Anatomy Department

CMH Institute of Medical Sciences (CIMS)

Multan

Student Study Guide

2nd Year MBBS

Contents

Departmental Vision Statement

Welcome to the Department of Anatomy at CMH Institute of Medical Sciences (CIMS) Multan. We strive to inspire nationally and internationally by pursuing excellence in medical education, research and patient care to meet the evolving healthcare needs of the nation and the region through Professionalism, Excellence and Teamwork.

Our priority for medical students is to equip them in the discipline of Human Anatomy, by imparting knowledge and understanding of structure and function of human systems. Thus, to foster the development of professional skills through well designed curriculum; based on experiments, training and research.

It is our mission to produce socially accountable competent doctors who will make a significant contribution to the health of the community through evidence-based healthcare.

We are very pleased to have an outstanding team contributing to the success of the Department of Anatomy. We strive to continue to provide exceptional teaching to our students.

Head of Department
Prof. Dr. Santosh Kumar

Details of Faculty

Sr. No.	Name	Designation	Qualification
1.	Dr. Santosh Kumar	Professor, HOD	MBBS, MPhil (Anatomy)
2.	Dr. Wajid Hussain Barki	Professor, Principal CIMS	MBBS, MPhil (Anatomy)
3.	Dr. Sadaf Rizwan	Assistant Professor	MBBS, MPhil (Anatomy)
4.	Dr. Aasma Hashmi	Assistant Professor	MBBS, FCPS (Anatomy)
5.	Dr. Muhammad Arshad	Senior Demonstrator	MBBS
6.	Dr. Shabnam Riaz	Demonstrator	MBBS, DGO
7.	Dr. Mariah Noor	Demonstrator	MBBS
8.	Dr. Yasir Ali	Demonstrator	MBBS
9.	Dr. M. Faraz Shaukat	Demonstrator	MBBS
10.	Dr. Samar Tariq	Demonstrator	MBBS
11.	Dr. Ahmad Ali Cheema	Demonstrator	MBBS
12.	Dr. Amna Ilyas	Demonstrator	MBBS
13.	Dr. Maham Ubaid	PGR	MBBS

Faculty Dedicated to Second Year

Lectures:

Venue	Name	Designation
Joint Lecture Hall	Dr. Santosh Kumar	Professor
	Dr. Aasma Hashmi	Asst. Professor

Dissection/ Prosection Activity:

Venue	Name	Designation
Dissection Hall	Dr. Mariah Noor	Demonstrator
	Dr. Yasir Ali	Demonstrator
	Dr. M. Faraz Shaukat	Demonstrator
	Dr. Samar Tariq	Demonstrator

Tutorial/Demonstrations:

Venue (on rotation)	Name	Designation
Tutorial Room-3 Dissection Hall Museum Skill Lab	Dr. Mariah Noor	Demonstrator
	Dr. Yasir Ali	Demonstrator
	Dr. M. Faraz Shaukat	Demonstrator
	Dr. Samar Tariq	Demonstrator

CBL:

Venue	Name	Designation
Tutorial Room-2 Museum	Dr. Mariah Noor, Dr. Yasir Ali	Demonstrator
	Dr. M. Faraz Shaukat, Dr. Samar Tariq	Demonstrator

Practicals:

Venue	Name	Designation
Histology	Dr. Shabnam Riaz	Demonstrator

Introduction / Guidelines

What is a study guide?

It is an aid to:

- Inform students how student learning program of the block has been organized.
- Help students organize and manage their studies throughout the module.
- Guide students on assessment methods, rules and regulations.

The study guide:

- Informs about organization and management of the block.
- Defines the objectives which are expected to be achieved at the end of the block.
- Identifies the learning strategies such as lectures, small group teachings, clinical skills, demonstrations, tutorials, and case-based learning that will be implemented to achieve the block objectives.
- Provides a list of learning resources such as books, computer assisted learning programs, web-links, and journals, for students to consult in order to maximize their learning.
- Highlights information on the contribution of continuous assessment and annual examinations on the student's overall performance.
- Includes information on the assessment methods.
- Focuses on information pertaining to examination policy, rules and regulations.

Organization.

The curriculum of 1st year MBBS is modular. It is organized and the content taught is integrated concurrently in themed modules. The themes form the building blocks of this curriculum. There can be vertical thread of content across more than one module for the content that does not fit into central theme of a module. In each module the sequencing of the content is subject based. Modules.

The key detail is as follows

1. There shall be three blocks in an academic year.
2. Each block consists of multiple modules.
3. The duration of three blocks shall be 10 – 16 weeks each.
4. The syllabus shall be integrated horizontally around systems of the body.
5. Additional chunks of content may be added in a module that exactly does not fit in the central theme of the module.
6. There can be vertical thread of a content across more than one module for the content that does not fit into central theme of a module
7. There shall by vertical integration to the extent decided by the medical college.
8. Total Contact Hours of Anatomy is 250 hours

Teaching and Learning methods (MIT):

Following modes of information transfer (MIT) shall be used

- Large Group Interactive Lectures
- Clinical lectures of basic sciences
- Case based Learning in Small Groups
- Dissection Hall Tutorials
- Histology Laboratory Work

1. Interactive lectures:

In large group, the lecturer introduces basic science concepts through 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.

2. Self-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.

3. Case based learning (CBL):

3.1. What is case based learning?

Case based learning is a form of small group learning that involves the use of learning activities commonly based on patient cases associated with real life situations. A case is used to stimulate learning and acquisition of knowledge, skills and attitudes. It is structured so that students develop the skills of clinical reasoning and critical thinking.

In CBL, the learning objectives for the case are explicitly stated at the beginning of the case, and the learners can focus their learning on attaining the specific outcomes. The students learning through CBL case is supported by other teaching modalities scheduled during the week (for example lectures, e-modules, videos, seminars, etc.).

All of these learning activities and resources have been designed and organized to allow students to approach their learning as "Discovery Learning" and to create a learning environment that brings together related content from the different domains of medical knowledge.

The Goal of CBL is for student to integrate knowledge and apply it to clinical situations from the start of their medical education.

3.2. Self-Assessment and Reflection in CBL

When you are preparing for the case you should reflect and answer the following questions to help you focus your learning.

1. What resources should I use to understand the case?
2. Do I understand how the parts of the case are connected?
3. How has my previous learning experience shaped my approach to this case?
4. What do I know to solve the case and achieve the learning objectives?

5. How do I seek and use feedback from others?
6. How do I seek and use data from other sources?
    - External sources (e.g. text books/journal articles/lectures/role models) It is also important for students to consider their emotional reaction to feedback and how they deal with this.

What steps should I take or resources should I use to respond to my areas in need of improvement?

You may consider various resources including:

- *Role models (tutor, other students who they find particular effective in their approach to learning)*
- *Literature:(journal articles/texts)*

3.3. The CBL / Tutorial process

1. **Pre- Tutorial:** self-study by students
2. **CBL session:**

a. Introduction and group rules

- **Tutor Introductions:** Tutor introduce herself/himself
- **Student Introductions:** Tutor asks the students introduce themselves to the group.
- **Group Rules:** Every group needs to establish their own accepted rules for group behavior. These would likely include that only one person speaks at once; everyone listens attentively, comes to tutorial prepared and contributes to the discussion. Other ground rules might relate to checking internet, dictionary, notes or taking phone calls during the session.

b. Tutorial Discussions

- The group will determine any roles people will adopt during the session (scribe, timekeeper, leader etc.).
- A student will volunteer to verbally read the first component of the case. The reading of the case provides the students an opportunity to formalize themselves with the pronunciation of unfamiliar terms and provides auditory learning opportunities.
- Discussion might begin with learners identifying any terms or concepts they did not understand.
- The tutor will use active listening skills, and open-ended questions to promote discussion, and probing questions to prompt learners to explore topics more deeply. For Example, can a "normal" Lab value be abnormal? What do we expect it to be in this case? The teacher will not deliver the content. Tutor will only facilitate your learning.

c. Feedback:

Feedback is an interactive process between two or more people that allows the parties to share information with the intention of guiding future performance. Feedback helps an individual to keep their behavior "on target", thus, it helps a person to better achieve their goals.

- *Feedback is specific rather than general.*
- *Feedback is descriptive rather than judgmental.*

- *Feedback is both positive and negative.*
- *Feedback takes into account the needs of both the receiver and the giver of feedback.*
- *Feedback is directed at behavior that the receiver can do something about.*
- *Feedback is solicited rather than imposed.*
- *Feedback is directed primarily at the person's performance or behavior rather than at the person themselves.*
- *Avoid defensiveness.*

d. Assessment:

Tutor completes formal assessment for the student in the CBL tutorial at the end of tutorial process. The tutor meets with each student in person to encourage self- assessment, discuss the assessment, and provides additional feedback.

e. At the end of a Session

By the end of each session, the students need to clarify any outstanding questions.

3.4. Expectations from the learner in CBL

Case based learning is a student-centered process and it is the responsibility of individual student to participate fully, not only for his or her own learning, but also to aid the learning of others in the group. Although much time is spent alone in the library or at the computer, the full benefits of CBL cannot be realized in isolation.

3.5. Guide to professional behavior during CBL session

(Courtesy of McMaster University and CPSP DME)

Respect

- Listens, and indicates so with appropriate verbal or non-verbal behavior.
- Verbal and non-verbal behaviors are neither rude, arrogant nor patronizing.
- Allows others to express opinions and give information without "putting down" anyone.
- Participates in discussion of differences in moral values.
- Differentiates value of information from value of person.
- Acknowledges others' contributions.
- Apologizes when late or gives reason for being so.

Communication Skills

- Speaks directly to group members.
- Presents clearly.
- Uses words that others understand
- Uses open-ended questions appropriately.
- Identifies misunderstanding between self and others or among others.
- Attempts to resolve misunderstanding.
- Tests own assumptions about group members.
- Accepts and discusses emotional issues.
- Able to express own emotional state in appropriate situations.
- Non-verbal behavior indicates that statements have been understood.
- Recognizes and responds to group member's non-verbal communication.

Responsibility

- Punctual completes assigned tasks.
- Presents relevant information.
- Identifies irrelevant or excessive information.
- Takes initiative or otherwise helps to maintain group dynamics.
- Advances discussion by responding to or expanding on relevant issues.
- I own emotional or physical state when relevant to own functioning or group dynamics.
- Describes strengths and weaknesses of group members in a supportive manner.

Self-Awareness/ Self-Evaluation

- Acknowledges own difficulty in understanding
- Acknowledges own lack of appropriate knowledge
- Acknowledges own discomfort in discussing or dealing with a particular issue
- Identifies own strengths
- Identifies own weaknesses
- Identifies means of correcting deficiencies or weaknesses
- Responds to fair negative evaluative comment with reasonable proposals for behavioral change

3.6. Using learning resources

In CBL, one of the objectives is self-directed learning. Students search for literature, based on the individual learning goals developed as a result of self-assessment and reflection question provided earlier in the guide.

Bring books and previous notes and use them in tutorial, if necessary, to clarify concepts and terminology. It is helpful to have a good dictionary to check the meaning of terms. We often use words as if we knew what they meant; it may be helpful to challenge your colleagues to define key terms.

To obtain additional information, provided to you, you may be directed to a specific resource or asked how you might find a good resource (journal article, book, expert, etc.). It is important to avoid "guessing games" or wasting time tracking down an obscure reference. But, on the other hand, it is important to develop skill in finding good information.

You are encouraged to discuss matters of interests pertaining to specific case with your peers. Develop a specific list of references for each case considered. Part of the overall learning experience implicit in CBL is the development of skills that will facilitate access to learning resources throughout your future professional career.

Examinations:

No student will be allowed to sit in the annual examination if attendance is below 75% in theory and practical separately.

Assessment types

The assessment will be continuous. The purpose of continuous assessment is formative and summative.

- **Summative Assessment:** The marks of this type of assessment contribute in the final university result through internal assessment. It comprises:
  - CBL/tutorial assessment
  - Scheduled tests
  - Sub-stages
  - End of block exam
  - Pre-annual exam

Scheduled tests and sub-stages will be conducted intermittently throughout the block. Their schedule will be intimated through the time tables.

- **The end of the Block exam** will be conducted after 09-15 weeks of instruction (depending on the block's volume and content). It will comprise one theory paper and one practical. (Table of specifications (TOS) for exam has been provided)
- **Formative Assessment:** Tests may be quizzes, surprise tests/written assignments/self-reflection by students during the teaching time but their marks will not be added to internal evaluation marks. The purpose of formative assessment is to provide feedback to the students, for the purpose of improvement and to teachers to identify areas where students need further guidance.

Internal Assessment

1. The department will plan out the EOB exams & Exam Branch will notify the schedules.
2. The weightage of internal assessment shall be 20 % in theory paper and 20 % in practical, in the annual professional examination.
3. Attendance, scheduled module tests, sub-stages, CBLs/tutorials, block examinations and pre-annual examinations, conducted by the college shall all contribute towards internal assessment for professional examination.
4. The results of Block exams will be submitted after each EOB exam to the university.

NUMS Professional Examination:

1. The professional examinations schedule will be notified by NUMS.
2. There will be two components of the result.

(i) University Examination-80 % (ii) Internal Assessment- 20 %

3. In the currently implemented integrated system, there will be theory paper 1, 2, & 3 + Practical exam of each block separately. Each Block exam with comprise of components from Anatomy, Physiology, and Biochemistry as per curricular content provided by NUMS.

4. Theory & Practical assessment shall be 150 marks each (including internal assessment) in Block I, Block II, and Block III, making a **total of 300 marks for each Block Exam.**

5. For each block exam, the annual theory paper shall be of 120 marks, with 70% weightage of MCQs, and 30% of SEQs/SAQs. Each paper will have three sections of Anatomy, Physiology, and Biochemistry with a total of 40 marks of each subject in each paper. Internal assessment (30 marks) of theory papers, calculated based on the performance throughout the year will be added to it, to make annual theory assessment of one Block a total of 150 marks.

6. Similarly, the annual practical examination for each block will be 120 marks. This will include observed & unobserved OSPE stations, and Viva voce for the subjects of Anatomy, Physiology, and Biochemistry. Internal assessment of practical exams (10 marks for each major subject), conducted throughout the year will be added to it, to make annual practical assessment of 150 marks for each block exam.

7. The qualifying score is 50% of maximum marks, in theory and practical separately.

Schedule of examinations:

a) Continuous assessments schedule

Schedule provided by each department in Timetable.

b) Formative Assessment: Will be conducted by the department in the form of written/OSPE/Presentation/quizzes/Assignments/Journals with a 20% weightage counted towards the internal assessment.

Sample questions

SAQs

CMH Multan Institute of Medical Sciences (CIMS)
Integrated Paper (Block-I Exam 2025) – 2nd Year MBBS
Subject: Anatomy, Physiology & Biochemistry Dated : 07 Apr 2025

Time Allowed : 1 Hr 35 Minutes Roll No : 9040
Total Marks : 36 Total Questions : 09
Notes : a. All questions are compulsory.
b. Attempt each Part on Separate Answer Sheet.

Part A (Anatomy)

Q-1. At birth, an apparently male baby has no testicles in the scrotum. Later, it is determined that both are in the abdominal cavity.

a. What is the term given to this condition? - **(0.5)**
b. Explain the embryological basis of this defect. - **(2.5)**
c. Name the male genital structures derived from the mesonephric duct? - **(1)**

Q.2. A 30-year-old man presents with burning pain in epigastric region. He also complains of nausea and vomiting. After examination, the surgeon diagnosed it as a case of gastric ulcer located along the lesser curvature of the stomach.

a. Discuss the arterial supply of stomach. Which artery is most likely to be at risk of bleeding due to proximity of the ulcer to lesser curvature? - **(1.5)**
b. Enlist posterior relations of stomach. - **(1)**
c. Enumerate the cells of stomach. - **(1.5)**

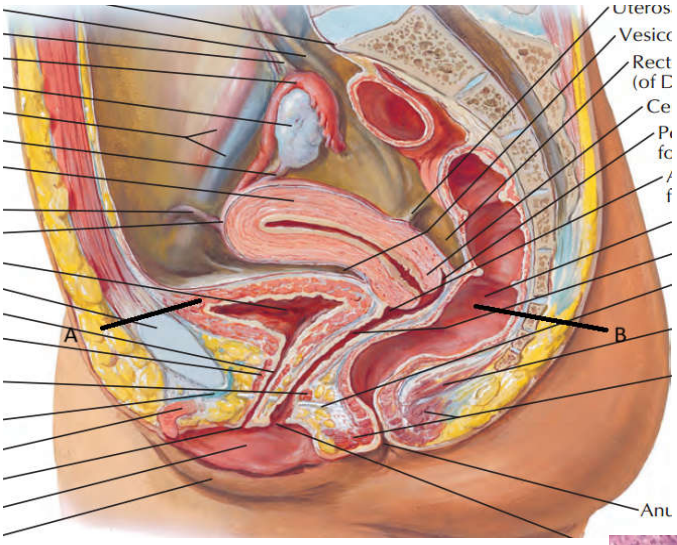
Q.3. a. What are the boundaries of ischiorectal fossa? - **(2)**
b. Name the muscles attach to perineal body. - **(2)**

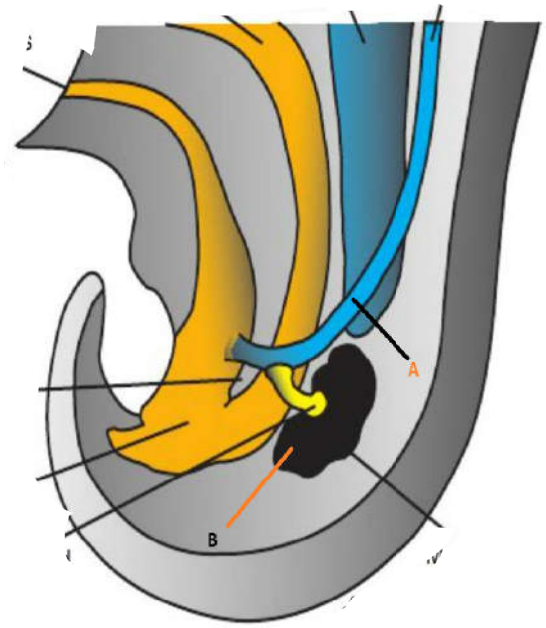
MCQs

1. A mother attends the OPD with the complain that her son has urine leakage from the ventral surface of his penis. On examination, doctor observes that the child has an opening of external urethral meatus on the ventral surface of penis. Which of the following is the cause?
    a) Failure of fusion of anal folds
    b) Failure of fusion of cloacal folds
    c) Failure of fusion of labioscrotal folds
    d) Failure of the fusion of urethral folds
2. Certain antibiotic therapies slow the replacement of the cells lining the small intestine. This may cause the loss of which tissue type?
    a) Simple columnar epithelium
    b) Simple cuboidal epithelium
    c) Pseudostratified columnar epithelium
    d) Stratified squamous epithelium

3. A 29-year-old woman is admitted to a hospital because the birth of her child is several days overdue. Tearing of the pelvic diaphragm during childbirth leads to paralysis of the following muscles:
    a) Levator ani
    b) Obturator internus
    c) Piriformis
    d) Sphincter ani externus

OSPE

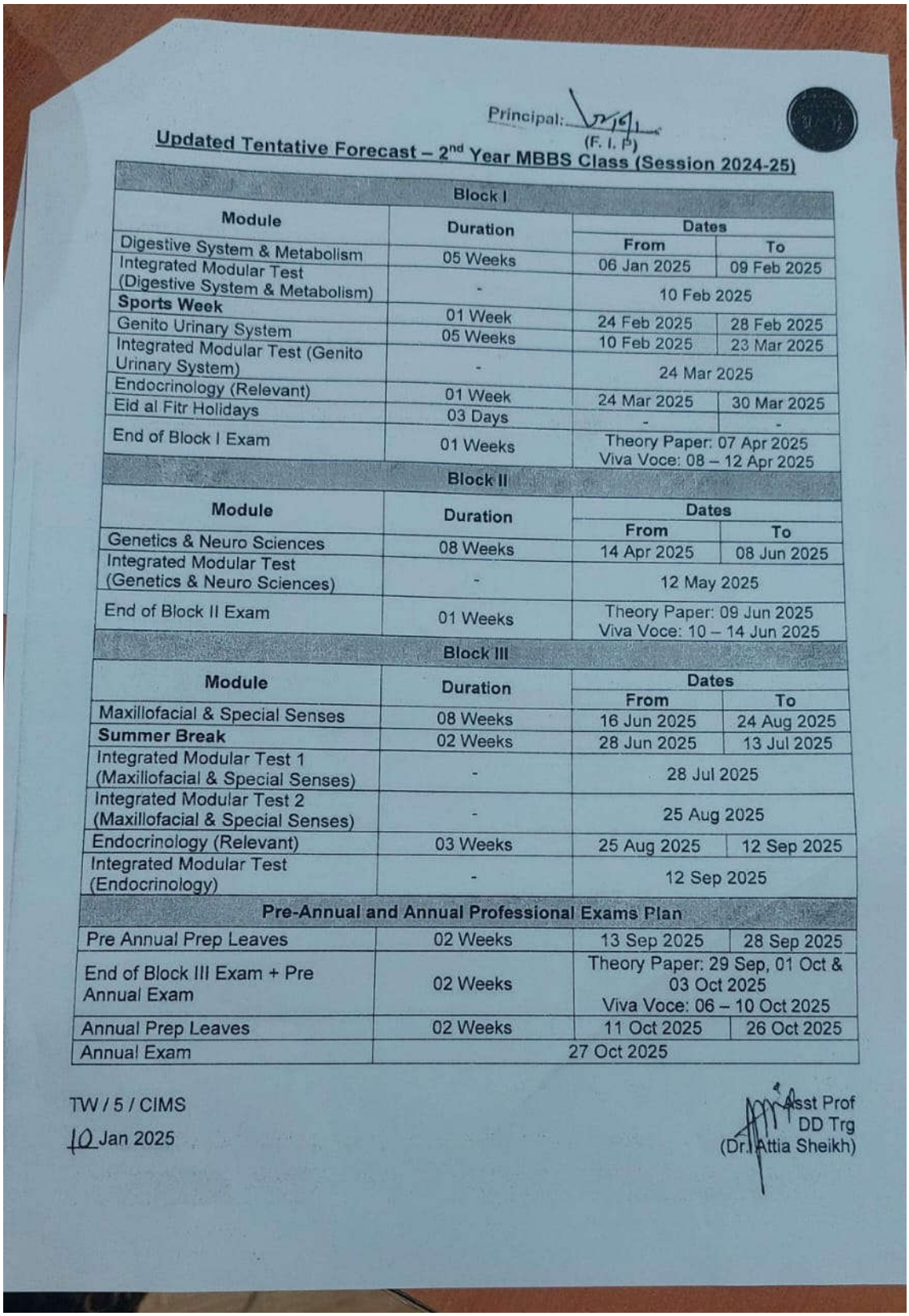




Curricular Map

Block	Duration of Module	Teaching Methodology	Assessment Methodology
Block I	**Modules:** **1.** Digestive System and Metabolism – I (5 weeks) **2.** Genitourinary System - I (5 weeks) **3.** Endocrinology (1 week) **Classes** = 11 weeks (05+05+01) **Assessment** = 01 week	• Lectures • CBL • SDL • Practical • Dissection	Test in Module One integrated test in each module – Theory + Viva + OSPE Final Integrated EOB exam Theory, OSPE, Practical, Viva Voce
Block II	**Modules:** **4.** Genetics and Neurosciences – I (8 weeks) **Classes** = 8 weeks **Assessment** = 1 weeks	• Lectures • CBL • SDL • Practical • Dissection	Test in Module One integrated test in block – Theory + Viva + OSPE Final Integrated EOB exam Theory, OSPE, Practical, Viva Voce
Block III	**Modules:** **5.** Maxillofacial and Special Senses (8 weeks) **6.** Endocrinology (3 weeks) **Classes** = 11 weeks (08+03) **Assessment** = 02 weeks (Merged with Pre-Annual Exam)	• Lectures • CBL • SDL • Practical • Dissection	Test in Module Two integrated tests in first module - Theory + Viva + OSPE One integrated test in second module – Theory + Viva + OSPE Final Integrated EOB exam Merged with Pre-Annual Exam Theory, OSPE, Practical, Viva Voce

Academic Year Calendar



Principal: (F. I. P)

Updated Tentative Forecast – 2nd Year MBBS Class (Session 2024-25)

Block I			
Module	**Duration**	**Dates**	
		From	**To**
Digestive System & Metabolism	05 Weeks	06 Jan 2025	09 Feb 2025
Integrated Modular Test (Digestive System & Metabolism)	-	10 Feb 2025	
Sports Week	01 Week	24 Feb 2025	28 Feb 2025
Genito Urinary System	05 Weeks	10 Feb 2025	23 Mar 2025
Integrated Modular Test (Genito Urinary System)	-	24 Mar 2025	
Endocrinology (Relevant)	01 Week	24 Mar 2025	30 Mar 2025
Eid al Fitr Holidays	03 Days	-	-
End of Block I Exam	01 Weeks	Theory Paper: 07 Apr 2025 Viva Voce: 08 – 12 Apr 2025	

Block II			
Module	**Duration**	**Dates**	
		From	**To**
Genetics & Neuro Sciences	08 Weeks	14 Apr 2025	08 Jun 2025
Integrated Modular Test (Genetics & Neuro Sciences)	-	12 May 2025	
End of Block II Exam	01 Weeks	Theory Paper: 09 Jun 2025 Viva Voce: 10 – 14 Jun 2025	

Block III			
Module	**Duration**	**Dates**	
		From	**To**
Maxillofacial & Special Senses	08 Weeks	16 Jun 2025	24 Aug 2025
Summer Break	02 Weeks	28 Jun 2025	13 Jul 2025
Integrated Modular Test 1 (Maxillofacial & Special Senses)	-	28 Jul 2025	
Integrated Modular Test 2 (Maxillofacial & Special Senses)	-	25 Aug 2025	
Endocrinology (Relevant)	03 Weeks	25 Aug 2025	12 Sep 2025
Integrated Modular Test (Endocrinology)	-	12 Sep 2025	

Pre-Annual and Annual Professional Exams Plan			
Pre Annual Prep Leaves	02 Weeks	13 Sep 2025	28 Sep 2025
End of Block III Exam + Pre Annual Exam	02 Weeks	Theory Paper: 29 Sep, 01 Oct & 03 Oct 2025 Viva Voce: 06 – 10 Oct 2025	
Annual Prep Leaves	02 Weeks	11 Oct 2025	26 Oct 2025
Annual Exam	27 Oct 2025		

TW / 5 / CIMS

10 Jan 2025

Asst Prof
DD Trg
(Dr. Attia Sheikh)

Structured Summary of Blocks & Modules

Block I

Theme	Subject	Topics
1. Digestive System & Metabolism - I (05 weeks)	**Histology**	• Histology of GIT • Histology of Small Intestine • Histology of Large Intestine • Histology of Liver, Gall Bladder, Pancreas
	Embryology	• Development of Foregut • Development of Midgut • Development of Hindgut
	Gross Anatomy	• Abdomen o Abdominal regions & quadrants o Anterior Abdominal wall o Inguinal Canal o Testis, Scrotum & Epididymis o Peritoneum o Esophagus & Stomach o Small Intestine o Large Intestine o Posterior Abdominal Wall o Lumbar Vertebrae o Innervation of Abdomen & Blood supply of GIT o Pancreas & Spleen o Portal System o Kidney o Ureter (abdominal & pelvic part) • Pelvis o Sacrum o Pelvic walls & Pelvic Diaphragm o Nerves of Pelvic walls o Sigmoid Colon, Rectum, Ischiorectal Fossa o Urinary Bladder & Urethra o Prostate & Seminal Vesicals o Uterus o Ovaries & Fallopian Tubes • Perineum o Anal Canal o Male External Genitalia o Female External Genitalia
2. Genitourinary System - I (05 weeks)	**Histology**	• Histology of Urinary system • Histology of Male Reproductive System o Prostate o Seminal Vesicals • Histology of Female Reproductive System o Uterus

		○ Ovaries & Fallopian Tubes ○ Cervix & Vagina
	Embryology	• Development of Urinary System • Development of Male Reproductive System • Development of Female Reproductive System
	Gross Anatomy	• Kidney & Suprarenal glands • Ureter & Urinary bladder • Pelvis (male & female pelvis) • Pelvic walls (bony & muscular) • Male Pelvic Organs ○ Prostate ○ Seminal Vesicals • Female Pelvic Organs ○ Ovaries ○ Fallopian tubes ○ Uterus ○ Cervix ○ Vagina • Perineum • Urethra • Vagina
05. Endocrinology (01 week)	**Histology**	• Histology of Pancreas
	Embryology	• Development of Pancreas
	Gross Anatomy	• Pancreas

Block II

Theme	Subject	Topics
4. Genetics & Neurosciences - I (08 weeks)	**Histology**	• Histology of Nervous System (Peripheral Nerve & Ganglia) • Histology of Cerebellum • Histology of Cerebral Cortex
	Embryology	• Development of Neural Tube • Development & positional changes of Spinal Cord • Development of Myelencephalon • Development of Metencephalon & Mesencephalon • Development of Cerebrum • Development of Skull
	Gross Anatomy	• Skull (Anterior, Middle & Posterior Cranial Fossa) • Meninges (Brain & Spinal Cord) • Tracts (Ascending & Descending) • Medulla • Pons • Midbrain • Cerebellum • Cerebrum (Topographic Anatomy, Sulci/Gyri and lobes, Functional areas) • Reticular Formation • Limbic System • Basal Ganglia • Thalamus • Hypothalamus • Ventricular System • Blood supply of Brain & Spinal Cord • Cranial Nerves

Block III

Theme	Subject	Topics
05. Maxillofacial & Special Senses (08 weeks)	**Histology**	• Histology of integumentary system • Histology of Eye • Histology of Ear
	Embryology	• Development of pharyngeal apparatus • Development of face • Development of tongue • Development of nose and palate • Development of integumentary system • Development of eye • Development of ear
	Gross Anatomy	• Skull • Face & Scalp • Triangles of neck • Temporal fossa • Infratemporal fossa • Radiology of head and neck • Parotid Region • Parasympathetic Ganglion (Otic, Ciliary, Pterygopalatine, Submandibular) • Oral cavity & Tongue • Mandible • TMJ • Submandibular region • Hard and soft palate • Nose • Pharynx • Larynx • Vasculature of Neck • Cranial Nerves (1-12)
06. Endocrinology (03 weeks)	**Histology**	• Histology of salivary glands • Histology of Pituitary Gland • Histology of Thyroid and Parathyroid gland • Histology of adrenal gland • Histology of Lip & Tongue
	Embryology	• Development of thyroid gland
	Gross Anatomy	• Pituitary Gland • Adrenal Gland • Thyroid and Parathyroid gland • Orbit • Eye • Ear • Sub occipital triangle

List of Practical Classes

Block 1

- Esophagus
- Stomach
- Small Intestine
- Appendix
- Colon
- Ureter
- Liver
- Gall Bladder
- Pancreas
- Kidney
- Ureter
- Urinary bladder
- Male Reproductive System
  - Testes
  - Epididymis
  - Vas deferens
  - Prostate
  - Seminal Vesicals
- Female Reproductive System
  - Ovaries

Block 2

- Uterus
- Fallopian Tubes
- Cervix
- Vagina
- Mammary gland
- Peripheral nerve & Ganglia
- Spinal Cord
- Cerebellum
- Cerebrum

Block 3

- Thick & thin Skin
- Lip

- Tongue
- Salivary glands
- Pituitary gland
- Thyroid & Parathyroid gland
- Cornea
- Retina
- Pinna

LEARNING RESOURCES

BOOKS:

Gross Anatomy:

1. Snell's Clinical anatomy by regions': Richard S. Snell (10th Edition)
2. Last's Anatomy: Regional and Applied by R.J. Last (12th Edition)
3. Clinically oriented anatomy by Keith L. Moore (8th Edition)
4. Gray's Anatomy: The anatomical Basis of Clinical Practice by Susan Standring (42nd Edition)
5. Atlas of Human Anatomy by Frank H. Netter (8th Edition)
6. Cunningham's Manual of Practical Anatomy (17th Edition)
7. Gray's Anatomy for Students: Text book by Adam W. M Mitchell and Richard Drake (5th Edition)

Histology

1. Junqueira's Basic Histology Text and Atlas by Lulz Carlos, Uchoa Junqueira (17th Edition)
2. Medical Histology by Laiq Hussain Siddiqui (8th Edition)

Embryology

1. Langman's medical Embryology by Thomas W. Sadler (15th Edition)
2. The Developing Human – Clinically Oriented Embryology, by Keith L Moore (11th Edition)

ELECTRONIC MODES

1. E-library Maintained at CIMS
2. Lecture Notes / Presentations Maintained at Computer Lab CIMS & Google Classroom
3. HEC Library Access
4. Wiley and Elsevier Access

WEEKLY TRAINING PROGRAMME OF

2nd YEAR MBBS

WEEKLY TRG PROGRAMME OF 2ND YEAR MBBS CLASS SESSION (2023 – 28)

CMH MULTAN INSTITUTE OF MEDICAL SCIENCES MULTAN CANTT

WEEK – 01 (BLOCK – 02)

DATE/DAY	0800-0905	0905-0955	0955-1015	1015-1125	1125-1215	1215-1305	1305-1345	1345-1500
MON								
TUE				End of Block-I Exam				
WED 16-04-2025	Practical Skills/SDL Anatomy: D Physiology: A Biochemistry: B SDL: C Venue: E Library	Biochemistry-2	Tea Break	CBL Anatomy: C Physiology: D Biochemistry: A Behavioral Sciences: B	Anatomy-1 Development of Neural Tube Professor Dr. Santosh Kumar	Physiology-3		DH (Skull-I) A – Dr. Samar Tariq B – Dr. Yasir Ali C – Dr. Faraz Shoukat D – Dr. Mariah Noor
THU 17-04-2025	Practical Skills/SDL Anatomy: C Physiology: D Biochemistry: A SDL: B Venue: E Library	SDL	Tea Break	CBL Anatomy: D Physiology: A Biochemistry: B Behavioral Sciences: C	Clinical Sciences Medicine & Allied	Physiology-4		DH (Skull-II) A – Dr. Samar Tariq B – Dr. Yasir Ali C – Dr. Faraz Shoukat D – Dr. Mariah Noor
FRI 18-04-2025	0800-0850 Anatomy – 2 Major Divisions & Components of Nervous System Professor Dr. Santosh Kumar	0850-0940 Biochemistry – 03	0940-1000 Tea Break	1000-1050 Physiology-5	1050-1140 Pak Studies Ms. Salma Hanif	1140-1230 Behavioral Sciences	1230-1320 Quran Kareem Mr. Munawar Hussain	1320-1400 LUNCH / PRAYER BREAK	1400-1500 SDL

Venue – All Lectures will be delivered in Lecture Hall 02.

SGD/CBL	Anatomy	Physiology	Biochemistry	Botany Sciences
Facilitators' Names	Dr. Mariah Noor, Dr. Samar Tariq			
Venue	Lect Hall 02, Tutorial Room 01	Phy Lab, Tutorial Room 5 & 6	Bio Lab & Tutorial Room 2	ACM Hall, Tutorial Room 3 & 4
Topic	Meningitis			
Practical Skills	Facilitators' Names	Dr. Shabnam Riaz		
	Venue	Histology Lab	Physiology Lab	Biochemistry lab
	Topic	Peripheral Nerve		
DH + Practical Embryology	Venue	Anatomy Museum, DH, Lect Hall 03, Tutorial Room 3		

08/Anatomy/CIMS

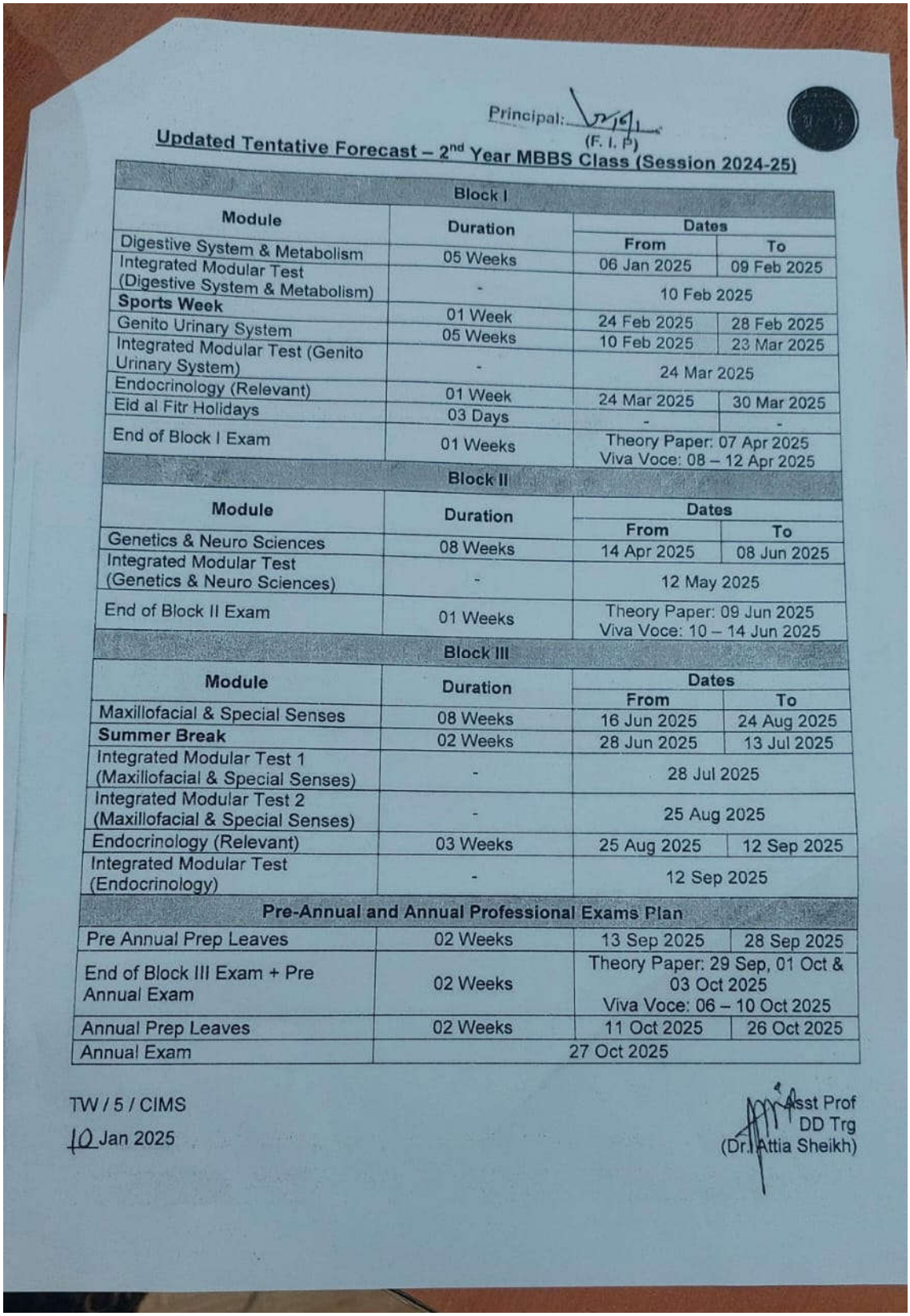
____Apr 2025

Professor

HoD Anatomy

Dr. Santosh Kumar

Forecast



Principal: (F. I. P)

Updated Tentative Forecast – 2nd Year MBBS Class (Session 2024-25)

Block I			
Module	**Duration**	**Dates**	
		From	**To**
Digestive System & Metabolism	05 Weeks	06 Jan 2025	09 Feb 2025
Integrated Modular Test (Digestive System & Metabolism)	-	10 Feb 2025	
Sports Week	01 Week	24 Feb 2025	28 Feb 2025
Genito Urinary System	05 Weeks	10 Feb 2025	23 Mar 2025
Integrated Modular Test (Genito Urinary System)	-	24 Mar 2025	
Endocrinology (Relevant)	01 Week	24 Mar 2025	30 Mar 2025
Eid al Fitr Holidays	03 Days	-	-
End of Block I Exam	01 Weeks	Theory Paper: 07 Apr 2025 Viva Voce: 08 – 12 Apr 2025	

Block II			
Module	**Duration**	**Dates**	
		From	**To**
Genetics & Neuro Sciences	08 Weeks	14 Apr 2025	08 Jun 2025
Integrated Modular Test (Genetics & Neuro Sciences)	-	12 May 2025	
End of Block II Exam	01 Weeks	Theory Paper: 09 Jun 2025 Viva Voce: 10 – 14 Jun 2025	

Block III			
Module	**Duration**	**Dates**	
		From	**To**
Maxillofacial & Special Senses	08 Weeks	16 Jun 2025	24 Aug 2025
Summer Break	02 Weeks	28 Jun 2025	13 Jul 2025
Integrated Modular Test 1 (Maxillofacial & Special Senses)	-	28 Jul 2025	
Integrated Modular Test 2 (Maxillofacial & Special Senses)	-	25 Aug 2025	
Endocrinology (Relevant)	03 Weeks	25 Aug 2025	12 Sep 2025
Integrated Modular Test (Endocrinology)	-	12 Sep 2025	

Pre-Annual and Annual Professional Exams Plan			
Pre Annual Prep Leaves	02 Weeks	13 Sep 2025	28 Sep 2025
End of Block III Exam + Pre Annual Exam	02 Weeks	Theory Paper: 29 Sep, 01 Oct & 03 Oct 2025 Viva Voce: 06 – 10 Oct 2025	
Annual Prep Leaves	02 Weeks	11 Oct 2025	26 Oct 2025
Annual Exam	27 Oct 2025		

TW / 5 / CIMS

10 Jan 2025

Asst Prof
DD Trg
(Dr. Attia Sheikh)

Year II – Block I

Module 1. Digestive System & Metabolism - I

Duration: 5 weeks

Module Coordinator: Dr. Mariah Noor

Members: Dr. Faraz, Dr. Samar, Dr. Yasir

Week	LGIS	Dissection H.	CBL	Practical/Skill
Week 1	Histology of GIT – I	Division of abdomen into regions & quadrants & their contents	Referred pain – A Case of Appendicitis	**Histology**
	Histology of GIT – II	Anterior Abdominal Wall		Esophagus
	Development of Foregut – I	Inguinal Canal		
	Development of Foregut – II	**Embryology Practical** Development of Esophagus		
Week 2	Histology of Small Intestine	Testis Scrotum & Epididymis	Inguinal Hernia	**Histology**
	Histology of Large Intestine	Peritoneum - I		Stomach
	Development of Midgut	Peritoneum - II		
	Development of Hindgut – I	**Embryology Practical** Development of Stomach		
Week 3	Histology of Liver	Esophagus & Stomach	Peritonitis	**Histology**
	Histology of Gall Bladder	Small Intestine - I		Small Intestine
	Gross Anatomy of Liver	Small Intestine - II		
	Development of Hindgut – II	**Embryology Practical** Rotation of Midgut		
Week 4	Gross Anatomy of Liver	Large Intestine	Esophageal Varices	**Histology**
	Histology of Pancreas	Liver & Gall Bladder		Large Intestine & Appendix
	Development of Hindgut – III	Posterior Abdominal Wall		
	Development of Hindgut – IV	**Embryology Practical** Development of Hindgut		

Week 5	**4th Convocation 2025**		Cirrhosis of Liver	**Histology**
	Admission Day			Liver
	Kashmir Day			
	Gross Anatomy of Peritoneum – I	Lumbar Vertebrae, Pancreas		

Year II – Block I
Module 2. Genitourinary System - I

Duration: 5 weeks

Module Coordinator: Dr. Mariah

Members: Dr. Faraz, Dr. Samar, Dr. Yasir

Week	LGIS	Dissection H.	CBL	Practical/Skill
Week 1	Histology of Urinary System – I	Kidney	Pancreatitis	**Histology**
	Histology of Urinary System – II	**1st Integrated Test**		Gall Bladder, Pancreas
	Development of Urinary System – I	Suprarenal Gland & Ureter		
	Development of Urinary System – II	**Embryology Practical** Development of Kidney		
Week 2	**Intercollegiate Cricket & Badminton Championship**			
Week 00	Histology of Male Genital System – I	**Sports Week**		
	Development of Genital System – I			
	Development of Genital System – II			
Week 3	Histology of Male Genital System – I	Sacrum	Ureteric Stones	**Histology**
	Histology of Male Genital System – II	Pelvic walls & Diaphragm		Kidney
	Gross Anatomy of Anal Canal	Nerves & Blood vessels of Pelvic Walls		
	Development of Genital System – III	**Embryology Practical** Development of Urinary Bladder		

Week 4	Histology of Female Reproductive System – I	Sigmoid Colon, Rectum	Pelvic Fracture	**Histology**
	Development of Female Genital Duct	Urinary Bladder		Testis, Epididymis
	Histology of Female Reproductive System – II	Prostate, Seminal Vesical		
	Development of Urinary Bladder	**Embryology Practical** Assessment I		
Week 5	Histology of Female Reproductive System – III	Uterus	Bleeding Per Rectum	**Histology**
	Bony pelvis	Fallopian Tube, Ovary, Vagina		Vas Deferens, Prostate
	Perineum	Anal Canal		
		Embryology Practical Assessment II		

Year II – Block I
Module 3. Endocrinology

Duration: 1 week

Module Coordinator: Dr. Mariah

Members: Dr. Faraz, Dr. Samar, Dr. Yasir

Week	LGIS	Dissection H.	CBL	Practical/Skill
Week 1	Revision of GIT MCQs/SAQs	Revision of GIT	Revisit of all CBLs	**Histology** Revision
	Revision of Urinary System	Revision of Urinary System		
	Revision of Genital System	Revision of Genital System		
	End of Block I Exam			

Year II – Block II
Module 4. Genetics & Neurosciences

Duration: 8 weeks

Module Coordinator: Dr. Faraz Shaukat

Team Members: Dr. Mariah, Dr. Yasir, Dr. Samar

Week	LGIS	Dissection H.	CBL	Practical / Skill
Week 1	Development of Neural Tube	Skull – I (Anterior Cranial Fossa)	Skull Fracture	**Histology**
	Major divisions, components of the CNS, classification of neurons	Skull – II (Middle & Posterior Cranial Fossa)		Uterus & Fallopian Tubes
Week 2	Development & positional changes of Spinal Cord Formation & Developmental changes in Alar & Basal plates	Meninges of Brain & Spinal Cord	Meningitis	**Histology**
	Gross appearance & Nerve Cell groups in Gray & White Matters of Spinal Cord	Ascending Tracts - I		Cervix & Vagina
	Histology of Nervous System – I	Ascending Tracts - II		
	Ascending Tracts	**Embryology Practical** Development of Brain Vesicles/Assessment I		
Week 3	Descending Tracts	Meninges of Brain & Spinal Cord	Brown Sequard Syndrome	**Histology**
	Development of Myelencephalon	Ascending Tracts - I		Mammary gland
	Histology of Nervous System – II (Peripheral Nerves & Ganglia)	Ascending Tracts - II		

	Cranial Nerve Nuclei of Medulla	**Embryology Practical** Development of Metencephalon & Mesencephalon/Assessment II		
Week 4	Development of Metencephalon & Mesencephalon	Pons	Lateral Medullary Syndrome	**Histology**
	Histology of Cerebellum	Midbrain		Peripheral Nerve & Ganglia
	Cranial Nerve Nuclei of Medulla	Cerebellum		
		Embryology Practical Development of Mesencephalon/Assessment III		
Week 5	**Integrated Test**	Cerebrum – I (Topographic Anatomy of Diencephalon, Sulci/Gyri & Lobes of Diencephalon)	Spinocerebellar Ataxia	**Histology**
	Cranial Nerve Nuclei of Pons & Midbrain	Cerebrum – II (White Matter of Cerebral Hemisphere)		Spinal Cord
	Histology of Cerebral Cortex	Cortical Functional Areas - I		
	Development of Cerebrum	**Embryology Practical** Development of Hypophysis Cerebri/ Assessment IV		
Week 6	Imaging of Brain & Spinal Cord	Cortical Functional Areas - II	Stroke	**Histology**
	Functional Areas of Cerebral Cortex – I	Reticular Formation		Cerebellum
	Functional Areas of Cerebral Cortex – II	Limbic System		
	Limbic System	Assessment V		

Week	LGIS	Dissection H.	CBL	Practical / Skill
Week 7	Reticular Formation & Limbic System	Basal Ganglia	Parkinsonism	**Histology**
	Basal Ganglia	Thalamus		Cerebellum
	Thalamus	Hypothalamus		
	Hypothalamus	Ventricular system - I		
Week 8	Development of Skull	Ventricular system - II	Thalamic lesion	**Histology**
	Cranial Nerves - I	Blood Supply of Brain & Spinal Cord		Cerebellum
	Cranial Nerves - II	MOCK OSPE		
	Assessment MCQs/SAQs	Assessment VI		

Year II – Block III
Module 5. Maxillofacial & Special Senses

Duration: 8 weeks

Module Coordinator: Dr. Samar Tariq

Team Members: Dr. Mariah, Dr. Yasir, Dr. Faraz

Week	LGIS	Dissection H.	CBL	Practical / Skill
Week 1	Development of Pharyngeal Apparatus I	Norma Frontalis & Lateralis	Fracture Base of Skull	**Histology**
	Development of Pharyngeal Apparatus II	Norma Basalis		Thick and Thin Skin
	Triangles of Neck	Face & Scalp		
	Development of Face	**Embryology practical** Development of Pharyngeal Apparatus I		
Week 2	Histology of Salivary Glands	Triangles of Neck I	Cavernous Sinus Thrombosis	**Histology**
	Temporal Fossa	Triangles of Neck II		Mammary gland
	Gross Anatomy of Parotid gland	Parotid Region + Otic Ganglion		
	Development of Face	**Embryology practical** Development of Pharyngeal Apparatus II/ Assessment I		
Week 3	Radiology of Head and Neck	Temporal Fossa	Facial Trauma	**Histology**
	Infratemporal Fossa	Infratemporal Fossa I		Lip
	Development of Tongue and Thyroid Gland	Infratemporal Fossa II		
	Development of Nose and Palate	**Embryology practical** Development of Tongue / Assessment II		

Week 4	Pterygopalatine Ganglion	Pterygopalatine Fossa and Ganglion	Trigeminal Neuralgia	**Histology**
	Development of Integumentary System	Oral cavity & Tongue		Tongue
	Histology of Integumentary System I	Mandible		
	Histology of Integumentary System II	Assessment III		
Week 5	Development of Eye	TMJ	Ludwig's Angina	**Histology**
	Histology of Eye I	Submandibular Region I		Salivary glands
	Histology of Eye II	Submandibular Region II + Submandibular Ganglion		
	Development of Ear	Assessment IV		
Week 6	Histology of Ear I	Hard and Soft Palate	TMJ Dislocation	**Histology**
	Histology of Ear II	Nose		Pituitary Gland
	Gross Anatomy of Nose	Pharynx I		
	Gross Anatomy of Pharynx	Pharynx II		
Week 7	**Integrated Test - I**		Nasal Fracture	**Histology**
	Submandibular and Otic Ganglia	Larynx I		Revision
	Gross Anatomy of Larynx	Larynx II		
	CN 5	Vasculature of Neck		
Week 8	CN 7	CN 1-4 and 6	-	**Histology**
	CN 12	CN 5		Pituitary Gland
	Assessment MCQs and SAQ I	CN 7		
	Assessment MCQs and SAQ II	CN 8-12		

Year II – Block III
Module 6. Endocrinology

Duration: 3 weeks

Module Coordinator: Dr. Samar Tariq

Team Members: Dr. Mariah, Dr. Yasir, Dr. Faraz

Week	LGIS	Dissection H.	CBL	Practical / Skill
Week 1	**Integrated Test - II**			**Histology**
	Histology of Pituitary Gland	Adrenal Gland		Thyroid and Parathyroid Gland
	Histology of Thyroid and Parathyroid gland	Pituitary Gland		
	Histology of adrenal gland	Assessment		
Week 2	Histology of Lip & Tongue	Orbit	Orbital Trauma	**Histology**
	Gross Anatomy of Orbit	Eye		Cornea and Retina
	Gross Anatomy of Eye	Ciliary Ganglion		
	Gross Anatomy of Ear	Assessment		
Week 3	Role of radiology to differentiate between hot and cold nodule	Sub Occipital Triangle	Otitis Media	**Histology**
	Assessment MCQ and SAQ	Ear I		Pinna
	Assessment MCQ and SAQ	Ear II		
	Assessment MCQ and SAQ	MOCK OSPE		