and health problems of the rural population of Pakistan.

ISLAMIYAT AND PAKISTAN STUDIES BOOKS

- Standard Islamiyat (Compulsory) for B.A, B.Sc., M.A, M.Sc., MBBS by Prof. M.Sharif Islahi Ilmi Islamiyat (Compulsory) for B.A. B.Sc., & equivalent.
- Pakistan studies (Compulsory) for B.A. B.Sc., B.Com., Medical/Engineering by Prof. Shah Jahan Kahlun
- Pakistan studies (Compulsory) for B.A, B.Sc., B.Com., B.Ed., Medical/Engineering by Prof. Shah Jahan Kahlun

CURRICULUM

OF

Civics

MBBS YEAR 1 CURRICULUM

1. MODULE RATIONALE

Civics is part and parcel of life and the study of Civics has major thrust on improvement of the quality of life and welfare of human beings. This discipline enhances the approach towards rational behavior and daily life.

There is a need for us to know role of a citizen with specific reference to Global Village, the Citizen and Daily life issues, Citizenship, Rights and Responsibility, Role of Government

and State, Implementation

Issues of Devolution plan, Social Welfare Institutions/ NGOs and their role at basic level, social interactions and the new discoveries in IT and mass media, relations with International Organizations and Pakistan and its neighbors. Civics goes beyond the cognitive level to deal with social values and attitudes. From the earliest stages of the course, it is important to respect students' opinions while helping them to develop a rationale for their opinions. This curriculum is adapted from Agha Khan University Examination Board

curriculum for higher secondary examination.

2. VISION & MISSION

2.1 : Vision: Building the personality and character of health professionals

2.2 : Mission: Teaching Civics to undergraduate students of Health Sciences, building their personality and character, enabling them to apply these principles in patient care.

3. CURRICULUM DESIGN AND ORGANIZATION

3.1 : Course Aim:

- To develop understanding of the social nature and significance of civics, its key concepts and civic life.
- To emphasize learning of related themes in a way that encourages creativity, curiosity, observation, exploration and questioning.
- To create awareness of the nature of civic life and the relationship between civics and other social sciences.
- To promote understanding about the ideology of Pakistan and the struggle of an independent state.

- To inculcate the behavior patterns of national character, and qualities of a good citizen,
- self-reliance, patriotism and leadership.
- To create a strong sense of national unity, integration and cohesion.
- To prepare students as future citizens, conscious of their positive role in a society and the world at large.

3.2 : Mode of Delivery: The module will be taught in the form of interactive lectures.

3.3 : Learning Experience: Classroom environment will be used.

3.4 : Attendance: Seventy-five percent (75%) attendance is mandatory to be eligible to sit in the professional examination.

3.5 : Assessment: The assessment will be done through two written assignments and two quizzes per year. The assignments will be based on the topics discussed during the year. One will be given after first half of the course will be completed for the year and second will be given at the completion of the course.

3.7: Module Faculty: At least one full time faculty member (Lecturer or above) will be hired to run the civics course throughout four years. The qualifications of the faculty member will be certified by the academic council of the college/institution to be declared as the teacher of civics.

SYLLABUS OF CIVICS

LEARNING OUTCOMES	TOPICS
i. Define civics ii. Describe how civics can improve the citizenship iii. Illustrate the scope of civics iv. Discuss the nature of civics v. Give examples how civics can help in the national development	Civics-Meaning & Nature
i. Examine the significance of civics ii. Explain how civics is important to know the problems of daily life iii. Discuss how civics can help to bring improvements in the civics life of citizens iv. Evaluate how civics can improve the sense of love and respect for human relationship v. Discuss that studying civics can develop a sense of gratitude vi. Give examples how civics is important to develop the global unity	Significance and Utility
i. Compare civics with political science, history, economics, sociology and ethics	Relationship with Social Sciences
i. Describe the term harmonic relationship ii. Explain the harmonic relationship among different members of society. (Women, children and senior citizens) iii. Explain how harmonic relationship develop for respect of religion	Harmonic Relationship
i. Define the term individual in relation to civics ii. Define the term state iii. Explain the relation between an individual and a state iv. Describe the importance of an individual in a state v. Enlist the responsibilities of an individual in a state	Individual and state
i. Identify the basic unit of social institution Discuss and characterize the different types of family ii. Give the importance of basic unit of social institution in the development of a state Enlist the responsibilities of family in	Family

general iii. Analyze your role for the betterment of the family Compare and contrast the impact of the deterioration of family in the western society and give examples	
i. Define community ii. Explain the nature and significance of community iii. Discuss the role of a family in community iv. Analyze the role of an individual for the betterment of the community	Community
i. Define society ii. Elaborate the relation between an individual and society and society and state iii. Analyze the role of an individual for the betterment of society	Society
i. Define the term nation, nationality and ummah differentiate between nation and nationality distinguish between nation and ummah analyze the value, behavior and the pattern of society based on religions ii. Evaluate the characteristics of society developed by religions	Nation, Nationality
i. Trace the origin of state with reference to the theories of Divine Origin, Force and Social ii. Contract (Hobbs, Lock, Rousseau) iii. Describe the elements of a state (sovereignty, population, territory, Government) iv. Compare and distinguish the role of state, society and government	Origin and elements of State
i. Describe the functions of state ii. Describe the factors which are necessary for proper functioning of state iii. Analyze the situation when a state does not function properly iv. Describe the characteristics of a welfare state Analyze how a welfare state guarantees the equity and justice on the issues of gender, religion, and social classes	Functions of state. (Defense, law and order, welfare etc.)

Instructional Strategies

The following instructional strategies are being used in this module:

1. Interactive lectures
2. Case-based discussion.
3. Problem-Based Learning
4. Team-Based Learning
5. Small group discussions
6. Demonstrations
7. Dissection
8. Practical

Assessment

The following Assessment strategies are being used in this n module:

1. Weekly written tests
2. Tutorials / Small group discussions
3. Substages/ Stages
4. End of Module Exam

Queens Medical College

Counselling

PSYCHOSOCIAL COUNSELLING:

Assigned Mentor

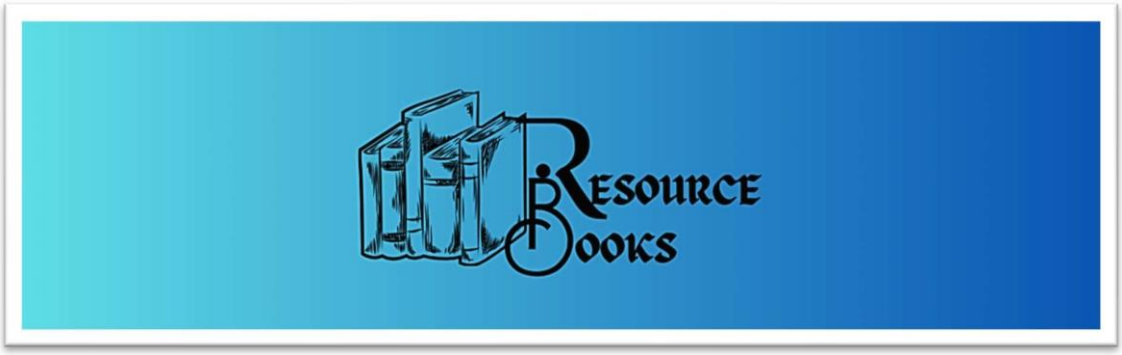
HOD – Department of Behavioural Sciences

CAREER GUIDANCE:

Dr. Syed Hasan Shoaib
Department of Medical Education

Dr. Sadaf Sajid
Department of Forensic Medicine

List of Resources



Anatomy

- Snell's Clinical Anatomy 10th ed.
- Langman's Medical Embryology 12th ed
- Medical Histology by Laiq Hussain Siddiqui 8th ed.
- General Anatomy by Laiq Hussain Siddiqui 6th ed.

Physiology

- Guyton AC and Hall JE. Textbook of Medical Physiology. W. B. Sunders & Co., Philadelphia 14th Edition.
- Essentials of Medical Physiology by Mushtaq Ahmed

Biochemistry

- Harpers illustrated Biochemistry 32nd edition. Rodwell.V.W MCGrawHill publishers.
- Lippincott illustrated Review 8th edition Kluwer.W.
- Essentials of Medical Biochemistry vol 1&2 by Mushtaq Ahmed.

Pathology

- Vinary Kumar, Abul K. Abbas and Nelson Fausto Robbins and Cotran, Pathologic basis of disease. WB Saunders.
- Richard Mitchall, Vinary Kumar, Abul K. Abbas and Nelson Fausto Robbins and
- Cotran, Pocket Companion to Pathologic basis of diseases. Saunder Harcourt.
- Walter and Israel. General Pathology.
- Churchill Livingstone.

Medicine

- Davidson's Principles and Practice of Medicine

Pharmacology

- Basic and Clinical Pharmacology by Katzung, McGraw-Hill.
- Pharmacology by Champe and Harvey, Lippincott Williams & Wilkins

Behavioural Sciences

- Handbook of Behavioural Sciences by Prof. Mowadat H.Rana, 3rd Edition

- Medical and Psychosocial aspects of chronic illness and disability SIXTH EDITION by Donna R.Falvo, PhD Beverely E.Holland, PhD, RN

Community medicine

- Parks Textbook of Preventive and Social Medicine. K. Park (Editor)
- Public Health and Community Medicine
- Ilyas, Ansari (Editors)

Surgery

- Bailey and Love's short practice of surgery

Islamiyat

- Standard Islamiyat (compulsory) for B.A, BSc, MA, MSc, MBBS by Prof M Sharif Islahi.
- IImi Islamiyat(compulsory) for BA, BSc & equivalent.

Assessment Policy

Statutes

1. The First Professional MBBS Examination shall be held at the end of the first year MBBS, whereas, the Second Professional MBBS Examination shall be held at the end of the second year.

2. Every candidate shall be required to study contents of Anatomy (including Histology), Physiology, Biochemistry, Behavioural Sciences, Community Medicine & Public Health, Pathology, Pharmacology & Therapeutics, Islamic Studies/ Civics and Pakistan Studies, Clinical skills and Professionalism, Ethics, Research and Leadership. The teaching and assessment shall be done in three modular blocks.

3. There will be three papers in the first professional examination, and four papers inthe second professional examination:

   First Professional Exam:
   a. Paper 1 will be based on contents of Block 1;
   b. Paper 2 will be based on contents of Block 2;
   c. Paper 3 will be based on contents of Block 3;

   Second Professional Exam:
   a. Paper 1 will be based on contents of Block 4;
   b. Paper 2 will be based on contents of Block 5;
   c. Paper 3 will be based on contents of Block 6;
   d. Paper 4 will be based on contents of Islamic studies/Civics and Pakistan Studies

4. Each paper will comprise of two components 'Written' and 'Oral/Practical/Clinical' examinations.

5. The Written and 'Oral/Practical/Clinical' examination in each paper will carry 150 marks each, making the total marks of 300 for each of the papers 1,2, and 3 (inclusive of Internal Assessment).

6. Total marks for the First and Second Professional Examinations shall be 900, each. Marks of Islamic Studies/Civics and Pakistan Studies shall not be counted towards total marks of any professional examination, and determination of position or merit of a candidate. However, the candidates shall have to take the examination in the subject in their Second Professional MBBS Examination. Those failing the subject in both annual & supplementary examinations, while passing all the other subjects of Second Professional Examination shall be promoted to the 3rd year MBBS, however they will be allowed two more attempts to clear the subject with Second professional Examination of the next session, failing which they shall be detained in the 3rd Professional MBBS.

7. Major content areas of the first two professional years shall be from:
   a. Anatomy including applied/clinical Anatomy;
   b. Physiology including applied/clinical Physiology;
   c. Biochemistry including applied/clinical Biochemistry.

8. The Applied/Clinical content for the Anatomy, Physiology and Biochemistry shall be basedon

clinical correlations.

9. Integrated clinical content areas of the both years include Behavioral Sciences, Community Medicine & Public Health, Pathology, Pharmacology & Therapeutics, Clinical Foundation- I & II and PERLs- I & II.

10. Written Examination

a. The written component of Papers 1, 2, and 3 will consist of 'One-best-type' Multiple Choice Questions (MCQ)and Structured Essay Questions (SEQ) in a ratio of 70:30 %.
b. Each MCQ will have five options (one best response and four distractors) andwill carry one (01) mark.
c. There will be no negative marking.
d. There will be no sections within an SEQ, and it will be a structured question with five (05) marks each.
e. SEQ's will only be based on the major content areas of the year.
f. There will be total of 85 MCQs and 07 SEQs in every written paper in Papers1,2, and 3.
g. The duration of each written paper will be 180 minutes (03 hours).
h. The MCQ section will be of 110 minutes duration and the SEQ section of 70 minutes.

11. Oral/Practical/Clinical Examination

a. The 'Oral/Practical/Clinical' component of each Papers 1, 2, and 3 will consist of a total of twelve (12) OSPE/OSCE/OSVE stations in each 'Oral/Practical/Clinical' examination.
b. There will be seven (07) Observed OSPE (Objective Structured Practical Examination) stations from major subject areas. Each OSPE station will have the practical component and an evaluation of the underlying principle relevant to that practical with a component of applied knowledge.
c. There will be two (02) Observed OSCE (Objective Structured Clinical Examination) stations, based on C-FRC1 and PERLs-1 in each 'Oral/Practical/Clinical' examination.
d. There will be three (03) Observed interactive OSVE (Objective Structured Viva Examination) from major subject areas. Each OSVE station will have a structured viva, to assess a practical component along with evaluation of the underlying principle relevant to that practical with a component of applied/practical knowledge and related clinical application.
e. Each OSPE/OSCE station will carry eight (08) marks.
f. Each OSVE station will carry sixteen (16) marks
g. The duration of each 'Oral/Practical/Clinical' examination will be 120 minutes (2 hours).
h. Time for each OSPE. OSCE and OSVE station will be eight (08) minutes.

12. Every candidate shall take the examination in the following Blocks (Modules) in First& Second Professional MBBS Examinations: -

Year 1

A.	Block 1 (Foundation-I + Hematopoietic & Lymphatic)	300 Marks
B.	Block 2 (Musculoskeletal & Locomotion-I)	300 Marks
C.	Block 3 (Cardiovascular-I+ Respiratory-I)	300 Marks

Year 2

I.	Block 4 (Gastrointestinal Tract & Nutrition-I + Renal-I)	300 Marks
II.	Block 5 (Endocrinology & Reproduction-I + Head & Neck, Special Senses)	300 Marks
III.	Block 6 (Neurosciences-I + Inflammation)	300 Marks
IV.	Islamic Studies/ Civics + Pakistan Studies	100 Marks

A. Block 1 (Foundation-I + Hematopoietic and Lymphatic)

The examination in Block 1 shall be as follows: -

I. One written paper of 120 marks having two parts:
   i. Part I shall have eighty-five Multiple Choice Questions (MCQs) of total 85 marks (01 mark for each MCQ) and the time allotted shall be 110 minutes. There will be no negative marking.
   ii. Part II shall have seven Structured Essay Questions (SEQs) of total 35 marks (05 marks for each SEQ) and the timeallotted shall be 70 minutes.

II. 'Oral/Practical/Clinical' examination shall have 120 marks in total.

III. The continuous internal assessment through 'Block Examination', conducted by the college of enrollment shall carry 60 marks, i.e., 20% of the total allocated marks (300) for the block. The score will be equally distributed to the Written and 'Oral/Practical/Clinical' Examinations.

B. Block 2 (Musculoskeletal & Locomotion-I)

The examination in Block 2 shall be as follows: -

I. One written paper of 120 marks having two parts:
   i. Part I shall have eighty-five Multiple Choice Questions (MCQs) of total 85 marks (01 mark for each MCQ) and the time allotted shall be 110 minutes. There will be no negative marking.
   ii. Part II shall have seven Structured Essay Questions (SEQs) of total 35 marks (05 marks for each SEQ) and the timeallotted shall be 70 minutes.

II. 'Oral/Practical/Clinical' examination shall have 120 marks in total.

III. The continuous internal assessment through 'Block Examination', conducted by the college of enrollment shall carry 60 marks, i.e., 20% of the total allocated marks (300) for the block. The score will be equally distributed to the Written and 'Oral/Practical/Clinical' Examinations.

C. Block 3 (Cardiovascular-I + Respiratory-I)

The examination in Block 3 shall be as follows: -

I. One written paper of 120 marks having two parts:
   i. Part I shall have eighty-five Multiple Choice Questions (MCQs) of total 85 marks (01 mark for each MCQ) and the time allotted shall be 110 minutes. There will be no negative marking.
   ii. Part II shall have seven Structured Essay Questions (SEQs) of total 35 marks (05 marks for each SEQ) and the timeallotted shall be 70 minutes.

II. 'Oral/Practical/Clinical' examination shall have 120 marks in total.

III. The continuous internal assessment through 'Block Examination', conducted by the college of enrollment shall carry 60 marks, i.e., 20% of the total allocated marks (300) for the block. The score will be equally distributed to the Written and 'Oral/Practical/Clinical' Examinations.

D. Block 4 (Gastrointestinal & Nutrition-I + Renal-I)

The examination in Block 2 shall be as follows: -

I. One written paper of 120 marks having two parts:
   i. Part I shall have eighty-five Multiple Choice Questions (MCQs) of total 85 marks (01 mark for each MCQ) and the time allotted shall be 110 minutes. There will be no negative marking.
   ii. Part II shall have seven Structured Essay Questions (SEQs) of total 35 marks (05 marks for each SEQ) and the timeallotted shall be 70 minutes.

II. 'Oral/Practical/Clinical' examination shall have 120 marks in total.

III. The continuous internal assessment through 'Block Examination', conducted by the college of enrollment shall carry 60 marks, i.e., 20% of the total allocated marks (300) for the block. The score will be equally distributed to the Written and 'Oral/Practical/Clinical' Examinations.

E. Block 5 (Endocrinology & Reproduction-I + Head & Neck, Special Senses)

The examination in Block 2 shall be as follows: -

I. One written paper of 120 marks having two parts:
   i. Part I shall have eighty-five Multiple Choice Questions (MCQs) of total 85 marks (01 mark for each MCQ) and the time allotted shall be 110 minutes. There will be no negative marking.
   ii. Part II shall have seven Structured Essay Questions (SEQs) of total 35 marks (05 marks for each SEQ) and the timeallotted shall be 70 minutes.

II. 'Oral/Practical/Clinical' examination shall have 120 marks in total.

III. The continuous internal assessment through 'Block Examination', conducted by the college of enrollment shall carry 60 marks, i.e., 20% of the total allocated marks (300) for the block. The score will be equally distributed to the Written and 'Oral/Practical/Clinical' Examinations.

F. Block 6 (Neurosciences-I + Inflammation)

The examination in Block 2 shall be as follows: -

I. One written paper of 120 marks having two parts:
   i. Part I shall have eighty-five Multiple Choice Questions (MCQs) of total 85

marks (01 mark for each MCQ) and the time allotted shall be 110 minutes. There will be no negative marking.

ii. Part II shall have seven Structured Essay Questions (SEQs) of total 35 marks (05 marks for each SEQ) and the timeallotted shall be 70 minutes.

II. 'Oral/Practical/Clinical' examination shall have 120 marks in total.

III. The continuous internal assessment through 'Block Examination', conducted by the college of enrollment shall carry 60 marks, i.e., 20% of the total allocated marks (300) for the block. The score will be equally distributed to the Written and 'Oral/Practical/Clinical' Examinations.

G. ISLAMIC STUDIES/CIVICS AND PAKISTAN STUDIES

The examination in Islamic Studies/Civics and Pakistan Studies shall be as follows: -

I. One written paper of 100 marks in Islamic Studies/ Civics and Pakistan Studies having two components:

i. Islamic Studies/Civics component having total 60 marks. There will be three (3) Long Essay Questions (LEQs) to be attempted out of five (5), having 20 marks each.

ii. Pakistan Studies component having total 40 marks. There will be two (2) Long Essay Questions (LEQs) to be attempted out of four (4), having 20 marks each.

Note: Islamic Studies for Muslims, and Civics for Non-Muslims candidates.

13. The marks distribution in each subject is given in Table 1:

Table 1

YEAR-1						
Subject	**Theory**		**Practical**			**Total**
Block 1 **Modules** (Foundation-I + Hematopoietic and Lymphatic)	Part I MCQs (85)	85 Marks	Practical / Clinical Examination	07 OSPE 02 OSCE 03 OSVE	Marks 56 16 48	**300**
	Part II SEQS (7)	35 Marks				
	Internal Assessment 10%	30 Marks	Internal Assessment 10%	30 Marks		
	Total	**150**	Total	**150**		
Block 2 **Modules** (Musculoskeletal & Locomotion-I)	Part I MCQs (85)	85 Marks	Practical / Clinical Examination	07 OSPE 02 OSCE 03 OSVE	Marks 56 16 48	**300**
	Part II SEQS (7)	35 Marks				
	Internal Assessment 10%	30 Marks	Internal Assessment 10%	30 Marks		
	Total	**150**	Total	**150**		
Block 3 **Modules** (Cardiovascular-I &	Part I MCQs (85)	85 Marks	Practical / Clinical Examination	07 OSPE 02 OSCE 03 OSVE	Marks 56 16 48	
	Part II SEQS (7)	35 Marks				

Table 1

Respiratory-I)	Internal Assessment 10%	30 Marks	Internal Assessment 10%	30 Marks		300
	Total	**150**	Total	**150**		
				Total Marks:		**900**
YEAR-2						
Block 4 **Modules** (GIT & Nutrition-I + Renal-I)	Part I MCQs (85)	85 Marks	Practical / Clinical Examination	07 OSPE 02 OSCE 03 OSVE	Marks 56 16 48	**300**
	Part II SEQS (7)	35 Marks				
	Internal Assessment 10%	30 Marks	Internal Assessment 10%	30 Marks		
	Total	**150**	Total	**150**		
Block 5 **Modules** (Endocrinology & Reproduction-I + Head& Neck, Special Senses)	Part I MCQs (85)	85 Marks	Practical / Clinical Examination	07 OSPE 02 OSCE 03 OSVE	Marks 56 16 48	**300**
	Part II SEQS (7)	35 Marks				
	Internal Assessment 10%	30 Marks	Internal Assessment 10%	30 Marks		
	Total	**150**	Total	**150**		
Block 6 **Modules** (Neurosciences-I + Inflammation)	Part I MCQsPart II SEQS	85 Marks 35 Marks	Practical / Clinical Examination	120 Marks		**300**
	Internal Assessment	30 Marks	Internal Assessment	30 Marks		
	Total	**150**	Total	**150**		
	Total Marks					**900**
Islamic Studies/ Civics and PakistanStudies	**Islamic Studies/Civics** 3 LEQs of 20 marks each			60 Marks		**100***
	Pakistan Studies 2 LEQs of 20 marks each			40 Marks		
	Total			**100**		

* Total marks for the First and Second Professional Examinations shall be 900, each. Marks of Islamic Studies/Civics and Pakistan Studies shall not be counted towards total marks of any professional examination, and determination of position or merit of a candidate. However, the candidates shall have to take the examination in the subject in their Second Professional MBBS Examination. Those failing the subject in both annual & supplementary examinations, while passing all the other subjects of Second Professional Examination shall be promoted to the 3rd year MBBS, however they will be allowed two more attempts to clear the subject with Second professional Examination of the next session, failing which they shall be detained in the 3rd Professional MBBS.

14. No grace marks shall be allowed in any examination or practical under any guise or name.

15. At least 25% MCQs & 25% SEQs shall be based on applied/clinical/case scenario to assess high order thinking in the papers set for the students of First and second Professional MBBS Examinations.

Regulations

1. Professional examination shall be open to any student who: -
    a. has been enrolled/registered and completed one academic year preceding the concerned professional examination in a constituent/affiliated College of the University.
    b. has his/her name submitted to the Controller of Examinations, for the purpose of examination, by the Principal of the College in which he / sheis enrolled & is eligible as per all prerequisites of the examination.
    c. has his/her marks of internal assessment in all the Blocks sent to the Controller of Examinations by the Principal of the College along with the admission form.
    d. produces the following certificates duly verified by the Principal of his / her College:
        (i) of good character;
        (ii) of having attended not less than 85% of the full course of lectures delivered and practical conducted in the particular academic session, in each block, as well as in the aggregate;
        (iii) Certificate of having appeared at the Block Examinations conducted by the college of enrolment with at least 50 % cumulative percentage in aggregate of blocks 1, 2 and 3 for the first year and blocks 4,5 and 6 for the second year;
        (iv) Candidates falling short of attendance requirement shall not be admitted to the annual examination but may be permitted to appear at the supplementary examination if they make up the deficiency up to the commencement of the next examination by remaining on the rolls of a College as regular student, subject to fulfillment of all other mandatory requirements to appear at the examination.

2. The minimum number of marks required to pass the professional examination for each paper shall be fifty percent (50%) in Written and fifty percent (50%) in the 'Oral/Practical/Clinical' examinations and fifty percent (50%) in aggregate, independently and concomitantly, at one and the same time.

3. Candidates who secure eighty five percent (85%) or above marks in any of the papers shall be declared to have passed "with distinction" in that Block, subject to having at least 80 % marks in the Written component of that paper, concomitantly. However, no candidate shall be declared to have passed "with distinction" in any paper, who does not pass in all the papers of the Professional Examination as a whole at one and the same time,

4. A candidate failing in one or more paper of the annual examination shall be provisionally allowed to join the next professional class till the commencement of supplementary examinations. Under no circumstances, a candidate shall be promoted to the next professional class till he / she has passed all the papers in the preceding Professional MBBS Examination.

5. If a student appears in the supplementary examination for the first time as he/she did not

appear in the annual examination because of any reason and fails in any paper in the Supplementary Examination, he/she will be detained in the same class and will not be promoted to the next class.

6. Any student who fails to clear the First or Second Professional MBBS Examination in four consecutive attempts, inclusive of both availed as well as un-availed, after becoming eligible for the examination, and has been expelled on that account shall not be eligible for continuation of studies and shall not be eligible for admission as a fresh candidate in either MBBS or BDS. (**Ref.** UHS Circulars/137-20/2750 dated 23-11-2020).

7. The colleges may arrange remedial classes and one re-sit for each block examination, either with the subsequent block examination or before completion of the subsequent block, and before or during preparatory leave in case of the terminal block of the professional year, before issuance of the date sheet for the concerned professional examination, subject to the following conditions:
    i. At the completion of each block, the principals of the colleges shall submit a detailed report to the university, including cases of students with short attendance, poor performance/absence in the block examination along with the reasons and evidence for the same, proposed schedule for remedial classes and re-sit examination.
    ii. Competent Authority UHS will have the cause and the submitted evidence evaluated and documented, before permitting the colleges to arrange remedial classes and re-sit examination at the concerned block. No college is allowed to conduct remedial classes or re-sit examination without prior approval of the competent authority.
    iii. The students can appear in re-sit of a block examination, along with the subsequent block, and before or during preparatory leave for the terminal block of the professional year, once the requirement of 'attendance' is met with. However, conduct of remedial classes shall be permitted only in the cases of students, who shall have attended at least 50 % of total attendance of the concerned block in the first instance.
    iv. The valid reasons for short attendance in a block or absence from a block examination may include major illness/accident/surgery of the student or death of an immediate relative/being afflicted by a natural calamity or disaster.

8. The application for admission of each candidate for examination shall be submitted to the Controller of Examination, through the Principal of the College, in a prescribed format, as per notified schedule, accompanied by the prescribed fee.

9. The marks of internal assessment and attendance shall be submitted to Controller of Examinations three times, within two weeks of completion of each block examination.

10. At the end of each block, the colleges are required to submit question papers and keys for the block examination, internal assessment marks and attendance record to the Department of Examinations UHS. Further, parent-teacher meetings shall be arranged by the colleges after every block examination to share feedback on the progress of students with their parents. Minutes of parent teacher meetings shall be submitted to the Department of Medical Education UHS.

11. It is emphasized that fresh internal assessment or a revision of assessment for supplementary examination shall not be permissible. However, a revised internal assessment for the detained students can be submitted. The internal assessment award in a particular year will not be decreased subsequently detrimental to the detainee

candidate. A proper record of the continuous internal assessment shall be maintained by the concerned department/s in the colleges.

12. The candidates shall pay their fee through the Principals of their respective Colleges who shall forward a bank draft / pay order / crossed cheque in favor of Treasurer, University of Health Sciences Lahore, along with their Admission Forms.

13. Only one annual and one supplementary of First and Second Professional MBBS Examinations shall be allowed in a particular academic session. In exceptional situations, i.e., national calamities, war or loss of solved answer books in case of accident, special examination may be arranged after having observed due process of law. This will require permission of relevantauthorities, i.e., Syndicate and Board of Governors.

MBBS 1st Professional

Block-1

Theme	Subject	Written Exam			Oral/Practical/Clinical Exam			
		MCQ (1 mark)	SEQ (5 mark each)	Marks	OSPE (8 marks each observed)	OSCE (8 marks each observed)	OSVE (16 marks each observed)	Marks
Normal Structure	Anatomy applied/clinical	20	03	35	03	-	01	40
Normal Function	Physiology applied/clinical	22	02	32	02	-	01	32
	Biochemistry applied/clinical	22	02	32	02	-	01	32
Disease Burden & Prevention	Community Medicine & Public Health	05	-	05	-	-	-	-
	Behavioral Sciences	05	-	05	-	-	-	-
Pathophysiology & pharmacotherapeutics	Pathology	06	-	06	-	-	-	-
	Pharmacology	05	-	05	-	-	-	-
CFRC	CF-1-2	-	-	-	-	01	-	08
PERLs	PERLs-1-2	-	-	-	-	01	-	08
Total		**85**	**7x5=35**	**120**	**07 stations x 08 = 56**	**02 stations x 08 = 16**	**03 stations x 16=48**	**120**