

Integrated Spiral Clinically Oriented Modular Curriculum for First Year MBBS

Foundation Module Time Table
First Year MBBS

Session 2023-2024

Batch- 51

Foundation Module Team

Module Name	:	Foundation Module
Duration of module	:	06 Weeks
Coordinator	:	Dr. Zenera Saqib
Co-coordinator	:	Dr. Qurat Ul Ain
Reviewed by	:	Module Committee

Module Committee			Module Task Force Team	
1.	Vice Chancellor RMU	Prof. Dr. Muhammad Umar	1.	Coordinator Dr. Zenera Saqib (Demonstrator of Anatomy)
2.	Director DME	Prof. Dr. Rai Muhammad Asghar	2.	DME Focal Person Dr. Sidra Hamid
3.	Convener Curriculum	Prof. Dr. Naeem Akhter	3.	Co-coordinator Dr. Qurat Ul Ain (Senior Demonstrator of Anatomy)
4.	Chairperson Anatomy & Dean Basic Sciences	Prof. Dr. Ayesha Yousaf	4.	Co-Coordinator Dr. Uzma Kiyani (Senior Demonstrator of Physiology)
5.	Additional Director DME	Prof. Dr. Ifra Saeed	5.	Co-coordinator Dr. Nayab Ramzan (Senior Demonstrator of Biochemistry)
6.	Chairperson Physiology	Prof. Dr. Samia Sarwar	DME Implementation Team	
7.	Chairperson Biochemistry	Dr. Aneela Jamil		
8.	Focal Person Anatomy First Year MBBS	Asso. Prof. Dr. Mohtashim Hina	1.	Director

Discipline wise Details of Modular Content

Block	Module	General Anatomy	Embryology	Histology	Gross Anatomy
I	Anatomy	Introduction to General Anatomy	General Embryology - Introduction to Human Development - Oogenesis - Spermatogenesis - Female Reproductive Cycles - Ovulation and Fertilization - Cleavage and Blastocyst Formation - Development of Mammary Gland	General Histology - Types of Epithelium - Specialization of Apical Cell Surface - Intercellular Junctions and Adhesions - Glandular Epithelium - Mammary Gland	- Anatomicomedical Terminologies I (position & planes) - Anatomicomedical Terminologies II (Anatomical Terms and Axis of Movements) - Anatomicomedical Terminologies III (Cell and Tissues) - Anatomicomedical Terminologies IV (Skin & Body Systems) - Clavicle - Scapula - Humerus - Anterior Axioappendicular Muscles - Posterior Axioappendicular Muscles - Axilla - Brachial Plexus - Brachial Plexus Injuries - Breast - Sternoclavicular and Acromioclavicular Joints - Radiograph and Surface Anatomy of Axioappendicular Region
	Biochemistry	Cell and Cell Organelles, Cell Membrane and Transport Across Cell Membrane, Physicochemical Properties, Enzymes, Cancer, Nucleic Acid Chemistry, Genetics			
	Physiology	- Functional Organization of The Human Body and Control of the “Internal Environment - The Cell and Its Functions - Genetic Control of Protein Synthesis, Cell Function, And Cell Reproduction - Transport of Substances Through the Cell Membrane			

	• Assessment Model of RMU & Continuous Internal Assessment • Research Model of RMU (IUGRC), Biomedical Ethics Family Medicine, Artificial Intelligence • Introduction to Different Teaching Strategies, Role of Team Leader Facilitator and Students SGD/LGIS/TBL/PAL/INTERNET & Literature Group activity (DME) • Orientation to Integrated Modular System for Pre-clinical Years (DME) • Lecture on Feedback (DME) • Mission and Vision (DME) • Introduction to Pharmacology • Introduction to Pathology • Introduction to Community Medicine (Community Medicine) • Introduction to Medicine (Medicine)	
	Spiral Courses	
	• The Holy Quran Translation	The Holy Quran Translation Component • Islam And Medical Science • Introduction to Quran Translation
	• Bioethics & Professionalism	• Introduction to history of medical ethics • Leadership Professionalism (DME)
	• Artificial Intelligence	• Introduction to Artificial Intelligence
	• Family Medicine	• Introduction to Family Medicine & its application in health care system
	• Integrated Under Graduate Research Innovation (IUGRC)	• Research I Introduction of health research process • Research II characteristic of reserch process • Research III Basis of ethics in health research • Research IV Basics of ethics in medical reserch
	• Behavioral Sciences	• Introduction to Behavioral Sciences • Management of stress
	• Digital Literacy Module	• How to use Higher Education Commission (HEC) digital libaray.

	- Cellular response to injury (Pathology) - Intracellular accumulations (Pathology) - Pigments (Pathology) - Free radical and reactive oxygen species (Pathology) - Irreversible cell injury/apoptosis (Pathology) - Genetic disorders (Pathology) - History of medicine (Medicine) - Medicine and allied subjects (Medicine) - Chromosomal abressions (Medicine) - History taking and general physical examination (Medicine)	
Early Clinical Exposure (ECE)		
	Clinical Rotations	Rotation of students to - Medicine & Allied - Surgery and Trauma - Emergency Department
Hands on Workshop on Basic Life Support (BLS)		
	Hands on Workshops on BLS	

Teaching Staff / Human Resource of Department of Anatomy

Sr. #	Designation of Teaching Staff / Human Resource	Total Number Of Teaching Staff
1.	Professor of Anatomy department	01
2.	Associate professor of Anatomy department	01
3.	Assistant professor of Anatomy department (AP)	01
4.	Demonstrators of Anatomy department	05

Contact Hours (Faculty)

Sr. #	Hours Calculation for Various Type of Teaching Strategies	Total Hours
1.	Large Group Interactive Session (LGIS)	12 * 2= 24 hours
2.	Small Group Discussions (SGD)	2*14+ 1*2=30 hours
3.	Case Based Learning (CBL)	2* 2 = 4 hours
4.	Practical / Skill Lab	1.6 * 20 = 32 hours

Contact Hours (Students)

Sr. #	Hours Calculation for Various Type of Teaching Strategies	Total Hours
1.	Large Group Interactive Session (LGIS)	12 hours
2.	Small Group Discussions (SGD)	30hours
	Case Based Learning (CBL)	4 hours
4.	Practical / Skill Lab	6.4 hours
5.	Self-Directed Learning (SDL)	8 hours

Cell organelles & related cell function – II (by Dr. Faizania)						
Genetics, Transcription and Translation (by Dr. Faizania)						
Active Transport- I (Primary Active Transport) (by Dr. Faizania)						

Category A*: By Professors

Category B:** By Associate & Assistant Professors

Category C*:** By Senior Demonstrators & Demonstrators

Teaching Staff / Human Resource of Department of Physiology

Sr. #	Designation Of Teaching Staff / Human Resource	Total Number of Teaching Staff
1.	Professor of physiology department	01
2.	Associate professor of physiology department	01
3.	Assistant professor of physiology department (AP)	01
4.	Demonstrators of physiology department	07
5.	Residents of physiology department (PGTs)	06

Contact Hours (Faculty) & Contact Hours (Students)

Sr. #	Hours Calculation for Various Type of Teaching Strategies	Total Hours
1.	Large Group Interactive Session (LECTURES)	2* 18 =36 hours
2.	Small Group Discussions (SGD)/CBL	1hr 40 mint* 20= 33 hrs.& 20 mint + 1hr=34hrs & 20 minutes
3.	Problem Based Learning (PBL)	---
4.	Practical / Skill Lab	1hour 40 minutes* 20= 33 hours and 20 minutes
5.	Self-Directed Learning (SDL)	1hour * 8=8 hours

Categorization of Modular Content of Department of Biochemistry:

Category A*	Category B**	Category C***				
LGIS	LGIS	PBL	CBL	Practical's	SGD	
Cell membrane	Cell & cell organelles		Enzymes PCR (Polymerase Chain Reaction)	Introduction to glassware (pipetting)	Cell & Cell Membrane	
Transport across cell membrane	Physicochemical aspects			Introduction to Lab Equipment	Physicochemical Aspects of cell	
	Water & PH			Surface Tension Emulsion		
Nucleic acid Chemistry	Cancer			Adsorption Tonicity		
Replication	Enzymes					
Transcription						
Translation						
Mutation						
Recombinant DNA/ PCR						

Category A*:

Teaching Staff / Human Resource of Department of Biochemistry

Sr. #	Designation Of Teaching Staff / Human Resource	Total Number Of Teaching Staff
1	Assistant professor of biochemistry department (AP)	01
2	Demonstrators of biochemistry department	06

Contact Hours (Faculty) & Contact Hours (Students)

Sr. #	Hours Calculation for Various Type of Teaching Strategies	Total Hours (Faculty)	Total Hours (student)
1.	Large Group Interactive Session (LECTURES)	$2 * 11 = 22 + 1 = 23$ hours	12
2.	Small Group Discussions (SGD)	$6 * 5 = 30$ hours	$1.5 \times 4 = 6$
3.	Problem Based Learning (PBL)	$2 * 1 = 2$ hours	02
4.	Practical / Skill Lab	$6 * 5 = 30$	$15 \times 4 = 6$
5.	Self-Directed Learning (SDL)	$1 * 8 = 8$ hours	08

Even Roll Number

New Lecture Hall Complex Lecture Theater # 02

Details of Batch Distribution

Sr No.	Batches	Sub batches with Roll No.	Roll No.
1.	A	A1	1-22
		A2	23-45
		A3	46-68
		A4	69-92
2.	B	B1	93-115
		B2	116-139
		B3	140-162
		B4	163-184
3.	C	C1	185-206
		C2	207-228
		C3	229-250
		C4	251-272
4.	D	D1	273-295
		D2	296-317
		D3	318-340
		D4	340-onwards

Facilitators for Basic Life Support Workshop

Sr. No	Facilitators	Venues
1.	Dr. Uzma Kiyani	LTC Hall No. 02
2.	Dr. Nayab	LTC Hall No. 03
3.	Dr. Minahil	Anatomy LT No. 03
4.	Dr. Kashif (Anatomy)	Anatomy LT No. 04

**End of Foundation Module Assessment
(25-03-2024 to 30-03-2024)**

Date / Days	Tentative Datesheet	Time
25-03-2024 Monday	End of Module Assessments (3 days) 25 th march – 27 th March, 2024	
26-03-2024 Tuesday		
27-03-2024 Wednesday		
28-03-2024 Thursday	Commencement of MSK-I Module	
29-03-2024 Friday		
30-03-2024 Saturday		

*Details will be shared separately with venue and Roll No. details

Integrated Clinically Oriented Modular Curriculum for First Year MBBS

MSK- I Module Time Table

First Year MBBS

Session 2023 - 2024

Batch- 51

	Accidents (Community Medicine)	
Early Clinical Exposure (ECE)		
	Clinical Rotations	- How to Read Bone X- ray. - How to find Bone age - Fractures of distal Bones - Placental abanormalities - Uterine abnormalities - Pregnancy and effects of congenital uterine abnormalities - X-ray in paediatric age group - Pathologies like Rickets, congenital dislocation of hip joint and other abnormalities

Teaching Staff / Human Resource of Department of Biochemistry

Sr. #	Designation Of Teaching Staff / Human Resource	Total number of teaching staff
1	Assistant professor of biochemistry department (AP)	01
2	Demonstrators of biochemistry department	06

Contact Hours (Faculty) & Contact Hours (Students)

Sr. #	Hours Calculation for Various Type of Teaching Strategies	Total Hours (Faculty)	Total Hours (student)
1.	Large Group Interactive Session (Lectures)	12	6
2.	Small Group Discussions (SGD)	$6 * 5 = 30$ hours	$1.5 * 4 = 6$
3.	Problem Based Learning (PBL)	$2 * 1 = 2$ hours	02
4.	Practical / Skill Lab	30 hours	6
5.	Self-Directed Learning (SDL)	$1 * 7 = 7$ hours	07

Vertical Integration		
	Fractures of Lower Limb (Orthopedics)	
	x-rays of hipbone lower limb (Radiology)	
	Early Clinical Exposure (ECE)	
	Clinical Rotations	- Cases of myopathies/ muscular dystrophy - Polymyositis/Muscle atrophy - Muscle enzyme interpretation Medicine - Burns and Plastic Surgery - Management of superficial and deep burns Surgery - X-Ray of Hip Bone and Hip Joint - X ray of pelvis - X ray of long Bones Radiology

Categorization of Modular Content

Department of Anatomy

Category A*	Category B**		Category C***			
Embryology	General Histology	General Anatomy	Demonstrations (SGD)	Practicals/Skill lab. (SKL)	CBL	SDL
- Development of Axial Skeleton - Development of limbs - Development of muscles	- Muscles-I - Muscles-II - Skin - Appendages	- Muscles-I - Muscles-II - Skin	Gross Anatomy: - Hip bone - Femur - Anterolateral compartment of thigh (muscles) - Anterolateral compartment of thigh (neurovascular organization) - Medial compartment of thigh - Gluteal region (muscles) - Gluteal region (neurovascular organization) - Posterior compartment of thigh (muscles) - Posterior compartment of thigh (neurovascular organization) - Hip joint - Tibia - Fibula - Popliteal fossa - Knee joint - Anterior compartment of leg(muscles) - Anterior compartment of leg (neurovascular organization) - Lateral compartment of leg - Surface marking and radiology	- Skeletal muscles - Smooth muscle and cardiac muscle - Thick skin - Thin skin	- Hip Dislocation - Fracture of neck of femur	- Hip bone - Femur - Anterolateral compartment of thigh - Medial compartment of thigh - Gluteal region - Posterior compartment of thigh - Hip joint, Tibia & Fibula </

Department of Physiology

Category A	Category B	Category C
Sarcotubular system, excitation contraction coupling mechanism inskeletal muscle (Prof. Dr. Samia Sarwar/Dr Aneela) (Even)	Introduction to pericardium Properties of myocardium & endocardium,myocardial action potential (By Dr. Sidra)	Length tension curve, Load and velocity of contraction, diseases of muscle (By Dr. Nayab) Properties of skeletal muscles, Tetanus & Fatigue (By Dr. Nayab)
Molecular Mechanism of skeletal muscle contraction, Rigormortis, Muscular dystrophies (Prof. Dr. Samia Sarwar/ Dr Aneela) (Even)	Regulation of myocardial activity (By Dr Sidra)	Practical: 1. Determination of RBC count 2. Determinati on of TLC 3. Determination of Platelet Count 4. Determination of ABO, Blood groups
	Introduction to muscle physiology, Structure of sarcomere (By DrAneela) (Even)	SGD: 1. Sliding filaments of skeletal muscle, sarcotubular system 2. Physiology of smooth muscle, mechanism of smooth muscle contraction 3. Properties of myocardium, myocardial action potential, Excitatory and conduction system of heart 4. Comparison of three types of muscle
	Physiologic anatomy, types and properties of Smooth Muscle (ByDr Aneela)	SDL: (ON CAMPUS) 1. Sarcotubular system, excitation contraction coupling mechanism in skeletal muscle 2. Molecular Mechanism of skeletal muscle contraction, Rigor mortis, Muscular dystrophies 3. Length tension curve, Load and velocity of contraction, diseases of muscle 4. Physiological properties and types of Smooth Muscle 5. Mechanism of smooth muscle contraction & its control 6. Regulation of myocardial activity 7. Excitatory & Conducting system of heart 8. Comparison of 3 types of muscle
	Mechanism of smooth muscle contraction & its control (By DrAneela)	
	Comparison of 3 types of Muscle (By Dr Aneela	

	Introduction to muscle physiology, Structure of sarcomere (By Dr Uzma) (Odd)	SDL: (OFF CAMPUS) 1. Introduction to muscle physiology, Structure of sarcomere 2. Sarcotubular system, excitation contraction coupling mechanism in skeletal muscle 3. Mechanism of skeletal muscle contraction. 4. Rigor mortis, Muscular dystrophies 5. Energetics, efficiency and types of contraction 6. Properties of skeletal muscles, Tetanus & Fatigue 7. Physiological properties of Smooth Muscle 8. Myocardial Action potential
	Sarcotubular system, excitation contraction coupling mechanism inskeletal muscle (By Dr Uzma) (Odd)	
	Molecular Mechanism of skeletal muscle contraction , Rigormortis, Muscular dystrophies (By Dr Uzma)(Odd)	
	Energetics, efficiency and types of contraction, heat production in muscle (By Dr Uzma)	
	Introduction to CVS (By Dr Fahad)	
	Excitatory & Conducting system of heart (By Dr Fahad)	PBL=NIL CBL=NIL

Category A*: By Professors

Category B:** By Associate & Assistant Professors

Category C*:** By Senior Demonstrators & Demonstrators

Teaching Staff / Human Resource of Department of Physiology

Sr. #	Designation Of Teaching Staff / Human Resource	Total number of teaching staff
1.	Professor of Physiology department	01
2.	Associate professor of Physiology department	01
3.	Assistant professor of Physiology department (AP)	01 (DME)
4.	Demonstrators of Physiology department	07

Contact Hours (Faculty)

Sr. #	Hours Calculation for Various Type of Teaching Strategies	Total Hours
1.	Large Group Interactive Session (LGIS)	13 * 2 = 26 hours
2.	Small Group Discussions (SGD) / (CBL)	20 * 1.5=30 hours
3.	Practical / Skill Lab	20 * 1.5 = 30 hours

