



Student Studyguide 4th Year Block - 3 2024-25

Pathology Department
CMH Multan Institute of
Medical Sciences



MBBS – 4th Year
Block 3
Student Study Guide

CMH Multan Institute of Medical Sciences

Introduction

This study guide is to provide students with an insight into the curricular content and its implementation aligned with the assessment expectations and the details of learning outcomes. The key components of the undergraduate curriculum are taught throughout the five years with increased emphasis on clinical aspects in the last three years. The primary focus is on building knowledge, skills, and attitudes of the students for the practice of medicine and surgery not only at the primary care level but to advance to postgraduate studies for clinical practice, medical education, and research.

Mission

Our mission is to prepare future doctors for independent practice after graduation as a general practitioner who can provide patient-centered medical care with the highest standards of professionalism.

The objectives of the MBBS program

The program objective is to establish a foundation for independent practice after graduation as a general practitioner and involves the principal aspects of health improvement, preventive medicine, and acute and chronic care in the domain of medical disorders.

A. Knowledge

- a) Acquisition of the knowledge and the ability to apply it in an approach to the common complaints and symptoms in medical diseases
- b) Knowledge of common medical diseases and the ability to apply it to the primary medical care of the patients within the limits of a general practitioner's duties
- c) Acquisition of the knowledge of simple procedures in an outpatient setting that the general practitioner must be able to do

B. Skill

- a) Ability to take clinical history and perform clinical examinations in patients with medical disorders
- b) Ability to construct and execute a management plan for common medical diseases including emergencies

- c) Ability to do basic procedures required in the practice of medicine
- d) Ability to interpret results of common laboratory tests and imaging techniques in medicine

C. Competencies

- a) Communication skills
- b) Critical thinking
- c) Problem-solving
- d) Clinical skills
- e) Examination skills
- f) Procedural skills

4th Year Learning Outcomes

By the end of Year 4, the learners should be able to

- Apply knowledge and demonstrate skills of application of the pathological processes of disease
- Correlate the pathophysiology of the body systems with the various treatment models available
- Recognize all health promotion and disease prevention strategies in a national and international context
- Collect, analyze, and, interpret the basic medical research data to produce and publish research papers
- Apply anatomical and physiological knowledge of Eye and ENT to their common and basic pathological conditions and their management.
- Perform basic clinical skills relevant to pre-clinical sciences
- Apply the knowledge and skills of longitudinal themes to the relevant concepts of pre-clinical and clinical sciences

Departmental Vision Statement

Welcome to the Department of Pathology at CMH Institute of Medical Sciences (CIMS) Multan. Our main objective is the provision of resources and opportunities that encourage excellence in learning among students and faculty and to provide impeccable service to the institute.

The mission of pathology department at CMH institute of Medical Sciences is to provide quality education to build concepts regarding various pathologies in the specialties of Microbiology, Histopathology, Hematology, Chemical pathology and Immunology. It not only caters to the pathogenesis of disease and its epidemiology but also focuses on diagnostic methods and their clinical implications. We have an expert team of pathologists/educationists who strive for excellence in teaching/learning while continuously enhancing departmental culture of diversity, respect and professional growth

General pathology and Microbiology cater to providing generalized concepts regarding Pathological basis of disease and Microbiological basis of infection. We focus on providing exemplary educational resources anticipating the educational needs of our students with the help of latest and recommended teaching/learning methodologies in medical education today.

We strive to continue to provide exceptional teaching to our students.

Best Regards
Head of Department
Prof. Dr. Khalid Usman

Contents

1. Details of Faculty.....	6
2. Curricular Map.....	7
3. Teaching and Learning Strategies	8
4. Evaluation & Assessment Strategies	9
5. Format /Layout of Modular exam/class tests 2024.....	10
6. Recommended and Reference Books	12
7. Subject wise Contact Hours.....	13
8. Block wise tentative distribution of themes/topic.....	14
9. Structured Summary of Modules in Block-1.....	15
10. Tentative Forecast 4th Year MBBS Class	18
11. Weekly Training Program	19

DETAILS OF FACULTY

Sr. No.	Name	Designation	Qualification
1.	Prof Dr. Khalid Usman	Professor (Head of Department)	MBBS, M Phil (Histopathology)
2.	Dr Javed Masood	Professor	MBBS, M Phil (Chemical Pathology)
3.	Dr Fareeha Naseer Syed	Professor	MBBS, FCPS, Diplomate FRCPath (Histopathology), ICMT, CHPE
4.	Dr Urwa Sarwar	Associate Professor	MBBS, FCPS (Histopathology), CHPE
5.	Dr Umm e Farwa	Assistant Professor	MBBS, FCPS (Histopathology), ICMT
6.	Dr Rashda Shabbir	Assistant Professor	MBBS, M. Phil (Microbiology)
7.	Dr Qurat ul Ain	Assistant Professor	MBBS, FCPS (Hematology)
8.	Dr Sumaira Malik	Assistant Professor	MBBS, M Phil (Microbiology)
9.	Dr Saadia Latif	Senior Demonstrator	MBBS, FCPS (Hematology)
10.	Dr Anum Akram	Demonstrator	MBBS
11.	Dr Wajih Nazar	Demonstrator	MBBS
12.	Dr Hamza Ali	Demonstrator	MBBS
13.	Dr Zeenat Saleem	Demonstrator	BDS

Curricular Map

Module	Duration of Module	Teaching Methodology	Assessment Methodology
Block I and Foundation Module	Classes = 10 weeks Assessment = 2 weeks	• Lectures • CBL • PBL • SDL • Practical	<u>Tests in Module</u> One in each module – Theory, OSPE <u>Final Module Exam</u> Theory, OSPE, Viva Voce
Block 2	Classes = 10 weeks Assessment = 2 week	• Lectures • CBL • PBL • SDL • Practical	<u>Tests in Module</u> One in each module - Theory, OSPE <u>Final Module Exam</u> Theory, OSPE, Viva Voce
Block 3	Classes = 10 weeks	• Lectures • CBL • PBL • SDL • Practical	<u>Tests in Module</u> One in each module - Theory, OSPE <u>Final Module Exam</u> Theory, OSPE, Viva Voce
Pre Annual exam	Conducted at the end of Block 3	-	<u>Theory</u> MCQs, SEQs <u>Practical</u> OSPE & Viva voce

TEACHING/LEARNING STRATEGIES

A variety of pedagogies are used in this course, including didactic teaching, and team based and evidence-based learning in classrooms and patient-side environments. Students are encouraged to adopt and inculcate self-learning strategies during the course.

1. Large Group Interactive Sessions (LGIS)
2. Small Group Discussion (SGD) including
 - a) Case presentations
 - b) Case-based Discussion
 - c) Bedside Discussion
3. Self-Directed Learning
4. Skill Lab – Simulation - Based Learning

Venues for learning opportunities

1. Lecture Halls
2. Pathology labs
3. Pathology Museum
4. Libraries including audio-visuals

Attendance & Discipline:

- a. A record of attendance, class test results, end-of-block exams would be maintained and updated regularly.
- b. Students must keep a log of all clinical activities in their clinical logbooks and history journals
- c. Attendance of each student would be endorsed in his/ her logbook.
- d. Overall 75% attendance is mandatory to appear in the final professional exam.

EVALUATION & ASSESSMENT STRATEGIES

Assessment

Assessment is an important aspect of any training program. The performance of each student would be marked and counted towards the final internal assessment. The following tools/ methods would be used for this purpose:

a. Theory

a) **Class tests:** During each module both written will be conducted which will include MCQs and SEQs covering the syllabus covered till the date of class test.

b) **End of block Exam:** At the end of each block a theory (written exam with MCQs and SEQs) would be held concurrently for the entire class from the syllabus covered during this period.

b. Practical

i) Objectively Structured Practical Examination (OSPE)

It is an assessment method used to evaluate the practical skills of students once during each module at the end of written class test and once at the end of written examinations of each module. This is achieved by slides, pathology specimens, pictures/ OSPE cards and practical performance of specific tasks. The students learn actively by applying and integrating their theoretical knowledge in the practical.

ii) **Log Book:** Each student would complete his/her logbook and get it countersigned from the HOD at the end of each block. The logbook is maintained during the teaching sessions.

c. Pre annual & Annual Professional exam:

The preannual exam will be held at the end of the 3rd block and conducted by CIMS. The professional exam will be held by NUMS. There will be 150 marks for the theory paper and 150 marks for the practical. The student has to pass theory and practical separately with a minimum of 50 % marks.

d. Internal assessment: There will be a 20% internal assessment which will be included in the Preannual and Annual professional examination results.

Format/Layout of Modular Exam & Class Test 2023-24

Modular Examination Format:

Theory Exam:

Time Allowed	=3hours
Theory paper	=120 marks
Internal assessment	=30 marks
Total marks	=150
SEQs	=60 Marks (2x9 marks & 7x6 marks)
MCQs	=60 Marks (80x0.75mark)

Time Duration: (theory exam)

SEQs:	1hr 40 min
MCQs:	1hr 20 min

Practical / Viva Exam:

Practical (OSPE)*	= 60 marks
Internal assessment	=30 marks
Viva:	=60 marks
Total marks:	=150

***Marks Distribution (OSPE/Practical)**

- Unobserved stations (OSPE): 14x4marks = 56 marks
- Practical notebook = 4 marks

Class Test

Theory

Examination Format:

Total marks: 50

SEQs: 20 Marks (4x5 marks)

MCQs: 30 Marks (1mark/MCQ)

Time Duration: (60 min)

SEQs: 30 min

MCQs: 30 min

CBL: 10 marks

Attitude/Conduct: 10 marks

Lab SOPs: 5 marks

RECOMMENDED & REFERENCE BOOKS

1. Robins & Cotran Pathologic Basis of Disease, 10th edition
2. Robbins & Cotran Basic Pathology, 11th edition
3. Hoffbrand's Essential Haematology, 8th edition
4. Zilva Clinical Chemistry in Diagnosis & Treatment, 6th edition,

Subject-wise Contact Hours

Subjects	Contact Hours	Self-Directed Learning
Special Pathology	240	20
Community Medicine & Public Health	140	20
Research Method	60	-
Ophthalmology	150	10
ENT	150	10
Medicine	200	10
Surgery	200	10
Obstetrics & Gynecology	50	10
Pediatrics	50	10
Patient Safety	25	-
TOTAL HOURS	1265	100
GENERIC COMPETENCIES		
Communication Skills	15	
Leadership	15	
Teamwork	15	
Ethics	15	
Professionalism	10	
Seminar / CPC	30	
Co-curricular activities/ Sports	100	

Block-wise Distribution of Themes/ Topics
Special Pathology

Block 3	
Sr No.	Themes/ Topics
1.	Female genital system
2.	Bones, Joints & Soft tissues
3.	Endocrine system
4.	Central Nervous system
5.	Hematology – diseases of white blood cells, Red blood cells and platelets

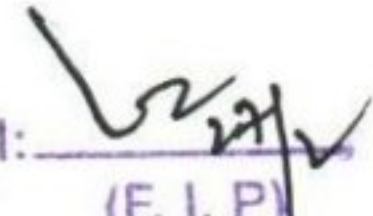
FEMALE GENITAL SYSTEM			
Themes/ Topics	Learning Outcomes At the end of each session, the student should be able to:	Course content	Assessment
Female genital system	Correlate the morphology (Microscopic and macroscopic) of female genital tract disorders to their etiology and pathogenesis	• Vulva • Vagina • Cervix • Endometrium • Myometrium • Ovaries and fallopian tubes • Gestational and placental disorders • Infertility	• MCQs • SEQs • Structured Viva • OSPE

BONES, JOINTS & SOFT TISSUES			
Themes/ Topics	Learning Outcomes At the end of each session, the student should be able to:	Course content	Assessment
Bones, Joints & Soft tissues	Correlate the morphology (Microscopic and macroscopic) of bones, joints and soft tissue disorders to their etiology and pathogenesis	Defects in metabolic pathways of Bone development • Acquired disorders of bone & cartilage • Fractures of Bone • Osteomyelitis • Bone tumors & tumor like lesions • Joints • Osteoporosis • Immune mediated arthritis • Crystal deposition disease • Soft Tissues Tumors of Adipose tissue Fibrous tumors • Skeletal muscle tumors • Smooth muscle tumors • Tumors of uncertain origin	• MCQs • SEQs • Structured - Viva • OSPE
	Justify the importance of biochemical markers in diagnosis of certain metabolic disorders	• Uric acid & gout	

ENDOCRINE SYSTEM			
Themes/ Topics	Learning Outcomes At the end of each session, the student should be able to:	Course content	Assessment
The Endocrine System	Correlate the microscopic structure and physiology of endocrine gland disorders with their etiology and pathogenesis	• Pituitary Gland • Thyroid gland • Parathyroid gland • Pancreas (endocrine part) • Adrenal gland • Adrenal cortex • Adrenal medulla • Diabetes Mellitus	• MCQs • SEQs • Structured viva • OSPE
	Justify the importance of various biochemical markers in diagnosis of different endocrine disorders	Pituitary Function test • Thyroid function test • Adrenal function test • Parathyroid gland disorders • Biochemical diagnosis of infertility	

CENTRAL NERVOUS SYSTEM			
Themes/ Topics	Learning Outcomes At the end of each session, the student should be able to:	Course content	Assessment
Central Nervous System	Correlate the morphology (Microscopic and macroscopic) of central and peripheral nervous system disorders to their etiology and Pathogenesis	Peripheral nerve sheath tumors • Malformations and developmental disorders • Traumatic injury • Cerebro vascular disease • Infections • Prion diseases • Demyelinating Diseases • Neuro degenerative diseases • CNS tumors • Retinal neoplasms • Guillain Barre syndrome and Inflammatory myopathies • Metastatic tumors	• MCQs • SEQs • Structured - Viva • OSPE

HEMATOLOGY			
Themes/ Topics	Learning Outcomes At the end of each session, the student should be able to:	Course content	Assessment
Disorders of white blood cells, Red blood cells, platelets	Differentiate between Hodgkin's and non-Hodgkin's lymphoma on the basis of etiology, morphology & pathogenesis Interpret the lab reports of patient with Red cell & coagulation disorders based on pathophysiology of disease - Analyze the hazards of blood transfusion - Appraise the rejection reactions associated with bone marrow transplantation Interpret the lab reports of patient with white cell disorders based on pathophysiology of disease Interpret the lab reports of patient with platelets disorders based on pathophysiology of disease Justify the importance of biochemical markers in diagnosis of various hematological disorders	Hodgkin and Non-Hodgkin lymphoma - Multiple Myeloma Anemias - Autoimmune, hemolytic anemia - Hemolytic anemia (HS, G6PD, SCD) - Thalassemia syndromes - Coagulation disorders (hemophilia, VWD) - Blood transfusion, Rh in compatibility - Bone marrow transplantation Transplantation rejection Non-neoplastic white cells disorders (infections, inflammation) - Overview and classification of neoplastic proliferation of WBCs - Differentiation between Infective and Malignant causes of leukocytosis with special reference to Infectious mononucleosis - Acute and chronic nonspecific lymphadenitis Bleeding diathesis platelet disorders - DIC, Thrombotic Thrombocytopenic purpura, HUS Myeloproliferative disorders - Myelodysplastic syndrome	- MCQs - SEQs - Structured viva

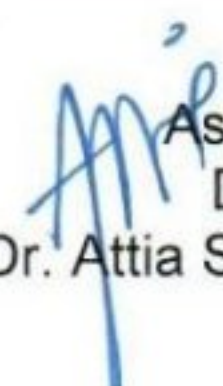
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(F. I. P.)



**Updated Tentative Academic Forecast – 4th Year MBBS Class
(Session 2024-25)**

Block I			
Module	Duration	Dates	
		From	To
Block I	10 Weeks	04 Nov 2024	19 Jan 2025
Winter Vacation	01 Week	28 Dec 2024	05 Jan 2025
End of Block I Exam	02 Weeks	Theory Paper: 20 , 22, 24 & 27 Jan 2025 Viva Voce: 28 – 31 Jan 2025	
Block II			
Module	Duration	Dates	
		From	To
Block II	10 Weeks	03 Feb 2025	20 Apr 2025
Sports Week	01 Week	24 Feb 2025	28 Feb 2025
End of Block II Exam	02 Weeks	Theory Paper: 21, 23 , 25 & 28 Apr 2025 Viva Voce: 29 Apr – 02 May 2025	
Block III			
Module	Duration	Dates	
		From	To
Block III	10 Weeks	05 May 2025	27 Jul 2025
Summer Break	02 Weeks	28 Jun 2025	13 Jul 2025
End of Block III Exam	02 Weeks	Theory Paper: 28 Jul, 30 Jul, 01 Aug & 04 Aug 2025 Viva Voce: 05 – 08 Aug 2025	
Pre-Annual and Annual Professional Exams Plan			
Pre Annual Prep Leaves	02 Weeks	09 Aug 2025	24 Aug 2025
Pre Annual Exam	02 Weeks	Theory Paper: 25 Aug, 27 Aug, 29 Aug & 01 Sep 2025 Viva Voce: 02 – 05 Sep 2025	
Annual Prep Leaves	02 Weeks	06 Sep 2025	21 Sep 2025
Annual Exam	22 Sep 2025		

TW / 5 / CIMS
24 Feb 2025


Asst Prof
DD Trg
(Dr. Attia Sheikh)

WEEKLY TRG PROGRAMME OF 4TH YEAR MBBS CLASS (Session 2020-25)
CMH MULTAN INSTITUTE OF MEDICAL SCIENCES MULTAN CANTT
WEEK – 07 (Block – 01)

DAY/Date	0815-0900	0900-0945	0945-1040	1040-1115	1115-1235	1245-1330	1330-1400	1400-1515	1515-1600
MON 08-01-2024	ENT-1 Benign Tumors of Nose (Angiofibroma) Lt Col Dr. Majid Dastagir	Ophthalmology – 1 Vitamin. A Deficiency / Bitot Spot Lt Col Dr. Saad Mushtaq	PATHOLOGY – 1 Gastritis Dr. Fareeha Naseer Syed	Tea Break	Clinical Rotation Coordinators: 1. Medicine (Maj Dr. Sajid)	Gyne/Obs Puerperium Lt Col Dr. Lubna Noor	LUNCH AND PRAYER BREAK	CBL A	Com Med B
TUE 09-01-2024	SURGERY – 1 Chest Trauma Brig Dr. Adeel Wyne	PATHOLOGY – 2 Peptic Ucer Disease & Stomach Tumors Dr. Fareeha Naseer Syed	GEN MED – 1 Irritable Bowel Syndrome Lt Col Dr. Farrukh Sher		2. Surgery (Col Dr. Saeed Afzal Awan)	COMM MED – 1 Analytical Methods Prof Dr. Hafiz Muhammad Yar		Practical C	Com Health Prog D
WED 10-01-2024	SURGERY – 2 Abdominal Trauma Maj Dr. Junaid	PATHOLOGY – 3 Class Test In Joint Lecture Hall	GEN MED – 2 Malabsorption - Tropical Sprue and Coeliac Disease Lt Col Dr. Farrukh Sher		3. Paeds (Dr. Taimoor)	CBL Clinical Sciences ENT: Batch 01 Eye: Batch 02		Com Health Prog -	Patho E
THU 11-01-2024	ENT – 2 Nasopharyngeal Carcinoma Brig Dr. Abdul Hakim	COMM MED – 2 Epidemiological Methods Prof Dr. Hafiz Muhammad Yar	Ophthalmology – 2 Special types of Posterior Uveitis and Management (Reiter,s Syndrome) Prof Dr. M Afzal Bodla		4. Gynae/Obs (Dr. Rizwana)	CBL Clinical Sciences ENT: Batch 02 Eye: Batch 01		CBL B	Com Med C
FRI 12-01-2024	0815-0905 COMM MED – 3 Emerging & Re-emerging Infectious Lt Col (R) Dr. Mustansar Billah	0910-1100 Seminar/Guest Lecture How to Cope with Academic Stress? Brig Dr. Muhammad Ramzan & Guest Speakers In Joint Lecture Hall (CMC)	1100-1120 Tea Break	1120-1210 PATHOLOGY – 4 Urinary System Inflammatory Lesions Prof Dr. Khalid Usman	1210-1315 CBL Practical Com Health Prog	1315-1400 Patho E A B D	LUNCH AND PRAYER BREAK	1400-1500 Generic Competencies Communication Skills/Public Speaking Dr. Saif Ur Rehman In Joint Lecture Hall (CMC)	1500-1600 SDL

*ALL LECTURES WILL BE DELIVERED IN LECTURE HALL NO. 4.

	Pathology	Community Medicine	ENT	Eye
CBL	Facilitators' Names Dr. Alia Waheed, Dr. Wajeeh Nazar	Lt Col (R) Dr. Mustansar Billah, Dr. Shumaila	Maj (R) Dr. Ejaz Rahim	Lt Col Dr. Saad, Prof Dr. M Afzal Bodla
	Venue Lecture Hall 4/Patho Lab	Tutorial Room 04	Clinical Class Room CMH Mtn	Clinical Class Room CMH Mtn
	Topic Urinary System	Statistical Analysis of Research	Angiofibroma	Assessment of Dry Eye
Practical	Facilitators' Names Dr. Umar	Col (R) Dr. Shahnawaz Ateeque, Dr. Qaiser, Dr. Shari Baaz	"Academic round for students by Prof Dr. Qaiser Mahmood every Tuesday and Thursday at 1115-1235 Hrs"	
	Venue Patho Lab	Academic Council Hall		
	Topic Chronic Gastritis PUD, Chronic Pyelonephritis	Statistical Analysis of Research		
Community Health Prog	Facilitators' Names Prof Dr. Hafiz Muhammad Yar, Dr. Irum Abid, Dr. Aiman	Community Medicine Lab		
	Venue Questionnaire Development			
	Topic			

No. TW / 5-D / CIMS

05 Jan 2024

Asst Prof
DD Trg
(Dr. Attia Sheikh)

To: Pathology Dept, Community Medicine Dept, IT Dept, Research Cell, ENT Dept, Eye Dept, Surgery Dept, Medicine Dept, Gynae/Obs Dept, Clinical Coordinator, DD Coord Br, ADStudents Affairs & Notice Board

