College of Medicine & Dentistry at The Hills

DEPARTMENT OF MEDICAL EDUCATION
COLLEGE OF MEDICINE AND DENTISTRY AT THE HILLS, ABBOTTABAD

Foundation-I

Module

Block-A (1st Year)
MBBS

Duration: 6 weeks

Year
2024-25

Contents

1 Vision

To be a leading institution in medical education, dedicated to cultivating a workforce of physicians and clinicians who excel in providing equitable, affordable, and exemplary healthcare while addressing the diverse health needs of our nation and the global community.

2 Mission

To deliver a transformative medical education that empowers future healthcare leaders to innovate in clinical care and health system design. Our mission is supported by a passionate and diverse faculty committed to fostering collaboration, upholding the highest ethical standards, and addressing healthcare disparities. We aim to inspire our students to engage with patients and communities, promoting inclusivity and teamwork in service to humanity.

3 List of abbreviations

Bio-L	Biochemistry Lecture	**OSPE**	Objectively Structured Practical Examination
Bio-P	Biochemistry Practical	**Paeds-L**	Pediatrics Lecture
Bio-SGD	Small Group Discussion in Biochemistry	**Patho-L**	Pathology Lecture
C.Med-L	Community Medicine Lecture	**Phar-L**	Pharmacology Lecture
DSL	Directed Self Learning	**Phy-L**	Physiology Lecture
FDT	Film/Demonstration/Tutorial	**Phy-P**	Physiology Practical
F.Med-L	Forensic Medicine Lecture	**Phy-SGD**	Small Group Discussion in Physiology
G.Anat-L	Gross Anatomy Lecture	**PBL**	Problem Based Learning
Histo-P	Histology Practical	**SDL**	Self-Directed Learning
IT	Information Technology	**SL**	Skill Lab
LGIS	Large Group Interactive Session	**SAQs**	Short Answer Questions
MCQs	Multiple Choice Questions	**SEQs**	Short Essay Questions
Med.Edu-L	Medical Education Lecture	**SGDs**	Small Group Discussions
PRIME	Professionalism and Communication Skills, Research, Identity Formation, Management and Leadership, Ethics		

4 Recommended List Of Icons

Introduction To Case

For Objectives

Critical Questions

Assessment

Resource Material

5 Overview of the Module/ Preface

Welcome to the Foundation-I Module study guide for medical students at the College of Medicine and Dentistry at The Hells! This guide aims to help you learn effectively by:

- Organizing your study schedule
- Focusing your learning activities
- Providing information on the topics you'll study

In this module, we'll combine theoretical knowledge with practical experience. You'll learn about:

- Orientation to medical school
- Cell biology
- Human growth and development
- Body tissues, bones, and joints

You'll gain hands-on experience in hospitals and communities through evidence-based teaching. This study guide will help you prepare for assessments, which include:

- Written exams (multiple-choice and short essay questions)
- Practical exams (OSPE and OSCE) to test your skills and clinical competence

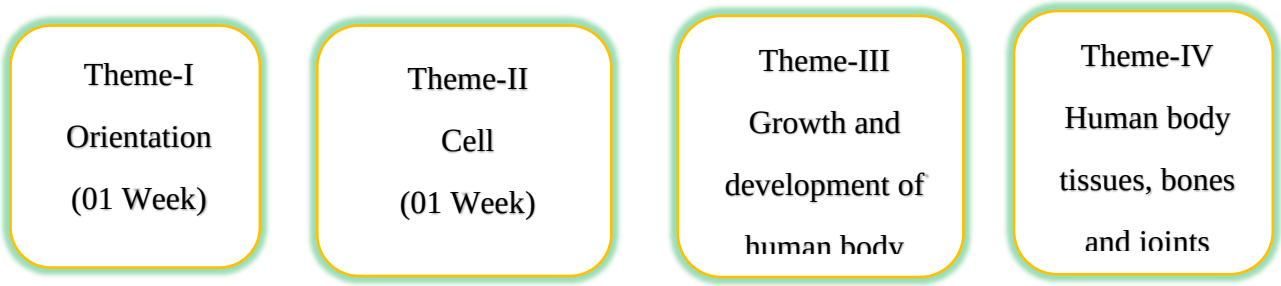
By using this guide, you'll know what to expect and can prepare accordingly. As future medical professionals, you'll have various career paths to choose from, including clinical practice and research, both locally and internationally.

This study guide is an essential tool for your academic journey. It provides clarity on module contents, teaching methods, faculty guidance, and assessment criteria. By engaging with this guide, you'll navigate your studies with confidence and purpose, making the most of your time at the College of Medicine and Dentistry at The Hells.

6 Introduction/ Organization of Module

6.1 **Introduction**:

This 6-week module introduces you to the medical curriculum, environment, teaching, and learning. It covers basic anatomy, physiology, and development of the human body. You'll also learn about medical education, PRIME, and behavioral sciences.
The module consists of the following themes:



6.2 **Rationale:**

A student entering medical school requires orientation and an introduction to medical sciences in the context of health and disease. Students also need guidelines to achieve their goals of becoming successful and ethical doctors in the future. Before students tackle complex issues related to organ systems, they must first have clear underlying concepts. This module is designed to provide foundational knowledge that students can apply when encountering more advanced topics, thus establishing a framework within which they are expected to build future competencies.

6.3 **Organization of the Study Guide:**

The Foundation-I Module is a theme-based, 6-week module. The "Orientation" is a one-week activity starting with a welcome address by the dean, followed by a white coat ceremony and an introduction to the faculty. Students are oriented to all the basic sciences departments, introduced to the subjects, and informed about recommended books. The structure and function of the Pakistan Medical Council, the curriculum structure, teaching strategies, assessment tools, and the use of study guides are also explained. Additionally, literature search techniques, IT skills, assignment preparation on MS Word, presentation preparation on PowerPoint, and Excel sheet use are demonstrated.
The "Cell" theme is a one-week activity covering the structural and functional organization of the cell, cell division, cellular membrane transport mechanisms, homeostasis, membrane physiology, buffers, chemistry of nucleic acids, cell injury, cellular receptors, drug administration routes, and transmembrane drug transport.

The "Growth and Development of the Human Body" theme spans two weeks, explaining embryonic and fetal development, the chemistry of acids and bases, carbohydrates, surface tension, viscosity, health determinants, disease causation, the chain of infection, and levels of prevention.

The "Human Body Tissues, Bones & Joints" theme is also a two-week activity, describing the organization of the human body, anatomical terms, and the introduction to joints, bones, cartilage, skin, fascia, ligaments, membranes, muscles, lymphatic and nervous systems. Histology of body tissues, epithelia, connective tissue, surface specialization of epithelia, and the structure and function of the basement membrane are also covered. Additionally, the functions of the autonomic nervous system, structure and function of glycosaminoglycans (GAGs), necrosis, inflammation, and medicolegal importance are discussed.

The module content will be delivered through "Large Group Interactive Sessions," "Directed Self-Learning," "Self-Directed Learning," "Small Group Discussions," and "Practical Demonstrations."

7 Teaching Strategies:

The following teaching and learning methods are utilized to foster better understanding:

7.1 Large Group Formats:

a. **Interactive Lectures:** In large group settings, the lecturer introduces topics or common clinical conditions, explaining the underlying phenomena through interactive methods such as questions, visual aids, videos of patient interviews, and exercises. Students are actively engaged in the learning process.

b. **Directed Self-Learning:** Directed self-learning is an active approach where learners are provided with predefined learning objectives and receive guidance and supervision throughout the learning process. This method helps establish a strong foundation for independent and deep learning.

c. **Self-Directed Learning:** Students assume responsibility for their own learning through individual study, discussions with peers, and seeking information from the Learning Resource Center, teachers, and other resources both within and outside the college. Students can utilize designated college hours for self-study.

7.2 Small Group Formats:

a. **Small Group Discussions:** This format helps students clarify concepts, acquire skills, and develop attitudes. Sessions are structured around specific exercises, such as patient cases, interviews, or discussion topics. Students exchange opinions and apply knowledge gained from lectures, tutorials, and self-study. The facilitator's role is to ask probing questions, summarize, or rephrase to help clarify concepts.

b. **Practical Demonstrations:** Basic science practicals related to anatomy, biochemistry, and physiology are scheduled to enhance student learning.

c. **Problem-Based Learning (PBL):** In PBL sessions, students work in small groups to solve complex, real-world problems. This method encourages critical thinking, self-directed learning, and the application of knowledge in practical scenarios. Facilitators guide the process, helping students to develop problem-solving skills and integrate knowledge across disciplines.

d. **Journal Club:** The Journal Club involves students reviewing and presenting recent research articles. This activity promotes critical appraisal skills, keeps students updated with the latest scientific developments, and encourages the integration of evidence-based practices into their learning.

8 Assessment Strategies:

Assessments within the MBBS program at the College of Medicine and Dentistry at the Hills, Abbottabad consist of both formative and summative evaluations. These assessments are crucial for monitoring student progress and academic performance.

8.1 Formative Assessment:

Formative assessments, accounting for 10% of the total marks assigned to each block, serve as ongoing evaluations designed to provide feedback and promote learning. The allocation of this 10% can be determined in accordance with the blueprint of KMU and further distributed as per the recommendations of the academic council at the College of Medicine and Dentistry at the Hills, Abbottabad. Formative assessments are conducted after the completion of each module, ensuring students receive timely feedback to enhance their understanding and performance.

8.2 Summative Assessment:

Summative assessments, comprising 90% of the total assessment weighting, are conducted and overseen by KMU as part of the annual examination process. The summative annual examination is organized and conducted by KMU, which is responsible for evaluation and grading. This summative assessment evaluates students' comprehensive understanding of the curriculum and constitutes a significant portion of their final scores.

8.3 Assessment Tools:

Various assessment tools are employed to measure students' knowledge and competencies. These tools include:

1. **Written Examinations:** These include Multiple Choice Questions (MCQs) and Short Essay Questions (SEQs) that assess students' theoretical knowledge.
2. **Performance Assessments:** Objective Structured Practical Examinations (OSPE) and Objective Structured Clinical Examinations (OSCE) are used to evaluate practical skills and clinical competence.
3. **In-Training Assessments:** Clinical logbooks provide a comprehensive record of students' practical experiences and serve as a valuable tool for tracking their progress.
4. **Assignments:** Presentations, projects, and self-reflection assignments are included in the assessment process to enhance students' critical thinking and research skills.

8.4 Feedback Mechanism:

At the end of each module, a "Module Evaluation Form" will be provided to students, either in hard copy or online. Students will give their feedback on the "Course Content," "Learning Resources," "Teaching Methods," "Engagement & Motivation," and "Assessment Methods."

9 Table Of Specification

Block A Table of Specification						
Subject	**Weightage**	**No. of Hours Allocated in Time table**	**Assessment**			
			Foundation-I		**Blood & Immunology-I**	
			MCQs	**OSPE**	**MCQs**	**OSPE**
Gross Anatomy	12.89%	33	12	05	01	01
Histology	08.02%	21	10		04	
Embryology	07.81%	20	15		00	
Physiology	26.95%	69	10	02	22	05
Biochemistry	21.87%	56	14	03	12	01
PRIME including Research	05.46%	14	05	00	03	00
Pharmacology	01.95%	05	01	00	01	00
Pathology	03.12%	08	02	01	04	00
Community Medicine	03.51%	09	01	00	02	00
Forensic Medicine	01.17%	03	00	00	01	00
IT Skills	03.51%	09	00	00	00	00
Islamiyat	03.12%	08	00	00	00	00
Pak. Study	0.39%	01	00	00	00	00
Total	**100%**	**256**	**70**	**11**	**50**	**07**

10 Learning Objectives

10.1 General Learning Outcomes

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

Knowledge :

1. Familiarize with the MBBS system-based curriculum
2. Recognize the role of different disciplines in studying human body and its diseases.
3. Describe the structure, function and biochemical composition of cell.
4. Describe the cell division, its types and genetic material along with its clinical correlation.
5. Describe the basic organization of human body.
6. Describe the basic tissues of human body
7. Explain the maintenance of homeostatic mechanism.
8. Describe the various stages of embryonic and fetal human development and correlate them with various malformations.
9. Describe the importance of buffer and PH system.
10. Describe the biochemistry of carbohydrates, nucleic acids and chemistry of Acids & Bases.
11. Describe pH & Buffer solutions.
12. Explain the importance of Surface tension & Viscosity in our body.
13. Describe various cellular adaptations during cell growth, differentiation and cell injury.
14. Describe the basic concepts of medical ethics, professionalism, clinical research, memory and learning.

Skills:

1. Describe the basic laboratory techniques and use of microscope.
2. Identify basic tissues under the microscope
3. Follow the basic laboratory protocols
4. Perform biochemical analysis of carbohydrates
5. Prepare different solutions

Attitude:

1. Follow the basic laboratory protocols.
2. Participate in class and practical work efficiently.
3. Maintain discipline of the college.
4. Follow the norms of the college properly.
5. Communicate effectively in a team with colleagues and teachers.
6. Demonstrate professionalism and ethical values in dealing with patients, cadavers, colleagues and teachers.
7. Communicate effectively in a team with colleagues and teachers.
8. Demonstrate the ability to reflect on the performance.

10.2 Specific Learning Outcomes:

Theme-1 (Orientation)

S No.	Topic	Learning Objectives	Teaching Strategy	Hours	Assessment Tools
		ANATOMY			
1	Anatomy and its sub Branches	Define anatomy and its branches. Describe purpose of study of anatomy and its branches.	LGIS	1	**MCQs/SEQs Viva**
		PHYSIOLOGY			
2	Physiology and its sub Branches	Enumerate the branches of physiology.	LGIS	1	**MCQs/SEQs Viva**
		BIOCHEMISTRY			
3	Introduction to biochemistry and its implication in medicine	Define biochemistry. Discuss the role of biochemistry in medicine.	LGIS	1	**MCQs/SEQs Viva**
		PATHOLOGY			
4	Introduction to pathology and its implication in medicine	Define pathology. Enumerate the different branches of pathology in medicine. Identify different sampling and processing techniques in different branches of pathology.	LGIS	1	**MCQs/SEQs**
		PHARMACOLOGY			
5	Introduction to Pharmacology and its role in modern Medicine	Define pharmacology and role of pharmacology in medicine. Define the pharmacodynamics and pharmacokinetics.	LGIS	1	**MCQs/SEQs**
		COMMUNITY MEDICINE			
6	Introduction to Community Medicine and its implication	Describe Role of community medicine/public health in health care system.	LGIS	1	**MCQs/SEQs**
		FORENSIC MEDICINE			

7	Introduction to Forensic Medicine and Toxicology	Define Forensic Medicine, forensic pathology and state Medicine. Identify the Branches of Forensic Medicine. Describe the History of Forensic Medicine. Discuss the scope of Forensic Medicine. Identify the essential facilities for medico legal investigation. Define Medical Jurisprudence.	LGIS	1	**MCQs/SEQs**
8	Pakistan Medical Commission, Consent.	Describe the structure and functions of Pakistan Medical Commission.	LGIS	1	**MCQs/SEQs**
MEDICAL EDUCATION					
9	Curriculum structure Teaching learning strategies	Discuss the curriculum and modules. Describe the use of study guides (not to be assessed). Differentiate between various teaching & learning strategies. Enlist various assessment tools & assessment policy.	LGIS	1	**Formative**
10	Importance of IT skills	Define IT and its importance.	Demonstration	1	**MCQs**
IT Skills					
11	MS word skills PowerPoint skills Excel sheet	Prepare the assignment on MS word. Prepare the presentation on power point Use the excel sheet.	Demonstration	1	**MCQs**
Library					
12	**Literature search and library resources**	**Literature search skills.**	**Lecture**	**1**	**Formative**

Theme-2 (Cell)

S No.	Topic	Learning Objectives	Teaching Strategy	Hours	Assessment Tools
		ANATOMY			
1	Cell structure and its Organelles	Describe the cell as a living unit of body. Describe the structure of cell and its organelles. Describe the structure of cytoplasmic organelles of the cell & correlate it with their functions. Describe cytoplasmic inclusions and secretory granules Explain the cytoskeleton.	LGIS	1	MCQs/SEQs Viva
2	Nuclear structure & Components	Describe the structure of the nucleus, nucleolus & chromosome and their functions in cell integrity.	LGIS	1	MCQs/SEQs Viva
3	Cell division Mitosis	Explain the process of cell division. Explain various stages of cell cycle.	LGIS	1	MCQs/SEQs Viva
4	Meiosis	Explain the process of Meiosis Describe karyotyping. Explain the non-disjunction of chromosomes. Correlate the process of non-disjunction with chromosomal abnormalities.	LGIS	1	MCQs/SEQs Viva
		PHYSIOLOGY			
5	Cell membrane physiology Cell structure and Organization	Explain Intra cellular and extra cellular environment. Correlate cytoplasmic organelles with their functions.	LGIS	1	MCQs/SEQs Viva
6	Homeostasis	Define homeostasis. Describe the Homeostatic mechanism of major functional systems. Describe the characteristics of control systems with examples.	LGIS	2	MCQs/SEQs Viva
7	Membrane potential Membrane physiology	Define membrane potential. Describe ionic conc. differences across cell membrane.	LGIS	1	MCQs/SEQs Viva

		Explain the Nernst equation. Explain origin of normal resting membrane potential.			
8	Movements of cell	Explain the amoeboid movement of cells. Describe the ciliary movements.	LGIS	1	MCQs/SEQs Viva
9	Depolarization & Repolarization	Explain the role of voltage gated Na+ and K+ channels in action potentials. Discuss the changes in conductance of Na and K channels with changes in membrane potentials.	LGIS	1	MCQs/SEQs Viva
BIOCHEMISTRY					
10	Biochemical structure of cell Bio chemical structure of Mitochondria	Explain the Bio-chemical composition of cell organelles and cytoplasm. Describe the chemical structure of mitochondrial membrane. Explain the biochemical importance of mitochondrial membrane.	LGIS	1	MCQs/SEQs Viva
11	Nuclear Membrane	Describe Bio-chemical structure of nuclear membrane and its functions.	LGIS	1	MCQs/SEQs Viva
12	RNA & DNA	Define and explain nucleotides and nucleosides. Describe the components of nucleotides. Describe the functions of Nucleotides. Describe the types of nucleic acids. Differentiate between RNA and DNA.	LGIS	1	MCQs/SEQs Viva
13	Buffer	Define Buffer and its role in maintenance of body PH. Define colloidal state and Henderson Hassel Balch equation. Define adsorption and how it occurs. Explain ion exchange resin.	LGIS	1	MCQs/SEQs Viva
14	Cellular membrane transport mechanism	Explain membrane transport. Discuss passive diffusion, active transport, and facilitated transport via a channel or carrier. Describe and evaluate the role of ion gradients, co	LGIS	2	MCQs/SEQs Viva

		transporters, and ATP in active transport mechanisms.			
PATHOLOGY					
15	Cell injury	Classify the various causes of cell injury. Describe the response of a normal cell to stimuli. Describe the mechanism of cell injury. Describe mechanisms of cellular adaptations.	LGIS	1	MCQs/SEQs
PHARMACOLOGY					
16	Routes of administration of drugs	Enlist the routes of administration of a drug.	LGIS	1	MCQs/SEQs
17	Transmembrane Drug Transport	Explain how drugs are transported across cell membrane and factors affecting it.	LGIS	1	MCQs/SEQs
18	Receptor and cellular basis	Enlist the types of drug receptors.	LGIS	1	MCQs/SEQs
LAB WORK					
HISTOLOGY					
19	The Microscope	Identify parts of microscope. Demonstrate operation of microscope. Describe the method of focusing slide at different magnifications. Follow the specified norms of lab work.	Demonstration /Practical	2	OSPE
PHYSIOLOGY					
20	Lab Equipment	Introduction to lab techniques. Identify the equipment used in lab work.	Demonstration /Practical	2	OSPE
BIOCHEMISTRY					
21	PH and buffer solutions	Define normal solution Define standard solution. Prepare 0.1N solution of NaOH. Prepare 0.1N solution of HCL. Measure the PH of given solution	Demonstration /Practical	2	OSPE
Small Group Discussions (SGDs)					
ANATOMY					
22	Anatomical nomenclature	Explain the basics of Anatomical Nomenclature	SGD	2	MCQs/SEQs

PHYSIOLOGY					
23	Review of functions of Mitochondria, Endoplasmic Reticulum, Golgi apparatus, Lysosomes	Describe the functions of Mitochondria, Endoplasmic Reticulum, Golgi complex and Lysosomes	SGD	2	MCQs/SEQs
BIOCHEMISTRY					
24	Ion Exchange Resin, Adsorption	Describe ion exchange resins, and adsorption. Describe their biomedical importance	SGD	2	MCQs/SEQs

DIRECTED SELF LEARNING (DSL)					
ANATOMY					
25	Cell structure and its Organelles	Describe the cell as a living unit of body Describe the structure of cell and its organelles. Describe the structure of cytoplasmic organelles of the cell & correlate it with their functions.	LGIS	1	MCQs/SEQs
26	Cell Division	Explain the process of cell division. Explain various stages of cell cycle.	LGIS	1	MCQs/SEQs
PHYSIOLOGY					
27	Cell Membrane Physiology	Explain Intra cellular and extra cellular environment. Correlate cytoplasmic organelles with their functions.	LGIS	1	MCQs/SEQs
28	Membrane potential	Define membrane potential Describe ionic conc. differences across cell membrane Explain the Nernst equation. Explain origin of normal resting membrane potential	LGIS	1	MCQs/SEQs
BIOCHEMISTRY					
29	Adsorption Ion exchange resin	Define adsorption and how it occurs. Explain ion exchange resin	LGIS	1	MCQs/SEQs

Theme-3 (Growth and development of human body)

S No.	Topic	Learning Objectives	Teaching Strategy	Hours	Assessment Tools
		EMBRYOLOGY			
1	Introduction to Embryology	Describe the developmental periods. Discuss embryologic terminology. Explain significance of embryology.	LGIS	1	MCQs/SEQs
2	Spermatogenesis	Describe the process of spermatogenesis. Enlist the differences between spermiogenesis and spermatogenesis. Describe the morphological changes during maturation of gametes.	LGIS	1	MCQs/SEQs Viva
3	Oogenesis	Describe oogenesis and its correlation with meiosis. Compare the male and female gametes.	LGIS	1	MCQs/SEQs Viva
4	Transport of Gametes	Discus the transport of gametes. Describe the transport of sperms. Describe the oocyte transport. Explain the maturation of sperms.	LGIS	1	MCQs/SEQs Viva
5	Female Reproductive Cycle	Describe the ovarian cycle. Discuss the process of follicular development. Explain the process of ovulation. Correlate with the phases of menstrual cycle.	LGIS	1	MCQs/SEQs Viva
6	Fertilization – Events	Define fertilization. Describe the process of fertilization. Explain assisted reproductive technologies like In-vitro fertilization (IVF), assisted IVF and intra cytoplasmic sperm injection (ICSI).	LGIS	1	MCQs/SEQs Viva

7	Fertilization – Clinical Correlates Cleavage & Blastocyst Formation	Discuss the clinical correlation of the fertilization. Describe the process of cleavage of zygote. Discuss the formation of blastocyst. Summarize the events of first week of development.	LGIS	1	MCQs/SEQs Viva
8	Implantation & Its Abnormalities	Discuss the process of implantation. Enumerate the sites of implantation. Discuss clinical correlations of the implantation process.	LGIS	1	MCQs/SEQs Viva
9	Amniotic cavity	Describe the formation of amniotic cavity. Discuss the development of embryonic disc. Discuss the development of umbilical vesicle. Explain the development of Chorionic sac.	LGIS	1	MCQs/SEQs Viva
10	Events of 2nd Week of Development	Summarize the events of second week of development. Discuss the clinical correlates of the second week of development.	LGIS	1	MCQs/SEQs Viva
11	Formation of notochord	Explain the process of formation of notochord.	LGIS	1	MCQs/SEQs Viva
12	Events of 3rd Week of Development	Describe the process of gastrulation. Explain the process of Neurulation. Explain the development of somites.	LGIS	1	MCQs/SEQs Viva
13	Derivatives of germ layers	Describe briefly derivatives of germ layers.	LGIS	1	MCQs/SEQs Viva
14	Further development of Trophoblast and Neurulation	Describe the process of development of Trophoblast and Neurulation.	LGIS	1	MCQs/SEQs Viva
15	Fetal membranes	Describe the formation of fetal membranes.	LGIS	1	MCQs/SEQs Viva
16	4th week: Folding of embryo	Describe the process and types of folding of embryo.	LGIS	1	MCQs/SEQs Viva

17	Highlights of 4-8 weeks	Enlist the events occurring in 4-8 weeks of development.	LGIS	1	MCQs/SEQs Viva
BIOCHEMISTRY					
18	Chemistry of Acids and Bases	Define acids, bases. Describe strong acids and weak acids. Describe strong bases and weak bases. List different types and sources of acids and bases in our body Describe the mechanism of their normal balance and biochemical importance	LGIS	2	MCQs/SEQs Viva
19	Importance of surface tension and viscosity in our body	Explain surface tension, viscosity, vapor pressure, normal boiling point and capillary action.	LGIS	1	MCQs/SEQs Viva
20	Carbohydrates -I	Describe carbohydrates and give their Bio-chemical importance. Classify Carbohydrates. Explain carbohydrate and its Bio-chemical structure. Describe the different isomers of monosaccharides. e.g. Galactose, mannose, fructose, dextrose. Describe the role of dextrose in I/V infusion. Describe the role of mannitol in cerebral edema.	LGIS	2	MCQs/SEQs Viva
21	Carbohydrates - II	Describe the structure of disaccharides and oligosaccharides.	LGIS	1	MCQs/SEQs Viva
22	Carbohydrates - III	Relate the structure of polysaccharides with its clinical importance. List the functions of carbohydrates in cell membrane, energy provision and nutrition supply to different parts of body.	LGIS	1	MCQs/SEQs Viva
COMMUNITY MEDICINE					

23	Determinants of health	Define Health. Describe the Determinants of Health.	LGIS	1	MCQs/SEQs
24	Disease causation	Describe Spectrum of Disease. Explain Natural History of Disease. Explain Theories of Disease Causation. Differentiate between Disease Elimination and Eradication.	LGIS	1	MCQs/SEQs
25	Chain of infection	Describe reservoirs of infection & chain of infection.	LGIS	1	MCQs/SEQs
26	Levels of prevention	Discuss /describe Levels of Prevention.	LGIS	1	MCQs/SEQs
LAB WORK					
PATHOLOGY					
27	Sterilization	Explain the process of sterilization Enumerate the different methods of sterilization Observe the process of autoclaving in the laboratory	Demonstration /Practical	2	OSPE
PHYSIOLOGY					
28	Capillary Blood Sampling	Obtain capillary blood sample for hematological investigations through prick method Identify the sites for obtaining blood sample with different methods and list the indications for their use.	Demonstration /Practical	2	OSPE
BIOCHEMISTRY					
29	Detection of Monosaccharides	Define Monosaccharides Discuss their structure and types Perform the sequence of tests to identify the monosaccharides in a given solution	Demonstration /Practical	2	OSPE
30	Detection of Reducing and non-reducing Sugars	Define reducing sugars. Discuss structure and types of reducing sugars Perform Be nedicts test	Demonstration /Practical	2	OSPE
31	Detection of Polysaccharides	Define Polysaccharides.	Demonstration /Practical	2	OSPE

	in a given Solution	Discuss structures and types of Polysaccharides Perform the sequence of tests to identify the polysaccharides in a given solution			
SMALL GROUP DISCUSSIONS					
ANATOMY					
32	Study of embryology models	Describe the changes occurring during the first 3 weeks of development	SGDs	2	MCQs/SEQs
PHYSIOLOGY					
33	Cell membrane and Different types of Action Potentials	Describe the structure and functions of cell membrane Describe the genesis of resting membrane potential Describe phases and types of action potential	SGDs	2	MCQs/SEQs
BIOCHEMISTRY					
34	GAGs	Describe the structure and functions of glycosaminoglycans.	SGDs	2	MCQs/SEQs
DIRECTED SELF LEARNING					
ANATOMY					
35	Fertilization – Events	Define fertilization & describe its process. Explain assisted reproductive technologies like In-vitro fertilization (IVF), assisted IVF and intra cytoplasmic sperm injection (ICSI).	DSL	1	MCQs/SEQs
PHYSIOLOGY					
36	Physiological Anatomy of Autonomic Nervous system	Describe the functions of the autonomic nervous system. Compare and contrast the functions of sympathetic and para sympathetic nervous system. Classify autonomic receptors.	DSL	1	MCQs/SEQs

Theme-4 (Human Body Tissues, Bones and Joints)

S No.	Topic	Learning Objectives	Teaching Strategy	Hours	Assessment Tools
GROSS ANATOMY					
1	Organization of human body	Describe the levels of organization of human body.	LGIS	1	MCQs/SEQs Viva
2	Classification of Bones	Describe the structure and function of bone. Classify bones on the basis of length and shape. Identify the markings on bone.	LGIS	1	MCQs/SEQs Viva
3	Cartilage	Describe cartilage. Classify the types of cartilage. Describe the types of cartilages.	LGIS	1	MCQs/SEQs Viva
4	Introduction to Joints	Classify joints on the basis of structure. Describe the mechanism of movements of joint.	LGIS	1	MCQs/SEQs Viva
5	Muscles	Describe various muscle types along with structure.	LGIS	1	MCQs/SEQs Viva
6	Skin / Integumentary system Skin (dermis & epidermis) Skin creases, Nails, Hairs, Glands (Sebaceous & sweat) Shift to histology Section	Discuss the anatomical structures of Skin / Integumentary system.	LGIS	1	MCQs/SEQs Viva
7	Lymphatic system	Describe the lymphatic system. Explain the functions of lymphatic system. Describe the organization of lymphatic system. Explain the mechanisms for the movement of lymph in the body.	LGIS	1	MCQs/SEQs Viva

8	Nervous system Divisions (central & peripheral and somatic & autonomic)	Define the organization of nervous system. Describe the divisions of nervous system. Describe the divisions of nervous system. And concept of dermatome. and myotome Describe the formation of nerve plexus.	LGIS	1	MCQs/SEQs Viva
9	Autonomic Nervous System	Describe the organization of autonomic nervous system. Differentiate between sympathetic and parasympathetic nervous system on the basis of structure.	LGIS	1	MCQs/SEQs Viva
10	Membranes Mucous membranes Serous membranes	Describe the structure of membranes of human body.	LGIS	1	MCQs/SEQs Viva
11	Fascia, ligaments and raphe	Describe the anatomy and significance of fascia, ligaments and raphe.	LGIS	1	MCQs/SEQs Viva
12	Radiological anatomy	Identify various anatomical landmarks on radiography. Describe commonly used radiographs. Describe various view used for obtaining radiographs.	LGIS	1	MCQs/SEQs Viva
HISTOLOGY					
13	Basic Body Tissue Definition of tissue Epithelial tissue Connective tissue Muscular tissue Nervous tissue	Define tissue and describe the basic tissues in human body.	LGIS	1	MCQs/SEQs Viva
14	Epithelial tissues Classification of epithelium General characteristics and Functions of epithelium	Classify epithelium. Describe the general features of epithelium. Explain the specialized functions of different types of epithelial cells.	LGIS	1	MCQs/SEQs Viva

		Describe the structure of main types of cell junctions.			
15	Glandular Epithelium	Enlist glandular epithelia. Classify them on the basis of morphology, nature of secretion and mode of secretion. Differentiate between exocrine & endocrine glands on the basis of structure and function.	LGIS	1	MCQs/SEQs Viva
16	Epithelial Cell Surface Specialization	Describe the surface specialization of epithelia. Correlate their structure, with their location and function.	LGIS	1	MCQs/SEQs Viva
17	Structure & Function of Basement Membrane	Describe the structure of basement membrane & correlate it with its function.	LGIS	1	MCQs/SEQs Viva
18	Connective tissue	Define connective tissue. Classify connective tissues. Explain the different types of Connective tissues proper.	LGIS	1	MCQs/SEQs Viva
PHYSIOLOGY					
19	Autonomic Nervous system	Describe the functions of the autonomic nervous system. Compare and contrast the functions of sympathetic and para sympathetic nervous system. Classify autonomic receptors.	LGIS	1	MCQs/SEQs Viva
BIOCHEMISTRY					
20	Structure and function of GAGS	Describe the structure and function of GAGS and its clinical importance.	LGIS	1	MCQs/SEQs Viva
PATHOLOGY					
21	Necrosis	Discuss the Process of necrosis Explain the process of apoptosis	LGIS	1	MCQs/SEQs

		Differentiate between apoptosis and necrosis.			
22	Inflammation	Describe acute inflammation. Describe events of acute inflammation. Describe chronic inflammation. Differentiate between acute and chronic inflammation.	LGIS	1	MCQs/SEQs
FORENSIC MEDICINE					
23	Death	Define death. Describe stages of death. Describe medico legal importance of stages of death.	LGIS	1	MCQs/SEQs
LAB WORK					
PATHOLOGY					
24	Tissue Processing	Describe the process of tissue processing for histopathological examination.	Demonstration / Practical	2	OSPE
ANATOMY					
25	Anatomical terms	Demonstrate anatomical terms for planes, position and movements. Demonstrate standard anatomical position and its application.	Demonstration / Practical	2	OSPE
HISTOLOGY					
26	H& E staining	Perform H & E staining of tissue slides under supervision in the laboratory	Demonstration / Practical	2	OSPE
27	Simple Epithelia	Identify and describe simple epithelia under microscope	Demonstration / Practical	2	OSPE
28	Stratified Epithelia	Identify and describe stratified epithelia under microscope	Demonstration / Practical	2	OSPE
29	Glands	Identify different types of glands under microscope	Demonstration / Practical	2	OSPE
PHYSIOLOGY					
30	Smear preparation	Prepare a blood smear.	Demonstration / Practical	2	OSPE

SMALL GROUP DISCUSSIONS					
ANATOMY					
31	Anatomical terms	Demonstrate anatomical terms for planes, position and movements. Demonstrate standard anatomical position and its application.	SGDs	2	MCQs/SEQs
PHYSIOLOGY					
32	Autonomic Nervous system	Describe the functions of the autonomic nervous system. Compare and contrast the functions of sympathetic and para sympathetic nervous system. Classify autonomic receptors.	SGDs	2	MCQs/SEQs
BIOCHEMISTRY					
33	Structure and function of GAGS	Describe the structure and function of GAGS and its clinical importance.	SGDs	2	MCQs/SEQs
DIRECTED SELF LEARNING					
ANATOMY					
34	Organization of human body	Describe the levels of organization of human body	DSL	1	MCQs/SEQs
35	Anatomical terms	Describe the anatomical terms for planes, position and movements	DSL	1	MCQs/SEQs
PHYSIOLOGY					
36	Functions of Autonomic Nervous system	Describe the functions of the autonomic nervous system. Compare and contrast the functions of sympathetic and para sympathetic nervous system. Classify autonomic receptors.	DSL	1	MCQs/SEQs
37	Inflammation	Describe the physiological characteristics of inflammation	DSL	1	MCQs/SEQs

11 Learning Opportunities and Resources

1. Anatomy

Books:

- *Clinical Anatomy by Regions* by Richard S. Snell (Latest Edition)
- *Gray's Anatomy for Students* (Latest Edition)
- *Clinically Oriented Anatomy* by K.L. Moore (Latest Edition)
- *Netter's Atlas of Human Anatomy* (Latest Edition)
- *Last's Anatomy* (Latest Edition)

Online Resources:

- TeachMeAnatomy – Comprehensive anatomy resource with diagrams and explanations.
- AnatomyZone YouTube Channel – 3D anatomy tutorials.

2. Histology

Books:

- *Textbook of Histology* by Junqueira (Latest Edition)
- *diFiore's Atlas of Histology with Functional Correlations* (Latest Edition)
- *Atlas of Human Histology* by Wheater's (Latest Edition)
- *Textbook of Histology* by Laiq Hussain (Latest Edition)

Online Resources:

- Histology Guide – A virtual histology lab with slides and explanations.
- Armando Hasudungan YouTube Channel – Educational videos on histology and related topics.

3. Embryology

Books:

- *Langman's Medical Embryology* (Latest Edition)
- *The Developing Human* by Keith L. Moore (Latest Edition)

Online Resources:

- Embryology at UNSW – Detailed embryology resource from the University of New South Wales.
- Dr. Najeeb Lectures YouTube Channel – In-depth video lectures on embryology and other basic medical sciences.

4. Physiology

Books:

- *Textbook of Medical Physiology* by Guyton and Hall (Latest Edition)
- *Ganong's Review of Medical Physiology* (Latest Edition)

Online Resources:

- Vivo Interactive Physiology – Interactive tutorials on physiology topics.
- PhysioPathoPharmaco YouTube Channel – Physiology explanations and tutorials.

5. Biochemistry

Books:

- *Harper's Illustrated Biochemistry* (Latest Edition)
- *Lippincott's Illustrated Review: Biochemistry* (Latest Edition)

Online Resources:

- MedlinePlus Biochemistry – Basic biochemistry concepts with clinical correlations.
- Osmosis YouTube Channel – Visual and concise videos on biochemistry and other medical topics.

6. Pharmacology
Books:
- *Katzung's Basic and Clinical Pharmacology* (Latest Edition)

Online Resources:
- Pharmacology YouTube Channel by Ninja Nerd – Detailed pharmacology lectures and notes.
- GoodRx Pharmacology Resources – Practical applications of pharmacology in medicine.

7. Pathology
Books:
- *Robbins Basic Pathology* (Latest Edition)

Online Resources:
- PathologyOutlines.com – An online pathology resource with a focus on differential diagnosis.
- Dr. John Minarcik YouTube Channel – Free pathology lectures and tutorials.

8. Community Medicine
Books:
- *Essential Community Medicine* (Latest Edition)
- *K. Park's Textbook of Preventive and Social Medicine* (Latest Edition)

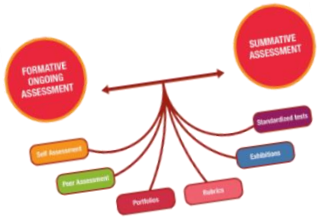
Online Resources:
- CDC Public Health – Extensive resources on public health and community medicine.
- Public Health England YouTube Channel – Videos on various community health topics.

9. Forensic Medicine
Books:
- *Parikh's Textbook of Medical Jurisprudence, Forensic Medicine, and Toxicology* (Latest Edition)

Online Resources:
- Forensic Medicine Online – Detailed forensic medicine resources for students.
- Forensic Pathology Lectures YouTube Channel – Educational videos on forensic pathology.

10. General Medicine
Books:
- *Davidson's Principles and Practice of Medicine* (Latest Edition)

Online Resources:
- Medscape – Comprehensive resource for clinical medicine and continuing medical education.
- Geeky Medics YouTube Channel – Clinical skills and general medicine tutorials.



12 Examination and Methods of Assessment:

12.1 Examination Instructions:

- **Arrival Time:** Students must arrive at the examination venue at least 15 minutes before the scheduled start time. Latecomers arriving 15 minutes after the start of the exam will not be allowed to enter the examination hall, and if permitted, they will not receive extra time.
- **Identification:** Students without a College ID Card and a white Lab Coat will not be permitted to sit for the exam.
- **Emergency Protocol:** In case of an emergency, such as a medical issue, students should immediately inform the examination supervisor.
- **Prohibited Items:** Students are required to submit any prohibited items, such as mobile phones, smartwatches, electronic devices, books, notes, or any unauthorized materials, before entering the examination hall.
- **Conduct:** Students must maintain complete silence within the examination hall. Any communication with fellow students is strictly prohibited, and all invigilator instructions must be followed without exception.
- **Attendance:** Students must properly mark their attendance during the examination.
- Leaving the Hall: No student will be allowed to leave the examination hall before half of the exam time has elapsed. The exam paper must be properly handed over to the examiner before leaving.
- **Compliance:** Failure to adhere to these guidelines may result in disqualification from the examination.

12.2 Internal Assessment Score (10% of Total Marks):

The Internal Assessment Score for 1st Year MBBS will be distributed as follows:

- **Total Marks for 1st Year MBBS: 700**
  Internal Assessment Marks: 70 (10% of Total Marks)

Distribution of 20 Marks for Block Papers for First Year MBBS will be as under:

Block	Block A	Block B	Block C	Total
Marks	07	6.5	6.5	20

Distribution of 15 Marks for Block OSPE will be as under:

Block	Block A	Block B	Block C	Total
Marks	05	05	05	15

Distribution of 20 marks for Class Test/ End of Module Exam & Assignments for 1st Year MBBS will be as under:

Subject (Theory)	Block A	Block B	Block C	Total
Class Test/ End of Module Exam	04	3.5	3.5	11
Assignments	03	03	03	09
Total	07	6.5	6.5	20

Distribution of 15 marks for Presentations, Attitude/ Behavior for 1st Year MBBS will be as under:

Subject (OSPE)	Block A	Block B	Block C	Total
Presentations	03	03	03	09
Attitude/ Behavior	**02**	**02**	**02**	**06**
Total	05	05	05	15

12.3 External assessment: (total 90% Marks)

- To appear in any university examination, more than 75% attendance in all disciplines is mandatory for the students.
- The Paper A will be comprised of 120 MCQs. The distribution of 90% Marks for Paper A Written Exam will be as under:

Blueprint for Theory Paper A			
Subject	**Foundation-I Module**	**Blood & Immunology-I Module**	**Total MCQs**
Gross Anatomy	12	01	13
Histology	10	04	14
Embryology	15	00	15
Physiology	10	22	32
Biochemistry	14	12	26
Pathology	02	04	06
Pharmacology	01	01	02
Community Medicine	01	02	03
Forensic Medicine	00	01	01
PRIME	05	03	08
Total	**70**	**50**	**120**

- The distribution of OSPE stations for Paper A Practical Exam will be as under:

Blueprint for OSPE Paper A		
Specialty	**Practical**	**No. of Stations**
Foundation Anatomy	Operating The Microscope Anatomical terms H& E staining Histology of Simple Epithelia Histology of Stratified Epithelia Histology of Glands	5
Foundation Biochemistry	PH and buffer solutions Detection of Polysaccharides in a given Solution Detection of Monosaccharide's Detecting of Reducing and non-reducing Sugars	3

Foundation Physiology	Lab Equipment's Oral temperature Capillary Blood Sampling	2
Foundation Pathology	Sterilization Tissue Processing	1
Blood Physiology	Hb determination Blood count TLC and DLC determination Bleeding time & Clotting time determination Prothrombin time determination Blood grouping	5
Blood Anatomy	Blood histology Histology of lymph nodes	1
Blood biochemistry	Estimation of plasma proteins in serum Preparation of protein free filtrate	1
Total		**18**

13 For inquiry and troubleshooting

Please contact
Department Of Medical Education

14 Module Evaluation Form

MBBS Year: _____ Block: _____ Module: _____

1. (Unsatisfactory) 2 (Fair) 3 (Satisfactory) 4 (Good) 5 (Excellent)

Category: Course Contents

No.	Question	1	2	3	4	5
1	To what extent did the course contents align with the stated learning objectives of the module?					
2	How clear and comprehensive were the course materials provided in this module?					
3	Were the core topics adequately covered, ensuring a well-rounded understanding of the subject?					
4	How current and up-to-date were the course contents in reflecting recent advancements?					
5	Did the module incorporate real-world applications and case studies effectively?					
	Category: Learning Resources					
6	Were the learning resources (e.g., textbooks, online materials, laboratory facilities) readily available and easily accessible?					
7	How helpful were additional learning resources such as supplementary readings or multimedia content?					
8	Did the module offer adequate support for research and independent study?					
9	Were digital resources and online platforms effectively utilized to enhance the learning experience?					
10	Were there sufficient opportunities for hands-on practice and practical application of knowledge?					
	Category: Teaching Methods					
11	How well did instructors engage with students and create a supportive learning environment?					
12	Were diverse teaching methods (e.g., lectures, group discussions, simulations) effectively employed?					
13	How responsive were instructors to questions, concerns, and feedback from students?					
14	To what extent did instructors provide timely and constructive feedback on assignments and assessments?					
15	Were opportunities for collaborative learning and peer-to-peer interactions encouraged and facilitated?					
No.	**Category: Engagement and Motivation**					
16	To what extent did the module use real-world examples and practical applications to engage students?					
17	How well were active learning techniques (e.g., problem-solving, case studies) integrated into the curriculum?					
18	Did the module provide opportunities for students to pursue their individual interests within the subject matter?					
19	Were assessments designed to challenge and motivate students to excel in their studies?					
Category: Inclusivity and Diversity						
20	How well did the module accommodate different learning styles and preferences among students?					

21	Were efforts made to include diverse perspectives, cultures, and backgrounds in the curriculum?					
22	How effectively were accommodations provided for students with varying levels of prior knowledge?					
	Category: Overall					
No.	**Question**	**1 (Very Poor)**	**2 (Poor)**	**3 (Fair)**	**4 (Good)**	**5 (Excellent)**
23	How would you rate the overall quality of this module?					

15 Students Diary/Notes

S.NO	DATE	TOPICS	PENDING/COMPLETED	COMMENTS

PROGESS:_____

16 Timetables

COLLEGE OF MEDICINE AND DENTISTRY AT THE HILLS, ABBOTTABAD

DEPARTMENT OF MEDICAL EDUCATION

FOUNDATION MODULE WEEK-1

(1st Year MBBS) SESSION 2024-25

THEME 1: ORIENTATION

Days	8:00 to 11:00 am			11:00 am to 1:00 pm		1:00 pm	
Monday	**Reception/ Registration of students**			**White Coat Ceremony**		**Refreshment**	
	8:00 to 9:00am	**9:00 to 10:00am**	**10:00 to 11:00am**	**11:00 am to 12:00 pm**	**12:00 pm to 1:00 pm**		**1:30 to 2:30 pm**
Tuesday	Orientation to Anatomy Department & Faculty	**G. Anat-L1** Introduction to Anatomy (Subject/ Branches / Recommended Books) **Prof. Dr.**	Orientation to Physiology Department & Faculty	**Phy-L1** Introduction toPhysiology (Subject/ Branches / Recommende dBooks) **Prof. Dr.**	**PRIME-L1** Introduction to PRIME **Dr.**	**P R A Y E R S B R E A K**	IT Skills Importance ofIT Skills. Introduction to MIS **Engr.**
Wednesday	Orientation to Biochemistry Department & Faculty	**Bio-L1** Introduction to Biochemistry (Subject/ Branches / Recommend edBooks) **Prof. Dr.**	Orientation to Pathology Department & Faculty	**Patho-L1** Introduction toPathology (Subject/ Branches / Recommende dBooks) **Prof. Dr.**	Orientation to Forensic Medicine Department & Faculty		**F. Med-L1** Introduction to Forensic Medicine (Subject/ Branches / Recommended Books)
Thursday	Orientation to Pharmacology Department & Faculty	**Pharma-L1** Introduction to Pharmacolog y(Subject/ Branches / Recommend edBooks) **Prof. Dr.**	**Med. Edu-L1** Introduction to Medical Education Department **Dr.**	Orientation to Community Medicine Department &Faculty	**C. Med-L1** Introduction to Community Medicine (Subject/ Branches / Recommended Books) **Prof. Dr.**		**PRIME-L2** Study Skills (Teaching/ Learning Strategies) **Dr.**
Friday	**8:00 to 10:00 am**		**Med. Edu-L2** Curriculum & Modules/ Study Guide **Dr.**	Pakistan Medical & Dental Council, Consent **Prof. Dr.**	**IT Skills** Excel Sheet MS Word Skills Power PointSkills **Engr.**		Orientation to Learning Resources /Literature search skills
	Hospital Visit						

COLLEGE OF MEDICINE AND DENTISTRY AT THE HILLS, ABBOTTABAD

DEPARTMENT OF MEDICAL EDUCATION

FOUNDATION MODULE WEEK 2

(1st Year MBBS) SESSION 2024-25

THEME 2: Cell

Days	8:00 to 10:00 am		10:00 to 11:00 am	11:00am to 12:00 pm	12:00 to 1:00 pm		1:30 to 2:30 pm
Monday	**PRACTICALS:** Batch A: Bio **Dr.** Batch B: Phy Dr. Batch C: Histo **Dr.**		**PBL-1a**	**DSL**	**G. Anat-L2** Cell structure and its Organelles **Dr.**	**P R A Y E R S B R E A K**	**Phy-L2** Cell membrane physiology **Prof Dr.**
Tuesday	**PRACTICALS:** Batch A: Bio **Dr.** Batch B: Phy Dr. Batch C: Histo **Dr.**		**. Bio-L2** Biochemical structure of cell **Dr.**	**Bio-L3** Biochemical structure of Mitochondria **Dr**	**G. Anat-L3** Nuclear structure & components **Dr.**		**Bio-L4** Nuclear membrane**Dr.**
Wednesday	**PRACTICALS:** Batch A: Histo **Dr.** Batch B: Bio **Dr.** Batch C: Phy **Dr.**		**Phy-L3** Homeostasis **Dr.**	**Bio-L5** DNA & RNA **Dr.**	**Phy-L4** Membrane potential **Prof Dr.**		**Phy-L5** Movement of Cell **Prof Dr.**
Thursday	**8:00 to 9:00 am** **IT Skills** Introduction to Computer **Engr.**	**09:00 to 10:00 am** **Emb-L1** Mitosis **Dr.**	**SDL**	**Phy-L6** Depolarization & Repolarization **Prof Dr.**	**Bio-L6** Buffer **Mr.**		**Bio-L7** Cellular membrane transport mechanism **Dr.**
Friday	**Phy-L7** Cellular membrane transport mechanism **Dr.**	**Emb-L2** Meiosis-I **Prof Dr.**	**Emb-L2** Meiosis-II **Prof Dr.**	**Patho-L2** Cell injury**Prof Dr.**	**Pharma-L 2** Routes of administration of drugs Receptor and cellular basis **Prof Dr.**		**Pharma-L3** Transmembrane drug transport **Dr.**

COLLEGE OF MEDICINE AND DENTISTRY AT THE HILLS, ABBOTTABAD

DEPARTMENT OF MEDICAL EDUCATION

FOUNDATION MODULE WEEK 3

(1st Year MBBS) SESSION 2024-25

THEME 3: GROWTH & DEVELOPMENT OF HUMAN BODY

Days	8:00 to 10:00 am		10:00 to 11:00 am	11:00am to 12:00 pm	12:00 to 1:00 pm		1:30 to 2:30 pm
Monday	**PRACTICALS/ SGDs:** Batch A: Phy-P **Dr**. Batch B: Anat-SGD **Dr.**Batch C: Bio-P **Dr.**		**Emb-L3** Introduction to Embryology **Prof. Dr.**	**Bio-L8** Chemistry of Acids and Bases I **Dr.**	**Emb-L4** Spermatogenesis **Prof. Dr.**	**P R A Y E R S B R E A K**	**Anat-DSL** Cell Division **Dr.**
Tuesday	**PRACTICALS/ SGDs:** Batch A: Bio-P **Dr.** Batch B: Phy-P **Dr.** Batch C: Anat-SGD **Dr.**		**Emb-L5** Oogenesis **Dr.**	**Bio-L9** Chemistry of Acids and Bases II **Dr.**	**Emb-L6** Transport of Gametes **Prof. Dr.**		**Phy-DSL** Membrane Potential **Dr.**
Wednesday	**PRACTICALS/ SGDs:** Batch A: Anat-SGD **Dr.** Batch B: Bio-P **Dr.** Batch C: Phy-P **Dr.**		**Emb-L7** Fertilization – Events **Prof. Dr.**	**Bio-L10** Importance of surface tension and viscosity in our body **Mr.**	**Emb-L8** Female reproductive cycle **Prof. Dr.**		**Bio-DSL** Adsorption Ion exchange resin **Dr.**
Thursday	**8:00 to 09:00 am**	**9:00 to 10:00 am**	**Bio-L11** Structure, Classification, Properties of Carbohydrates I **Prof Dr.**	**PRIME-L2** Bio-Psycho-Social model of health care **Dr.**	**Emb-L10** Implantation & Its Abnormalities **Prof. Dr.**		**Phy-L8** Physiological Anatomy of Autonomic Nervous system **Dr.**
	Emb-L9 Fertilization –Clinical Correlates Cleavage & Blastocyst Formation **Dr.**	**PRIME-L3** Health and behavioral sciences **Dr.**					
Friday	**Islamiyat** Fundamental Beliefs of Islam **Mr.**	**Emb-L11** Amniotic cavity **Dr.**	**SDL**	**Bio-L12** Structure, Classification, Properties of Carbohydrate s II **Prof Dr.**	**Bio-L13** Mono-, Di-, & Homo-polysaccharides **Prof Dr.**		**Emb-L12** Events of 2nd Week of Development **Prof. Dr.**

COLLEGE OF MEDICINE AND DENTISTRY AT THE HILLS, ABBOTTABAD

DEPARTMENT OF MEDICAL EDUCATION

FOUNDATION MODULE WEEK 4

(1st Year MBBS) SESSION 2024-25

THEME 3: GROWTH & DEVELOPMENT OF HUMAN BODY

Days	8:00 to 10:00 am		10:00 to 11:00 am	11:00am to 12:00 pm	12:00 to 1:00 pm		1:30 to 2:30 pm
Monday	**PRACTICALS:** Batch A: Phy **Dr.** Batch B: Patho **Dr.** Batch C: Bio **Dr.**		**Emb-L13** Formation of Notochord **Prof. Dr.**	**C.Med-L2** Role of Public Health in Health Care System **Dr.**	**Emb-L14** Events of 3rd Week of Developme nt I **Prof. Dr.**		**Bio-L14** Heteropolysacch arides **Prof Dr.**
Tuesday	**PRACTICALS:** Batch A: Bio **Dr.** Batch B: Phy **Dr.** Batch C: Patho **Dr.**		**Emb-L15** Events of 3rd Week of DevelopmentII **Prof. Dr.**	**C.Med-L3** Determinan ts of health **Dr.**	**PRIME-L3** Attitude **Dr.**		**Emb-L16** Derivatives ofgerm layers **Dr.**
Wednesday	**PRACTICALS:** Batch A: Patho **Dr.** Batch B: Bio **Dr.** Batch C: Phy **Dr**.		**SDL** (SLRC/Library)	**Emb-L17** Further development of trophoblastand Neuralization **Prof. Dr..**	**C.Med-L4** Disease causation **Dr.**	**PRAYERS BREAK**	**IT Skills** Software **Engr.**
Thursday	**8:00 to 9:00 am** **Emb-L18** Fetal Membran es**Prof. Dr.**	**09:00 to 10:00 am** **Emb-L19** Folding of embryo (4-8 weeks) **Dr.**	**PRIME-L4** Communicating with administration **Dr.**	**C.Med-L5** Chain ofinfection- **Dr.**	**SDL**		**C.Med-L5** Chain ofinfection-I **Dr.**
Friday	**Islamiyat** Belief in Here After **Mr.**	**C.Med-L7** Levels of prevention **Dr.**	**G. Anat-L4** Organization of human body **Dr.**	**Histo-L1** Basic tissues in human body **Dr.**	**Histo-L1** Basic tissuesin human body **Dr.**		**G. Anat-L5** Anatomicalterms **Dr.**

COLLEGE OF MEDICINE AND DENTISTRY AT THE HILLS, ABBOTTABAD

DEPARTMENT OF MEDICAL EDUCATION

FOUNDATION MODULE WEEK 5

(1st Year MBBS) SESSION 2024-25

THEME 4: HUMAN BODY TISSUES, BONES & JOINTS

Days	8:00 to 10:00 am	10:00 to 11:00 am	11:00am to 12:00 pm	12:00 to 1:00 pm		1:30 to 2:30 pm
Monday	**PRACTICALS:** Batch A: Phy **Dr.** Batch B: Anat **Dr.** Batch C:Bio **Dr.**	**G. Anat-L6** Muscles **Dr.**	**G. Anat-L7** Classification of Bones **Dr.**	**PRIME-L5** Introduction to Research **Dr.**	**P R A Y E R S B R E A K**	**Anat-SGD** Organization of human body **Dr.**
Tuesday 12/03/024	**PRACTICALS:** Batch A: Bio **Dr.** Batch B: Phy **Dr.** Batch C: Anat **Dr.**	**Histo-L2** Classification, General characteristics & Functions of Epithelium **Dr.**	**G. Anat-L8** Cartilage **Dr.**	**G. Anat-L9** Joints (Structural Classification/ mechanism of movements) **Dr.**		**Bio-SGD** Structure & Functions of GAGs **Dr.**
Wednesday	**PRACTICALS:** Batch A: Anat **Dr.** Batch B: Bio **Dr.** Batch C: Phy **Dr.**	**Histo-L3** Glandular Epithelium **Dr.**	**Phy-L9** Functions of Autonomic Nervous system -II **Prof. Dr.**	**G. Anat-L10** Integumentary system **Dr.**		**Phy-SGD** Functions of Autonomic Nervous system -III **Dr.**
Thursday	**Histo-L4** Epithelial Cell Surface Specialization **Dr.**	**G. Anat-L11** Lymphatic system **Dr.**	**PRIME-L6** Types of research **Dr**	**SDL**		**IT Skills** Data Communication **Engr.**
Friday	**Fam Med-1** Introduction to family medicine Dr.	**10:00 am to 12:00 pm** **PBL 1b**		**Histo-L5** Structure & Function of Basement Membrane **Dr.**		Research Initiative DME **Dr.**

COLLEGE OF MEDICINE AND DENTISTRY AT THE HILLS, ABBOTTABAD

DEPARTMENT OF MEDICAL EDUCATION

FOUNDATION MODULE WEEK 6

(1st Year MBBS) SESSION 2024-25

THEME 4: HUMAN BODY TISSUES, BONES & JOINTS

Days	8:00 to 10:00 am	10:00 to 11:00 am	11:00am to 12:00 pm	12:00 to 1:00 pm	PRAYERS BREAK	1:30 to 2:30 pm
Monday	**PRACTICALS/ SGDs** Batch A: Phy-P **Dr.** Batch B: Histo-P **Dr.** Batch C: Bio-SGD **Dr.**	**Hist-L6** Connective tissue **Dr.**	**G. Anat-L12** Nervous system/ANS **Dr.**	**PRIME-L7** Formulation of Research Question **Dr.**		**G. Anat-L13** Radiological anatomy **Dr.**
Tuesday	**PRACTICALS/ SGDs** Batch A: Bio-SGD **Dr.** Batch B: Phy-P **Dr.** Batch C: Histo-P **Dr.**	**G. Anat-L14** Structure of membranes of human body **Dr.**	**G. Anat-L15** Fascia, ligaments and raphe **Dr.**	**Phy-L10** Depolarization and Repolarization **Dr.**		**PRIME-L8** Research objectives Hypothesis-I **Dr.**
Wednesday	**PRACTICALS/ SGDs** Batch A: Histo-P **Dr.** Batch B: Bio-SGD **Dr.** Batch C: Phy-P **Dr.**	**SDL**	**Patho-L3** Necrosis **Prof. Dr.**	**Patho-L4** Inflammation& Repair **Prof. Dr.**		**F. Med-L2** Definition, Stages & medicolegal importance of death. **Prof. Dr.**
Thursday	**Feedback and Self-Study**					
Friday	**Foundation Module-I Written Exam**					


College of Medicine & Dentistry at The Hills