



Jinnah Medical & Dental College

Study Guide

OPHTHALMOLOGY



**MBBS
2025-26**

There is nothing
more important than
our good health!

**TEAM MEMBERS
DEPARTMENT OF EYE
2025-26**

Name	Committee	Department
Dr. Fawad Rizvi (Professor)	HOD	EYE
Dr. Zeeshan Kamil (Assistant Professor)	Member	EYE
Dr. Aamir Hussain (Registrar & Incharge of Eye Department)	Member	EYE
Dr. Zeelaf Shahid Director	Member	Medical Education

INTRODUCTION

A very warm welcome to medical students in the Eye posting. Pakistan, the 7th most populous country in the world, has an urban population of 38.8% and rural dwellers of 61.2%. The country has faced challenges with vision impairment and blindness as key elements of the overall health status. The International Agency for the Prevention of Blindness (IABP) has reported that 7.6 million people in Pakistan are visually impaired and of those, 1.2 million were blind. The Fred Hollows Foundation (FHF) estimated that about 10% (18 million) of the Pakistani population was living with some sort of visual impairment and around 2 million individuals were living with blindness. A 2006 study estimated the crude prevalence of blindness among Pakistanis older than 30 years to be 2.7%, and among all ages, 0.9%. Total numbers of blind were approximated to be between 1.1 – 1.35 million) with a projected total reaching 2.4 million in 2020. There has been extensive work undertaken by the government of Pakistan by including eye health services at a district level. Considering the serious nature of the situation in Pakistan, it becomes imperative that Ophthalmic conditions receive a fair share of inclusion in the MBBS curriculum. The Ophthalmology course, along with the rotations, aims to produce graduate capable of dealing with common eye related conditions in tertiary and primary health care settings. The long-term goal is to contribute to the national provision of health care providers who can take part in the reduction of blindness and visual impairment among the population.

This clinical rotation has been developed to impart integrated teaching as a part of curriculum in Jinnah Medical and Dental College, Karachi.

RATIONALE

Before moving on to complex clinical issues, it becomes imperative for the students to achieve clear concepts of the basic organization of Eye. This posting is designed to cover the detailed examination of the eye, providing patient centered approach or diagnosis and management of common clinical presentations. Concepts acquired during this clinical posting will be revisited in all other subsequent postings of the undergraduate course.

ABBREVIATIONS

EOM	Exam of Module
WT	Ward Test
R	Rotation
LGIS	Large group Interactive session
CBD	Case Based Discussion
OPD	Out Patient Department
K	Knowledge
S	Skill
A	Attitude
MCQ	Multiple Choice Question
OSCE	Objective Structured Clinical Examination
Mini CEX	Mini Clinical Evaluation Exercises
DOPS	Direct Observation of Procedural Skills

GENERAL LEARNING OBJECTIVES

By the end of the OPHTHALMOLOGY module and rotation, students must be able to:

- Manage common, uncomplicated ophthalmologic conditions in emergency and non-emergency situations.
- Demonstrate common clinical skills related to Ophthalmology in simulated and / or real environment.
- Justify diagnosis of ophthalmological conditions based on basic science Knowledge.
- Demonstrate professional behavior consistently.



JMDC CURRICULUM SEQUENCE: MBBS 1-5 YEARS

Year 1	Module 1	EOM	Module 2	EOM	Module 3	EOM	Module 4	EOM	Module 5				EOM*	Exam of Module				
	Foundation-1 8 weeks		Blood-1 4 weeks		Locomotor-1 8 weeks		Respiratory-1 4 weeks		CVS-1 4 weeks									
	PAKISTAN STUDIES & ISLAMIAT																	
2	Module 6	EOM	Module 7	EOM	Module 8	EOM	Module 9	EOM	Module 10	EOM	Module 11	EOM	Module 12	EOM				
	GIT-1 4 weeks		Head & Neck-1 5 weeks		Neurosciences-1 7 weeks		Special Senses 3 weeks		Endocrine-1 5 weeks		Reproductive-1 4 weeks		Urinary-1 5 weeks					
	Communication Skills Patient Safety & Infection Control Professionalism & Ethics																	
3	Module 13	EOM	Module 14	EOM	Module 15	EOM	Module 16	EOM	Module 17	EOM	Module 18	EOM		EOM				
	Foundation 2 10 weeks		Blood-2 5 weeks		Locomotor-2 4 weeks		Respiratory-2 4 weeks		CVS-2 5 weeks		GIT-2 7 weeks							
	Clinical Rotations (Each Batch) WT* = Ward test																	
	Communication Skills Patient Safety & Infection Control Professionalism & Ethics																	
R1	Medicine 2 weeks	WT	Psychiatry 2 weeks	WT	Surgery 2 weeks	WT	Orthopedics 2 weeks	WT	OBS/ GYN 2 weeks	WT	Pediatrics 2 weeks	WT	Eye 2 weeks	Ent 3 weeks				
R2	Medicine 2 weeks		Psychiatry 2 weeks		Surgery 2 weeks		Orthopedics 2 weeks		OBS/ GYN 2 weeks		Pediatrics 2 weeks		Eye 2 weeks	Ent 3 weeks				
4	Module 19	EOM	Module 20	EOM	Module 21	EOM	Module 22	EOM	Module 23	EOM	Module 24	EOM	Module 25	EOM	Module 26	EOM	Module 27	EOM
	Nervous Sys & Psychiatry 2 8 weeks		H & N & SP Senses 2 (Eye) 4 weeks		H & N & SP Senses 3 (ENT) 4 weeks		Endocrinology 2 4 weeks		Repro 2 6 weeks		Urinary 2 4 weeks		Derma 2 weeks		Orthopedics 2 weeks		Rehab 2 weeks	
	Lectures Eye/ENT																	
	Clinical Rotations (Each Batch)																	
	Communication Skills Patient Safety & Infection Control Professionalism & Ethics																	
R1	Medicine 3 weeks	WT	Psychiatry 3 weeks	WT	Surgery 3 weeks	WT	Orthopedics 3 weeks	WT	OBS/ GYN 3 weeks	WT	Pediatrics 3 weeks	WT	Eye 3 weeks	WT	Ent 3 weeks	WT		
R2	Medicine 3 weeks	WT			Surgery 3 weeks	WT			Eye 3 weeks	WT			Ent 3 weeks		WT			
	LECTURES R***= Rotation																	
5	Medicine				Surgery				OBS/Gynae				Pediatrics					
	Clinical Rotations																	
	Communication Skills Patient Safety & Infection Control Professionalism & Ethics																	
R1	Medicine 4 weeks				Surgery 4 weeks				OBS/ GYN 4 weeks				Pediatrics 4 weeks					
R2	Medicine 5 weeks				Surgery 5 weeks				OBS/ GYN 5 weeks				Pediatrics 5 weeks					

OPHTHALMOLOGY

MAIN CONTENT AREAS

1. Orbit & Retin
2. Normal Vision
3. Basal Cell Carcinoma,
4. Choroidal Melanoma,
5. Squamous Cell Carcinoma
6. Retiniblastoma
7. Orbit
8. Lids
9. Cornea
10. Conjunctiva
11. Sclera
12. Lacrimal Apparatus
13. Uveal Tract
14. Lens
15. Glaucoma
16. Vitreo-Retina
17. Retinitis Pigmentosa,
18. Retinoblastoma
19. Age Related Macular
20. Optic Nerve
21. Visual Pathway
22. Injuries
23. Squint
24. Amblyopia
25. Errors of Refraction
26. Systemic Diseases
27. Blindness

Competencies Assessed in This Module:

K=Knowledge

S=Skill

A=Attitude

TEACHING / LEARNING METHODS:

The teaching learning sessions of this module will be of diverse types:

- a. Large group interactive sessions (LGIS).
- b. Small group teaching will include tutorials and, case – based learning session.
- c. Problem – based learning sessions.
- d. Practical session will comprise sessions on early exposure to clinical methods and practical laboratory demonstrations.
- e. Seminars: on different topics, in which students will make oral presentations on different aspects of the allocated topic.
- f. Self-directed learning sessions: This is the time during which students are expected to revise what they have learnt in the class, clear their concepts by consulting different textbooks, reference material and prepare their assignments and projects.

STUDENTS ASSESSMENT:

There will be an end of rotation ward test after completion of clinical posting which will comprise the following components: -

i. Written Assessment:

The theory paper will have components of one – best type multiple – choice questions (MCQs).

ii. Practical / Clinical examination:

This will comprise Objective Structured Clinical Examination (OSCE) The OSCE will have both observed and non-observed stations. The end of clinical posting will be of 2 hours duration. This will comprise the following components:

The OSPE/ OSCE will be conducted in batches. The students will be having different patterns of OSPE/OSCE in the subjects of Ophthalmology.

Summary of marks of each module exam:

Theory (BCQs) = 100 marks

OSPE (10 stations) = 100 marks

Total = 200 marks

INTERNAL ASSESSMENT:

- Continuous monitoring of attendance and practical assessment in short groups By Mini CEX and logbooks.
- It may be in the form of MCQs (BCQs), Ward tests, and OSCE.
- Internal assessment carries 20% weightage.

COURSE EVALUATION:

Course evaluation will be obtained through a feedback form which will be posted on the JMDC website.

MANDATORY POLICY:

Eligibility for sitting in Professional Examinations is as follows:

- 85% overall Class Attendance.
- 85% Attendance all Clinical Wards with passing marks in all Clinical Ward Tests.
- Minimum 40% aggregate marks on all Internal Examinations (Module Tests, Midterm, Pre-Professional Examinations).
- MBBS 1stYear: Complete all Professional Communication assignments with passing marks.
- MBBS 1st& 2ndYear: Obtain passing marks in Behavioral Sciences & Research Module assessments.
- MBBS 2ndYear: Presentation in Journal club at least twice in a year.
- MBBS 4th& Final Year: CPC Presentation at least once in a year.
- Skills Labs: Must be completed with passing marks.
- Research Paper must be completed before MBBS 4 Professional Examination.

Failure to Meet the Eligibility Requirements:

- A Student failing to meet the above listed eligibility for sitting in the professional examination will NOT be allowed to sit in 1st attempt of the Professional Examination.
The college has the right to withhold all students who however, not met the eligibility requirements from sitting in the 1st attempt.
- Such students who have been withheld from sitting in the 1st attempt of the Professional exam because of failure to meet the eligibility requirements will be allowed only to sit in the retake of that examination.
It is expected that deficiency in requirements of Professional communication assignments, Behavioral Sciences & Research Module assessments, journal Club presentations, CPC, Skills Labs must be made up and fulfilled before a student will be allowed to sit in the retake exam.

DETAILS OF ATTENDANCE POLICY:

The CR is responsible to bring attendance sheets from Student Affairs Office to each class. At the end of class, the attendance sheet must be signed and returned by the faculty member to the Student Affairs Office. No attendance sheets from students will be accepted.

These attendances will be compiled together as follows:

LECTURE ATTENDANCE = # Lectures Attended / Total # of Lectures

PRACTICAL ATTENDANCE = # Practicals Attended / Total # of Practicals

TUTORIAL ATTENDANCE = # Tutorials Attended / Total # of Tutorials

NOTE: All tutorials will be conducted by a Senior Faculty Member (AP or above), assisted by a Junior Faculty Member (Lecturer)

FINAL CLASS ATTENDANCE =

%Lecture Attendance + %Tutorial Attendance + %Practical Attendance

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RECOMMENDED READING MATERIAL

ANATOMY

A. GROSSANATOMY

1. K.L. Moore, Clinically Oriented Anatomy

B. EMBRYOLOGY.

1. Keith L. Moore. The Developing Human
2. Langman's Medical Embryology

COMMUNITY MEDICINE TEXT BOOKS

1. Community Medicine by Parikh
2. Community Medicine by M Ilyas
3. Basic Statistics for the Health Sciences by Jan W Kuzma

OPHTHALMOLOGY TEXT BOOK

Vaughan & Asbury's General Ophthalmology, 18th Edition

WEBSITE:

<https://timroot.com/>

PATHOLOGY/ MICROBIOLOGY TEXT BOOKS

1. Robbins & Cotran, Pathologic Basis of Disease, 9th edition.
2. Rapid Review Pathology, 4th edition by Edward F. Goljan MD

WEBSITES:

1. <http://library.med.utah.edu/WebPath/webpath.html>
2. <http://www.pathologyatlas.ro/>

PHYSIOLOGY A. TEXTBOOKS

1. Textbook of Medical Physiology by Guyton And Hall
2. Ganong 's Review of Medical Physiology
3. Human Physiology by Lauralee Sherwood
4. Berne & Levy Physiology
5. Best & Taylor Physiological Basis of Medical Practice

OPHTHALMOLOGY

Organization

Time requirements:

Lectures

4th year= 32 hours

Clinical Rotations

3rd year= 96 hours

4th year= 144 hours

Total = 272 hours

EYE

3rd year

Clinical rotations

EYE

Clinical Rotations

Sr. No.	LEARNING OBJECTIVES By the end of Ophthalmology module students should be able to:	CONTENT	LEARNING ACTIVITIES	ASSESSMENT
1.	- Describe the functional anatomy of the orbit and the globe along with relevant nerve and blood; - Discuss the embryology and histology of Retina (K)	ORBIT & RETINA	LGIS 50 mins	MCQs
2.	Describe the process of normal vision, optics and the reflexes seen in normal eye (K)	NORMAL VISION	LGIS 50 mins	MCQs
3.	Explain the pathology of the tumors involving eye including Basal Cell Carcinoma, Choroidal Melanoma, Squamous Cell Carcinoma and Retinoblastoma (K)	BASAL CELL CARCINOMA, CHOROIDAL MELANOMA, SQUAMOUS CELL CARCINOMA & RETINIBLASTOMA	LGIS 50 mins	MCQs
4.	- Diagnose Orbital cellulitis and Proptosis based on clinical features, pathophysiology and relevant investigations - Develop treatment plans for Cellulitis and Proptosis (K)	ORBIT	SGD (PBL) 50 mins	MCQs

S. No.	LEARNING OBJECTIVES By the end of Ophthalmology module students should be able to	CONTENT	LEARNING ACTIVITIES	ASSESSMENT
5.	- Diagnose the following on the basis clinical findings, pathology and their investigations: - Blepharitis - Sty - Chalazion - Trichiasis - Entropion - Ectropion - Ptosis - Explain the differential diagnosis and treatment plans for the above-mentioned conditions Develop treatment plans for Basal cell, Squamous cell, Sebaceous carcinoma and Melanoma - Describe clinical features for diagnosis of Nevus and Papilloma (K)	LIDS	SGD (P B L) + Presentation 50 mins	MCQs
6.	- Explain common corneal pathologies - Diagnose the corneal trauma, infections, vitamin A deficiency and Keratoconus on the basis of clinical findings, pathophysiology and relevant investigations - Explain the differential diagnosis and treatment plans for the corneal trauma, infections, vitamin A deficiency and Keratoconus (K)	CORNEA	LGIS 50 mins	MCQs

S. No.	LEARNING OBJECTIVES	CONTENT	LEARNING ACTIVITIES (Duration)	ASSESSMENT
7.	- Diagnose Infective conjunctivitis, Allergic conjunctivitis and Pterygium on the basis clinical sign and symptoms and pathology - Select the relevant investigations for the above-mentioned conditions - Discuss the differential diagnosis and treatment plans for infective conjunctivitis, allergic conjunctivitis and Pterygium (K)	CONJUNCTIVA	LGIS 50 mins	MCQs
8.	- Diagnose Episcleritis and Scleritis on the basis of clinical findings - Discuss the relevant investigations, differential diagnosis, pathophysiology and treatment plans for Episcleritis (K)	SCLERA	SGD 50 mins	MCQs
9.	- Diagnose Epiphora, Acute and Chronic Dacryocystitis on the basis of clinical features along with their relevant investigations and pathology - Discuss the differential diagnosis and treatment plans for the Epiphora, Acute and Chronic Dacryocystitis (K)	LACRIMAL APPARATUS	SGD (PBL) + Presentation 50 mins	MCQs

S. No.	LEARNING OBJECTIVES By the end of Ophthalmology module students should be able to:	CONTENT	LEARNING ACTIVITIES (Duration)	ASSESSMENT
10.	- Discuss differential diagnosis for red eye along with their etiology, pathology, investigations and treatment plans. - Diagnose Uveitis on the basis of clinical features and relevant investigations. - Discuss the differential diagnosis and treatment plans for Uveitis. (K)	UVEAL TRACT	LGIS 50 mins + SGD 50 mins	MCQs
11.	- Classify cataract - Describe cataract due to systemic diseases - Explain the symptoms, signs, investigations and management plan for congenital cataract - Diagnose acquired cataract based on symptoms, signs, pathophysiology and investigation findings - Justify selection of treatment options for acquired cataract - Explain congenital cataract secondary to rubella (K) (S) (A)	LENS	LGIS 50 mins + Demonstration 90 min	MCQs + OSCE

S. No.	LEARNING OBJECTIVES By the end of Ophthalmology module students should be able to:	CONTENT	LEARNING ACTIVITIES	ASSESSMENT
14.	- Discuss the clinical presentations, investigations and treatment options for Retinitis Pigmentosa, Retinoblastoma and Age-Related Macular Degeneration (ARMD) - Discuss the pathology and clinical signs and symptoms of retinopathy of prematurity (ROP) along with the relevant investigation - Discuss the complications and treatment plans for the ROP (K) (S) (A)	RETINITIS PIGMENTOSA, RETINOBLASTOMA AND AGE RELATED MACULAR	LGIS 50 mins + SGD 50 mins	MCQs MCQs + OSCE
15.	- Discuss the differential diagnosis, pathology, provisional diagnosis, and investigations for Papilledema, Optic Neuritis and Optic Atrophy - Formulate the treatment plans for Papilledema, Optic Neuritis and Optic Atrophy (K)	OPTIC NERVE	LGIS 50 mins	MCQs
16.	Discuss the effects of lesions in the optic chiasma and visual pathway on visual field (K)	VISUAL PATHWAY	Short Group Problem Based Discussion 50 mins	MCQs

S. No.	LEARNING OBJECTIVES	CONTENT AREA	LEARNING ACTIVITIES	ASSESSMENT
	By the end of Ophthalmology			
17.	- Classify injuries to the eye based on etiology - Describe management plan for extra-ocular corneal and conjunctival foreign bodies - Discuss the management plans for ocular burns and chemical injuries - Develop management plans for all other types of injuries to the eye (K)	INJURIES	LGIS 50 mins	MCQs
18.	- Define Squint and Amblyopia - Discuss the relationship between squint and amblyopia - Discuss the clinical presentation of squint and amblyopia along with their differential diagnosis and relevant investigations - Discuss principles of management for these two conditions (K)	SQUINT AND AMBLYOPIA	SGD 50mins + Presentation 50 mins	MCQs
19.	- Define Emmetropia, Myopia, Hypermetropia, Astigmatism, Presbyopia, Aphakia, Pseudophakia and Anisometropia - Discuss the etiology and corrective measures for each type of error of refraction including the principals involved, use and procedure of pin hole test (K) (S) (A)	ERRORS OF REFRACTION	LGIS 50 mins + Demonstrations 90 mins	MCQs + OSCE

S. No.	LEARNING OBJECTIVES By the end of Ophthalmology module students should be able to:	CONTENT	LEARNING ACTIVITIES (Duration)	ASSESSMENT
20.	- Discuss the effects of diabetes mellitus and hypertension eye and vision - Based on data provided, diagnose diabetic and hypertensive retinopathy - Discuss the pathophysiology of diabetic and hypertensive retinopathy - Describe principles of management for the two above mentioned conditions - Based on data provided, justify diagnosis, investigations and treatment plan for ocular conditions due to vitamin A deficiency - Discuss the effects of abnormal thyroid hormone levels on eye and vision - Diagnosis, investigations and treatment plan for conditions due to abnormal thyroid hormone levels (e.g. Grave's disease, Thyroid Ophthalmopathy) (K) (S) (A)	SYSTEMIC DISEASES	LGIS 50 mins	MCQs + OSCE
21.	- Discuss the six most common causes of blindness worldwide according to WHIO criteria - Discuss etiology, preventive measures and principles of management for blindness (K)	BLINDNESS	LGIS 50 mins	MCQs

EYE

4TH year

**Lectures
&
Clinical Rotations**

EYE

Clinical Rotations

Sr. No.	LEARNING OBJECTIVES By the end of Ophthalmology module students should be able to:	CONTENT	LEARNING ACTIVITIES	ASSESSMENT
1.	- Describe the functional anatomy of the orbit and the globe along with relevant nerve and blood; - Discuss the embryology and histology of Retina (K)	ORBIT & RETINA	LGIS 50 mins	MCQs
2.	Describe the process of normal vision, optics and the reflexes seen in normal eye (K)	NORMAL VISION	LGIS 50 mins	MCQs
3.	Explain the pathology of the tumors involving eye including Basal Cell Carcinoma, Choroidal Melanoma, Squamous Cell Carcinoma and Retinoblastoma (K)	BASAL CELL CARCINOMA, CHOROIDAL MELANOMA, SQUAMOUS CELL CARCINOMA & RETINIBLASTOMA	LGIS 50 mins	MCQs
4.	- Diagnose Orbital cellulitis and Proptosis based on clinical features, pathophysiology and relevant investigations - Develop treatment plans for Cellulitis and Proptosis (K)	ORBIT	SGD (PBL) 50 mins	MCQs

S. No.	LEARNING OBJECTIVES By the end of Ophthalmology module students should be able to	CONTENT	LEARNING ACTIVITIES	ASSESSMENT
5.	- Diagnose the following on the basis of clinical findings, pathology and their investigations: - Blepharitis - Sty - Chalazion - Trichiasis - Entropion - Ectropion - Ptosis - Explain the differential diagnosis and treatment plans for the above-mentioned conditions. Develop treatment plans for Basal cell, Squamous cell, Sebaceous carcinoma and Melanoma - Describe clinical features for diagnosis of Nevus and Papilloma (K)	LIDS	SGD (P B L) + Presentation 50 mins	MCQs
6.	- Explain common corneal pathologies - Diagnose the corneal trauma, infections, vitamin A deficiency and Keratoconus on the basis of clinical findings, pathophysiology and relevant investigations - Explain the differential diagnosis and treatment plans for the corneal trauma, infections, vitamin A deficiency and Keratoconus (K)	CORNEA	LGIS 50 mins	MCQs

S. No.	LEARNING OBJECTIVES	CONTENT	LEARNING ACTIVITIES (Duration)	ASSESSMENT
	By the end of Ophthalmology module students should be able to:			
7.	- Diagnose Infective conjunctivitis, Allergic conjunctivitis and Pterygium on the basis clinical sign and symptoms and pathology - Select the relevant investigations for the above-mentioned conditions - Discuss the differential diagnosis and treatment plans for infective conjunctivitis, allergic conjunctivitis and Pterygium (K)	CONJUNCTIVA	LGIS 50 mins	MCQs
8.	- Diagnose Episcleritis and Scleritis on the basis of clinical findings - Discuss the relevant investigations, differential diagnosis, pathophysiology and treatment plans for Episcleritis (K)	SCLERA	SGD 50 mins	MCQs
9.	- Diagnose Epiphora, Acute and Chronic Dacryocystitis on the basis of clinical features along with their relevant investigations and pathology - Discuss the differential diagnosis and treatment plans for the Epiphora, Acute and Chronic Dacryocystitis (K)	LACRIMAL APPARATUS	SGD (PBL) + Presentation 50 mins	MCQs

S. No.	LEARNING OBJECTIVES By the end of Ophthalmology module students should be able to:	CONTENT	LEARNING ACTIVITIES (Duration)	ASSESSMENT
10.	- Discuss differential diagnosis for red eye along with their etiology, pathology, investigations and treatment plans. - Diagnose Uveitis on the basis of clinical features and relevant investigations. - Discuss the differential diagnosis and treatment plans for Uveitis. (K)	UVEAL TRACT	LGIS 50 mins + SGD 50 mins	MCQs
11.	- Classify cataract - Describe cataract due to systemic diseases - Explain the symptoms, signs, investigations and management plan for congenital cataract - Diagnose acquired cataract based on symptoms, signs, pathophysiology and investigation findings - Justify selection of treatment options for acquired cataract - Explain congenital cataract secondary to rubella (K) (S) (A)	LENS	LGIS 50 mins + Demonstration 90 min	MCQs + OSCE

S. No.	LEARNING OBJECTIVES By the end of Ophthalmology module students should be able to:	CONTENT	LEARNING ACTIVITIES	ASSESSMENT
14.	- Discuss the clinical presentations, investigations and treatment options for Retinitis Pigmentosa, Retinoblastoma and Age-Related Macular Degeneration (ARMD) - Discuss the pathology and clinical sign and symptoms of retinopathy of prematurity (ROP) along with the relevant investigation - Discuss the complications and treatment plans for the ROP (K) (S) (A)	RETINITIS PIGMENTOSA, RETINOBLASTOMA AND AGE RELATED MACULAR	LGIS 50 mins + SGD 50 mins	MCQs MCQs + OSCE
15.	- Discuss the differential diagnosis, pathology, provisional diagnosis, and investigations for Papilledema, Optic Neuritis and Optic Atrophy - Formulate the treatment plans for Papilledema, Optic Neuritis and Optic Atrophy (K)	OPTIC NERVE	LGIS 50 mins	MCQs
16.	Discuss the effects of lesions in the optic chiasma and visual pathway on visual field (K)	VISUAL PATHWAY	Short Group Problem Based Discussion 50 mins	MCQs

S. No.	LEARNING OBJECTIVES	CONTENT AREA	LEARNING ACTIVITIES	ASSESSMENT
	By the end of Ophthalmology			
17.	- Classify injuries to the eye based on etiology - Describe management plan for extra-ocular corneal and conjunctival foreign bodies - Discuss the management plans for ocular burns and chemical injuries - Develop management plans for all other types of injuries to the eye (K)	INJURIES	LGIS 50 mins	MCQs
18.	- Define Squint and Amblyopia - Discuss the relationship between squint and amblyopia - Discuss the clinical presentation of squint and amblyopia along with their differential diagnosis and relevant investigations - Discuss principles of management for these two conditions (K)	SQUINT AND AMBLYOPIA	SGD 50mins + Presentation 50 mins	MCQs
19.	- Define Emmetropia, Myopia, Hypermetropia, Astigmatism, Presbyopia, Aphakia, Pseudophakia and Anisometropia - Discuss the etiology and corrective measures for each type of error of refraction including the principals involved, use and procedure of pin hole test (K) (S) (A)	ERRORS OF REFRACTION	LGIS 50 mins + Demonstrations 90 mins	MCQs + OSCE

S. No.	LEARNING OBJECTIVES By the end of Ophthalmology module students should be able to:	CONTENT	LEARNING ACTIVITIES (Duration)	ASSESSMENT
20.	• Discuss the effects of diabetes mellitus and hypertension eye and vision • Based on data provided, diagnose diabetic and hypertensive retinopathy • Discuss the pathophysiology of diabetic and hypertensive retinopathy • Describe principles of management for the two above mentioned conditions • Based on data provided, justify diagnosis, investigations and treatment plan for ocular conditions due to vitamin A deficiency • Discuss the effects of abnormal thyroid hormone levels on eye and vision • Diagnosis, investigations and treatment plan for conditions due to abnormal thyroid hormone levels (e.g. Grave's disease, Thyroid Ophthalmopathy) (K) (S) (A)	SYSTEMIC DISEASES	LGIS 50 mins	MCQs + OSCE
21.	• Discuss the six most common causes of blindness worldwide according to WHIO criteria • Discuss etiology, preventive measures and principles of management for blindness (K)	BLINDNESS	LGIS 50 mins	MCQs

Case based learning (CBL)

- ____ will be conducted every week
- CPC will be conducted each week

Learning Tool	Theme	Case Scenario	Subjects integrated in CPC
CPC1	SUDDEN LOSS OF VISION	A 58 years old male presented in OPD with complaint of sudden drop of vision in his left eye 2 days back, which is counting finger only. He denies any pain, redness, double vision flashes or floaters of light. He has history of hypertension since last 20 years and he is non-compliance of medication. His fundoscopy shows Hg's and hard exudates with cotton wool spots scattered all four quadrants of retina involving macula. His right eye 6/6 with glasses. No abnormal finding seen in right eye on fundoscopy. Left eye RAPD is positive.	Learning objectives will be from All clinical specialties
CPC 2	DIABETIC RETINOPATHY	A 60 years old lady presented in OPD with painless blurring of vision both eyes with VA 6/36 right eye, VA 6/12 Left eye with no improvement with glasses. She has history of type -I diabetes since last 25 years. On S/L examination her anterior segment is normal. On dilated fundoscopy both eyes have Hg's with hard excaudate all over retina. OCT shows macular edema on right eye with neo vessels on optic disc. Left eye; no neo vessels are seen. She had intra vitreal anti VEGF injection in right eye one month back.	Learning objectives will be from All clinical specialties

Learning Resources:

The students will be guided to look for the relevant study material from the books, internet guided by each discipline in the study guide in their relevant section in addition to other reference books from the college library.

MEDICAL EDUCATION**LECTURES / WORKSHOP**

S.NO	Learning Objectives (domain) At the end of session, student will be able to:	Content Areas	Teaching Activity (Duration)	Assessment
1.	How to do Educational Planning (S)	Educational Planning	Workshop 3 Hours	—
2.	Writing Educational Objectives (How, What, Why) (S)	Educational Objectives	Workshop 3 Hours	
3.	Develop OSPE/OSCE stations (S)	OSPE/OSCE Development	Workshop 3 Hours	—
4.	How to do students engagement and Teaching methodologies (S)	Student Engagement & Teaching Methodologies	Workshop 3 Hours	
5.	Prepare TOS and Assessment Planning (S)	TOS and Assessment planning	Workshop 3 Hours	

Learning resource: How to succeed at medical school, Dason Evans & Jo Brown, 2009

TIME TABLE

Jinnah Medical & Dental College
MBBS 4 (Batch 25) - 2025
EYE/ENT-NEUROPSYCHIATRY MODULE – WEEK 1

Venue: LH 104

MON Dec 30	9:00-9:30 Introduction Dr. Ambreen Usmani	9:30-10:20 PATHOLOGY Nerve Injury, Cerebral Edema & Raised ICP Dr. Shoalb	10:25-11:15 PHARMACOLOGY CNS Introduction Dr. Samia	11:45-12:35 PATHOLOGY Traumatic CNS Injuries Dr. Younus	12:40-1:30 COMMUNITY MEDICINE Introduction to Mental Health Dr. Ayesha	2:00-3:30 CLINICAL WARD DUTIES
TUES Dec 31	9:00-11:00 CLINICAL WORK Rotation 1.1		11:15-12:05 PATHOLOGY Parenchymal Injuries Dr. Kulsoom	12:10-1:00 PHARMACOLOGY Sedative Hypnotics: Benzodiazepines Dr. Amber	1:30-3:30 CLINICAL WARD DUTIES	
WED Jan 1	9:00-9:50 CLINICAL PATHOLOGICAL CONFERENCE	9:55-10:45 ENT Ear Anatomy, Physiology, Symptomatology Dr. Tooba	11:00-1:00 CLINICAL WORK Rotation 1.1		1:30-3:00 PBL Neuro 1.1 1-Surgery-Surgery SR 2-Ob/Gyn-Ob/Gyn SR 3-Medicine-Medicine SR 4-Pediatrics-Peds SR	SELF STUDY
THURS Jan 2	PSYCHIATRY Introduction to Mental Health; Biosocial Method; Non- Pharmacological Interventions Dr. Aneel	MEDICINE (NEUROLOGY) Lesion Localization Dr. Monika	CLINICAL WORK Rotation 1.1		PBL Neuro 1.2 1-Surgery-Surgery SR 2-Ob/Gyn-Ob/Gyn SR 3-Medicine-Medicine SR 4-Pediatrics-Peds SR	SELF STUDY
FRI Jan 3	PSYCHIATRY Counseling & Psychotherapy Dr. Aneel	MEDICINE (NEUROLOGY) Cranial Nerve Lesions Dr. Monika	CLINICAL WORK Rotation 1.1		2:00-3:00 RESEARCH PROJECT Mandatory Meeting with Supervisors Weekly – Attendance to be taken by Supervisors & submitted to CHS Department. Time/day of weekly meetings will be mutually agreed by student group and supervisor	
SAT Jan 4	MEDICINE Post PBL 1.3	EYE Ophthalmology History Taking Anatomy & Physiology	CLINICAL WORK Rotation 1.1		2:00-3:00 PHYSICAL TRAINING LH104	

Jinnah Medical & Dental College
MBBS 4 (Batch 25) - 2025
EYE/ENT- ENDOCRINE MODULE – WEEK 1

Venue: LH 104

MON Feb 24	NEUROPSYCHIATRY MODULE TEST				1:30-3:30 CLINICAL WARD DUTIES
TUES Feb 25	NEUROPSYCHIATRY MODULE TEST				1:30-3:30 CLINICAL WARD DUTIES
WED Feb 26	9:00-9:50 CLINICAL PATHOLOGICAL CONFERENCE	9:55-10:45 ENT Otosclerosis Dr. Tooba	11:00-1:00 CLINICAL WORK Rotation 3.3		1:30-3:00 PBL Endocrine 1.1 1- OB/Gyn – OB/Gyn SR 2- Surgery-Surgery SR 3-Pediatrics – Peds SR 4-Medicine – Medicine SR
THURS Feb 27	9:00-9:50 PATHOLOGY Pituitary Gland Overview Dr. Saleha	MEDICAL EDUCATION NeuroPsych Module Test Review Dr. Younus	CLINICAL WORK Rotation 3.3		PBL Endocrine 1.2 1- OB/Gyn – OB/Gyn SR 2- Surgery-Surgery SR 3-Pediatrics – Peds SR 4-Medicine – Medicine SR
FRI Feb 28	PHARMACOLOGY Pituitary Hormones Dr. Amber	PATHOLOGY Pituitary Tumors Dr. Saleha	CLINICAL WORK Rotation 3.3		2:00-3:00 RESEARCH PROJECT Meet with Supervisor Attendance Mandatory
SAT Mar 1	PBL 1.3 Post PBL Discussion Medicine Dr. Tasneem	EYE Lacrimal Apparatus Diseases Dr. Zeeshan Kamil	CLINICAL WORK Rotation 3.3 WARD TEST		2:00-3:00 PHYSICAL TRAINING LH104

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EYE/ENT- URINARY II MODULE – WEEK 1

Venue: LH 104

MON Apr 7	ENDOCRINE MODULE TEST			1:30-3:30 CLINICAL WARD DUTIES
TUES Apr 8	9:00-11:00 CLINICAL WORK Rotation 5.2	ENDOCRINE MODULE TEST		1:30-3:30 CLINICAL WARD DUTIES
WED Apr 9	9:00-9:50 CLINICAL PATHOLOGICAL CONFERENCE	9:55-10:45 ENT Atrophic, Vasomotor & Allergic Rhinitis Dr. Shuja	11:00-1:00 CLINICAL WORK Rotation 5.2	1:30-3:00 CBL Urinary 1.1 1- Pediatrics – Peds SR 2- Medicine – Medicine SR 3- Surgery-Surgery SR 4- OB/Gyn – OB/Gyn SR
THURS Apr 10	PATHOLOGY Cysts: Congenital & Acquired Cystic Conditions Dr. Shoaib	PHARMACOLOGY Diuretics 1	CLINICAL WORK Rotation 5.2	CBL Urinary 1.2 1- Pediatrics – Peds SR 2- Medicine – Medicine SR 3- Surgery-Surgery SR 4- OB/Gyn – OB/Gyn SR
FRI Apr 11	PATHOLOGY Obstructive Uropathy 1: Urinary Outflow Obstruction Dr. Umme Kulsoom	PHARMACOLOGY Diuretics 2	CLINICAL WORK Rotation 5.2	2:00-3:00 RESEARCH PROJECT Meet with Supervisor Attendance Mandatory
SAT Apr 12	PBL 1.3 Post CBL Discussion Dr. Baber	EYE Glaucoma II Dr. Umer Hassan	CLINICAL WORK Rotation 5.2	2:00-3:00 PHYSICAL TRAINING LH104

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EYE/ENT- DERMA-ORTHOPEDICS-REHAB MODULE – WEEK 1

Venue: LH 104 (Building B)

	9:00-9:50	9:55-10:45	11:00-1:00	1:30-3:00
MON May 12	URINARY MODULE EXAM			1:30-3:30 CLINICAL WARD DUTIES
TUES May 13	URINARY MODULE EXAM			1:30-3:30 CLINICAL WARD DUTIES
WED May 14	CLINICAL PATHOLOGICAL CONFERENCE	ENT Epistaxis, NPC Dr. Zain	CLINICAL WORK Rotation 6.3	CBL Ortho 1.1 1-Surgery-Surgery SR 2-Ob/Gyn-Ob/Gyn SR 3-Medicine-Medicine SR 4-Pediatrics-Peds SR
THURS May 15	MEDICAL EDUCATION Urinary Module Test Review Dr. Furqan Mirza	DERMATOLOGY Basic Skin Terminologies Dr. Farina	CLINICAL WORK Rotation 6.3	CBL Ortho 1.2 4-Surgery-Surgery SR 1-Ob/Gyn-Ob/Gyn SR 2-Medicine-Medicine SR 3-Pediatrics-Peds SR
FRI May 16	COMMUNITY MEDICINE Medical Anthropology Dr. Arham	REHABILITATION Introduction To Rehabilitation Medicine & Community Based Rehabilitation Dr. Aqsa	CLINICAL WORK Rotation 6.3	RESEARCH PROJECT Mandatory Meeting with Supervisors Weekly – Attendance to be taken by Supervisors & submitted. Time/day of weekly meetings will be mutually agreed by student group and supervisor
SAT May 17	SURGERY / ORTHO Musculoskeletal Diseases Presenting Problems & Investigations Dr. Farooq	EYE Diabetes & the Eye Dr. Fawad Rizvi	CLINICAL WORK Rotation 6.3 WARD TEST	1:10-2:00 CBL 1.3 Post CBL Session Surgery
				2:00-3:00 PHYSICAL TRAINING LH104

END of Clinical Posting

OPHTHOLMOLOGY TEST THEORY

OPHTHOLMOLOGY TEST OSCE