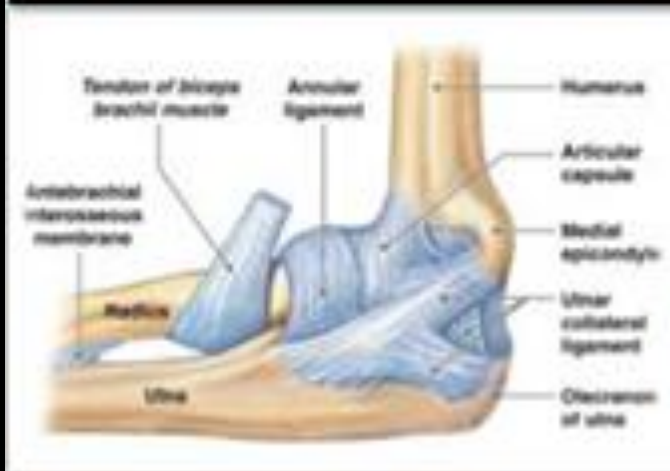
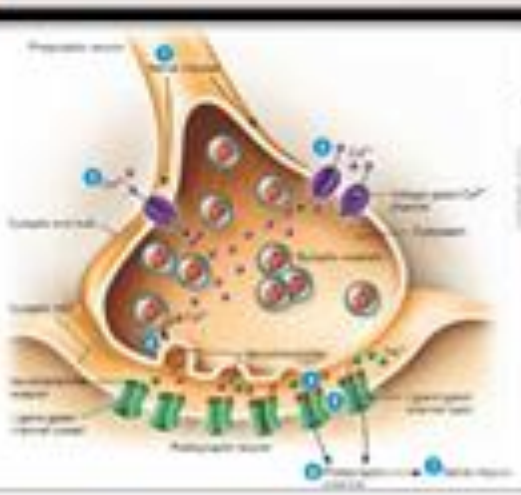
AVICENNA
MEDICAL COLLEGE

MUSCULOSKELETAL & LOCOMOTION MODULE

(1st year M.B.B.S.)







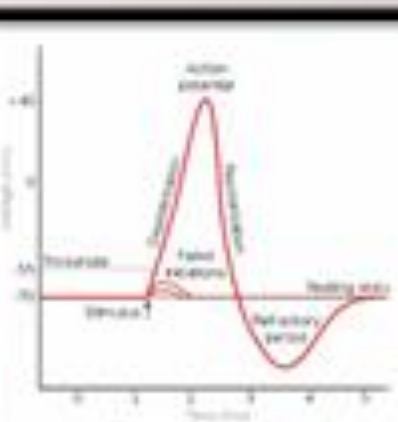


TABLE OF CONTENTS

S.No	CONTENTS	Page No
1	Module Integrated Committee	2
2	Introduction to Study Guide	5
3	Module: Musculoskeletal module	5
3.1	Introduction	5
3.2	Learning Methodologies	9
3.3	Curriculum of Individual subjects	13
4	Learning Resources	28
5	Thematic timetables	30
6	Assessment Methods	35
7	Rules and Regulations of Exams	37

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INTRODUCTION

WHAT IS A STUDY GUIDE?

It is an aid to:

- Inform students how the academic program for each module in a block-wise manner is organized.
- Help students organize and manage their studies throughout the module
- Guide students on assessment methods, rules and regulations

THE STUDY GUIDE:

- Communicates information on organization and management of the module. This will help the student to contact the right person in case of any difficulty.
- Defines the learning objectives which are expected to be achieved at the end of the module.
- Identifies the learning strategies such as lectures, small group teachings, clinical skills, practical, tutorial, case based learning and problem-based learning that will be implemented to achieve the module objectives.
- Provides a list of learning resources such as book references with page numbers, computer assisted learning programs, videos, web- links, and journals for students to consult in order to maximize their learning.
- Provides information on the assessment methods for formative (module exams) and summative assessment (block exams) of the module and Block examinations.
- Highlights the criteria for the student's overall performance.
- Focuses on information pertaining to examination policy, rules and regulations of Avicenna Medical College and the University Of Health Sciences (UHS).

CURRICULUM FRAMEWORK

Students will experience an integrated curriculum for MBBS as provided by the UHS.

Integrated curriculum comprises of system-based modules such as foundation, H&L etc. in the Blocks, which links basic science knowledge to clinical problems. Integrated teaching means that subjects are presented as a meaningful whole. Students are able to have better understanding of basic sciences when they repeatedly learn in relation to clinical examples.

Case-based discussions, problem-based learning, computer-based assignments, early exposure to clinics, wards, and skills acquisition in skills lab and physiotherapy department are characteristics of integrated teaching program

MODULE RATIONALE

The musculoskeletal system comprises the bones, muscles, cartilage, tendons, ligaments, and other connective tissues that provide the framework, support, and movement of the body. The initial learning activities will help in understanding the normal structure, development, and normal physiological mechanisms of the system. This will help in better understanding the possible pathological conditions of the system, including common injuries, diseases, and disorders that affect it, followed by discussion on some important group of drugs used for treatment and/or prevention of these conditions (administration route, mechanism of action and side effects). The impact of musculoskeletal diseases on society and the effect of ageing on occurrence of musculoskeletal diseases will be discussed. Emphasis has been given to incorporate deranged laboratory and imaging findings into the clinical problem solving.



MODULE OUTCOMES

1. Develop an understanding of the fundamental components of the musculoskeletal system.
2. Explain the development of the structure & function of the musculoskeletal (MSK) components of limbs, back & correlate it with organization and gross congenital anomalies of the limbs.
3. Identify the anatomical features of bones, muscles & neurovascular components of the limbs with clinical correlation.
4. Describe how injury and disease alter the MSK structure & function.
5. Integrate concepts relating to various metabolic processes, their disorders and relevant lab investigations in the study of human MSK system.
6. Describe the role of the limbs (upper/lower) in musculoskeletal support, stability, and movements.
7. Describe the types, formation, stability, function & clinical significance of joints of the upper and lower limb.
8. Describe the basic histology of muscle fibers including their molecular structure (Sarcomere).
9. Explain the mechanism of excitation and contraction of skeletal and smooth muscles.
10. Discuss the psychosocial impact of musculoskeletal diseases in society.

THEMES

1. Pectoral Region & Axilla
2. Upper limb
3. Pelvic Girdle
4. Lower Limb

CLINICAL RELEVANCE (IN RELATION TO MUSCLE, BONE AND JOINT DISEASES)

1. Congenital anomalies of limb
2. Joint Dislocation

3. Fracture
4. Metabolic bone diseases (osteoporosis, osteomalacia, rickets)
5. Myasthenia Gravis
6. Multiple Sclerosis

LEARNING METHODOLOGIES

The following teaching/ learning methods are used to promote better understanding:

1. Interactive Lectures
2. Hospital/Clinic visits
3. Small Group Discussion
4. Case- Based Learning
5. Problem-based learning
6. Practical
7. Skills session
8. E-Learning
9. Self-Directed Study

Interactive lectures: In large group, the lecturer introduces a topic or common clinical conditions and explains the underlying phenomena through questions, pictures, videos of patients' interviews, exercises, etc. Students are actively involved in the learning process.

Hospital visits: In small groups, students observe patients with signs and symptoms in hospital or clinical settings. This helps students to relate knowledge of basic and clinical sciences of the relevant module.

Small group discussion (SGD): This format helps students to clarify concepts acquire skills or attitudes. Sessions are structured with the help of specific exercises such as patient case, interviews or discussion

topics. Students exchange opinions and apply knowledge gained from lectures, tutorials and self-study. The facilitator role is to ask probing questions, summarize, or re phrase to help clarify concepts.

Team-based learning: A small group discussion format where learning is focused around a series of questions based on a clinical scenario. Students' discuss and answer the questions applying relevant knowledge gained in clinical and basic health sciences during the module.

a) **Preparation before class:** Students must complete preparatory materials before a class or the start of the module. Materials may be text, visual or other, and set at a level that is appropriate to the students and the course.

b) **In-class Readiness Assurance Testing:** Students complete an individual readiness assurance test (IRAT), consisting of 5 to 20 multiple choice questions. After submitting their individual answers, and they take the same test, the team RAT (TRAT), with their team. All members of each team share the same TRAT score, and both IRAT and TRAT scores count toward the students' grades.

c) **Reflective Writing:** Students will write reflective essays for the activities and tasks of the Professionalism, Ethics, Research and Leadership (PERLs) program for each module and block.

d) The students will develop a Portfolio of the PERLs activities and tasks as assignments and reflective essay

e) **Instructor Feedback**: The instructor reviews material from the RAT that seems to be difficult for students.

f) **In-class application focused exercise:** The remainder of the session is taken up with exercises that help students learn how to apply and extend the knowledge that they have pre-learned and

tested. Teams are given an appropriate problem or challenge, and must arrive at a consensus to choose a “best” solution out of options provided. Teams then display their answer choice, and the educator facilitates a classroom discussion between teams to explore the topic and the possible answers to the problem.

Practical: Basic science practical related to anatomy, biochemistry, pathology, pharmacology and physiology are scheduled for student learning.

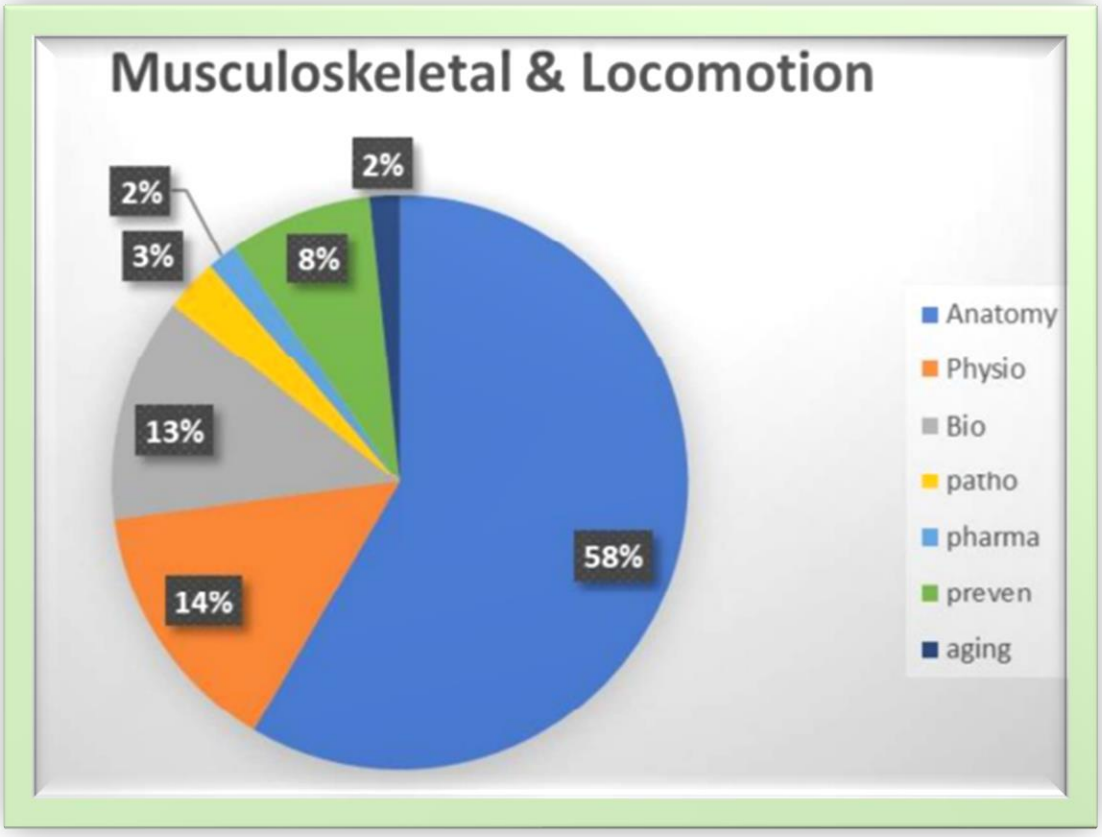
Clinical skills session: Clinical Skills relevant to respective module are observed and practiced where applicable in hospital settings, clinical skills laboratory or Department of Physiotherapy.

Self-directed study: Students’ assume responsibilities of their own learning through individual study, sharing and discussing with peers, seeking information from Learning Resource Center, teachers and resource persons within and outside the college. Students can utilize the time within the college scheduled hours of self-study.

E-learning: E-Learning is a strategy by which learning occurs through the utilization of electronic media, typically the Internet. The basic aspects of medical professionalism and ethics will be addressed through an e-learning course.

INTEGRATION OF DISCIPLINES IN MUSCULOSKELETAL MODULES

MODULE WEEKS	8	TOTAL HOURS	236
Anatomy	74	Physiology	33
Biochemistry	24	Pathology	9
Pharmacology	3	Behavioral sciences	6
Community medicine	6	Aging	1



CURRICULUM OF INDIVIDUAL SUBJECTS

ANATOMY

No.	Code	Topic	Learning Objective	Teaching strategy	Department	Faculty member	References
1	MS-A-001/L1	Pectoral Region	Describe the topographical anatomy of Pectoral Region Human Anatomy Pectoral Region Perform dissection of the Pectoral Region or use models to identify the key structures Describe muscles of the Pectoral Region with their origin, insertion, nerve supply and actions.	Lecture	Anatomy	Dr. Ijaz	Clinically Oriented Anatomy ed7th, Pg: 697-709 Snell anatomy ed. 8th pg No. 441
2	MS-A-003/L1	Pectoral region & Back + Mammary Glands	Enumerate the muscles of pectoral girdle. Describe the attachments of muscle of pectoral girdle, nerve supply and actions (Pectoralis Major and minor, Subclavius, Trapezius, Latissimus Dorsi, Rhomboid major and minor, Levator Scapulae and Serratus anterior) Explain the role of muscles of pectoral region in stabilizing the pectoral girdle.	Lecture	Anatomy	Dr. Ijaz	Clinically Oriented Anatomy ed7th, Pg: 697-712 Snell anatomy ed. 8th pg No. 427-432, 441-442
3	MS-A-003/L2	Pectoral region & Back + Mammary Glands	Describe the triangle of auscultation. Mention the neurovascular supply of pectoral region and Correlate with important clinical conditions. Describe muscles of the back with their origin, insertion, nerve supply and actions	Lecture	Anatomy	Dr. Ijaz	Clinically Oriented Anatomy ed7th, Pg: 697-712 Snell anatomy ed. 8th pg No. 442,444-454
4	MS-A-003/L3	Pectoral region & Back + Mammary Glands	Describe the extent, structure, neurovascular supply, lymphatic drainage of Breast (Mammary Glands)	Lecture	Anatomy	Dr. Ijaz	Clinically Oriented Anatomy ed7th, Pg: 98-106

							Snell anatomy ed. 8th pg No. 427-432
5	MS-A-003	Pectoral region & Back + Mammary Glands	Define the boundaries of Triangle of Auscultation and state its clinical significance	Lecture	Medicine	Dr. Usman Yaqub	Davidsons Edition 24 Chapter 26/989
6	MS-A-004/L1	Bones of Upper Limb: Clavicle & Scapula	Determine the side and identify the landmarks of scapula Describe the movements of Scapula associated with movements of Shoulder Girdle Tabulate the movements of scapula with muscles acting on it Tabulate the attachments, origin, insertion, innervation, and actions of Anterior Axioappendicular Muscles	Lecture	Anatomy	Dr. Maliha	Clinically Oriented Anatomy ed7th, Pg: 697-702, 801-802 Snell anatomy ed. 8th pg No. 432-435
7	MS-A-004	Bones of Upper Limb: Clavicle & Scapula	Scapula and Clavicle	SGD tutorial/ Practical	Anatomy	Dr Shaista	KLM Gross Anatomy Snell anatomy ed. 8th pg No. 432-435
8	MS-A-005/L1	Bones of thorax, Joints of Upper Limb: Sternoclavicular Joint	Describe the Sternoclavicular Joint in terms of articulating surfaces, ligaments, articular disc, nerve supply, blood supply, axes and planes of movements and stability factors.	Lecture	Anatomy	Dr. Ahmed	Clinically Oriented Anatomy ed7th, Pg: 794-796 Snell anatomy ed. 8th pg No. 46-51 456-461
9	MS-A-006/L1	Axilla	Develop clear concepts of the topographical anatomy of Axilla and its contents Describe the boundaries of Axilla. (Identification of muscles forming the boundaries of axilla) List the contents of Axilla, Describe Axillary Artery with reference to its 3 parts their relations, branches, and anastomoses	Lecture	Anatomy	Dr. ahmed	Clinically Oriented Anatomy ed7th, Pg: 713-726 Snell anatomy ed. 8th pg No. 437-439
10	MS-A-006	Axilla	Describe the formation, tributaries, and drainage of Axillary Vein Identify and demonstrate the course/ relation and branches/tributaries of axillary vessels Describe the Axillary Lymph Nodes in terms of location, grouping, areas of drainage and clinical significance Describe the course, relations, root	Lecture	Anatomy	Dr. Ijaz	Clinically Oriented Anatomy ed7th, Pg: 715-721 Snell anatomy ed. 8th pg No. 444-446

			value and distribution of cutaneous nerves				
11	MS-A-007	Bones of Upper Limb Humerus	Describe the Osteology of Humerus (Side Determination, morphological features, attachments, ossification)	SGD tutorial/ Practical	Anatomy	Dr. Shaista/ Huma	KLM Gross Anatomy Snell anatomy ed. 8th pg No. 435-437
12	MS-A-008/L1	Joints of Upper Limb: Shoulder Joint	Describe the Shoulder Joint under the following headings: Articulation, Type/ Variety, Capsule, Ligaments, Innervation, Blood supply, Movements. Shoulder Joint Describe the 3 parts of Deltoid Muscle and correlate them with its unique functions. Explain its role in abduction of shoulder joint. Explain mechanism of Abduction of arm	Lecture	Anatomy	Prof Dr. Razia	Clinically Oriented Anatomy ed7th, Pg: 796-802 Snell anatomy ed. 8th pg No. 462-466
13	MS-A-008/L2	Joints of Upper Limb: Shoulder Joint	Identify and demonstrate the movements of Axio-appendicular Muscles on Skeleton/Model Draw and label the arterial anastomosis around shoulder joint Describe, in detail, the Scapula-Humeral Mechanism in relation to movement of abduction. Discuss important clinical conditions	Lecture	Anatomy	Dr. Ijaz	Clinically Oriented Anatomy ed7th, Pg: 796-802, 813-815 Snell anatomy ed. 8th pg No. 459-466
14	MS-A-010/L1	Nerves of Upper Limb	Describe the formation of Brachial Plexus; Infra and Supraclavicular parts. Discuss Brachial plexus injuries b Demonstrate and identify the formation of brachial plexus and its branches List the branches of brachial plexus and give their areas of distribution and muscles they innervate	Lecture	Anatomy	Prof Dr. Razia	More Clinical Oriented Anatomy 6th edition pg.721-730 Snell anatomy ed. 8th pg No. 446-453
15	MS-A-010L2	Nerves of Upper Limb	Develop clear concepts of the topographical anatomy of Scapular Region Tabulate the attachments, innervation, and actions of muscles of Scapular Region Identify & Describe Musculocutaneous Nerve in terms of its Origin, Course, Termination, Relations, Branches, and distribution. Describe and illustrate the cutaneous innervation of the arm.	Lecture	Anatomy	Dr. Ijaz	More Clinical Oriented Anatomy 6th edition pg. 713-719-721, 726-728 Snell anatomy ed. 8th pg No. 449-451,442,467
16	MS-A-002/L1	Fascia & Myotomes of upper limb	Describe the fasciae, cutaneous nerves. and blood vessels of the Upper Limb, Describe the extent, attachments, and	Lecture	Anatomy	Dr. kalsoom	More Clinical Oriented Anatomy 6th edition pg. 688-696,

			structures passing through Clavipectoral Fascia				Snell anatomy ed. 8th pg No. 467,444
17	MS-A-011/L1	Blood supply of arm	Describe the Brachial Artery in terms of its course, relations, branches, and distribution, Tabulate the attachments, innervation, and actions of Triceps brachii as a muscle of Posterior Fascial Compartment of Arm Identify & Describe the Profunda Brachii Artery giving its course, relations, branches, and distribution	Lecture	Anatomy	Dr. Ijaz	Clinically Oriented Anatomy ed7th, Pg: 735-736 Snell anatomy ed. 8th pg No. 476,469,475
18	MS-A-012/L1	Muscles of Arm	Describe Cubital Fossa with emphasis on its boundaries, contents, and clinical significance.	Lecture	Anatomy	Dr. Kalsoom	Clinically Oriented Anatomy ed7th, Pg: 739, 677-679 Snell anatomy ed. 8th pg No. 477
19	MS-A012	Muscles of Arm	Demonstrate surface marking of superficial veins of arm and forearm for IV injections Determine the side and identify the landmarks of radius and ulna	SGD Tutorial/ Practical	Anatomy	Dr. Shaista/ Huma	KLM Gross Anatomy Snell anatomy ed. 8th pg No. 478-479,469
20	MS-A013	Bones of Forearm	Describe the Osteology of Radius (Side Determination, morphological features, attachments, ossification), Describe the Osteology of Ulna (Side Determination, morphological features, attachments, ossification)	SGD Tutorial/ Practical	Anatomy	Dr. Shaista/ Huma	KLM Gross Anatomy Snell anatomy ed. 8th pg No. 478-479
21	MS-A014-15/L1	Muscle of Anterior/Flexor Compartment of Forearm, Muscle of Posterior/Extensor Compartment of Forearm	Describe in detail, the features of each flexor muscle of forearm, proximal & distal attachments, relations, and actions. Describe the action of paradox with examples, Tabulate the attachments, innervation, and actions of Extensor Muscles of the Forearm, Describe in detail, the features of each muscle of extensor compartment of forearm, proximal & distal attachments, relations, and actions with nerve supply.	Lecture	Anatomy	Dr. Ahmed	Clinically Oriented Anatomy ed7th, Pg: 746-757 Snell anatomy ed. 8th pg No. 492,495,498
22	MS-A-016/L1	Forearm: Neurovascular supply & topographical anatomy	Identify the muscles and neurovasculature of flexor and extensor compartments of forearm, Develop clear concepts of the topographical anatomy of Forearm Describe and illustrate	Lecture	Anatomy	Dr. Ijaz	Clinically Oriented Anatomy ed7th, Pg: 757-764 Snell anatomy ed. 8th pg No. 467,492,495,498

			the cutaneous innervation of the Forearm Compartmentalize the forearm and give its anatomical basis. Tabulate the attachments, innervation, and actions of Flexor & Pronator Muscles of the Forearm				
23	MS-A017 MS-A018	Retinacula of Forearm	Identify the Extensor & Flexor Retinacula and describe their attachments and relations, Describe the features, attachments, relations and structures passing under Flexor Retinaculum	Lecture	Anatomy	Dr. Ijaz	Clinically Oriented Anatomy ed7th, Pg: 747-750 Snell anatomy ed. 8th pg No. 484-485
24	MS-A-019/L1	Forearm: Blood supply and Venous drainage	Describe the Origin, Course, Relations, and branches of Ulnar Artery in Forearm, Describe the Origin, Course, Relations and list the tributaries of veins of Forearm	Lecture	Anatomy	Dr. Ijaz	Clinically Oriented Anatomy ed7th, Pg: 757-761,764 Snell anatomy ed. 8th pg No. 486-487
25	MS-A-019/L1	Forearm: Blood supply and Venous drainage	Surface marking of Brachial artery, Cephalic, Median cubital, Basilic Vein, Radial & Ulnar arteries, anterior &posterior interosseous artery	SGD Tutorial/ Practical	Anatomy	Dr. Shaista/ Huma	KLM Gross Anatomy Snell anatomy ed. 8th pg No. 431-435
26	MS-A-020/L1	Joints of Upper Limbs: Elbow Joint	Describe the Elbow Joint in terms of articular surfaces, type, variety, ligaments, muscles producing movements, blood supply {Anastomosis around elbow joint}, nerve supply and radiological imaging.	Lecture	Anatomy	Dr. kalsoom	Clinically Oriented Anatomy ed7th, Pg: 800-804 Snell anatomy ed. 8th pg No. 509-511,525
27	MS-A-021/L1	Joints of Upper Limbs: Radio ulnar Joint	Describe the Radio ulnar Joints in terms of articular surfaces, type, variety, ligaments, and muscles producing movements, blood supply, nerve supply and radiological imaging. Demonstrate mechanisms of movements of Pronation & Supination	Lecture	Anatomy	Dr. Ijaz	Clinically Oriented Anatomy ed7th, Pg: 804-808 Snell anatomy ed. 8th pg No. 512-515
28	MS-A-022-23/L1	Interosseous membrane/Fascia & Muscles of Hand	Describe the features of Interosseous Membrane with structures that pierce through it, Describe the features and explain the importance of Fibrous Flexor Sheaths, synovial flexor sheaths and extensor expansion	Lecture	Anatomy	Dr. Ahmed	Clinically Oriented Anatomy ed7th, Pg: 677-679, 771-773 Snell anatomy ed. 8th pg No. 502-506
29	MS-A-024-25/L1	Hand/	Demonstrate the attachments and actions of the muscles of hand, Identify the muscles and neurovasculature of the palm, Explain the	Lecture	Anatomy	Dr. Ijaz	Clinically Oriented Anatomy ed7th, Pg: 773-786

			morphology and tabulate the attachments, innervation, and actions of Intrinsic Muscles of the Hand Demonstrate the various grips. Explain the mechanism of writing				Snell anatomy ed. 8th pg No. 502-506
30	MS-A026/L1	Blood Vessels of Forearm& Hand	Describe the radial Artery course, Relations and termination in hand with its clinical significance in the region and termination in hand with its clinical significance in the region Describe the formation, branches, and areas of distribution of Superficial and Deep Palmar Arch	Lecture	Anatomy	Dr.Ahmed	Clinically Oriented Anatomy ed7th, Pg: 779-782 Snell anatomy ed. 8th pg No. 486-487,503-504
31	MS-A027/L1	Nerves of Forearm& Hand	Describe the course, relations, and branches of Ulnar, Median and Radial Nerves in the Hand	Lecture	Anatomy	Dr. Ijaz	Clinically Oriented Anatomy ed7th, Pg: 782-786 Snell anatomy ed. 8th pg No. 474,489-495
32	MS-A028/L1	Joints of Hands	Describe the First Carpometacarpal Joint in terms of; Type, Variety, Articular Surfaces, Ligaments, Relations, Blood Supply, Innervation, movements. Demonstrate the movements of the 1st carpometacarpal joint Describe the Metacarpophalangeal & interpharyngeal Joints in terms of; Type, Variety, Articular Surfaces, Ligaments, Relations, Blood Supply, Innervation & Movements	Lecture	Anatomy	Dr. kalsoom	Clinically Oriented Anatomy ed7th, Pg: 811-813 Snell anatomy ed. 8th pg No. 416=419
33	MS-A029	Skills	Mark the anatomical landmarks on a subject/ Simulated model	SGD Tutorial/ Practical	Anatomy	Dr. Shaista/ Huma	KLM Gross Anatomy
34	MS-A-029	Skills	Palpate the arteries of the upper limb on a subject	Lecture	Medicine	Dr. Usman Yaqub	Davidsons Edition 24 Chapter 26/989
35	MS-A 032/L1	Fascia Lata	Describe the extent, attachments, and modifications of Fascia Lata, Demonstrate the attachment of fascia Lata, iliotibial tract	Lecture	Anatomy	Dr. Ijaz	Clinically Oriented Anatomy ed7th, Pg: 691-697 Snell anatomy ed. 8th pg No. 553-554
36	MS-A 033/L1	Neurovascular Supply of thigh	Describe the cutaneous nerves and vessels of thigh, Draw and label the cutaneous nerve supply of thigh Describe the formation, course,	Lecture	Anatomy	Dr. Prof. Razia	Clinically Oriented Anatomy ed7th, Pg: 691-697 Snell anatomy ed. 8th pg No.

			relations, tributaries, and termination of the superficial veins Explain the anatomical justification of venesection, varicose veins, and saphenous venous grafts				551,570-571,582
37	MS-A 033/L2	Neurovascular Supply of thigh	Describe the lymphatic drainage of the region with special emphasis on afferent and efferent of inguinal lymph nodes Identify the superficial and deep lymph nodes Explain the anatomical justification for enlargement of inguinal lymph nodes	Lecture	Anatomy	Dr. Kalsoom	Clinically Oriented Anatomy ed7th, Pg: 695-700 Snell anatomy ed. 8th pg No. 573,582
38	MS-A034/L 1	Femoral Triangle & Canal	Describe and identify the Boundaries and contents of femoral triangle, Draw and label the Boundaries and contents of femoral triangle Identify the femoral sheath with its compartments Describe the formation of femoral sheath and its significance Describe the formation of femoral canal and its contents and significance Describe the formation and significance of femoral ring	Lecture	Anatomy	Dr. Ahmed	Clinically Oriented Anatomy ed7th, Pg: 710-713 Snell anatomy ed. 8th pg No. 575-580
39	MS-A035/L 1	Muscles of Anterior Compartment of Thigh	Describe the Muscles of anterior compartment of thigh with their proximal and distal attachments, actions, and innervation, Demonstrate and identify the muscles of anterior compartment of thigh with their proximal and distal attachments Demonstrate the actions of muscles of anterior compartment of thigh	Lecture	Anatomy	Dr. Ijaz	Clinically Oriented Anatomy ed7th, Pg: 704-705 Snell anatomy ed. 8th pg No. 578
40	MS-A036/L 1	Neurovascular supply of Anterior Compartment of Thigh	Identify and demonstrate the nerves and vessels of anterior compartment of thigh along with their branches, Thigh Describe the origin, course, relations, branches, distribution, and termination of femoral artery Describe the origin, course, relations, tributaries, area of drainage and termination of femoral vein	Lecture	Anatomy	Dr. Ahmed	Clinically Oriented Anatomy ed7th, Pg: 710-714 Snell anatomy ed. 8th pg No. 580-582
41	MS-A036/L 2	Neurovascular supply of Anterior Compartment of Thigh	Describe the origin, course, relations, branches, distribution, and termination of femoral nerve Tabulate the muscles of anterior compartment of thigh	Lecture	Anatomy	Dr. Ijaz	Clinically Oriented Anatomy ed7th, Pg: 710-714 Snell anatomy ed. 8th pg No. 582-584,

			with their attachments, nerve supply and actions				
42	MS-A037/38/L1	Adductor Canal/Muscles of Medial Compartment of Thigh	Describe the formation, boundaries, contents, and significance of adductor canal, Identify and demonstrate the boundaries and contents of adductor canal, Describe Muscles of medial compartment of thigh with their proximal and distal attachments, innervation and actions	Lecture	Anatomy	Dr. Ijaz	Clinically Oriented Anatomy ed7th, Pg: 707-709,715 Snell anatomy ed. 8th pg No. 584,578
43	MS-A040/L1	Gluteal Region	Describe the subcutaneous tissue of gluteal region, List the structures passing through the greater and lesser sciatic foramen. Describe the muscles of gluteal region with their proximal and distal attachments, innervation, and actions	Lecture	Anatomy	Dr. Kalsoom	Clinically Oriented Anatomy ed7th, Pg: 723-728 Snell anatomy ed. 8th pg No. 562,566
44	MS-A040/L2	Gluteal Region	Describe the origin, course, relations, branches/ tributaries, distribution, and termination of neurovascular structures of gluteal region Demonstrate the actions of the muscles of gluteal region, Draw and label the cruciate and trochanteric anastomosis	Lecture	Anatomy	Dr. Ahmed	Clinically Oriented Anatomy ed7th, Pg: 732-736 Snell anatomy ed. 8th pg No. 565-569
45	MS-A-040	Gluteal Region	Explain the anatomical basis of the consequences of wrongly placed gluteal intramuscular injections and injury to superior and inferior gluteal nerves	Lecture	Medicine	Dr. Usman Yaqub	Davidsons Edition 24 Chapter 26/989 Snell anatomy ed. 8th pg No. 564
46	MS-A041/L1	Muscles of Posterior Compartment of Thigh	Describe the Attachments of muscles of posterior compartment of thigh with the innervation and action, Muscles of Posterior Compartment of Thigh Identify the muscles of posterior compartment of thigh with their proximal and distal attachments Demonstrate the actions of muscles of posterior compartment of thigh	Lecture	Anatomy	Dr. Ijaz	Clinically Oriented Anatomy ed7th, Pg: 569-572 Snell anatomy ed. 8th pg No. 589
47	MS-A042/L1	Blood supply of Thigh	Describe the origin, course, relations, branches, distribution, and termination of Profunda femoris artery, Describe the formation and distribution of thigh chain anastomoses of	Lecture	Anatomy	Dr. Ahmed	Clinically Oriented Anatomy ed7th, Pg: 554-555 Snell anatomy ed. 8th pg No. 580-581

			thigh (and its clinical significance)				
48	MS-A043/L1	Sciatic Nerve	Describe the origin, course, relations, branches, distribution, and termination of sciatic nerve	Lecture	Anatomy	Dr. Ijaz	Clinically Oriented Anatomy ed7th, Pg: 574-575 Snell anatomy ed. 8th pg No. 565-567
49	MS-A044/L1	Hip Joint	Describe the hip joint with its type, articulations, ligaments, stabilizing factors, movements, and neuro-vascular supply with clinical significance, Perform the movements of hip joint at various Angles and be able to describe the muscles producing the movement. Discuss important associated clinical conditions	Lecture	Anatomy	Dr Ijaz	Clinically Oriented Anatomy ed7th, Pg: 626-633 Snell anatomy ed. 8th pg No. 587-592
50	MS-A045/L1	Popliteal Fossa	Describe the Boundaries, relations, and contents of popliteal fossa, Draw and label boundaries, relations, and contents of popliteal fossa Identify the boundaries and contents of popliteal fossa Describe the origin, course, relations, branches/tributaries, distribution and termination of popliteal artery and vein.	Lecture	Anatomy	Dr. Prof. Razia	Clinically Oriented Anatomy ed7th, Pg: 584-587 Snell anatomy ed. 8th pg No. 600-604
51	MS-A046/L1	Knee Joint	Describe the attachments and role of popliteus in locking and unlocking of the knee joint, Draw and label Parts of patella with its attachments Describe features and ossification of patella, Enlist the factors responsible for stabilizing the patella	Lecture	Anatomy	Dr. Kalsoom	Clinically Oriented Anatomy ed7th, Pg: 634-643 592-600
52	MS-A046/L2	Knee Joint	Describe the knee joint with its type, articulations, ligaments, movements, and neuro-vascular supply Explain the mechanism of locking and unlocking of knee joint with the foot on ground and off the ground Describe the factors responsible for stability of knee joint. Discuss important associated clinical conditions.	Lecture	Anatomy	Dr. Ahmed	Clinically Oriented Anatomy ed7th, Pg: 634-643 Snell anatomy ed. 8th pg No. 629-632
53	MS-A047/L1	Muscles of leg	Describe the Muscles of anterior, lateral, and posterior compartments	Lecture	Anatomy	Dr. Ijaz	Clinically Oriented Anatomy ed7th, Pg: 587-602

			of leg with their proximal & distal attachments, innervation, and actions, Identify the muscles of anterior, lateral, and posterior compartments of leg with their proximal and distal attachments				Snell anatomy ed. 8th pg No. 613-614,617
54	MS-A048/L1	Neurovascular of supply of Leg	Describe the origin, course, relations, branches/tributaries and termination of nerves and vessels of anterior, lateral, and posterior compartments of leg. Describe the cutaneous nerves and vessels of leg. Draw and label the cutaneous nerve supply and dermatomes of leg	Lecture	Anatomy	Dr. Ahmed	Clinically Oriented Anatomy ed7th, Pg: 593-603 Snell anatomy ed. 8th pg No. 5=612-618, 551-552
55	MS-A049/L1	Flexor, Extensor, and peroneal Reticula	"Identify the extensor, flexor, and peroneal retinacula and demonstrate the structures related to them Human Anatomy Flexor, Extensor, and peroneal Reticula Describe the attachments, relations, and structures passing under cover of, extensor, peroneal, and flexor retinacula Identify and demonstrate the nerves and vessels of anterior, lateral, and posterior compartments of leg along with their branches, Describe the formation of noncalcareous (Achilles tendon)"	Lecture	Anatomy	Dr Ijaz	Clinically Oriented Anatomy ed7th, Pg: 609-610, 593-603 Snell anatomy ed. 8th pg No. 606,609
56	MS-A050/L1	Tibiofibular joints	Describe the articulations, muscles and neurovasculature and movements at Tibiofibular joints	Lecture	Anatomy	Dr Ijaz	Clinically Oriented Anatomy ed7th, Pg: 645-647 Snell anatomy ed. 8th pg No. 632-634
57	MS-A051/L1	Ankle Joint	Describe the ankle joint with its type, articulations, ligaments, movements, and neuro-vascular supply Describe the factors stabilizing the ankle joint. Discuss important associated clinical conditions. Identify and demonstrate the articulating surfaces and ligaments of ankle joint	Lecture	Anatomy	Dr Prof Razia	Clinically Oriented Anatomy ed7th, Pg: 647-650 Snell anatomy ed. 8th pg No. 634-637
58	MS-A053/L1	Muscles of foot	Identify the parts and bony features, attachments, and important relations of the articulated foot Describe the muscles of the dorsum and sole of foot with their proximal &	Lecture	Anatomy	Dr Kalsoom	Clinically Oriented Anatomy ed7th, Pg: 650-654, 610-615 Snell anatomy ed. 8th pg No.

			distal attachments, innervation and actions emphasizing the role of interossei and lumbricals. Draw and label the muscles of the layers of sole of foot Demonstrate and identify the muscles and tendons with their proximal and distal attachments in the sole of foot				596-597,622-623
59	MS-A054/L1	Small joints of foot	Describe the interphalangeal, subtalar and midtarsal joints with their types, articulation, ligaments, stabilizing factors, movements, and neurovascular supply	Lecture	Anatomy	Dr Ahmed	Clinically Oriented Anatomy ed7th, Pg: 650-654 Snell anatomy ed. 8th pg No. 637-638
60	MS-A055 - 56/L1	Arches of foot/Retinacula of foot 609-612, 654-655	Describe the formation, components, stabilizing and maintaining factors of the arches of foot	Lecture	Anatomy	Dr Ijaz	Clinically Oriented Anatomy ed7th, Pg: 650-654 Snell anatomy ed. 8th pg No. Snell anatomy ed. 8th pg No. 640-643
61	MS-A057/L1	Neurovascular supply of foot	Describe the origin, course, relations, branches/tributaries, distribution, and termination of plantar vessels, Identify the nerves and vessels on the foot along with their branches Describe the cutaneous nerves and vessels of foot Draw and label the cutaneous nerve supply and dermatomes of foot Identify the nerves and vessels in the sole of foot along with their branches Describe the palpation of dorsalis pedis artery &explain the clinical significance of dorsalis pedis artery	Lecture	Anatomy	Dr Ahmed	Clinically Oriented Anatomy ed7th, Pg: 614-620 Snell anatomy ed. 8th pg No. 551-552,624-629
62	MS-A058/L1	Venous drainage of lower limb	Describe the surface anatomy, course, relations, tributaries, and communications of the superficial and deep veins of the lower limb, Draw a concept map of the superficial and deep veins of lower limb List the factors favoring venous return of the lower limb	Lecture	Anatomy	Dr Ijaz	Clinically Oriented Anatomy ed7th, Pg: 632-635
63	MS-A-058	Venous drainage of lower limb	Describe the anatomical basis of knee jerk, ankle jerk, and plantar reflex	Lecture	Medicine	Dr Humaira	Davidsons Edition 24 Chapter:28/1119
64	MS-A060-61/L1	Lymphatic drainage of lower limb/Draw and label the cutaneous nerves & dermatomes of the lower limb	Draw a concept map of the lymphatic drainage of lower limb, Cutaneous	Lecture	Anatomy	Dr ahmed	Clinically Oriented Anatomy ed7th, Pg: 532-539

			dermatomes of lower limb				
65	MS-A-030	Hip Bone	Draw and label the Parts of the hip bone, with its attachments, Bone Describe the parts, attachments, and ossification of hip bone Identify the parts and bony features of the hip bone, with its attachments, important relations Demonstrate the side determination of hip bone, its bony features, attachments, sex differences, and important relations	SGD/Tutorial	Anatomy	Dr. Shaista/ Huma	KLM Gross Anatomy
66	MS-A-031	Femur	Describe the parts, attachments, ossification, side determination, and Sex differences of femur, Identify the parts and bony features of the femur, with its attachments, important relations. Demonstrate the side determination of femur, its bony features, attachments, and important relations (correlate these with fractures) Describe coxa Vara and coxa valga and their clinical significance	SGD/Tutorial	Anatomy	Dr. Shaista/ Huma	KLM Gross Anatomy
67	MS-A-038	Muscles of Medial Compartment of Thigh	Identify the muscles of medial compartment of thigh with their proximal and distal attachments Human Anatomy Demonstrate the actions of the muscles of the compartment on self/ subject	SGD/Tutorial	anatomy	Dr. Shaista/ Huma	KLM Gross Anatomy
68	MS-A-038	Neurovascular supply of Medial Compartment of Thigh	Identify the nerves and vessels of medial compartment of thigh along with their branches	SGD/Tutorial	Anatomy	Dr. Shaista/ Huma	KLM Gross Anatomy
69	MS-A-040	Gluteal Region	Identify the muscles of gluteal region with their proximal and distal attachments, Demonstrate and identify the origin, course, relations, branches/tributaries and termination of nerves and vessels of gluteal region	SGD/Tutorial	Anatomy	Dr. Shaista/ Huma	KLM Gross Anatomy
70	MS-A-046	Knee Joint	Enlist the bones in the knee joint, Describe parts of tibia and fibula, with their attachments, important relations, ossifications, and side determination Identify the parts and bony features of the tibia & fibula, their bony	SGD/Tutorial	Anatomy	Dr. Shaista/ Huma	KLM Gross Anatomy

			features, attachments, important relations.				
71	MS-A-062	Topographical and radiological anatomy of lower limb	Demonstrate the surface marking of nerves and vessels of lower limb Topographical and radiological anatomy of lower limb Demonstrate the surface marking of bony landmarks of lower limb	SGD/Tutorial	Anatomy	Dr. Shaista/ Huma	KLM Gross Anatomy
72	MS-A065	Development of Muscles	Name the molecular and genetic factors involved in the development of musculoskeletal system, Describe the development of skeletal muscle List the derivatives of axial and hypaxial musculature of limb	Lecture	Embryology	Dr. Ijaz	KLM Embryology 10th ed. 355-358
73	MS-A065	Development of Muscles	Briefly discuss the development of cardiac and smooth muscle (Detail to be covered in respective modules later). Describe the developmental basis of myotome Draw a concept map highlighting the sequence of events pertaining to smooth/ cardiac/ skeletal muscles	Lecture	embryology	Dr. Ijaz	KLM Embryology 10th ed. 358-361
74	MS-A066	Development of Limb	Draw a concept map pertaining to development of limb, Compare and contrast the development of upper limb with the development of lower limb	Lecture	Embryology	Dr. Ijaz	KLM Embryology 10th ed. 363-377
75	MS-A066	Development of Limb	List the factors contributing to the development of limb, Describe the role of AER and Zone of polarizing activity in development of limb, Describe the process of limb development and limb growth	Lecture	Embryology	Dr. Ijaz	KLM Embryology 10th ed. 363-377
76	MS-A067	Development of Neurovascular supply of limbs	Describe the embryological basis of cutaneous innervation of limb, Describe the embryological basis of blood supply of limbs and concept of axial artery	Lecture	Embryology	Dr. Ijaz	KLM Embryology 10th ed. 363-377
77	MS-A069/070	Development of Cartilage, Process of Ossification	Describe the developmental process of cartilage and bone, Describe the process of histogenesis of Cartilage, Describe the developmental process of intramembranous and endochondral ossification	Lecture	Embryology	Dr. Ijaz	KLM Embryology 10th ed. 337-340

78	MS-A071	Development of Axial skeleton	List the factors contributing to the development of Axial skeletal system Describe the clinical picture and explain the embryological basis of Axial skeletal anomalies Describe the developmental process of Vertebral Column	Lecture	Embryology	Dr. Ijaz	KLM Embryology 10th ed. 342-349
79	MS-A072	Histology of Muscles	Describe the microscopic structure and ultramicroscopic structure of skeletal muscle	Lecture	Histology	Dr. Ahmed	Laiq Hussain 6th edition pg. 85-94
80	MS-A072	Histology of Muscles	Describe the microscopic and ultramicroscopic structure of cardiac muscle, Describe the microscopic and ultramicroscopic of smooth muscle Compare and contrast the histological features of three types of muscle tissue	Lecture	Histology	Dr. Ahmed	Laiq Hussain 6th edition pg. 85-94
81	MS-A074	Histology of Osseous tissue	Describe the light and electron microscopic structure of bone cells	Lecture	Histology	Dr. Ahmed	Laiq Hussain 6th edition pg. 65-72
82	MS-A075	Histology of Bone	Describe the light and electron microscopic structure of compact and spongy bone, Compare and contrast the microscopic features of compact and spongy bone Draw a concept map to explain the characteristic features of ossification Draw and label the zones seen in an epiphyseal growth plate	Lecture	Histology	Dr. Ahmed	Laiq Hussain 6th edition pg. 65-72
83	MS-A077/078	Histology of Cartilage, Mechanism of Bone growth	Describe the microscopic and ultramicroscopic structure of all types of cartilage, Compare and contrast the structure of cartilage and bone matrix Tabulate the differences between three types of cartilage, Describe the histological basis for bone & Cartilage growth and repair	Lecture	Histology	Dr. Ahmed	Laiq Hussain 6th edition pg. 59-64
84	MS-A-078	Mechanism of Bone growth	Describe the histological basis for bone & Cartilage growth and repair	Lecture	Medicine	Dr Humaira	Davidsons Edition 24 Chapter 26/989

PHYSIOLOGY

No.	Code	Topic	Learning Objective	Teaching strategy	Department	Faculty member	References
1	MS-P-001	Diffusion/ equilibrium potentials & Nernst potential	Explain the physiological basis of membrane potential	Lecture	Physiology dept.	Dr Afsheen	Guyton & Hall Ed 14th Ch.5 Pg 61
2	MS-P-001	Diffusion/ equilibrium potentials & Nernst potential	Explain the diffusion potential of Na & K	Lecture	Physiology dept.	Dr Afsheen	Guyton & Hall Ed 14th Ch.5 Pg 62
3	MS-P-002	Goldman Equation	Define nernest potential, explain the physiological basis of nernest potential write nernest equation, calculate nernest potential for Na & K, Explain the effect of altering the concentration of Na+ & K+, Ca on the equilibrium potential for that ion Describe the normal distribution of Na, K, Ca, and Cl across the cell membrane, Explain physiological basis of Goldman equation, Clarify the role of Goldman equation in generation RMP.	Lecture	Physiology dept.	Dr Afsheen	Guyton & Hall Ed 14th Ch.5 Pg 63
4	MS-P-003	RMP in neurons	Describe the physiological basis of generation of RMP, Explain the effects of hyperkalemia and hypokalemia on RMP, Name the membrane stabilizers, Explain the physiological basis of local anesthesia	Lecture	Physiology dept.	Dr Afsheen	Guyton & Hall Ed 14th Ch.5 Pg 62
5	MS-P-004	Neurons	Describe the physiological anatomy of neurons, Discuss the axonal transport Enlist and give functions of neurological cells, Explain process of myelination in CNS and PNS	Lecture	Physiology dept.	Dr Afsheen	Guyton & Hall Ed 14th Ch.5 Pg 65 Mushtaq ahmed
6	MS-P-005	Classification of neurons and fibers	Classify neurons functionally Classify nerve fibers according to enlanger and gasser classification	Lecture	Physiology dept.	Dr Nida	Guyton & Hall Ed 14th Ch.47 Pg 599
7	MS-P-006	Action potential of neurons	Define action potential, Enlist the properties of action potential, Describe the ionic basis of an action potential, Explain the phases of action potential, Explain the effects of hyperkalemia and hypokalemia on action potential	Lecture	Physiology dept.	Dr Nida	Guyton & Hall Ed 14th Ch.5 Pg 69

8	MS-P-007	Roll of other ions in action potential	Draw monophasic action potential, Explain absolute and relative refractory period, Explain the role of other ions in action potential Elaborate the effect of hypocalcaemia on neuron excitability	Lecture	Physiology dept.	Dr Sadia	Guyton & Hall Ed 14th Ch.5Pg 69
9	MS-P-008	Local/ Graded potentials	Explain physiological basis and properties of graded potential, Draw and explain physiological basis and properties of compound action potential, Contrast between action potential and graded potential, Describe the ionic basis of excitatory post 10synaptic potential EPSP, inhibitory post synaptic potential IPS, end plate potential EPP	Lecture	Physiology dept.	Dr Sadia	Guyton & Hall Ed 14th Ch.46 Pg 589
10	MS-P-009	Synapse	Classify and explain physiological basis of different types of synapses Elaborate how signal transmission takes place across chemical synapse	Lecture	Physiology dept.	Dr Shaheen a	Guyton & Hall Ed 14th Ch.47Pg 580
11	MS-P-0010	conduction of nerve impulse	Explain the mechanism of conduction of nerve impulse in myelinated and unmyelinated nerve fibers, Elaborate significance of salutatory conduction	Lecture	Physiology dept.	Dr Shaheen a	Guyton & Hall Ed 14th Ch.5 Pg 70
12	MS-P-011	Nerve Degeneration	Enlist the types of nerve injury, Explain Wallerian degeneration Explain the process of regeneration of nerve fiber	Lecture	Physiology dept.	Dr Shaheen a	Mushtaq ahmed Vol: 1 ch 2 pg 143
13	MS-P-011	Nerve Degeneration	Describe the causes , features and pathophysiology of multiple sclerosis, GB syndrome	Lecture	Medicine dept.	DR ASIM	DAVIDSON ED 28/ 1119
14	MS-P-012	Skeletal Muscle	Discuss physiological anatomy of skeletal muscles, Differentiate between skeletal, smooth and cardiac muscle, Describe the function of sarcomere	Lecture	Physiology dept.	Dr Sadia	Guyton & Hall Ed 14th Ch.6 Pg 75
15	MS-P-013	Characteristics of whole muscle contraction	Differentiate between isometric and isotonic contractions by giving examples, Compare the	Lecture	Physiology dept.	Dr Sadia	Guyton & Hall Ed 14th Ch.6 Pg 82

			fast and slow muscle fibers,				
16	MS-P-014	Mechanics of muscle contraction	Explain the mechanism of summation and tetanization, , Describe stair case effect/Treppe phenomenon, Discuss the mechanism of skeletal muscle fatigue	Lecture	Physiology dept.	Dr Nida	Guyton & Hall Ed 14th Ch.6 Pg 83
17	MS-P-014	Mechanics of muscle contraction	Explain the physiological basis of rigor mortis	Lecture	Forensic dept.	Dr Anwar	
18	MS-P-015	Neuromuscular junction	Describe the physiological anatomy of neuromuscular junction, Mechanism of neuromuscular transmission and generation of end plate potential	Lecture	Physiology dept.	Dr Nida	Guyton & Hall Ed 14th Ch.7 Pg 89
19	MS-P-015	Neuromuscular junction	Explain features pathophysiology and features of myasthenia gravis	Lecture	Physiology dept.	Dr Asim	Davidson ed 24/ 1119
20	MS-P-015	Neuromuscular junction	Discuss the steps, events, of excitation contraction coupling in skeletal muscle	Lecture	Physiology dept.	Dr Afsheen	Guyton & Hall Ed 14th Ch.6 Pg 94
21	MS-P-016	Smooth Muscle	Differentiate between types of smooth muscles Describe mechanism of smooth muscle contraction in comparison to skeletal muscle Explain the physiological anatomy of NMJ of smooth muscle	Lecture	Physiology dept.	Dr Afsheen	Guyton & Hall Ed 14th Ch.8 Pg 97
22	MS-P-016	Smooth Muscle	Explain the types of action potential in smooth muscle, Explain the LATCH mechanism, Describe the significance of latch mechanism, Explain the nervous and hormonal control of smooth muscle contraction	Lecture	Physiology dept.	Dr Sadia	Guyton & Hall Ed 14th Ch.8 Pg 99
23	MS-P-017	Muscular disorders	Enlist the various types of muscle disorders, describe the pathophysiology and features of muscular dystrophies	Lecture	Medicine dept.	Dr. usman	Davidson ed 24 ch 26/ 989
24	MS-P-018	Myopathy	Define myopathy, enlist its various causes, outline the management of myopathy	Lecture	Medicine dept.	Dr. Humaira	Davidson ed 24/ch 26 989
25	MS-P-019	Metabolic bone diseases osteoporosis	Define osteoporosis, enlist its causes, outline its management strategies	Lecture	Medicine dept.	Dr. Asim	Davidson ed 24/ch 26 989

26	MS-P-020	Metabolic bone diseases osteomalacia	Define osteomalacia, enlist its causes, outline its management strategies	Lecture	Medicine dept.	Dr. usman	Davidson ed 24 ch 26/ 989
27	MS-P-021	Metabolic bone diseases Rickets	Define Rickets, enlist its causes, outline its management strategies	Lecture	Peads dept.	Dr Sabeen	Davidson ed 24 ch 26/ 989
No.	**Code**	**Topic**	**Learning Objective**	**Teaching strategy**	**Department**	**Faculty member**	**References**
1	MS-B-001	Classification of Amino acids	Classify amino acids based on polarity, nutritional importance, and glucogenic/Ketogenic properties	Lecture	Biochemistry	Prof. Dr Sadia Amir	Chapter#1, Lippincott 7th edition, Page# 1-13, Lecture Notes
2	MS-B-002	Amino acids	Explain the structure, physical, chemical properties of amino acids and their biomedical importance	Lecture	Biochemistry	Dr Sadia Khalil	Chapter#1, Lippincott 7th edition, Page# 1-13, Lecture Notes
3	MS-B-003	Classification of Proteins	Classify proteins based on functions and physicochemical properties. Explain its biomedical importance. Distinguish between class A and B proteins. Discuss structure and functions of Fibrous proteins (collagen and Elastin) Interpret diseases associated with them on basis of sign/symptoms and data.	Lecture	Biochemistry	Dr Yusra	Chapter 2, Chapter 4, Lippincott 7th edition, Page 13-24, 43-52, Lecture notes
4	MS-B-004	Structure of proteins	Explain the structural levels of proteins. Differentiate between alpha helix and beta pleated protein structures. Identify bondings at different levels of proteins. Describe the role of chaperons in protein folding.	Lecture	Biochemistry	Dr Yusra	Chapter 2, Lippincott 7th edition, Page 13-25
5	MS-B-005	Protein misfolding	Interpret disorders related to protein misfolding on basis of given data. Describe the biochemical basis of Alzheimer's / prion disease.	Lecture	Biochemistry	Prof Sadia Wajahat	Chapter 2, Lippincott 7th edition, Page 13-25
6	MS-B-006	Carbohydrates Chemistry	Describe biomedical importance of Mono-, Oligo and Polysaccharides. Discuss isomerization of carbohydrates Explain physical and chemical properties of carbohydrates Differentiate proteoglycan and glycoprotein and explain their functions.	Lecture	Biochemistry	Dr Yusra	Lippincott 7th edition, Chapter#7 Page 83-91, Harper 30th edition, Chapter# 15, Page 152-161

7	MS-B-007	ECM and collagen synthesis	Describe the components of extracellular matrix. Describe the sources, metabolism, and biochemical functions of vitamin C Describe structure, functions, and clinical significance of glycosaminoglycan's. Interpret the importance of vitamin C in collagen synthesis.	Lecture	Biochemistry	Dr Yusra	Lippincott 7th edition, Chapter#14, Page 157-172
8	MS-B-008	Vitamin D metabolism	Identify the defects in collagen synthesis based on given data. (Osteogenesis Imperfecta) Explain dietary sources, metabolism and biochemical functions of vitamin D Biochemistry Interpret Rickets and osteomalacia on basis of sign. Symptoms and clinical data.	Lecture	Biochemistry	Dr Yusra	Lippincott 7th edition, Chapter 28, Page 390-393
9	MS-B-009	Calcium and Phosphate metabolism	Explain dietary sources, metabolism and biochemical functions of calcium and phosphate. Discuss regulation of calcium metabolism in bone metabolism and role of parathyroid and calcitriol in it Interpret hyper and hypocalcemic conditions on basis of sign/symptoms and clinical data.	Lecture	Biochemistry	Dr Yusra	Lippincott 7th edition, Chapter 29, Page 399-400
10	MS-B-010	Genetic basis of disease	Interpret genetic basis of Duchene muscular dystrophy	Lecture	Biochemistry	Dr Yusra	Harper 30th edition, chapter 51, Page 655
11	MS-B-011	Chromatography	Detection of amino acids by paper chromatography.	Practical	Biochemistry	Dr Zahra/Dr Ayesha	Practical Manual
12	MS-B-012	Total proteins	Estimation of total proteins by kit method/dipstick methods.	Practical	Biochemistry	Dr Maryam/ Dr Saba	Practical Manual
13	MS-B-013	Albumin/ globulin	Estimation of albumin and globulin	Practical	Biochemistry	Dr Asad	Practical Manual
14	MS-B-014	Calcium	Detection of calcium by micro lab.	Practical	Biochemistry	Dr Hamza	Practical Manual
15	MS-B-015	Solutions	Prepare different types of solution Molar, Molal, Normal and percentages.	Practical	Biochemistry	Dr Misbah	Practical Manual

PHARMACOLOGY & PATHOLOGY

No.	Code	Topic	Learning Objective	Teaching strategy	Department	Faculty member	References
1	MS-Ph001	Drugs acting on Neuromuscular Junction (NMJ	Explain the mechanism by which drugs can stimulate NMJ.	Lecture (1)	Pharmacology	Dr. Usman	Katzung ed: 14 Ch: 6+7
			Pharmacology & Therapeutics Drugs acting on Neuromuscular Junction (NMJ)				Katzung ed: 14 Ch: 6+7
2			Explain the mechanism by which drugs can block NMJ.	Dr. Usman	Lectures (1)	Dr. Usman	Katzung ed. 14 ch:27
3	MS-Ph002	Drugs in Myasthenia Gravis	Outline the pharmacological concepts of drugs used in Myasthenia gravis	Dr. Faiza	Lecture (1)	Dr. Faiza	Katzung ed: 14 Ch: 6+7
4	MS-Ph003	Local Anesthetics	Outline the pharmacological concepts of drugs used as local anesthetics.	Dr. Wardah	Lecture (1)	Dr. Wardah	Katzung ed. 14, CH: 26
No.	**Code**	**Topic**	**Learning Objective**	**Teaching strategy**	**Department**	**Faculty member**	**References**
1	MS-Pa-001	Functional Histology Muscle remodeling	Describe the regeneration of muscle, hyperplasia, and hypertrophy of muscle fiber Explain the histopathological basis of leiomyoma	Lecture	Pathology	Dr QURRAT-UL AIN	Robbiins & Cotran, Pathologic Basis of Disease, 10th edition, Pg 12
2	MS-Pa-002	Functional Histology Genetic basis of disease Diseases of Muscle	Describe the histological basis of Duchenne Muscular Dystrophy Interpret genetic basis of Duchene muscular dystrophy Describe the histopathological basis and clinical presentation of Multiple Sclerosis and Astrocytoma	LECTURE	PATHOLOGY	DR Warda	Robbiins & Cotran, Pathologic Basis of Disease, 10th edition, Pg 12
3	MS-Pa-002	Protein misfolding Diseases of Muscle	Interpret disorders related to protein misfolding on basis of given data. Describe the biochemical basis of Alzeimer's disease/Prione disease	Lecture	Pathology	Dr Munazza Salman	Robbiins & Cotran, Pathologic Basis of Disease, 10th edition, Pg 122
4	MS-Pa-003	Histology of Osseous tissue Diseases of Bone	Describe the histological justification for osteoporosis, osteopenia and osteopetrosis Describe the histological basis for bone repair after fractures.	Lecture	Pathology	Dr Nabila Akram	Robbiins & Cotran, Pathologic Basis of Disease, 10th edition, Pg 265

5	MS-Pa-004	Disease of Cartilage	Describe the histological basis for cartilage growth and repair	Lecture	Pathology	Dr Nabila	Robbiins & Cotran, Pathologic Basis of Disease, 10th edition, Pg 25

AGING

No.	Code	Topic	Learning Objective	Teaching strategy	Department	Faculty member	References
1	MS-Ag-001	Bone	Discuss the effect of age on bone fragility and its implications with management.	Lecture	Medicine	Dr Humaira	Davidsons Edition 24 Chapter: 34 /1295
2	MS-Ag-002	Cartilage	Discuss the effect of age on loss of cartilage resilience and its implications and management	Lecture	Medicine	Dr Asim Maqsood	Davidsons Edition 24 Chapter: 34 /1295
3	MS-Ag-003	Muscle	Discuss the effect of age on Muscular strength and its implications and management	Lecture	Medicine	Dr. Usman Yaqub	Davidsons Edition 24 Chapter: 34/1295
4	MS-Ag-004	Effect of estrogen on BMD	Explain the protective effect of estrogen (female sex hormone) on bone mineral density and relate it to increased prevalence of postmenopausal fractures in women.	Lecture	Medicine	Dr Humaira	Davidsons Edition 24 Chapter: 34/ 1295

DISEASE PREVENTION AND IMPACT

No.	Code	Topic	Learning Objective	Teaching strategy	Department	Faculty member	References
1	MS-CM-001	Back Pain	Explain causes of low back pain. Describe prevention of low back pain	Lecture	Community Medicine	Dr. Usman Sheikh / Dr. Sana Noor	Lecture Notes
2	MS-CM-002	MSD related child labour	Describe causes and prevention of musculoskeletal disorders related to child labour	Lecture	Community Medicine	Dr. Usman Sheikh / Dr. Sana Noor	Lecture Notes & K.PARK, 24th Edition, Chapter 10, Page no.624

3	MS-CM-003	Work related Musculoskeletal disorders	Describe work related MSD addition with its burden/ epidemiology. Identify risk factors of MSD at workplace. Describe prevention of exposure to risk factors related to workplace	Lecture	Community Medicine	Dr. Usman Sheikh / Dr. Sana Noor	Lecture Notes And K.PARK, 24th Edition, Chapter 16, Page no. 841-856
4	MS-CM-004	MSD related to Mobile Usage	Describe MSD related to mobile addiction with its burden/ epidemiology. Identify risk factors related to MSD due to excessive mobile usage. Describe the preventive strategies for mobile addiction related MSD	Lecture	Community Medicine	Dr. Usman Sheikh / Dr. Sana Noor	Lecture Notes And K.PARK, 24th Edition, Chapter 16, Page no. 841-856
5	MS-CM-005	Ergonomics	Describe application of Ergonomics in MSD related to Mobile related disorders	Lecture	Community Medicine	Dr. Usman Sheikh / Dr. Sana Noor	Lecture Notes And K.PARK, 24th Edition, Chapter 16, Page no. 841-856
6	MS-CM-006	Non-Communicable diseases	Describe the concept of non-Communicable diseases	Lecture	Community Medicine	Dr. Usman Sheikh / Dr. Sana Noor	K.PARK, 24th Edition, Chapter 06, Page no.380
7	MS-CM-007	Risk Factors and Assessment of MSD	Identify the risk factors in the community for osteoporosis. Learn and apply interventions to prevent the risk factors for various MSD in Community	Lecture	Community Medicine	Dr. Usman Sheikh / Dr. Sana Noor	Lecture Notes And K.PARK, 24th Edition, Chapter 16, Page no. 841-856

PERLs

No	CODE	TOPIC	SPECIFIC LEARNING OUTCOME	PORTFOLIO ENTRY	DOMAIN	FACILITATOR	REFERENCE
1	PERLs 1-08	Responsibility towards self and the profession	Demonstrate punctuality	Attendance record	Professionalism	Dr Faiza Suleman	Lecture notes
2	PERLs 1-09	Time Management	Manage time effectively	Self and/or teacher Feedback	Leadership	Prof. Dr Gulfreen Waheed	Lecture notes
3	PERLs 1-10	Diversity Equity Inclusion	Demonstrate respect of diversity in gender, age, culture, race, religion, abilities, and sexual orientation for peers	An encounter with a specially abled person	Professionalism	Dr. Shandana	Lecture notes
4	PERLs 1-11	Professional Social Media Platforms Rules and regulations of two social media platforms	Design a professional digital footprint and use appropriate online etiquette and follow rules for every Internet resource	Professional profile on LinkedIn	Ethics	Dr Faiza Suleman	Lecture notes
5	PERLs 1-12	Learning styles Learning Domains Motivation	Describe responsibility to oneself	Written	Professionalism	Dr. Shandana	Lecture notes

			Discuss responsibilities of being a Learner	assign ment			
6	PERLs 1-13	Responsibilities of a doctor	Discuss professional code of Conduct	Case analysis of nonprofessional practice	Professionalism	Dr. Shandana	Lecture notes
7	PERLs 1-14	Effective teamwork Building Rapport	Work respectfully and effectively with their peers	Peer feedback	Leadership	Dr Faiza Suleman	Lecture notes
8	PERLs 1-15	Value identification Goal setting	Set Learning Goals	List of goals	Leadership	Prof. Dr Gulfreen Waheed	Lecture notes
9	PERLs 1-16	Sources of scientific data Databases Search Engines Grey Literature	Locate credible scientific evidence	Assignment on building a literature search	Research	Dr. Faiza Suleman	Lecture notes

CLINICAL SKILLS FOUNDATION

Code	Topic	Specific learning objective	**Log-book enteries**	**Department**
CSF-2-01	Body temperature	Measure body temperature using a mercury/digital thermometer	3	Skills lab
CSF-2-02	Wrist joint examination	Examine the wrist joint for functionality	3	Skills lab
CSF-2-03	Upper limb strength and power examination	Examine strength of the upper limb	3	Skills lab
CSF-2-04	Lower limb strength and power examination	Examine strength of the lower limb	3	Skills lab
CSF-2-05	Knee joint examination	Examine the knee joint for functionality	3	Skills lab
CSF-2-06	Shoulder joint examination	Examine the shoulder joint for functionality	3	Skills lab
CSF-2-07	Hip joint examination	Examine the hip joint for functionality	3	Skills lab
CSF-2-08	X ray common fractures Upper limb	*Identify common fractures showing in x rays of upper limb	3	Skills lab
CSF-2-09	X ray common fractures lower limb	*Identify common fractures showing in x rays of lower limb	3	Skills lab

ISLAMIYAT

CODE	SPECIFIC LEARNING OUTCOMES	TOPIC	Facilitator	PORTFOLIO ENTRY
QI-006	Identify obligatory importance of Zakat and other items as outlines under the title of infaq-fee-sabilillah Categorize the people who can be the beneficiaries of zakat Role of zakat and sadaqat in circulaton of wealth and alleviation of poverty Explain the essence of zakat and sadaqat in building just communities	Obligatory Charity (Zakat)	Mrs. Farah	One SEQ

RESOURCE BOOKS

Anatomy

- Snell's clinical anatomy by Regions.
- Langman's Medical Embryology 14th Edition
- Laiq H.S. Medical Histology. Paramount Books.
- Laiq H.S. General Anatomy. Paramount Books.

ADDITIONAL READING RESOURCES (only the pages mentioned in studyguide)

- Moore K.L. Clinically Oriented Anatomy. Baltimore, U.S.A. Williams and Wilkins:
- The Developing Human by K.L. Moore.
- General anatomy by Tasadduq Hussain

Physiology

• Guyton AC and Hall JE (2001). Textbook of Medical Physiology. 10th edition. W. B. Sunders & Co.,Philadelphia.

ADDITIONAL READING RESOURCES (only the pages mentioned in studyguide)

- Ganong's Review of Medical physiology
- Human Physiology from cell to system by Lauralae Sherwood

Biochemistry

• Champe, P.C. & Harvey, E.A. Biochemistry (Lippincott's Illustrated Reviews). J.B Lippincott Co.

• Robert K. Murray, Daryl K. Granner, Peter A. Mayes, Victor W. Rodwell. Harper's Biochemistry. McGraw-Hill.

• ABC of Clinical Genetics by H.M. Kingston.

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.

Pharmacology

• Basic and Clinical Pharmacology by Katzung, McGraw-Hill.

• Pharmacology by Champe and Harvey, Lippincott Williams & Wilkins

Community medicine

• Parks Textbook of Preventive and Social Medicine. K. Park (Editor)

• Public Health and Community Medicine, Ilyas, Ansari (Editors)

OTHER LEARNING RECOURCES:

- **Hands-on Activities/ Practical:**

Students will be involved in Practical sessions and hands-on activities that link with the foundation module to enhance the learning.

- **Labs:**

Utilize the lab to relate the knowledge to the specimens and models available.

- **Skill Labs**

A skills lab provides the simulators to learn the basic skills and procedures. This helps build the confidence to approach the patients.

- **Videos**

Video familiarize the student with the procedures and protocols to assist patients.

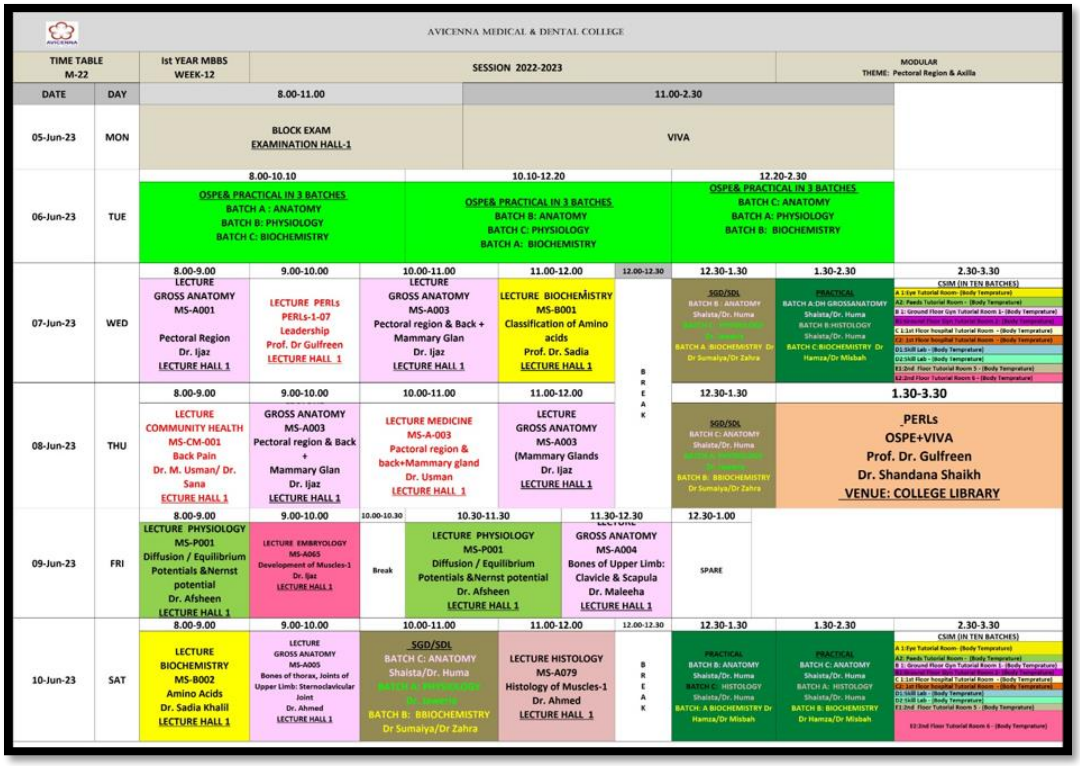
- **Computer Lab/CDs/DVDs/Internet Resources:**

To increase the knowledge students should utilize the available internet resources and CDs/DVDs. This will be an additional advantage to increase learning.

- **Self-Learning:**

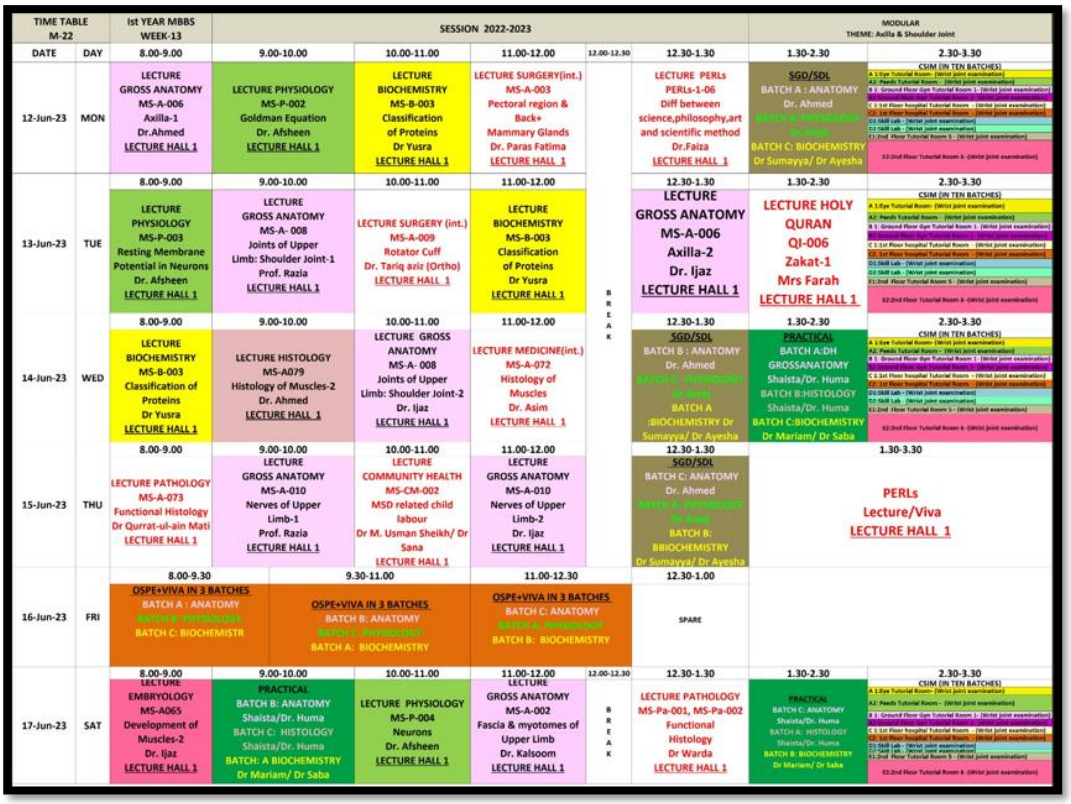
Self-Learning is scheduled to search for information to solve cases, read through different resources and discuss among the peers and with the faculty to clarify the concepts.

THEMATIC TIMETABLES FOR EACH WEEK

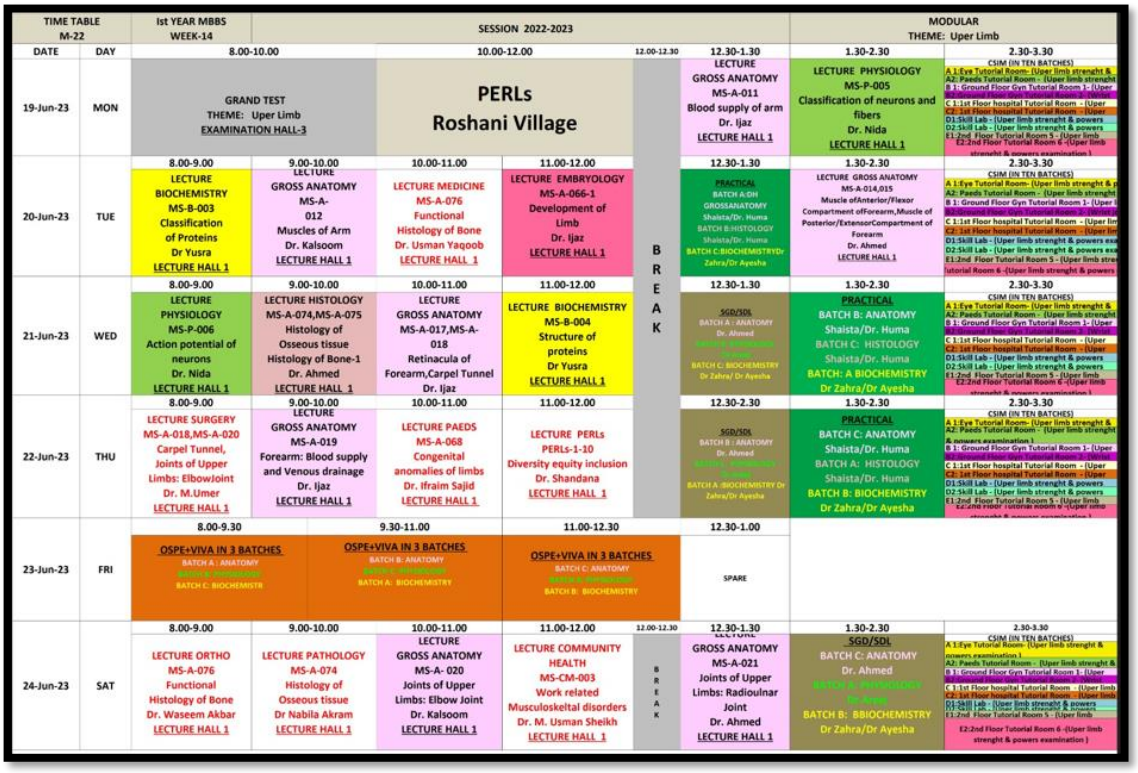


AVICENNA MEDICAL & DENTAL COLLEGE

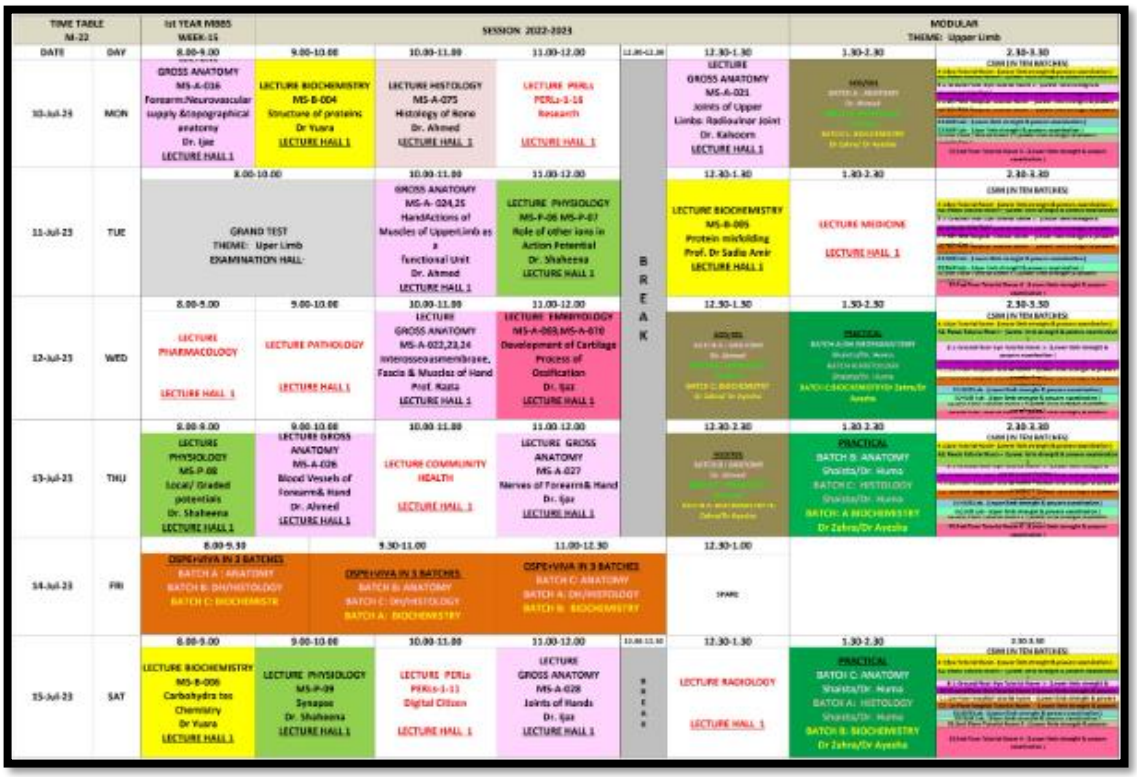
TIME TABLE M-22		Ist YEAR MBBS WEEK-12		SESSION 2022-2023					MODULAR THEME: Pectoral Region & Axilla
DATE	DAY	8.00-11.00		11.00-2.30					
05-Jun-23	MON	BLOCK EXAM EXAMINATION HALL-1		VIVA					
06-Jun-23	TUE	8.00-10.10 OSPE& PRACTICAL IN 3 BATCHES BATCH A : ANATOMY BATCH B: PHYSIOLOGY BATCH C: BIOCHEMISTRY		10.10-12.20 OSPE& PRACTICAL IN 3 BATCHES BATCH B: ANATOMY BATCH C: PHYSIOLOGY BATCH A: BIOCHEMISTRY			12.20-2.30 OSPE& PRACTICAL IN 3 BATCHES BATCH C: ANATOMY BATCH A: PHYSIOLOGY BATCH B: BIOCHEMISTRY		
07-Jun-23	WED	8.00-9.00 LECTURE GROSS ANATOMY MS-A001 Pectoral Region Dr. Ijaz LECTURE HALL 1	9.00-10.00 LECTURE PERLs PERLs-1-07 Leadership Prof. Dr Gulfreen LECTURE HALL 1	10.00-11.00 LECTURE GROSS ANATOMY MS-A003 Pectoral region & Back + Mammary Glan Dr. Ijaz LECTURE HALL 1	11.00-12.00 LECTURE BIOCHEMISTRY MS-B001 Classification of Amino acids Prof. Dr. Sadia LECTURE HALL 1	12.00-12.30 BREAK	12.30-1.30 SGD/SDL BATCH B : ANATOMY Shaista/Dr. Huma BATCH C: HISTOLOGY Dr. Jawaria BATCH A :BIOCHEMISTRY Dr Dr Sumaiya/Dr Zahra	1.30-2.30 PRACTICAL BATCH A:DH GROSSANATOMY Shaista/Dr. Huma BATCH B:HISTOLOGY Shaista/Dr. Huma BATCH C:BIOCHEMISTRY Dr Hamza/Dr Misbah	2.30-3.30 CSIM (IN TEN BATCHES) A 1:Eye Tutorial Room- (Body Temprature) A2: Paeds Tutorial Room - (Body Temprature) B 1: Ground Floor Gyn Tutorial Room 1- (Body Temprature) Reviewed Floor Gyn Tutorial Room 2 - (Body Temprature) C 1:1st Floor hospital Tutorial Room - (Body Temprature) C2: 1st Floor hospital Tutorial Room - (Body Temprature) D1:Skill Lab - (Body Temprature) D2:Skill Lab - (Body Temprature) E1:2nd Floor Tutorial Room 5 - (Body Temprature) E2:2nd Floor Tutorial Room 6 - (Body Temprature)
08-Jun-23	THU	8.00-9.00 LECTURE COMMUNITY HEALTH MS-CM-001 Back Pain Dr. M. Usman/ Dr. Sana ECTURE HALL 1	9.00-10.00 GROSS ANATOMY MS-A003 Pectoral region & Back + Mammary Glan Dr. Ijaz LECTURE HALL 1	10.00-11.00 LECTURE MEDICINE MS-A-003 Pactoral region & back+Mammary gland Dr. Usman LECTURE HALL 1	11.00-12.00 LECTURE GROSS ANATOMY MS-A003 (Mammary Glands Dr. Ijaz LECTURE HALL 1	BREAK	12.30-1.30 SGD/SDL BATCH C: ANATOMY Shaista/Dr. Huma BATCH A: HISTOLOGY Dr. Jawaria BATCH B: BBIOCHEMISTRY Dr Sumaiya/Dr Zahra	1.30-3.30 PERLs OSPE+VIVA Prof. Dr. Gulfreen Dr. Shandana Shaikh VENUE: COLLEGE LIBRARY	
09-Jun-23	FRI	8.00-9.00 LECTURE PHYSIOLOGY MS-P001 Diffusion / Equilibrium Potentials &Nernst potential Dr. Afsheen LECTURE HALL 1	9.00-10.00 LECTURE EMBRYOLOGY MS-A065 Development of Muscles-1 Dr. Ijaz LECTURE HALL 1	10.00-10.30 Break	10.30-11.30 LECTURE PHYSIOLOGY MS-P001 Diffusion / Equilibrium Potentials &Nernst potential Dr. Afsheen LECTURE HALL 1	11.30-12.30 LECTURE GROSS ANATOMY MS-A004 Bones of Upper Limb: Clavicle & Scapula Dr. Maleeha LECTURE HALL 1	12.30-1.00 SPARE		
10-Jun-23	SAT	8.00-9.00 LECTURE BIOCHEMISTRY MS-B002 Amino Acids Dr. Sadia Khalil LECTURE HALL 1	9.00-10.00 LECTURE GROSS ANATOMY MS-A005 Bones of thorax, Joints of Upper Limb: Sternoclavicular Joint Dr. Ahmed LECTURE HALL 1	10.00-11.00 SGD/SDL BATCH C: ANATOMY Shaista/Dr. Huma BATCH A: PHYSIOLOGY Dr. Jawaria BATCH B: BBIOCHEMISTRY Dr Sumaiya/Dr Zahra	11.00-12.00 LECTURE HISTOLOGY MS-A079 Histology of Muscles-1 Dr. Ahmed LECTURE HALL 1	12.00-12.30 BREAK	12.30-1.30 PRACTICAL BATCH B: ANATOMY Shaista/Dr. Huma BATCH C: HISTOLOGY Shaista/Dr. Huma BATCH: A BIOCHEMISTRY Dr Hamza/Dr Misbah	1.30-2.30 PRACTICAL BATCH C: ANATOMY Shaista/Dr. Huma BATCH A: HISTOLOGY Shaista/Dr. Huma BATCH B: BIOCHEMISTRY Dr Hamza/Dr Misbah	2.30-3.30 CSIM (IN TEN BATCHES) A 1:Eye Tutorial Room- (Body Temprature) A2: Paeds Tutorial Room - (Body Temprature) B 1: Ground Floor Gyn Tutorial Room 1- (Body Temprature) Reviewed Floor Gyn Tutorial Room 2 - (Body Temprature) C 1:1st Floor hospital Tutorial Room - (Body Temprature) C2: 1st Floor hospital Tutorial Room - (Body Temprature) D1:Skill Lab - (Body Temprature) D2:Skill Lab - (Body Temprature) E1:2nd Floor Tutorial Room 5 - (Body Temprature) E2:2nd Floor Tutorial Room 6 - (Body Temprature)



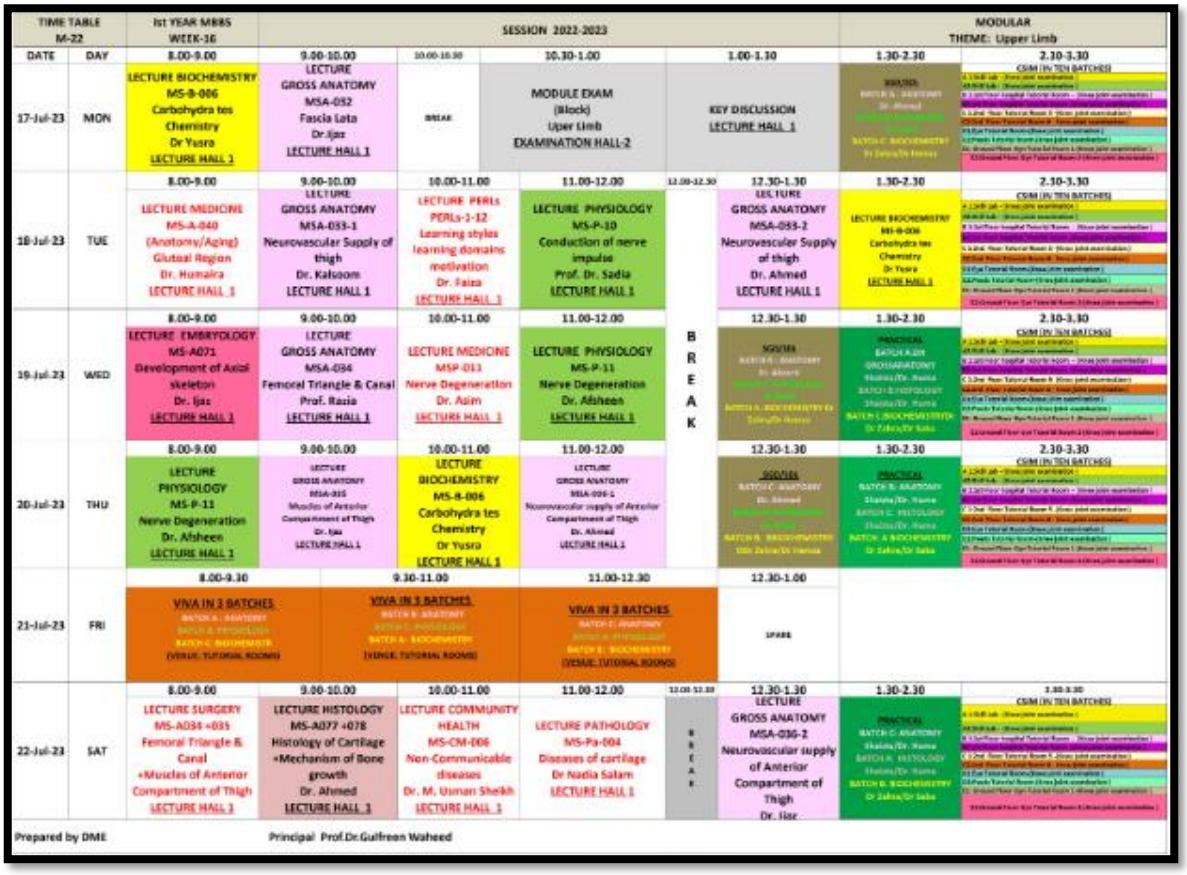
TIME TABLE M-22		Ist YEAR MBBS WEEK-13	SESSION 2022-2023					MODULAR THEME: Axilla & Shoulder Joint	
DATE	DAY	8.00-9.00	9.00-10.00	10.00-11.00	11.00-12.00	12.00-12.30	12.30-1.30	1.30-2.30	2.30-3.30
12-Jun-23	MON	LECTURE GROSS ANATOMY MS-A-006 Axilla-1 Dr.Ahmed LECTURE HALL 1	LECTURE PHYSIOLOGY MS-P-002 Goldman Equation Dr. Afsheen LECTURE HALL 1	LECTURE BIOCHEMISTRY MS-B-003 Classification of Proteins Dr Yusra LECTURE HALL 1	LECTURE SURGERY(int.) MS-A-003 Pectoral region & Back+ Mammary Glands Dr. Paras Fatima LECTURE HALL 1		LECTURE PERLs PERLs-1-06 Diff between science,philosophy,art and scientific method Dr.Faiza LECTURE HALL 1	SGD/SDL BATCH A : ANATOMY Dr. Ahmed BATCH B: PHYSIOLOGY Dr Ayesha BATCH C: BIOCHEMISTRY Dr Sumayya/ Dr Ayesha	CSIM (IN TEN BATCHES) A 1:Eye Tutorial Room- (Wrist joint examination) A2: Paeds Tutorial Room - (Wrist joint examination) B 1: Ground Floor Gym Tutorial Room 1- (Wrist joint examination) C 1:1st Floor hospital Tutorial Room - (Wrist joint examination) C2: 1st Floor hospital Tutorial Room - (Wrist joint examination) D1:Skill Lab - (Wrist joint examination) D2:Skill Lab - (Wrist joint examination) E1:2nd Floor Tutorial Room 5 - (Wrist joint examination) E2:2nd Floor Tutorial Room 6 -(Wrist joint examination)
13-Jun-23	TUE	8.00-9.00 LECTURE PHYSIOLOGY MS-P-003 Resting Membrane Potential in Neurons Dr. Afsheen LECTURE HALL 1	9.00-10.00 LECTURE GROSS ANATOMY MS-A- 008 Joints of Upper Limb: Shoulder Joint-1 Prof. Razia LECTURE HALL 1	10.00-11.00 LECTURE SURGERY (int.) MS-A-009 Rotator Cuff Dr. Tariq aziz (Ortho) LECTURE HALL 1	11.00-12.00 LECTURE BIOCHEMISTRY MS-B-003 Classification of Proteins Dr Yusra LECTURE HALL 1	B R E A K	12.30-1.30 LECTURE GROSS ANATOMY MS-A-006 Axilla-2 Dr. Ijaz LECTURE HALL 1	1.30-2.30 LECTURE HOLY QURAN QI-006 Zakat-1 Mrs Farah LECTURE HALL 1	2.30-3.30 CSIM (IN TEN BATCHES) A 1:Eye Tutorial Room- (Wrist joint examination) A2: Paeds Tutorial Room - (Wrist joint examination) B 1: Ground Floor Gym Tutorial Room 1- (Wrist joint examination) C 1:1st Floor hospital Tutorial Room - (Wrist joint examination) C2: 1st Floor hospital Tutorial Room - (Wrist joint examination) D1:Skill Lab - (Wrist joint examination) D2:Skill Lab - (Wrist joint examination) E1:2nd Floor Tutorial Room 5 - (Wrist joint examination) E2:2nd Floor Tutorial Room 6 -(Wrist joint examination)
14-Jun-23	WED	8.00-9.00 LECTURE BIOCHEMISTRY MS-B-003 Classification of Proteins Dr Yusra LECTURE HALL 1	9.00-10.00 LECTURE HISTOLOGY MS-A079 Histology of Muscles-2 Dr. Ahmed LECTURE HALL 1	10.00-11.00 LECTURE GROSS ANATOMY MS-A- 008 Joints of Upper Limb: Shoulder Joint-2 Dr. Ijaz LECTURE HALL 1	11.00-12.00 LECTURE MEDICINE(int.) MS-A-072 Histology of Muscles Dr. Asim LECTURE HALL 1		12.30-1.30 SGD/SDL BATCH B : ANATOMY Dr. Ahmed BATCH C: PHYSIOLOGY Dr Ayesha BATCH A :BIOCHEMISTRY Dr Sumayya/ Dr Ayesha	1.30-2.30 PRACTICAL BATCH A:DH GROSSANATOMY Shaista/Dr. Huma BATCH B:HISTOLOGY Shaista/Dr. Huma BATCH C:BIOCHEMISTRY Dr Mariam/ Dr Saba	2.30-3.30 CSIM (IN TEN BATCHES) A 1:Eye Tutorial Room- (Wrist joint examination) A2: Paeds Tutorial Room - (Wrist joint examination) B 1: Ground Floor Gym Tutorial Room 1- (Wrist joint examination) C 1:1st Floor hospital Tutorial Room - (Wrist joint examination) C2: 1st Floor hospital Tutorial Room - (Wrist joint examination) D1:Skill Lab - (Wrist joint examination) D2:Skill Lab - (Wrist joint examination) E1:2nd Floor Tutorial Room 5 - (Wrist joint examination) E2:2nd Floor Tutorial Room 6 -(Wrist joint examination)
15-Jun-23	THU	8.00-9.00 LECTURE PATHOLOGY MS-A-073 Functional Histology Dr Qurrat-ul-ain Mati LECTURE HALL 1	9.00-10.00 LECTURE GROSS ANATOMY MS-A-010 Nerves of Upper Limb-1 Prof. Razia LECTURE HALL 1	10.00-11.00 LECTURE COMMUNITY HEALTH MS-CM-002 MSD related child labour Dr M. Usman Sheikh/ Dr Sana LECTURE HALL 1	11.00-12.00 LECTURE GROSS ANATOMY MS-A-010 Nerves of Upper Limb-2 Dr. Ijaz LECTURE HALL 1		12.30-1.30 SGD/SDL BATCH C: ANATOMY Dr. Ahmed BATCH A: PHYSIOLOGY Dr Ayesha BATCH B: BBIOCHEMISTRY Dr Sumayya/ Dr Ayesha	1.30-3.30 PERLs Lecture/Viva LECTURE HALL 1	
16-Jun-23	FRI	8.00-9.30 OSPE+VIVA IN 3 BATCHES BATCH A : ANATOMY BATCH B: PHYSIOLOGY BATCH C: BIOCHEMISTR	9.30-11.00 OSPE+VIVA IN 3 BATCHES BATCH B: ANATOMY BATCH C: PHYSIOLOGY BATCH A: BIOCHEMISTRY		11.00-12.30 OSPE+VIVA IN 3 BATCHES BATCH C: ANATOMY BATCH A: PHYSIOLOGY BATCH B: BIOCHEMISTRY		12.30-1.00 SPARE		
17-Jun-23	SAT	8.00-9.00 LECTURE EMBRYOLOGY MS-A06S Development of Muscles-2 Dr. Ijaz LECTURE HALL 1	9.00-10.00 PRACTICAL BATCH B: ANATOMY Shaista/Dr. Huma BATCH C: HISTOLOGY Shaista/Dr. Huma BATCH: A BIOCHEMISTRY Dr Mariam/ Dr Saba	10.00-11.00 LECTURE PHYSIOLOGY MS-P-004 Neurons Dr. Afsheen LECTURE HALL 1	11.00-12.00 LECTURE GROSS ANATOMY MS-A-002 Fascia & myotomes of Upper Limb Dr. Kalsoom LECTURE HALL 1	B R E A K	12.30-1.30 LECTURE PATHOLOGY MS-Pa-001, MS-Pa-002 Functional Histology Dr Warda LECTURE HALL 1	1.30-2.30 PRACTICAL BATCH C: ANATOMY Shaista/Dr. Huma BATCH A: HISTOLOGY Shaista/Dr. Huma BATCH B: BIOCHEMISTRY Dr Mariam/ Dr Saba	2.30-3.30 CSIM (IN TEN BATCHES) A 1:Eye Tutorial Room- (Wrist joint examination) A2: Paeds Tutorial Room - (Wrist joint examination) B 1: Ground Floor Gym Tutorial Room 1- (Wrist joint examination) C 1:1st Floor hospital Tutorial Room - (Wrist joint examination) C2: 1st Floor hospital Tutorial Room - (Wrist joint examination) D1:Skill Lab - (Wrist joint examination) D2:Skill Lab - (Wrist joint examination) E1:2nd Floor Tutorial Room 5 - (Wrist joint examination) E2:2nd Floor Tutorial Room 6 -(Wrist joint examination)



TIME TABLE M-22		Ist YEAR MBBS WEEK-14	SESSION 2022-2023					MODULAR THEME: Uper Limb	
DATE	DAY	8.00-10.00		10.00-12.00		12.00-12.30	12.30-1.30	1.30-2.30	2.30-3.30
19-Jun-23	MON	GRAND TEST THEME: Uper Limb EXAMINATION HALL-3		PERLs Roshani Village			LECTURE GROSS ANATOMY MS-A-011 Blood supply of arm Dr. Ijaz LECTURE HALL 1	LECTURE PHYSIOLOGY MS-P-005 Classification of neurons and fibers Dr. Nida LECTURE HALL 1	CSIM (IN TEN BATCHES) A 1:Eye Tutorial Room- (Uper limb strenght & A2: Paeds Tutorial Room - (Uper limb strenght B 1: Ground Floor Gym Tutorial Room 1- (Uper C 1:1st Floor hospital Tutorial Room - (Uper C2: 1st Floor hospital Tutorial Room - (Uper D1:Skill Lab - (Uper limb strenght & powers D2:Skill Lab - (Uper limb strenght & powers E1:2nd Floor Tutorial Room 5 - (Uper limb E2:2nd Floor Tutorial Room 6 -(Uper limb strenght & powers examination)
20-Jun-23	TUE	8.00-9.00 LECTURE BIOCHEMISTRY MS-B-003 Classification of Proteins Dr Yusra LECTURE HALL 1	9.00-10.00 LECTURE GROSS ANATOMY MS-A-012 Muscles of Arm Dr. Kalsoom LECTURE HALL 1	10.00-11.00 LECTURE MEDICINE MS-A-076 Functional Histology of Bone Dr. Usman Yaqoob LECTURE HALL 1	11.00-12.00 LECTURE EMBRYOLOGY MS-A-066-1 Development of Limb Dr. Ijaz LECTURE HALL 1	B R E A K	12.30-1.30 PRACTICAL BATCH A:DH GROSSANATOMY Shaista/Dr. Huma BATCH B:HISTOLOGY Shaista/Dr. Huma BATCH C:BIOCHEMISTRYDr Zahra/Dr Ayesha	1.30-2.30 LECTURE GROSS ANATOMY MS-A-014,015 Muscle ofAnterior/Flexor Compartment ofForearm,Muscle of Posterior/ExtensorCompartment of Forearm Dr. Ahmed LECTURE HALL 1	2.30-3.30 CSIM (IN TEN BATCHES) A 1:Eye Tutorial Room- (Uper limb strenght & p A2: Paeds Tutorial Room - (Uper limb strenght B 1: Ground Floor Gym Tutorial Room 1- (Uper C 1:1st Floor hospital Tutorial Room - (Uper lim C2: 1st Floor hospital Tutorial Room - (Uper lim D1:Skill Lab - (Uper limb strenght & powers exa D2:Skill Lab - (Uper limb strenght & powers exa E1:2nd Floor Tutorial Room 5 - (Uper limb stre tutorial Room 6 -(Uper limb strenght & powers
21-Jun-23	WED	8.00-9.00 LECTURE PHYSIOLOGY MS-P-006 Action potential of neurons Dr. Nida LECTURE HALL 1	9.00-10.00 LECTURE HISTOLOGY MS-A-074,MS-A-075 Histology of Osseous tissue Histology of Bone-1 Dr. Ahmed LECTURE HALL 1	10.00-11.00 LECTURE GROSS ANATOMY MS-A-017,MS-A-018 Retinacula of Forearm,Carpel Tunnel Dr. Ijaz	11.00-12.00 LECTURE BIOCHEMISTRY MS-B-004 Structure of proteins Dr Yusra LECTURE HALL 1		12.30-1.30 SGD/SDL BATCH A :ANATOMY Dr. Ahmed BATCH B: PHYSIOLOGY Dr Ayesha BATCH C: BIOCHEMISTRY Dr Zahra/ Dr Ayesha	1.30-2.30 PRACTICAL BATCH B: ANATOMY Shaista/Dr. Huma BATCH C: HISTOLOGY Shaista/Dr. Huma BATCH: A BIOCHEMISTRY Dr Zahra/Dr Ayesha	2.30-3.30 CSIM (IN TEN BATCHES) A 1:Eye Tutorial Room- (Uper limb strenght & A2: Paeds Tutorial Room - (Uper limb strenght B 1: Ground Floor Gym Tutorial Room 1- (Uper C 1:1st Floor hospital Tutorial Room - (Uper C2: 1st Floor hospital Tutorial Room - (Uper D1:Skill Lab - (Uper limb strenght & powers D2:Skill Lab - (Uper limb strenght & powers E1:2nd Floor Tutorial Room 5 - (Uper limb E2:2nd Floor Tutorial Room 6 -(Uper limb strenght & powers examination)
22-Jun-23	THU	8.00-9.00 LECTURE SURGERY MS-A-018,MS-A-020 Carpel Tunnel, Joints of Upper Limbs: ElbowJoint Dr. M.Umer LECTURE HALL 1	9.00-10.00 LECTURE GROSS ANATOMY MS-A-019 Forearm: Blood supply and Venous drainage Dr. Ijaz LECTURE HALL 1	10.00-11.00 LECTURE PAEDS MS-A-068 Congenital anomalies of limbs Dr. Ifraim Sajid LECTURE HALL 1	11.00-12.00 LECTURE PERLs PERLs-1-10 Diversity equity inclusion Dr. Shandana LECTURE HALL 1		12.30-2.30 SGD/SDL BATCH B : ANATOMY Dr. Ahmed BATCH C: PHYSIOLOGY Dr Ayesha BATCH A :BIOCHEMISTRY Dr Zahra/Dr Ayesha	1.30-2.30 PRACTICAL BATCH C: ANATOMY Shaista/Dr. Huma BATCH A: HISTOLOGY Shaista/Dr. Huma BATCH B: BIOCHEMISTRY Dr Zahra/Dr Ayesha	2.30-3.30 CSIM (IN TEN BATCHES) A 1:Eye Tutorial Room- (Uper limb strenght & A2: Paeds Tutorial Room - (Uper limb strenght & powers examination) B 1: Ground Floor Gym Tutorial Room 1- (Uper C 1:1st Floor hospital Tutorial Room - (Uper C2: 1st Floor hospital Tutorial Room - (Uper D1:Skill Lab - (Uper limb strenght & powers D2:Skill Lab - (Uper limb strenght & powers E1:2nd Floor Tutorial Room 5 - (Uper limb E2:2nd Floor Tutorial Room 6 -(Uper limb
23-Jun-23	FRI	8.00-9.30 OSPE+VIVA IN 3 BATCHES BATCH A : ANATOMY BATCH B: PHYSIOLOGY BATCH C: BIOCHEMISTR	9.30-11.00 OSPE+VIVA IN 3 BATCHES BATCH B: ANATOMY BATCH C: PHYSIOLOGY BATCH A: BIOCHEMISTRY		11.00-12.30 OSPE+VIVA IN 3 BATCHES BATCH C: ANATOMY BATCH A: PHYSIOLOGY BATCH B: BIOCHEMISTRY		12.30-1.00 SPARE		
24-Jun-23	SAT	8.00-9.00 LECTURE ORTHO MS-A-076 Functional Histology of Bone Dr. Waseem Akbar LECTURE HALL 1	9.00-10.00 LECTURE PATHOLOGY MS-A-074 Histology of Osseous tissue Dr Nabila Akram LECTURE HALL 1	10.00-11.00 LECTURE GROSS ANATOMY MS-A- 020 Joints of Upper Limbs: Elbow Joint Dr. Kalsoom LECTURE HALL 1	11.00-12.00 LECTURE COMMUNITY HEALTH MS-CM-003 Work related Musculoskeltal disorders Dr. M. Usman Sheikh LECTURE HALL 1	B R E A K	12.30-1.30 LECTURE GROSS ANATOMY MS-A-021 Joints of Upper Limbs: Radioulnar Joint Dr. Ahmed LECTURE HALL 1	1.30-2.30 SGD/SDL BATCH C: ANATOMY Dr. Ahmed BATCH A: PHYSIOLOGY Dr Ayesha BATCH B: BBIOCHEMISTRY Dr Zahra/Dr Ayesha	2.30-3.30 CSIM (IN TEN BATCHES) A 1:Eye Tutorial Room- (Uper limb strenght & powers examination) A2: Paeds Tutorial Room - (Uper limb strenght & B 1: Ground Floor Gym Tutorial Room 1- (Uper C 1:1st Floor hospital Tutorial Room - (Uper limb D1:Skill Lab - (Uper limb strenght & powers D2:Skill Lab - (Uper limb strenght & powers E1:2nd Floor Tutorial Room 5 - (Uper limb E2:2nd Floor Tutorial Room 6 -(Uper limb strenght & powers examination)

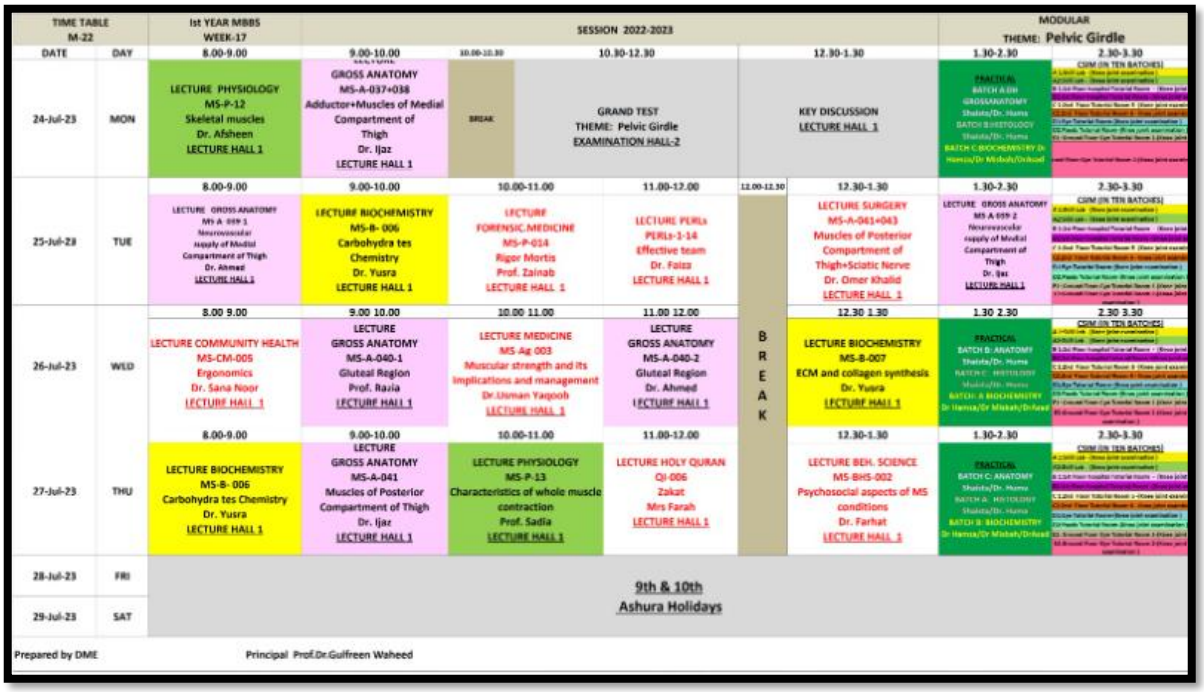


TIME TABLE M-22		1st YEAR MBBS WEEK-15	SESSION 2022-2023					MODULAR THEME: Upper Limb	
DATE	DAY	8.00-9.00	9.00-10.00	10.00-11.00	11.00-12.00	12.00-12.30	12.30-1.30	1.30-2.30	2.30-3.30
10-Jul-23	MON	GROSS ANATOMY MS-A-026 Forearm:Neurovascular supply &topographical anatomy Dr. Ijaz LECTURE HALL 1	LECTURE BIOCHEMISTRY MS-B-004 Structure of proteins Dr Yusra LECTURE HALL 1	LECTURE HISTOLOGY MS-A-075 Histology of Bone Dr. Ahmed LECTURE HALL 1	LECTURE PERLs PERLs-1-16 Research LECTURE HALL 1	B R E A K	LECTURE GROSS ANATOMY MS-A-021 Joints of Upper Limbs: Radioulnar Joint Dr. Kahoom LECTURE HALL 1		
11-Jul-23	TUE	8.00-10.00 GRAND TEST THEME: Uper Limb EXAMINATION HALL:		10.00-11.00 GROSS ANATOMY MS-A- 024,25 HandActions of Muscles of Upperlimb as a functional Unit Dr. Ahmed LECTURE HALL 1	11.00-12.00 LECTURE PHYSIOLOGY MS-P-06 MS-P-07 Role of other ions in Action Potential Dr. Shaheena LECTURE HALL 1		12.30-1.30 LECTURE BIOCHEMISTRY MS-B-005 Protein misfolding Prof. Dr Sadia Amir LECTURE HALL 1	1.30-2.30 LECTURE MEDICINE LECTURE HALL 1	2.30-3.30
12-Jul-23	WED	8.00-9.00 LECTURE PHARMACOLOGY LECTURE HALL 1	9.00-10.00 LECTURE PATHOLOGY LECTURE HALL 1	10.00-11.00 LECTURE GROSS ANATOMY MS-A-023,23,24 Interosseoasmembrane, Fascia & Muscles of Hand Prof. Rabia LECTURE HALL 1	11.00-12.00 LECTURE EMBRYOLOGY MS-A-009,MS-A-010 Development of Cartilage Process of Ossification Dr. Ijaz LECTURE HALL 1		12.30-1.30	1.30-2.30	2.30-3.30
13-Jul-23	THU	8.00-9.00 LECTURE PHYSIOLOGY MS-P-08 Local/ Graded potentials Dr. Shaheena LECTURE HALL 1	9.00-10.00 LECTURE GROSS ANATOMY MS-A-026 Blood Vessels of Forearm& Hand Dr. Ahmed LECTURE HALL 1	10.00-11.00 LECTURE COMMUNITY HEALTH LECTURE HALL 1	11.00-12.00 LECTURE GROSS ANATOMY MS-A-027 Nerves of Forearm& Hand Dr. Ijaz LECTURE HALL 1		12.30-2.30	1.30-2.30 PRACTICAL BATCH B: ANATOMY Shaista/Dr. Huma BATCH C: HISTOLOGY Shaista/Dr. Huma BATCH: A BIOCHEMISTRY Dr Zahra/Dr Ayesha	2.30-3.30
14-Jul-23	FRI	8.00-9.30 OSPE+VIVA IN 3 BATCHES BATCH A : ANATOMY BATCH B: DH/HISTOLOGY BATCH C: BIOCHEMISTR	9.30-11.00 OSPE+VIVA IN 3 BATCHES BATCH B: ANATOMY BATCH C: DH/HISTOLOGY BATCH A: BIOCHEMISTRY		11.00-12.30 OSPE+VIVA IN 3 BATCHES BATCH C: ANATOMY BATCH A: DH/HISTOLOGY BATCH B: BIOCHEMISTRY		12.30-1.00 1PARS		
15-Jul-23	SAT	8.00-9.00 LECTURE BIOCHEMISTRY MS-B-006 Carbohydra tes Chemistry Dr Yusra LECTURE HALL 1	9.00-10.00 LECTURE PHYSIOLOGY MS-P-09 Synapse Dr. Shaheena LECTURE HALL 1	10.00-11.00 LECTURE PERLs PERLs-1-11 Digital Citizen LECTURE HALL 1	11.00-12.00 LECTURE GROSS ANATOMY MS-A-028 Joints of Hands Dr. Ijaz LECTURE HALL 1	B r e a k	12.30-1.30 LECTURE RADIOLOGY LECTURE HALL 1	1.30-2.30 PRACTICAL BATCH C: ANATOMY Shaista/Dr. Huma BATCH A: HISTOLOGY Shaista/Dr. Huma BATCH B: BIOCHEMISTRY Dr Zahra/Dr Ayesha	2.30-3.30



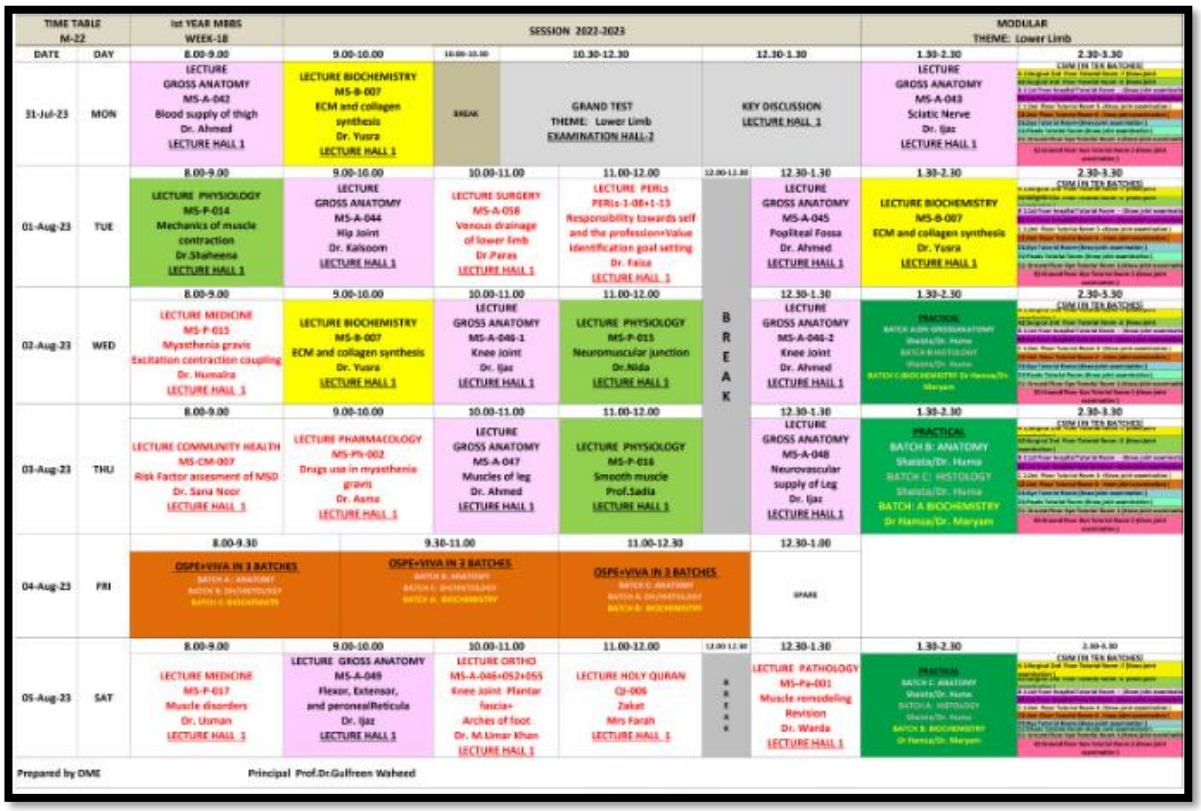
TIME TABLE M-22		1st YEAR MBBS WEEK-16	SESSION 2022-2023					MODULAR THEME: Upper Limb	
DATE	DAY	8.00-9.00	9.00-10.00	10.00-10.30	10.30-1.00	1.00-1.30	1.30-2.30	2.30-3.30
17-Jul-23	MON	LECTURE BIOCHEMISTRY MS-B-006 Carbohydra tes Chemistry Dr Yusra LECTURE HALL 1	LECTURE GROSS ANATOMY MSA-052 Fascia Lata Dr Ijaz LECTURE HALL 1	BREAK	MODULE EXAM (Block) Uper Limb EXAMINATION HALL-2	KEY DISCUSSION LECTURE HALL 1		CSIM (IN TEN BATCHES)
18-Jul-23	TUE	8.00-9.00 LECTURE MEDICINE MS-A-040 (Anatomy/Aging) Gluteal Region Dr. Humaira LECTURE HALL 1	9.00-10.00 LECTURE GROSS ANATOMY MSA-033-1 Neurovascular Supply of thigh Dr. Kalsoom LECTURE HALL 1	10.00-11.00 LECTURE PERLs PERLs-1-12 Learning styles learning domains motivation Dr. Faiza LECTURE HALL 1	11.00-12.00 LECTURE PHYSIOLOGY MS-P-10 Conduction of nerve impulse Prof. Dr. Sadia LECTURE HALL 1	12.00-12.30 BREAK 12.30-1.30 LECTURE GROSS ANATOMY MSA-033-2 Neurovascular Supply of thigh Dr. Ahmed LECTURE HALL 1	1.30-2.30 LECTURE BIOCHEMISTRY MS-B-006 Carbohydra tes Chemistry Dr Yusra LECTURE HALL 1	2.30-3.30 CSIM (IN TEN BATCHES)
19-Jul-23	WED	8.00-9.00 LECTURE EMBRYOLOGY MS-A071 Development of Axial skeleton Dr. Ijaz LECTURE HALL 1	9.00-10.00 LECTURE GROSS ANATOMY MSA-034 Femoral Triangle & Canal Prof. Razia LECTURE HALL 1	10.00-11.00 LECTURE MEDICINE MSP-013 Nerve Degeneration Dr. Asim LECTURE HALL 1	11.00-12.00 LECTURE PHYSIOLOGY MS-P-11 Nerve Degeneration Dr. Afsheen LECTURE HALL 1	BREAK SGDS	1.30-2.30 PRACTICAL	2.30-3.30 CSIM (IN TEN BATCHES)
20-Jul-23	THU	8.00-9.00 LECTURE PHYSIOLOGY MS-P-11 Nerve Degeneration Dr. Afsheen LECTURE HALL 1	9.00-10.00 LECTURE GROSS ANATOMY MSA-035 Muscles of Anterior Compartment of Thigh Dr. Ijaz LECTURE HALL 1	10.00-11.00 LECTURE BIOCHEMISTRY MS-B-006 Carbohydra tes Chemistry Dr Yusra LECTURE HALL 1	11.00-12.00 LECTURE GROSS ANATOMY MSA-039-1 Neurovascular supply of Anterior Compartment of Thigh Dr. Ahmed LECTURE HALL 1	12.30-1.30 SGDS	1.30-2.30 PRACTICAL	2.30-3.30 CSIM (IN TEN BATCHES)
21-Jul-23	FRI	8.00-9.30 VIVA IN 3 BATCHES (VENUE: TUTORIAL ROOMS)	9.30-11.00 VIVA IN 3 BATCHES (VENUE: TUTORIAL ROOMS)		11.00-12.30 VIVA IN 3 BATCHES (VENUE: TUTORIAL ROOMS)	12.30-1.00 SPARE		
22-Jul-23	SAT	8.00-9.00 LECTURE SURGERY MS-A034 +035 Femoral Triangle & Canal +Muscles of Anterior Compartment of Thigh LECTURE HALL 1	9.00-10.00 LECTURE HISTOLOGY MS-A077 +078 Histology of Cartilage +Mechanism of Bone growth Dr. Ahmed LECTURE HALL 1	10.00-11.00 LECTURE COMMUNITY HEALTH MS-CM-006 Non-Communicable diseases Dr. M. Usman Sheikh LECTURE HALL 1	11.00-12.00 LECTURE PATHOLOGY MS-Pa-004 Diseases of cartilage Dr Nadia Salam LECTURE HALL 1	12.00-12.30 BREAK 12.30-1.30 LECTURE GROSS ANATOMY MSA-036-2 Neurovascular supply of Anterior Compartment of Thigh Dr. Ijaz	1.30-2.30 PRACTICAL	2.30-3.30 CSIM (IN TEN BATCHES)

Prepared by DME Principal Prof.Dr.Gulfreen Waheed

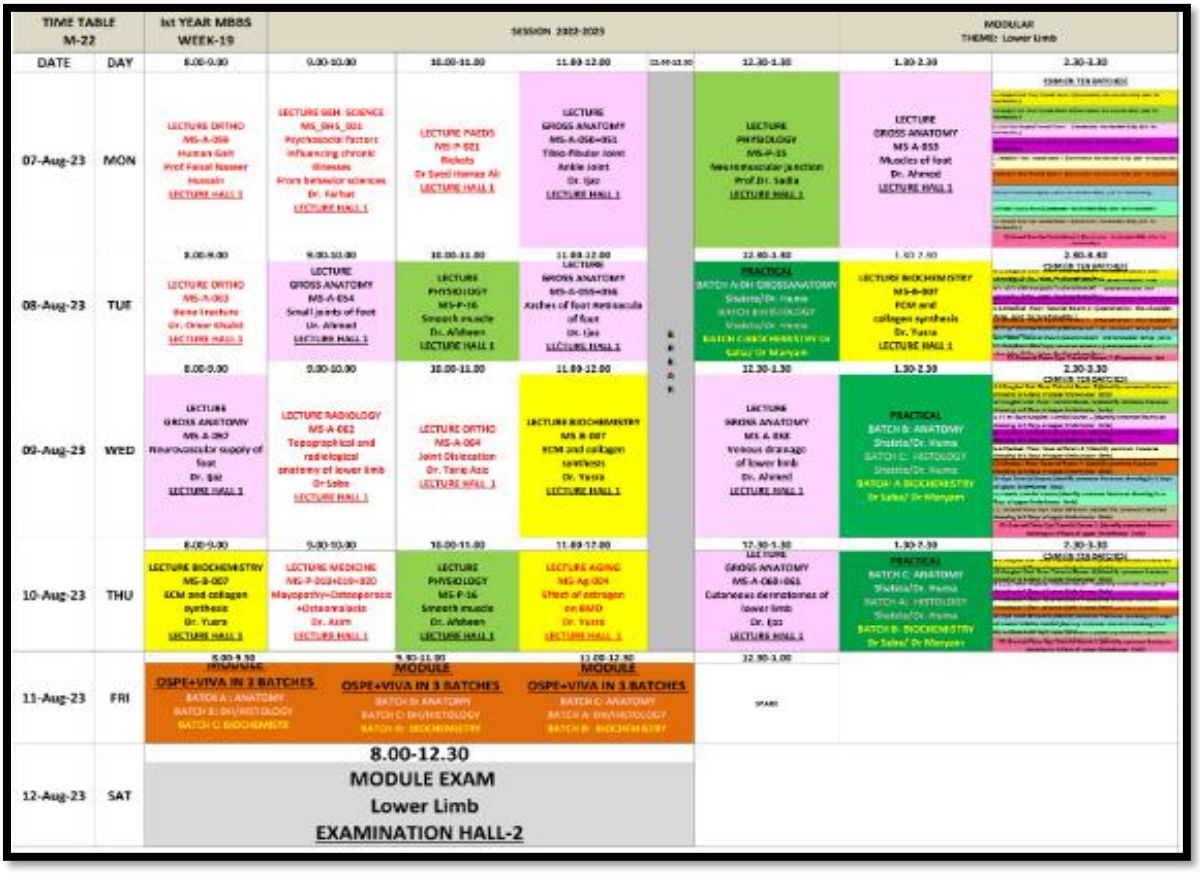


TIME TABLE M-22		1st YEAR MBBS WEEK-17	SESSION 2022-2023					MODULAR THEME: Pelvic Girdle	
DATE	DAY	8.00-9.00	9.00-10.00	10.00-10.30	10.30-12.30	12.30-1.30	1.30-2.30	2.30-3.30
24-Jul-23	MON	LECTURE PHYSIOLOGY MS-P-12 Skeletal muscles Dr. Afsheen LECTURE HALL 1	LECTURE GROSS ANATOMY MS-A-037+038 Adductor+Muscles of Medial Compartment of Thigh Dr. Ijaz LECTURE HALL 1	BREAK	GRAND TEST THEME: Pelvic Girdle EXAMINATION HALL-2	KEY DISCUSSION LECTURE HALL 1	PRACTICAL	CSIM (IN TEN BATCHES)
25-Jul-23	TUE	8.00-9.00 LECTURE GROSS ANATOMY MS A 039-1 Neurovascular supply of Medial Compartment of Thigh Dr. Ahmed LECTURE HALL 1	9.00-10.00 LECTURE BIOCHEMISTRY MS-B- 006 Carbohydra tes Chemistry Dr. Yusra LECTURE HALL 1	10.00-11.00 LECTURE FORENSIC MEDICINE MS-P-014 Rigor Mortis Prof. Zainab LECTURE HALL 1	11.00-12.00 LECTURE PERLs PERLs-1-14 Effective team Dr. Faiza LECTURE HALL 1	12.00-12.30 BREAK 12.30-1.30 LECTURE SURGERY MS-A-041+043 Muscles of Posterior Compartment of Thigh+Sciatic Nerve Dr. Omer Khalid LECTURE HALL 1	1.30-2.30 LECTURE GROSS ANATOMY MS A 039-2 Neurovascular supply of Medial Compartment of Thigh Dr. Ijaz LECTURE HALL 1	2.30-3.30 CSIM (IN TEN BATCHES)
26-Jul-23	WED	8.00 9.00 LECTURE COMMUNITY HEALTH MS-CM-005 Ergonomics Dr. Sana Noor LECTURE HALL 1	9.00 10.00 LECTURE GROSS ANATOMY MS-A-040-1 Gluteal Region Prof. Razia LECTURE HALL 1	10.00 11.00 LECTURE MEDICINE MS-Ag 003 Muscular strength and its Implications and management Dr.Usman Yaqoob LECTURE HALL 1	11.00 12.00 LECTURE GROSS ANATOMY MS-A-040-2 Gluteal Region Dr. Ahmed LECTURE HALL 1	BREAK 12.30 1.30 LECTURE BIOCHEMISTRY MS-B-007 ECM and collagen synthesis Dr. Yusra LECTURE HALL 1	1.30 2.30 PRACTICAL	2.30 3.30 CSIM (IN TEN BATCHES)
27-Jul-23	THU	8.00-9.00 LECTURE BIOCHEMISTRY MS-B- 006 Carbohydra tes Chemistry Dr. Yusra LECTURE HALL 1	9.00-10.00 LECTURE GROSS ANATOMY MS-A-041 Muscles of Posterior Compartment of Thigh Dr. Ijaz LECTURE HALL 1	10.00-11.00 LECTURE PHYSIOLOGY MS-P-13 Characteristics of whole muscle contraction Prof. Sadia LECTURE HALL 1	11.00-12.00 LECTURE HOLY QURAN QI-006 Zakat Mrs Farah LECTURE HALL 1	12.30-1.30 LECTURE BEH. SCIENCE MS-BHS-002 Psychosocial aspects of MS conditions Dr. Farhat LECTURE HALL 1	1.30-2.30 PRACTICAL	2.30-3.30 CSIM (IN TEN BATCHES)
28-Jul-23	FRI	9th & 10th Ashura Holidays						
29-Jul-23	SAT							

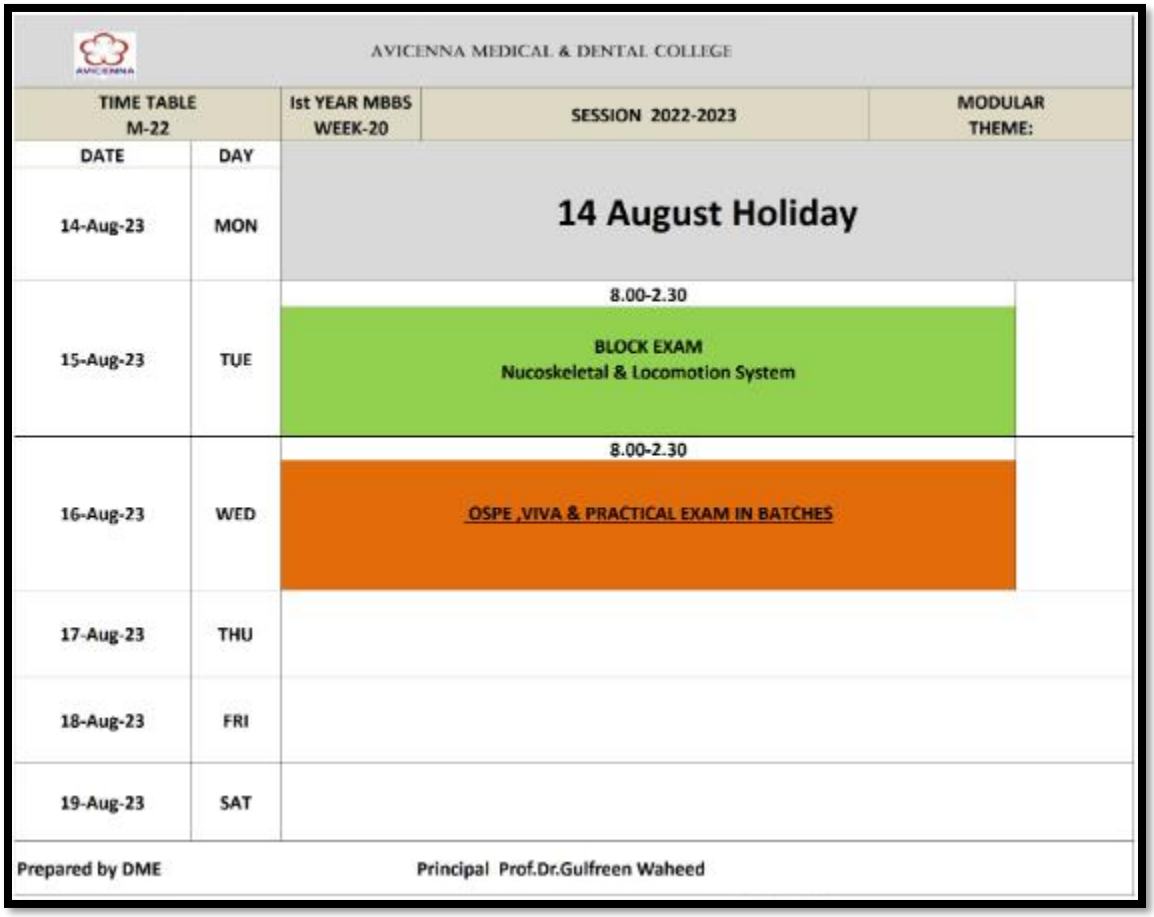
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TIME TABLE M-22		1st YEAR MBBS WEEK-18	SESSION 2022-2023					MODULAR THEME: Lower Limb	
DATE	DAY	8.00-9.00	9.00-10.00	10.00-10.30	10.30-12.30	12.00-12.30	12.30-1.30	1.30-2.30	2.30-3.30
31-Jul-23	MON	LECTURE GROSS ANATOMY MS-A-042 Blood supply of thigh Dr. Ahmed LECTURE HALL 1	LECTURE BIOCHEMISTRY MS-B-007 ECM and collagen synthesis Dr. Yusra LECTURE HALL 1	BREAK	GRAND TEST THEME: Lower Limb EXAMINATION HALL-2		KEY DISCUSSION LECTURE HALL 1	LECTURE GROSS ANATOMY MS-A-043 Sciatic Nerve Dr. Ijaz LECTURE HALL 1	CSIM (IN TEN BATCHES)
		8.00-9.00	9.00-10.00	10.00-11.00	11.00-12.00	12.00-12.30	12.30-1.30	1.30-2.30	2.30-3.30
01-Aug-23	TUE	LECTURE PHYSIOLOGY MS-P-014 Mechanics of muscle contraction Dr.Shaheena LECTURE HALL 1	LECTURE GROSS ANATOMY MS-A-044 Hip Joint Dr. Kalsoom LECTURE HALL 1	LECTURE SURGERY MS-A-058 Venous drainage of lower limb Dr.Paras LECTURE HALL 1	LECTURE PERIs PERIs-1-08+1-13 Responsibility towards self and the profession+Value identification goal setting Dr. Faiza LECTURE HALL 1		LECTURE GROSS ANATOMY MS-A-045 Popliteal Fossa Dr. Ahmed LECTURE HALL 1	LECTURE BIOCHEMISTRY MS-B-007 ECM and collagen synthesis Dr. Yusra LECTURE HALL 1	CSIM (IN TEN BATCHES)
		8.00-9.00	9.00-10.00	10.00-11.00	11.00-12.00		12.30-1.30	1.30-2.30	2.30-3.30
02-Aug-23	WED	LECTURE MEDICINE MS-P-015 Myasthenia gravis Excitation contraction coupling Dr. Humaira LECTURE HALL 1	LECTURE BIOCHEMISTRY MS-B-007 ECM and collagen synthesis Dr. Yusra LECTURE HALL 1	LECTURE GROSS ANATOMY MS-A-046-1 Knee Joint Dr. Ijaz LECTURE HALL 1	LECTURE PHYSIOLOGY MS-P-015 Neuromuscular junction Dr.Nida LECTURE HALL 1	B R E A K	LECTURE GROSS ANATOMY MS-A-046-2 Knee Joint Dr. Ahmed LECTURE HALL 1	PRACTICAL BATCH A:DH GROSSANATOMY Shaista/Dr. Huma BATCH B:HISTOLOGY Shaista/Dr. Huma BATCH C:BIOCHEMISTRY Dr Hamza/Dr. Maryam	CSIM (IN TEN BATCHES)
		8.00-9.00	9.00-10.00	10.00-11.00	11.00-12.00		12.30-1.30	1.30-2.30	2.30-3.30
03-Aug-23	THU	LECTURE COMMUNITY HEALTH MS-CM-007 Risk Factor assesment of MSD Dr. Sana Noor LECTURE HALL 1	LECTURE PHARMACOLOGY MS-Ph-002 Drugs use in myasthenia gravis Dr. Asma LECTURE HALL 1	LECTURE GROSS ANATOMY MS-A-047 Muscles of leg Dr. Ahmed LECTURE HALL 1	LECTURE PHYSIOLOGY MS-P-016 Smooth muscle Prof.Sadia LECTURE HALL 1		LECTURE GROSS ANATOMY MS-A-048 Neurovascular supply of Leg Dr. Ijaz LECTURE HALL 1	PRACTICAL BATCH B: ANATOMY Shaista/Dr. Huma BATCH C: HISTOLOGY Shaista/Dr. Huma BATCH: A BIOCHEMISTRY Dr Hamza/Dr. Maryam	CSIM (IN TEN BATCHES)
		8.00-9.30	9.30-11.00		11.00-12.30		12.30-1.00		
04-Aug-23	FRI	OSPE+VIVA IN 3 BATCHES BATCH A: ANATOMY BATCH B: DH/HISTOLOGY BATCH C: BIOCHEMISTRY	OSPE+VIVA IN 3 BATCHES BATCH B: ANATOMY BATCH C: DH/HISTOLOGY BATCH A: BIOCHEMISTRY		OSPE+VIVA IN 3 BATCHES BATCH C: ANATOMY BATCH A: DH/HISTOLOGY BATCH B: BIOCHEMISTRY		SPARE		
		8.00-9.00	9.00-10.00	10.00-11.00	11.00-12.00	12.00-12.30	12.30-1.30	1.30-2.30	2.30-3.30
05-Aug-23	SAT	LECTURE MEDICINE MS-P-017 Muscle disorders Dr. Usman LECTURE HALL 1	LECTURE GROSS ANATOMY MS-A-049 Flexor, Extensor, and peroneal/Reticula Dr. Ijaz LECTURE HALL 1	LECTURE ORTHO MS-A-046+052+055 Knee Joint Plantar fascia+ Arches of foot Dr. M.Umar Khan LECTURE HALL 1	LECTURE HOLY QURAN CJ-006 Zakat Mrs Farah LECTURE HALL 1	B R E A K	LECTURE PATHOLOGY MS-Pa-001 Muscle remodeling Revision Dr. Warda LECTURE HALL 1	PRACTICAL BATCH C: ANATOMY Shaista/Dr. Huma BATCH A: HISTOLOGY Shaista/Dr. Huma BATCH B: BIOCHEMISTRY Dr Hamza/Dr. Maryam	CSIM (IN TEN BATCHES)
Prepared by DME			Principal Prof.Dr.Gulfreen Waheed						



TIME TABLE M-22		1st YEAR MBBS WEEK-19	SESSION 2022-2023					MODULAR THEME: Lower Limb	
DATE	DAY	8.00-9.00	9.00-10.00	10.00-11.00	11.00-12.00	12.00-12.30	12.30-1.30	1.30-2.30	2.30-3.30
07-Aug-23	MON	LECTURE ORTHO MS-A-059 Human Gait Prof Faisal Nasser Hussain LECTURE HALL 1	LECTURE SSH SCIENCE MS_SHS_001 Psychosocial Factors influencing chronic illnesses From behavior sciences Dr. Farhat LECTURE HALL 1	LECTURE PAEDS MS-P-021 Rickets Dr Syed Hamza Ali LECTURE HALL 1	LECTURE GROSS ANATOMY MS-A-050+051 Tibio-fibular Joint Ankle Joint Dr. Ijaz LECTURE HALL 1	B R E A K	LECTURE PHYSIOLOGY MS-P-15 Neuromuscular junction Prof Dr. Sadia LECTURE HALL 1	LECTURE GROSS ANATOMY MS A-055 Muscles of foot Dr. Ahmed LECTURE HALL 1	CSIM (IN TEN BATCHES)
		8.00-9.00	9.00-10.00	10.00-11.00	11.00-12.00		12.30-1.30	1.30-2.30	2.30-3.30
08-Aug-23	TUE	LECTURE ORTHO MS-A-063 Bone fractures Dr. Omer Khalid LECTURE HALL 1	LECTURE GROSS ANATOMY MS-A-054 Small joints of foot Dr. Ahmed LECTURE HALL 1	LECTURE PHYSIOLOGY MS-P-16 Smooth muscle Dr. Afsheen LECTURE HALL 1	LECTURE GROSS ANATOMY MS-A-055+056 Arches of foot Retinaculla of foot Dr. Ijaz LECTURE HALL 1		PRACTICAL BATCH A:DH GROSSANATOMY Shaista/Dr. Huma BATCH B:HISTOLOGY Shaista/Dr. Huma BATCH C:BIOCHEMISTRY Dr Saba/ Dr Maryam	LECTURE BIOCHEMISTRY MS-B-007 ECM and collagen synthesis Dr. Yusra LECTURE HALL 1	CSIM (IN TEN BATCHES)
		8.00-9.00	9.00-10.00	10.00-11.00	11.00-12.00		12.30-1.30	1.30-2.30	2.30-3.30
09-Aug-23	WED	LECTURE GROSS ANATOMY MS-A-057 Neurovascular supply of foot Dr. Ijaz LECTURE HALL 1	LECTURE RADIOLOGY MS-A-062 Topographical and radiological anatomy of lower limb Dr Saba LECTURE HALL 1	LECTURE ORTHO MS-A-064 Joint Dislocation Dr. Tariq Aziz LECTURE HALL 1	LECTURE BIOCHEMISTRY MS-B-007 ECM and collagen synthesis Dr. Yusra LECTURE HALL 1		LECTURE GROSS ANATOMY MS-A-058 Venous drainage of lower limb Dr. Ahmed LECTURE HALL 1	PRACTICAL BATCH B: ANATOMY Shaista/Dr. Huma BATCH C: HISTOLOGY Shaista/Dr. Huma BATCH: A BIOCHEMISTRY Dr Saba/ Dr Maryam	CSIM (IN TEN BATCHES)
		8.00-9.00	9.00-10.00	10.00-11.00	11.00-12.00		12.30-1.30	1.30-2.30	2.30-3.30
10-Aug-23	THU	LECTURE BIOCHEMISTRY MS-B-007 ECM and collagen synthesis Dr. Yusra LECTURE HALL 1	LECTURE MEDICINE MS-P-018+019+020 Myopathy+Osteoporosis +Osteomalacia Dr. Asim LECTURE HALL 1	LECTURE PHYSIOLOGY MS-P-16 Smooth muscle Dr. Afsheen LECTURE HALL 1	LECTURE AGING MS-Ag-004 Effect of estrogen on BMD Dr. Yusra LECTURE HALL 1		LECTURE HOME GROSS ANATOMY MS-A-060+061 Cutaneous dermatomes of lower limb Dr. Ijaz LECTURE HALL 1	PRACTICAL BATCH C: ANATOMY Shaista/Dr. Huma BATCH A: HISTOLOGY Shaista/Dr. Huma BATCH B: BIOCHEMISTRY Dr Saba/ Dr Maryam	CSIM (IN TEN BATCHES)
		8.00-9.30	9.30-11.00		11.00-12.30		12.30-1.00		
11-Aug-23	FRI	MODULE OSPE+VIVA IN 3 BATCHES BATCH A :ANATOMY BATCH B: DH/HISTOLOGY BATCH C: BIOCHEMISTRY	MODULE OSPE+VIVA IN 3 BATCHES BATCH B: ANATOMY BATCH C: DH/HISTOLOGY BATCH A: BIOCHEMISTRY		MODULE OSPE+VIVA IN 3 BATCHES BATCH C: ANATOMY BATCH A: DH/HISTOLOGY BATCH B: BIOCHEMISTRY		SPARE		
12-Aug-23	SAT	8.00-12.30 MODULE EXAM Lower Limb EXAMINATION HALL-2							



AVICENNA MEDICAL & DENTAL COLLEGE

TIME TABLE M-22		1st YEAR MBBS WEEK-20	SESSION 2022-2023	MODULAR THEME:
DATE	DAY			
14-Aug-23	MON	14 August Holiday		
15-Aug-23	TUE	8.00-2.30 BLOCK EXAM Nucoskeletal & Locomotion System		
16-Aug-23	WED	8.00-2.30 OSPE ,VIVA & PRACTICAL EXAM IN BATCHES		
17-Aug-23	THU			
18-Aug-23	FRI			
19-Aug-23	SAT			

Prepared by DME Principal Prof.Dr.Gulfreen Waheed

ASSESSMENT STRATEGIES:

As assessment drives learning so assessment tools need to be in alignment with the domains of learning and instructional strategies. Both formative and summative assessments are encouraged. Formative assessments will be those written and practical tests whose weightage will not be included in the internal assessments. The summative assessment will comprise of internal assessment and professional examination. The weightage of internal assessment is 20% while that of professional examination is 80%.

Assessment tools for Theory

- Multiple Choice Questions (MCQ)
- Structured Essay Questions (SEQ)
- Reflective paper
- Assignment
- Presentation

Assessment tools for Practical, Clinical and Human (soft) skills

- Objective Structured Practical Examination
- Objective Structured Clinical Examination
- Structured Viva
- Short Case
- Long Case
- Logbook
- Portfolio
- Feedback (simple and/or 360 degree)

Table of Specification for BLOCK-2/ module EXAM:

Theme	Subject	Written Exam			Oral/Practical/Clinical Exam			
					OSPE/OSCE/Viva Stations			
		MCQ (1 mark)	SEQ (5 mark each)	Marks	OSPE (08 marks each) Observed	OSCE (08 marks each) Observed	Structured Viva (16 marks each)	Marks
Normal Structure	Anatomy & applied/clinical	35	4	55	5	-	1	56
Normal Function	Physiology & applied/clinical	17	2	27	1	-	1	24
	Biochemistry & applied/clinical	11	1	16	1	-	1	24
Disease Burden & Prevention	Community Medicine & Public Health	06	-	06	-	-	-	-
	Behavioral Sciences	04	-	04	-	-	-	-
Pathophysiology and Pharmacotherapeutics	Pathology	07	-	07	-	-	-	-
	Pharmacology	05	-	05	-	-	-	-
CFRC	CFRC-1-2	-	-	-		1	-	08
PERLs	PERLs-1-2	-	-	-		1	-	08
		85	7x5=35	**120**	7 Stations x 08 = 56	2 Stations x 08 = 16	3 Vivas x 16 = 48	**120**

Block 2 (Musculoskeletal & Locomotion Module)

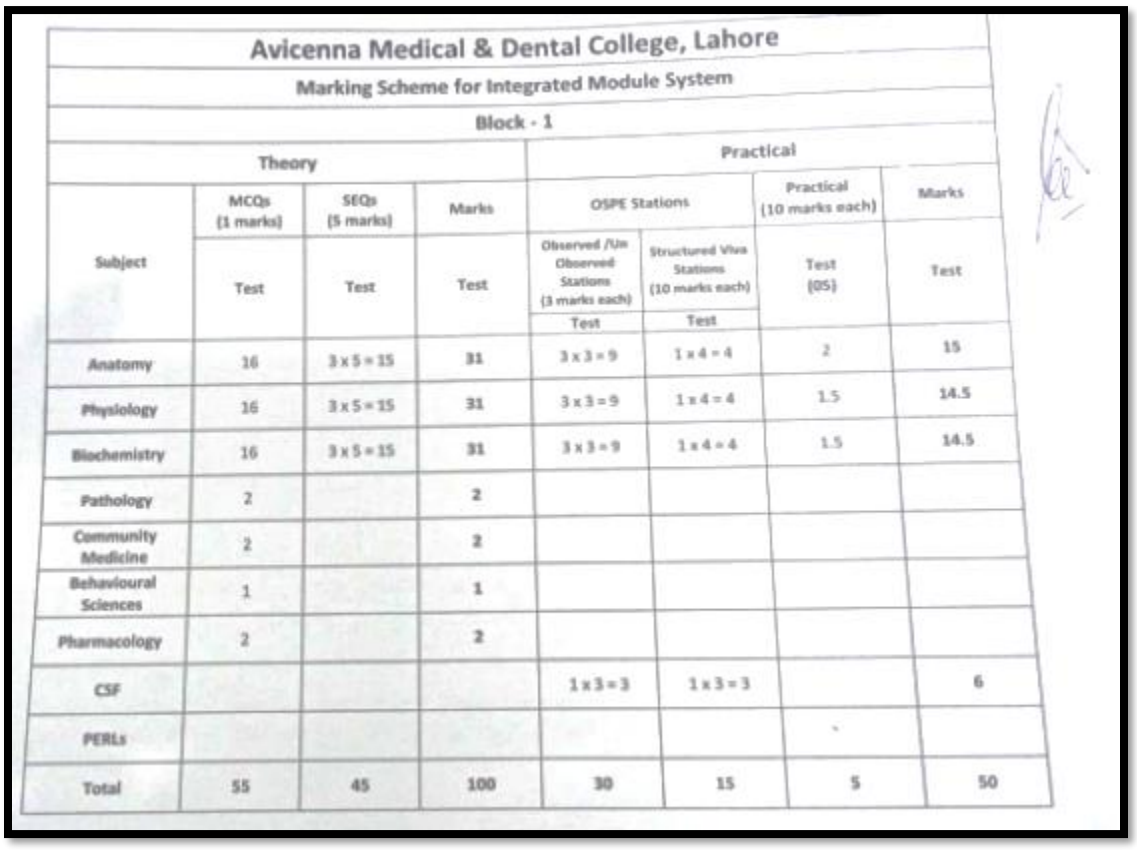
The examination in Block 2 shall be as follows:-

I. One written paper of 120 marks having two parts:
Part I shall have eighty five Multiple Choice Questions (MCQs) of 85 marks and the time allotted shall be 110 minutes. Part II shall have seven Structured Essay Questions (SEQs) of 35 marks and the time allotted shall be 70 minutes

II. Oral/Practical/Clinical examination shall have 120 marks.

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 for the block. The score will be equally distributed to the Written and Oral/Practical/Clinical Examinations.

Table of specification for weekly grand tests:



Avicenna Medical & Dental College, Lahore

Marking Scheme for Integrated Module System

Block - 1

Subject	Theory			Practical			
	MCQs (1 marks)	SEQs (5 marks)	Marks	OSPE Stations		Practical (10 marks each)	Marks
	Test	Test	Test	Observed /Un Observed Stations (3 marks each)	Structured Viva Stations (10 marks each)	Test (05)	Test
				Test	Test		
Anatomy	16	3 x 5 = 15	31	3 x 3 = 9	1 x 4 = 4	2	15
Physiology	16	3 x 5 = 15	31	3 x 3 = 9	1 x 4 = 4	1.5	14.5
Biochemistry	16	3 x 5 = 15	31	3 x 3 = 9	1 x 4 = 4	1.5	14.5
Pathology	2		2				
Community Medicine	2		2				
Behavioural Sciences	1		1				
Pharmacology	2		2				
CSF				1 x 3 = 3	1 x 3 = 3		6
PERLs							
Total	55	45	100	30	15	5	50

MODULAR EXAMINATION RULES AND REGULATIONS:

- Student must report to examination hall/venue, 30 minutes before the exam.
- Exam will begin sharp at the given time.
- No student will be allowed to enter the examination hall after 15 minutes of scheduled examination time.
- Students must sit according to their roll numbers mentioned on the seats.
- Cell phones are strictly not allowed in examination hall.
- If any student is found with cell phone in any mode (silent, switched off or on) he/she will be not be allowed to continue their exam.
- No students will be allowed to sit in exam without University Admit Card, College ID Card and Lab Coat

- Student must bring the following stationary items for the exam: Pen, Pencil, Eraser, and Sharpener.
- Indiscipline in the exam hall/venue is not acceptable. Students must not possess any written material or communicate with their fellow students.