

DEPARTMENT OF MEDICAL EDUCATION

**MOHI-UD-DIN ISLAMIC MEDICAL COLLEGE
MIRPUR**



**REPRODUCTION -I
MODULE**

2ND YEAR MBBS

BLOCK: F

DURATION: 4 WEEKS

FROM: 2ND OCT TO 30TH OCT 2026

MODULE CODE: MB2-F-REP-I-11

Contents

1) Instructions:	4
2) Module Committee:	5
OUR VISION STATEMENT	5
OUR MISSION STATEMENT	5
3. Module Mapping of MBBS Program	6
4. Recommended List Of Icons	7
5. What Is A Study Guide?	8
6. Organization of Module	9
Introduction	9
a. Rationale:	9
b. Organization of the Study guide:	9
7. Learning Objectives	10
a. General Learning Outcomes	10
b. Specific Learning Outcomes	11
3. Learning Opportunities and Resources	27
a. Instruction (if any)	27
b. Books:	27
8. Examination and Methods of Assessment:	28
Formative Assessment:	28
Summative Assessment:	28
Assessment Tools:	28
9. Learning Opportunities and Resources	29
10. For inquiry and troubleshooting	32
11. Course Feedback Form	33
12. Students Diary/Notes	35

Disclaimer:

The development of study guides and the associated curriculum is an iterative process of quality enhancement, informed by stakeholder feedback. All elements—including content, delivery modes, scheduled hours and assessment—are subject to periodic review and potential revision. Students are advised that the provided topics and learning outcomes represent the essential foundation for approximately 70% of examinations. The remainder will be derived from lecture content and directives issued by course instructors.

1) Instructions:

1. Maintain a minimum attendance of 85% in all scheduled academic activities otherwise will not be allowed to sit in annual exam.
2. Adhere strictly to the prescribed college uniform and professional dress code at all times.
3. Demonstrate professionalism and respect toward peers, faculty, staff, and patients.
4. Uphold academic integrity and ethical conduct in all learning and assessment activities.
5. Comply with all institutional policies regarding conduct, use of facilities, and digital etiquette.

“Student Notice”

The student feedback mechanism is being shifted from Google Forms to the LMC/CMS platform. Therefore, all students are required to regularly log in to their LMC/CMS accounts and submit the relevant feedback whenever notified.

Submission of feedback through LMC/CMS is compulsory and will be an important part of the institutional feedback and curriculum evaluation process.

Students are requested to ensure that their LMC/CMS accounts are active and accessible.

2) Module Committee:

s.no	Name	Department	Role
1.	Prof..Dr.Col Shafqat Ali	Anatomy	HOD
2.	Prof. Dr. M. Naqib	Biochemistry	HOD
3.	Prof. Dr. Ayyaz Ahmed	Physiology	HOD
4.	Dr. M Junaid Khan	DME	HOD

OUR VISION STATEMENT

To be a globally recognized center of excellence in medical education, research, innovation, and socially accountable healthcare, producing competent healthcare professionals committed to improving the health and well-being of the people of AJK, Pakistan and beyond.

OUR MISSION STATEMENT

Mohi-ud-Din Islamic Medical College is committed to providing quality competency-based medical education through excellence in teaching, research, innovation, and ethical professional practice to develop competent, compassionate, and socially accountable graduates who address the healthcare needs of AJK, and Pakistan through lifelong learning, leadership, interdisciplinary collaboration, and community engagement.

3. Module Mapping of MBBS Program

Module Mapping (MBBS Program)

Tentative

Year	Blocks	Modules			Horizontal Module	
1 st year	A	Foundation-I (5-weeks)	Blood & Immunology -I (5-weeks)		Quran Kareem	
	B	Locomotor/MSK-I (8-weeks)				
	C	CVS – I (4-weeks)	RES – I (4-weeks)			
2 nd year	D	Gastrointestinal, Hepatobiliary and Metabolism Module -I (9-weeks)	Renal-I (3-weeks)			Pak_Study/Islamite
	E	Neurosciences 1A (6-weeks)	Neurosciences 1B (5-weeks)			
	F	Endocrine – I (4-weeks)	Repro – I (3-weeks)			
3 rd year	G	Foundation - II	Infection & Inflammation-II		English Expository Writing	
	H	Multisystem-I	Blood & Immunology-II	Locomotor/MSK-II		
	I	CVS - II	RES – II			
4 th year	J	Neurosciences-II			M1=ENT M2=EYE	Arts & Humanities
	K	GIT & Hepatobiliary - II				
	L	Renal-II	Endo & Repro- II			
PRIME Year	N	Foundation-III	Blood & Immunology-III	Locomotor/MSK-III	Clerkship, Electives, /Capstone/Observer ship	
	O	Cardiorespiratory-III				
	P	Renal-III	Endo & Repro-III			
	Q	Neurosciences-III	GIT & Hepatobiliary-III	Multisystem-III		

PRIME (Professionalism, Research, Identity formation, Management & leadership, Ethics)

- 1st Year MBBS: 3 blocks, 5 Modules-27 weeks (945 Hours/AY)
 - 2nd Year MBBS: 3 blocks 6 Modules – 30 weeks (1050 Hours/AY)
- Per week teaching hours=35*
Total weeks/hours are tentative
PRIME Year: Year of Professionals Ready for Innovative Medical Excellence
PRIME: Professionalism, Research, Identity formation, Management & leadership, Ethics.



4. Recommended List Of Icons



Introduction To Case



For Objectives



Critical Questions



Assessment

5. What Is A Study Guide?

The Purpose and Structure of a Study Guide

A study guide serves as the central contract and roadmap between the educational program and the student. Its primary purpose is to demystify the learning process by clearly communicating how a module is organized, managed, and assessed. It empowers students to take ownership of their learning by providing all necessary information to plan their studies, identify appropriate resources and support, and understand precisely how their performance will be evaluated.

Core Components of an Effective Study Guide:

Module Administration & Overview

This section provides the essential framework for the module. It includes:

- **Module Identification:** Code, title, teaching hours, and placement within the curriculum.
- **Personnel & Coordination:** Clear points of contact (Module Coordinator, teaching faculty) with roles and responsibilities defined, enabling students to seek the right help efficiently.
- **Timetable & Schedule:** A structured overview of the teaching sequence, including dates, topics, and formats (e.g., lectures, practicals).
- **Learning Objectives & Instructional Strategy**
This is the academic core of the guide, aligning intent with action.
- **Module & Theme Objectives:** A precise list of what students are expected to know, understand, and be able to do by the module's end, directly mapped to program and PMDC competencies.
- **Teaching-Learning Methods:** A description of the instructional strategies employed (e.g., interactive lectures, small group discussions, lab sessions, case-based learning) and their role in achieving the objectives.
- **Learning Resources & Support**
This component directs students to the tools for successful learning.
- **Curated Resource List:** A categorized list of essential and recommended resources, including core textbooks, key journal articles, vetted online links, and specific software or simulation tools.
- **Assessment Strategy:** A detailed breakdown of all formative (continuous) and summative assessments, including their format, weighting, schedule, and how they contribute to the final grade.
- **Rules and Policies:** Clear statements on examination rules, grading criteria, policy on late submissions, academic integrity, and the appeals process.

In summary, a well-constructed study guide transforms a module from a series of disjointed events into a coherent, transparent, and manageable learning journey. It is a fundamental tool for achieving constructive alignment and enhancing the student learning experience.

6. Organization of Module

Introduction:

The Reproduction-I Module is a 3-weeks and last module for 2nd Year MBBS, Block F. It covers the gross, microscopic, developmental, physiological, biochemical, pharmacological, community, forensic, and clinical aspects of the male and female reproductive systems. Major topics include pregnancy and childbirth, infertility, sex hormones, oral contraceptives, sexually transmitted diseases, and maternal and child health.

a. Rationale:

This module will help the learner understand the anatomy, physiology, biochemistry, and related clinical aspects of the reproductive system, including pathology, pharmacology, community medicine, general medicine, surgery, gynecology, pediatrics, forensic medicine, and PRIME. The male and female reproductive systems are essential for sexual development, fertility, pregnancy, parturition, lactation, and maternal and child health. This knowledge is fundamental for safe clinical practice and community health.

b. Organization of the Study guide:

The module consists of two themes:

Theme 1: Pregnancy and Childbirth

Theme 2: Infertility

Each theme has clear learning objectives. Major emphasis will be on real patient examination, discussion, laboratory and imaging investigation and interpretation, case analysis, diagnosis, and management planning by students under the guidance of faculty supervisors. Theme 1 uses real-life clinical scenarios to show how patients present in day-to-day clinical practice. Daily activities will be divided into different sessions; please refer to the timetable for more details.

Students are expected to use the study guide together with the timetable and recommended learning resources to plan their learning, prepare for scheduled activities, and monitor their progress throughout the module. The guide also provides the relevant assessment framework, learning resources, feedback mechanism, and space for students' learning records.



7. Learning Objectives

a. General Learning Outcomes

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

A. Knowledge

1. Describe the development, structure and functions of the bony pelvis, uterus, ovaries and perineum.
2. Describe the development, structure and functions of the male genital organs.
3. Describe the development, structure and functions of the mammary glands.
4. Explain the formation and composition of breast milk and the mechanisms involved in lactation.
5. Explain the synthesis, mechanism of action, physiological effects and regulation of male and female sex hormones and placental hormones.
6. Explain the physiological changes during pregnancy, gestation and parturition.
7. Describe common disorders of the male and female reproductive systems and their basic clinical features.
8. Explain basic statistical tests and their significance in medical research.
9. Explain the basic steps of research evaluation, including validity and reliability.
10. Explain the concept of empathy and its importance in professional medical practice.

B. Skills

1. Identify the major anatomical structures of the male and female reproductive systems.
2. Identify the major anatomical structures of the bony pelvis, perineum and mammary glands.
3. Perform a pregnancy test using an appropriate method.

C. Attitudes and Professionalism

1. Demonstrate professional behaviour, empathy, compassion and respect when dealing with patients.
2. Maintain privacy, confidentiality and dignity during reproductive and breast-related examinations.
3. Recognize the importance of ethical practice, patient autonomy and informed consent in reproductive healthcare.

b. Specific Learning Outcomes

Theme-1 Pregnancy and child birth

Introduction:

This theme consists of gross, microscopic features and development of pelvis, ovary, uterus and mammary gland. Overview of reproductive system, with functions of sex hormones are included. Cyclical changes as well as physiological changes in pregnancy, milk formation and mechanism of labor also part of this theme.

THEME-1 (Pregnancy and child birth)					
S.No	Topic	Learning objectives	Teaching strategies	Hours	Assessment
GROSS ANATOMY					
1.	Bony pelvis & Uterus 1	1) Describe the general features of bony pelvis 2) Differentiate between male and female pelvis 3) Classify the differences between true and false pelvis 4) Describe the gross structure, location and relations of uterus 5) Describe the blood supply of uterus	LGIS-1	1	MCQs/ SAQs/ VIVA/ OSPE
2.	Uterus 2	1) Describe the boundaries of pouch of Douglas/recto-uterine pouch and its clinical significance 2) Describe the gross structure, location and relations of Fallopian tubes 3) Describe the blood supply of Fallopian tubes 4) Enlist various support mechanisms of uterus 5) Describe the formation and components of broad ligament 6) Discuss the clinical correlates of uterus and fallopian tubes	LGIS-2	1	MCQs/ SAQs/ VIVA/ OSPE
3.	Ovary	1) Describe the gross structure, location and relations of ovaries. 2) Describe the blood supply of ovaries 3) Name ligaments supporting the ovaries	LGIS-3	1	MCQs/ SAQs/ VIVA/ OSPE
4.	Pelvic floor	1) Describe the general features of sacrum 2) Describe the special features of sacrum	LGIS-4	1	MCQs/ SAQs/ VIVA/ OSPE

		3) Name the muscles making the pelvic floor 4) Describe their origin, insertion, nerve supply and actions of muscles of pelvic floor 5) Describe the boundaries and contents of superficial perineal pouch 6) Describe deep perineal pouch 7) List the boundaries and contents of ischio-rectal (anal) fossa 8) Give the clinical significance of ischio-rectal fossa			
5.	Breast	1) Describe the extent, surface anatomy and anatomical position of the breast 2) Identify and describe the gross structures of the breast 3) Describe the anatomical relations of the breast 4) Describe the arterial, venous and lymphatic drainage of the breast	LGIS-5	1	MCQs/ SAQs/ VIVA/ OSPE

EMBRYOLOGY

6.	Development of female reproductive system	1) Describe the development of uterus 2) Enlist the various developmental Anomalies of uterus 3) Describe the remnants of mesonephric and Paramesonephric ducts in females 4) Describe the development of ovaries 5) Describe the development of vagina 6) Describe the development of external genitalia in females 7) Discuss the developmental anomalies of female genitalia 8) Describe the development of mammary gland 9) Enlist various developmental anomalies of mammary gland along with embryological reasons	LGIS-6	1	MCQs/ SAQs/ VIVA/ OSPE
----	---	--	--------	---	---

HISTOLOGY

7.	Histology of female reproductive system	1) Describe the microscopic structure of uterus 2) Discuss the microscopic features of endometrium in different phases of menstrual cycle 4) Describe the microscopic structure of ovary 5) Elaborate the different stages of	LGIS-7	1	MCQs/ SAQs/ VIVA/ OSPE
----	---	--	--------	---	---

		ovarian follicle 6) Describe the microscopic features of inactive mammary gland 7) Describe the microscopic features of mammary gland during pregnancy and lactation 8) Describe the microscopic structure of fallopian tube			
PHYSIOLOGY					
8.	Male Reproductive System	1) Describe the spermatogenesis 2) Explain the function of prostate gland 3) Describe the composition of semen	LGIS-1 & 2	2	MCQs/ SAQs/ VIVA/ OSPE
9.	Male sex hormones	1) Relate the functions of testosterone with its secretion and metabolism 2) Describe the intracellular mechanism of action of testosterone 3) Relate the control of secretion of testosterone with its congenital and acquired abnormalities	LGIS-3 & 4	2	MCQs/ SAQs/ VIVA/ OSPE
10.	Female sex hormones	1) Describe the functions of Estrogens 2) Describe the functions of Progesterone	LGIS-5 & 6	2	MCQs/ SAQs/ VIVA/ OSPE
11.	Female Reproductive System	1) Describe the monthly ovarian cycle 2) Describe the effects of gonadotropic hormones on the ovaries. 3) Explain monthly endometrial cycle 4) Describe the role of hypothalamic and Pituitary ovarian system in controlling the female hormones 5) Define puberty, menarche and menopause. 6) Enumerate the changes produced in puberty	LGIS-7 & 8	2	MCQs/ SAQs/ VIVA/ OSPE
12.	Pregnancy -I	1) Describe the transport of fertilization ovum in the fallopian in the uterus. 2) Explain the effects of HCG in causing persistence in pregnancy 3) Describe the secretion of estrogen and progesterone by placenta 4) Describe the functions of HCS	LGIS-9 & 10	2	MCQs/ SAQs/ VIVA/ OSPE
13.	Pregnancy -II	1) Describe the maternal changes in pregnancy 2) Describe the changes in maternal circulatory system during pregnancy. 3) Describe the development of breast during pregnancy	LGIS-11 & 12	2	MCQs/ SAQs/ VIVA/ OSPE

14.	Parturition	1) Explain the process of parturition and involution of the uterus after parturition	LGIS-13 & 14	2	MCQs/ SAQs/ VIVA/ OSPE
15.	Milk production	1) Explain the functions of prolactin 2) Describe the ejection or “let down” of milk. 3) Explain the composition of milk	LGIS-15 & 16	2	MCQs/ SAQs/ VIVA/ OSPE

BIOCHEMISTRY

16.	Transcription-I	1) Define Transcription 2) Describe the gene structure of prokaryotes 3) Relate the structure of RNA polymerase with the process of transcription 4) Describe the process of transcription in prokaryotes	LGIS-1	1	MCQs/ SAQs/ VIVA/ OSPE
17.	Transcription-II	1) Describe eukaryotic gene transcription 2) Describe post transcriptional modifications of RNA 3) Relate the clinical significance of rifampicin and actinomycin-D with inhibition of transcription	LGIS-2	1	MCQs/ SAQs/ VIVA/ OSPE
18.	Regulation of Gene Expression-I	1) Describe the role of operons in gene regulation- in case of E. coli (prokaryotes) , including: a. Lac operon b. Tryptophan operon	LGIS-3	1	MCQs/ SAQs/ VIVA/ OSPE
19.	Regulation of Gene Expression-II	1) Relate the various methods of gene regulation (in case of eukaryotes), with the process of: a. Coordinate regulation b. mRNA processing c. Regulation through variation in DNA	LGIS-4	1	MCQs/ SAQs/ VIVA/ OSPE

PAEDIATRICS

20.	Normal Neonate	1) Describe neonatal adaptation to extrauterine life 2) Describe normal newborn characteristics 3) Discuss common physiological problems in neonates	LGIS-1	1	MCQs/ SAQs/ VIVA/ OSPE
21.	Prematurity	1) Define and classify prematurity 2) Describe features of preterm neonate 3) Discuss complications of prematurity 4) Outline basic care of preterm neonate	LGIS-2	1	MCQs/ SAQs/ VIVA/ OSPE

COMMUNITY MEDICINE

22.	Maternal Child Health -I	1) Describe the steps of antenatal and postnatal care, family planning and emergency obstetric care	LGIS-1	1	MCQs/ SAQs/ VIVA/ OSPE
23.	Maternal Child Health-II	1) Describe the causes, impact and prevention of maternal mortality in Pakistan 2) Explain the importance of breast feeding	LGIS-2	1	MCQs/ SAQs/ VIVA/ OSPE

FORENSIC MEDICINE

24.	Confirmation of Pregnancy	1) Differentiate between Presumptive, probable & confirmatory test of pregnancy 2) Describe the basic significance & limitations of each category of pregnancy test 3) Explain the medico legal importance of establishing pregnancy in relevant clinical & forensic situations	LGIS-1	1	MCQs/ SAQs/ VIVA/ OSPE
-----	---------------------------	---	--------	---	---------------------------------

SURGERY

25.	Lump in breast	1) Define a breast lump and describe the common causes of breast lumps 2) Describe the systematic clinical assessment of a breast lump 3) Differentiate clinically between benign and malignant breast lumps 4) Outline the initial investigations of a breast lump, including the principles of triple assessment 5) Describe the basic principles of management and referral of common breast lumps	LGIS-1	1	MCQs/ SAQs/ VIVA/ OSPE
-----	----------------	---	--------	---	---------------------------------

GYNAECOLOGY

26.	Normal Labour and Abnormal Labour	1) Describe the stages and mechanism of normal labour 2) Recognise abnormal progress and complications of labour 3) Interpret a partograph and CTG 4) Outline an appropriate management plan	LGIS-1	1	MCQs/ SAQs/ VIVA/ OSPE
27.	Acute abdomen in Obstetrics	1) Identify common obstetric causes of acute abdomen 2) Recognize key clinical features and differentiate common causes of acute abdomen 3) Outline the initial management plan for acute abdomen	LGIS-2	1	MCQs/ SAQs/ VIVA/ OSPE

BEHAVIOURAL SCIENCES

28.	Perinatal Stress management & Maternal Mental Health	1) Differentiate between normal gestational distress, perinatal anxiety disorders, and postpartum mood disorders using DSM/ICD guidelines 2) Implement simple non-pharmacological behavioural stress reduction techniques (mindfulness, relaxation exercises) into routine antenatal care 3) Evaluate the role of collaborative care between health psychologists and obstetricians to improve maternal-fetal outcomes	LGIS-1	1	MCQs/ SAQs/ VIVA/ OSPE
-----	--	--	--------	---	---------------------------------

DIRECTED SELF LEARNING

S.No	Topic	Learning objectives	Teaching strategies	Hours	Assessment
PHYSIOLOGY					
1.	Ovarian Cycle	1) Describe the sequential phases of the ovarian cycle and the key physiological changes occurring in the ovarian follicle. 2) Explain the hormonal regulation of follicular development 3) Explain the physiological basis of ovulation 4) Describe the formation, function and regression of the corpus luteum 5) Interpret the major hormonal changes during the ovarian cycle	DSL	1	MCQs/ SAQs

DISSECTION

S.No	Topic	Learning objectives	Teaching strategies	Hours	Assessment
ANATOMY					
1.	Bony Pelvis	1) Identify and describe the bones and major landmarks of the bony pelvis. 2) Identify the major joints and ligaments of the pelvis and describe their anatomical relationships. 3) Describe the boundaries and subdivisions of the pelvic cavity 4) Differentiate the male and female bony pelvis based on key anatomical features and pelvic measurements.	Dissection-1	1.5	OSPE/VIVA

		5) Identify the major pelvic foramina, notches and passages and relate their anatomical significance to structures transmitted through them.			
2.	Pelvic Diaphragm	1) Identify and demonstrate the components of the pelvic diaphragm 2) Identify the subdivisions of levator ani and demonstrate their orientation in the pelvis. 3) Describe the nerve and blood supply of the pelvic diaphragm and identify the pudendal nerve and relevant vessels in the dissection. 4) Demonstrate the openings and structures passing through the pelvic diaphragm 5) Explain the functions and clinical importance of the pelvic diaphragm	Dissection-2	1.5	OSPE/VIVA
3.	Difference between male & female pelvis	1) Identify and demonstrate the major differences between male and female pelvic bones 2) Compare the pelvic inlet and outlet in males and females 3) Demonstrate the differences in the subpubic angle, greater sciatic notch, sacrum, and ischial spines 4) Compare the overall structure and dimensions of the male and female pelvis and relate these differences to their respective functions.	Dissection-3	1.5	OSPE/VIVA
4.	Osteology of sacrum	1) Identify and orient the sacrum and describe its anatomical position, surfaces, borders, base, apex, and lateral parts. 2) Identify the important features on the pelvic and dorsal surfaces of the sacrum 3) Demonstrate the articular surfaces and attachments of the sacrum 4) Identify the sacral foramina and describe the structures transmitted through them	Dissection-4	1.5	OSPE/VIVA
5.	Sacroiliac joint	1) Identify and demonstrate the articular surfaces of the sacroiliac joint on the sacrum and ilium. 2) Describe the type, anatomical features, and orientation of the sacroiliac joint. 3) Identify and demonstrate the major ligaments of the sacroiliac joint.	Dissection-5	1.5	OSPE/VIVA

		4) Describe the movements, stability, and major muscle forces acting across the sacroiliac joint.			
--	--	---	--	--	--

LAB WORK

S.No	Topic	Learning objectives	Teaching strategies	Hours	Assessment
------	-------	---------------------	---------------------	-------	------------

ANATOMY

1.	Histology of female reproductive system	1) Describe the microscopic structure of uterus, fallopian tubes & ovaries under microscope 2) Describe the microscopic structure of mammary glands under microscope	Demonstration / Practical	1.5	OSPE
----	---	---	---------------------------	-----	------

PHYSIOLOGY

2.	Pregnancy test	1) Describe the physiological basis and principle of the direct pregnancy test, based on detection of human chorionic gonadotropin (hCG). 2) Identify the specimen, materials, and reagents required for performing a direct pregnancy test. 3) Demonstrate the correct procedure for performing the direct pregnancy test using the provided kit/specimen. 4) Interpret the test result correctly as positive or negative based on the control and test indicators. 5) Explain the significance, limitations, and possible causes of false-positive and false-negative results in a pregnancy test.	Demonstration / Practical	1.5	OSPE
----	----------------	--	---------------------------	-----	------

SMALL GROUP DISCUSSIONS

S.No	Topic	Learning objectives	Teaching strategies	Hours	Assessment
------	-------	---------------------	---------------------	-------	------------

BIOCHEMISTRY

1.	Post transcriptional & Post translational modifications	1) Describe the effects of Post transcriptional & Translational Modifications	SGDs	1.5	MCQs/SAQs
----	---	---	------	-----	-----------

Theme-2: Infertility

Introduction:

This theme consists of gross, microscopic features and development of testes, fallopian tubes, genital ducts and genitalia. Structure, mechanism of action and regulation of sex hormones are included. Oral contraceptive medicines, sexually transmitted diseases as well as causes, and investigations of infertility are also discussed.

THEME-2 (Infertility)					
S.No	Topic	Learning objectives	Teaching strategies	Hours	Assessment
GROSS ANATOMY					
1.	Gross Anatomy of male genitalia	1) Describe the anatomy of scrotum 2) Discuss the gross anatomy of testes 3) Describe the coverings and contents of spermatic cord 4) Describe epididymis, ductus deferens and seminal vesicles 5) Describe the clinical correlates of male genital system	LGIS-8	1	MCQs/ SAQs/ VIVA/ OSPE
2.	Gross Anatomy of female genitalia	1) Give the gross Anatomy of female external genitalia and vagina	LGIS-9	1	MCQs/ SAQs/ VIVA/ OSPE
EMBRYOLOGY					
3.	Development of male reproductive system	1) Describe the development of external genitalia in males 2) Discuss the developmental anomalies of male genitalia 3) Describe the development of testis 4) Name the factors responsible for descent of testis 5) Discuss the descent of testis 6) Describe the developmental anomalies of testes 7) Discuss the development of epididymis, vas deferens and seminal vesical 8) Describe the remnants of mesonephric and paramesonephric ducts in males	LGIS-10	1	MCQs/ SAQs/ VIVA/ OSPE
HISTOLOGY					

4.	Histology of male reproductive system	1) Discuss general microscopic structure of testes 2) Discuss seminiferous tubules 3) Discuss different cells of seminiferous epithelium 4) Define blood testes barrier 5) Describe the microscopic structure of epididymis, ductus deferens and seminal vesicle	LGIS-11	1	MCQs/ SAQs/ VIVA/ OSPE
PHYSIOLOGY					
5.	Sex Hormones –I	1) Describe the structure, secretion, mechanism of action, physiological actions and regulation of Testosterone 2) Describe the hormonal changes occurring in puberty in males and females	LGIS-17 & 18	2	MCQs/ SAQs/ VIVA/ OSPE
6.	Sex Hormones –II	1) Describe the structure, secretion, mechanism of action, physiological actions and regulation of Estrogen and Progesterone 2) Describe the mechanism of Ovulation	LGIS-19 & 20	2	MCQs/ SAQs/ VIVA/ OSPE
BIOCHEMISTRY					
7.	Translation-I	1) Describe the genetic code and its characteristics 5) Describe the process of initiation, elongation and termination of protein synthesis	LGIS-5	1	MCQs/ SAQs/ VIVA/ OSPE
8.	Translation-II	1) Understand the concept of translation- Explain how mRNA is decoded to synthesize a polypeptide chain 2) Describe the roles of key molecular components- Identify the functions of ribosomes, tRNA, mRNA, aminoacyl-tRNA synthetases, and initiation/elongation/termination factors. 4) Discuss regulation and clinical significance – Recognize how translation is regulated and impact of mutations	LGIS-6	1	MCQs/ SAQs/ VIVA/ OSPE
9.	Translation-III	1) Describe the post-translational modifications 2) Explain the effects of various inhibitors on protein translation	LGIS-7	1	MCQs/ SAQs/ VIVA/ OSPE

10.	Sex Hormones	1) Discuss the chemistry of these hormones 2) Describe the synthesis of these hormones 3) Discuss the enzyme deficiencies and their manifestations 4) Describe the diagnostic role of 17-ketosteroids' excretion in urine 5) Describe the mechanism of action of these hormones and their receptors 6) Describe the classical and non-classical target organs of these hormones 7) Describe the metabolic functions of these hormones 8) Describe the regulation of these hormones especially by FSH & LH 9) Discuss the manifestations of deficiency and excess of these hormones 10) Discuss the andropause and menopause 11) Discuss the role of LHRH Agonists and antagonists as well as anti-androgens 12) Discuss the role of 5 α -Reductase Inhibitors	LGIS-8	1	MCQs/ SAQs/ VIVA/ OSPE
PHARMACOLOGY					
11.	Oral contraceptives	1) Describe the types, mechanism of action and physiological effects of Estrogens and Progesterone containing oral contraceptives	LGIS-1	1	MCQs/ SAQs/ VIVA/ OSPE
FORENSIC MEDICINE					
12.	Medico legal aspect of pregnancy	1) Explain the legal significance of establishing pregnancy in forensic practice 2) Identify situations in which pregnancy has medico legal importance 3) Discuss the role of pregnancy assessment in cases involving sexual offences, legitimacy, abortion, and other legal	LGIS-2	1	MCQs/ SAQs/ VIVA/ OSPE

		proceedings			
COMMUNITY MEDICINE					
13.	Sexually transmitted diseases (STDs)	1) Describe the types of STDs 2) Describe the guidelines for the prevention and management of STDs	LGIS-3	1	MCQs/ SAQs/ VIVA/ OSPE
UROLOGY					
14.	Infertility	1) Describe the etiology and investigations of male infertility 2) Describe normal semen analysis 3) Define oligo/azoospermia	LGIS-1	1	MCQs/ SAQs/ VIVA/ OSPE
GYNAECOLOGY					
15.	Infertility	1) Define & classify infertility 2) Describe common female causes of infertility 3) Outline the basic evaluation of a female with a history of infertility 4) Describe the principles of management of female infertility	LGIS-3	1	MCQs/ SAQs/ VIVA/ OSPE
BEHAVIOURAL SCIENCES					
16.	Psychological Mechanics & Impact of fertility	1) Explain the HPA-axis pathways through which chronic psychological distress disrupts reproductive hormones and physiological function in infertile couples 2) Identify primary psychological screening indicators (anxiety, distress, depression) in patients undergoing assisted reproductive technologies 3) Apply empathetic and evidence-based communication skills while counselling infertile patients regarding diagnosis and compliance	LGIS-2	1	MCQs/ SAQs/ VIVA/ OSPE

DIRECTED SELF LEARNING					
S.No	Topic	Learning objectives	Teaching strategies	Hours	Assessment
PHYSIOLOGY					
1.	Clinical Markers of Ovulation & their co-relation along with PCOD	1) Describe the physiological basis of ovulation and identify the major clinical markers used to detect ovulation 2) Interpret common clinical and laboratory markers of ovulation	DSL	1	MCQs/ SAQs

		3) Correlate the different markers of ovulation and explain how they can be used together to assess whether ovulation has occurred. 4) Describe the hormonal and physiological abnormalities associated with PCOD/PCOS, hyperandrogenism, and anovulation.			
--	--	---	--	--	--

DISSECTION

S.No	Topic	Learning objectives	Teaching strategies	Hours	Assessment
------	-------	---------------------	---------------------	-------	------------

ANATOMY

1.	Perineum	1) Identify and define the boundaries and subdivisions of the perineum 2) Demonstrate the important anatomical structures of the perineum 3) Identify the muscles of the superficial and deep perineal pouches and describe their attachments and functions. 4) Demonstrate the major nerves and blood vessels of the perineum 5) Explain the anatomical and clinical importance of the perineum, including its role in pelvic floor support, continence, and obstetric injuries.	Dissection-6	1.5	OSPE/VIVA
2.	Female Reproductive Organs	1) Identify and demonstrate the major organs of the female reproductive system 2) Describe the gross anatomy, parts, anatomical relations, and supporting ligaments of the uterus and ovaries. 3) Demonstrate the course and anatomical relations of the uterine tubes. 4) Identify the major blood vessels, lymphatic drainage, and nerve supply of the female reproductive organs. 5) Explain the anatomical and clinical importance of the female reproductive system, including the anatomical basis of common conditions such as ectopic pregnancy and uterine prolapse.	Dissection-7	1.5	OSPE/VIVA

3.	Male Reproductive Organs	1) Identify and demonstrate the major organs of the male reproductive system 2) Describe the gross anatomy, parts, anatomical relations, and coverings of the testes and epididymis. 3) Demonstrate the course and relations of the ductus deferens and identify the components of the spermatic cord. 4) Identify the accessory reproductive glands and describe their anatomical relations, ducts, and contributions to semen. 5) Explain the blood supply, lymphatic drainage, and nerve supply of the male reproductive organs and relate them to important clinical conditions such as undescended testis and varicocele.	Dissection-8	1.5	OSPE/VIVA
4.	Blood vessels & Nerves of the Pelvis	1) Identify and demonstrate the major arteries of the pelvis, particularly the internal iliac artery and its anterior and posterior divisions with their branches. 2) Identify the major pelvic veins and describe the formation, tributaries, and clinical significance of the internal iliac venous system and pelvic venous plexuses. 3) Identify and demonstrate the major nerves of the pelvis 4) Describe the distribution and areas of supply of the major pelvic nerves and blood vessels to the pelvic viscera, pelvic walls, and perineum. 5) Explain the anatomical and clinical importance of pelvic blood vessels and nerves	Dissection-9	1.5	OSPE/VIVA

LAB WORK

S.No	Topic	Learning objectives	Teaching strategies	Hours	Assessment
ANATOMY					
1.	Histology of male reproductive system	1) Describe the microscopic structure of Testes and Epididymis under microscope	Demonstration / Practical	1.5	OSPE
PHYSIOLOGY					

2.	Indirect Pregnancy test	1) Describe the principle and physiological basis of the indirect pregnancy test 2) Demonstrate the correct procedure for performing the indirect pregnancy test using the appropriate laboratory method. 3) Interpret the test results correctly and differentiate between positive and negative reactions. 4) Explain the clinical significance and limitations of the indirect pregnancy test, including possible causes of false-positive and false-negative results.	Demonstration / Practical	1.5	OSPE
----	-------------------------	--	---------------------------	-----	------

SMALL GROUP DISCUSSIONS

S.No	Topic	Learning objectives	Teaching strategies	Hours	Assessment
BIOCHEMISTRY					
1.	Gene Expression Regulation and operons	1) Give types of operons with examples 2) Describe Trans acting and cis acting elements 3) Describe the concept of RNAi	SGDs	1.5	MCQs/SAQs

Subject	LGIS	Practical/Demo	SGD	DSL	Dissection	Total Hours
ANATOMY (Histology, Embryology)	11	3	-	-	13.5	27.5
PHYSIOLOGY	20	3	-	2	-	25
BIOCHEMISTRY	8	-	3	-	-	11
PHARMACOLOGY	1	-	-	-	-	1
FORENSIC MEDICINE	2	-	-	-	-	2
BEHAVIOURAL SCIENCES	2	-	-	-	-	2
COMMUNITY MEDICINE	3	-	-	-	-	3
PAEDIATRICS	2	-	-	-	-	2
SURGERY	1	-	-	-	-	1
GYNAE/OBS	3	-	-	-	-	3
UROLOGY	1	-	-	-	-	1
PRIME (Leadership)	1	-	-	-	-	1
PRIME (Research/JC)	2	-	-	-	-	2
Pak Studies	5	-	-	-	-	5
TOTAL	62	6	3	2	13.5	86.5



3. Learning Opportunities and Resources

a. Instruction (if any)

- Try to be regular in class as teacher is the best guide & facilitator.
- Make your studies a primary goal.
- Study your textbooks covering the learning objectives relevant to the topic of study, read reference books when needed and do use other learning resources such as videos, text relevant to the topic on website and research articles.

b. Books:

S.No	Subject	Learning Resources/ Recommended Books
1.	Gross Anatomy	Clinical Anatomy by Regions by Richard S. Snell (Latest Edition)
		Gray's Anatomy for Students (Latest Edition)
		K.L. Moore, Clinically Oriented Anatomy (Latest Edition)
		Netter's "Atlas of Human Anatomy (Latest Edition)
		Last's Anatomy (Latest Edition)
2.	Histology	Textbook of Histology by Junqueira (Latest Edition)
		diFiore's ATLAS of Histology with Functional Correlations (Latest Edition)
		Atlas of Human Histology by Wheaters. (Latest Edition)
		Textbook of Histology by LaiqHussain (Latest Edition)
3.	Embryology	Langman's Medical Embryology (Latest Edition)
		The Developing Human "by Keith L Moore" (Latest Edition)
4.	Physiology	Textbook of Medical Physiology by Guyton and Hall (Latest Edition)
		Ganong's "Review of Medical Physiology" (Latest Edition)
5.	Biochemistry	Harper's Illustrated Biochemistry (Latest Edition)
		Lippincott's Illustrated Review: Biochemistry (Latest Edition)
6.	Pharmacology	Katzung's Basic and Clinical Pharmacology (Latest Edition)
7.	Pathology	Robbin's Basic Pathology (Latest Edition)
8.	Community Medicine	Essential Community Medicine (Latest Edition)
		K Park Textbook of Preventive and Social Medicine (Latest Edition)
9.	General Medicine	Davidson's Principles and Practice of Medicine (Latest Edition)
10.	Radiology	David Sutton's Textbook of Radiology and Imaging (Latest Edition)
11.	Neurosurgery	Greenberg's Textbook of Neurosurgery
		Rangacharya's Principles of Neurosurgery

8. Examination and Methods of Assessment:

Assessments within the MBBS program at the MIMC consist of both formative and summative evaluations. These assessments are crucial for monitoring student progress and academic performance.

Formative Assessment:

Formative assessments, accounting for 20% of the total marks assigned to each block, serve as ongoing evaluations designed to provide feedback and promote learning. Formative assessments are conducted after the completion of each module, ensuring students receive timely feedback to enhance their understanding and performance.

Summative Assessment:

Summative assessments, comprising 80% of the total assessment weighting, are conducted and overseen by constituent university as part of the annual examination process. This summative assessment evaluates students' comprehensive understanding of the curriculum and constitutes a significant portion of their final scores.

Assessment Tools:

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

1. **Written Examinations:** These include Multiple Choice Questions (MCQs) and Short Answer Questions (SAQs) that assess students' theoretical knowledge.
2. **Performance Assessments:** Objective Structured Practical Examinations (OSPE) and Objective Structured Clinical Examinations (OSCE) are used to evaluate practical skills and clinical competence.



9. Learning Opportunities and Resources

1. Anatomy

Books:

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

Online Resources:

- [TeachMeAnatomy](#) – Comprehensive anatomy resource with diagrams and explanations.
- [AnatomyZone YouTube Channel](#) – 3D anatomy tutorials.

2. Histology

Books:

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

Online Resources:

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

3. Embryology

Books:

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

Online Resources:

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

4. Physiology

Books:

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

Online Resources:

- Vivo Interactive Physiology – Interactive tutorials on physiology topics.
- [PhysioPathoPharmaco YouTube Channel](#) – Physiology explanations and tutorials.

5. Biochemistry

Books:

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

Online Resources:

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

6. Pharmacology

Books:

- *Katzung's Basic and Clinical Pharmacology* (Latest Edition)

Online Resources:

- [Pharmacology YouTube Channel by Ninja Nerd](#) – Detailed pharmacology lectures and notes.
- [GoodRx Pharmacology Resources](#) – Practical applications of pharmacology in medicine.

7. Pathology

Books:

- *Robbins Basic Pathology* (Latest Edition)

Online Resources:

- [PathologyOutlines.com](#) – An online pathology resource with a focus on differential diagnosis.
- [Dr. John Minarcik YouTube Channel](#) – Free pathology lectures and tutorials.

8. Community Medicine

Books:

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

Online Resources:

- [CDC Public Health](#) – Extensive resources on public health and community medicine.
- [Public Health England YouTube Channel](#) – Videos on various community health topics.

9. Forensic Medicine

Books:

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

Online Resources:

- [Forensic Medicine Online](#) – Detailed forensic medicine resources for students.
- [Forensic Pathology Lectures YouTube Channel](#) – Educational videos on forensic pathology.

10. General Medicine

Books:

- *Davidson's Principles and Practice of Medicine* (Latest Edition)

Online Resources:

- [Medscape](#) – Comprehensive resource for clinical medicine and continuing medical education.
- [Geeky Medics YouTube Channel](#) – Clinical skills and general medicine tutorials.

10. For inquiry and troubleshooting



Please contact
D.M.E

11. Course Feedback Form

Course Title: _____

Semester/Module _____ Dates: _____

Please fill the short questionnaire to make the course better.

Please respond below with 1, 2, 3, 4 or 5, where 1 and 5 are explained.

THE DESIGN OF THE MODLUE

- | | | |
|--|---|--------------------------|
| A. Were objectives of the course clear to you? | Y ☐ N ☐ | |
| B. The course contents met with your expectations | | ☐ |
| 1. Strongly disagree | 5. Strongly agree | |
| C. The lecture sequence was well-planned | | ☐ |
| 1. Strongly disagree | 5. Strongly agree | |
| D. The contents were illustrated with | | ☐ |
| 1. Too few examples | 5. Adequate examples | |
| E. The level of the course was | | ☐ |
| 1. Too low | 5. Too high | |
| F. The course contents compared with your expectations | | ☐ |
| 1. Too theoretical | 5. Too empirical | |
| G. The course exposed you to new knowledge and practices | | ☐ |
| 1. Strongly disagree | 5. Strongly agree | |
| H. Will you recommend this course to your colleagues? | | ☐ |
| 1. Not at all | 5. Very strongly | |

THE CONDUCT OF THE MODLUE

- | | | |
|--|---|--------------------------|
| A. The lectures were clear and easy to understand | | ☐ |
| 1. Strongly disagree | 5. Strongly agree | |
| B. The teaching aids were effectively used | | ☐ |
| 1. Strongly disagree | 5. Strongly agree | |
| C. The course material handed out was adequate | | ☐ |
| 1. Strongly disagree | 5. Strongly agree | |
| D. The instructors encouraged interaction and were helpful | | ☐ |
| 1. Strongly disagree | 5. Strongly agree | |
| E. Were objectives of the course realized? | Y ☐ N ☐ | |

F. Please give overall rating of the course

90% - 100%	()	60% - 70%	()
80% - 90%	()	50% - 60%	()
70% - 80%	()	below 50%	()

Please comment on the strengths of the course and the way it was conducted.

Please comment on the weaknesses of the course and the way it was conducted.

Please give suggestions for the improvement of the course.

Optional - Your name and contact address:

Thank you!!

12. Students Diary/Notes

[illegible]

PROGRESS: _____

ACHIEVMENT: _____