

Fourth Year MBBS 2023

Study Guide

Ophthalmology Block

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• University Moto, Vision, Values& Goals

Mission Statement

To impart evidence-based research-oriented health professional education in order to provide best possible patient care and inculcate the values of mutual respect, ethical practice of healthcare and social accountability.

Vision and Values

Highly recognized and accredited centre of excellence in Medical Education, using evidence-based training techniques for development of highly competent health professionals, who are lifelong experiential learner and are socially accountable. Goals of the Undergraduate Integrated Modular Curriculum

The Undergraduate Integrated Learning Program is geared to provide you with quality medical education in an environment designed to:

- Provide thorough grounding in the basic theoretical concepts under pinning the practice of medicine.
- Develop and polish the skills required for providing medical services at all levels of the Healthcare delivery system.
- Help you attain and maintain the highest possible levels of ethical and professional conduct in your future life.
- Kindle a spirit of inquiry and acquisition of knowledge to help you attain personal and professional growth & excellence.

RMU Motto



Ophthalmology Module

Ophthalmology system- based module, as part of an outcome- based, integrated curriculum keeping in view the approach suggested by Harden.

Curriculum partially represents constructivist perspective and partially behavioral perspective. Behavioral approach begins with educational plans that start with the setting of goals or objectives. These are the important elements in curriculum implementation, as evaluating the learning outcomes will mean the change in behavior. The change of behavior indicates the measure of the achievement.

Constructivist approach leads to learning that proceeds in spiraling fashion including laddering, scaffolding, weaving, and dialogism. The utilization of constructivism in educational settings has been shown to promote higher-order thinking skills such as problem-solving and critical thinking. Students will construct their new knowledge based on what they already know. This knowledge will be used in purposeful activities like making judgments and decisions.

• Ophthalmology Module Team

	Module Committee			
1.	Vice Chancellor	Prof. Dr. Muhammad Umar (SI)		
2.	Director DME	Prof. Dr. Rai Muhammad Asghar		
3.	Convener Curriculum	Prof. Dr. Naeem Akhter		
4.	Dean Basic Sciences	Prof. Dr. Ayesha Yousaf		
5.	Additional Director DME	Prof. Dr. Ifra Saeed		
6.	Chairperson Ophthalmology	Prof Fuad A.K Niazi		
7.	Chairperson Community Medicine	Prof. Dr. Arshad Sabir		
8.	Focal Person Ophthalmology	Dr. Sidra Jabeen		
9.	Focal Person Community Medicine	Dr. Sana Bilal		

Module Task force team		
1.	Coordinator	Dr. Sidra Jabeen (AP Ophthalmology)
2.	DME focal person	Dr. Maryam Batool
	DME implementat	tion Task Force
1.	Director DME	Prof. Dr. Rai Muhammad Asghar
2.	Add. Director DME	Dr. Asma Khan
3.	Assistant Director	Dr Omaima Asif
4.	Module planner & Implementation coordinator	Dr. Omaima Asif
5,	Editor	Mr. Ahmed Rafay Dr. Omaima Asif

• <u>Ophthalmology Module</u>

Introduction: Ophthalmology module provides integration of core concepts that underlie the foundation of basic sciences and their use in clinical medicine. This will eventually lead to develop critical thinking for integration and application of basic knowledge for clinical application.

Rationale: The module is designed to impart basic knowledge about ophthalmic pathology, pharmacology, Community Medicine, bioethics, Research, Medicine& Surgery. This knowledge will serve as a base on which the student will construct further knowledge about the etiology, pathogenesis and prevention of diseases; the principles of their therapeutics and management. Module Outcomes

Each student will be able to:

Knowledge

Acquire knowledge about the basic terminologies used in Pharmacology, Pathology & Forensic Medicine as well as the concepts of diseases in the community

- UsetechnologybasedmedicaleducationincludingArtificialIntelligence.
- Appreciate concepts & importance of Family Medicine, Biomedical Ethics, Artificial intelligence and Research.

Skills

Interpret and analyze various practicals of Pre-clinical Sciences

Attitude

• Demonstrate a professional attitude, team building spirit and good communication skills

This module will run in 5weeks duration. The content will be covered through introduction of topics. Instructional strategies are given in the time table and learning objectives are given in the study guides. Study guides will be uploaded on the university website. Good luck!

Section I-Terms & Abbreviations

Contents

- Domains of Learning
- Teaching and Learning Methodologies/ Strategies
 - Large Group Interactive Session(LGIS)
 - Small Group Discussion(SGD)
 - Self-Directed Learning(SDL)
 - Case Based Learning (CBL)
 - Problem-Based Learning(PBL)

Tables & Figures

- Table1. Domains of learning according to Blooms Taxonomy
- Figure 2. Prof Umar's Model of Integrated Lecture
- Table3. Standardization of teaching content in Small Group Discussions
- Table4.Steps of taking Small Group Discussions
- Figure2.PBL7 Jumps Model

Table1.

Domains of learning according to Blooms Taxonomy

Sr. #	Abbreviation	Domainsoflearning
1.	С	Cognitive Domain:
		knowledge and mental skills.
	C1	Remembering
	C2	Understanding
	C3	Applying
	C4	Analyzing
	C5	Evaluating
	C6	Creating
2.	Р	Psychomotor Domain:
		motors kills.
	P1	Imitation
	P2	Manipulation
	P3	Precision
	P4	Articulation
	P5	Naturalization
3.	А	Affective Domain:
		feelings, values, dispositions, attitudes, etc
	A1	Receive
	A2	Respond
	A3	Value
	A4	Organize
	A5	Internalize

• Teaching and Learning Methodologies/Strategies

a. Large Group Interactive Session (LGIS)

The large group interactive session is structured format of Prof Umar Model of Integrated lecture. It will be followed for delivery of all LGIS. Lecturer will introduce a topic or common clinical condition and explains the underlying phenomena through questions, pictures, videos of patients, interviews and exercises, etc. Students are actively involved in the learning process.



Figure 1. Prof Umar's Eye of Integrated Lecture

b. Small group discussion (SGD):

This format helps students to clarify concepts acquire skills and attitudes. Sessions are structured with the help of specific exercises such as patient case, interviews or discussion topics or power point presentations. Students exchange opinions and apply knowledge gained from lectures, SGDs and self-study. The facilitator role is to ask probing questions, summarize and helps to clarify the concepts.

Table 2.

Standardization of teaching content inSmallGroupDiscussions

S.No	Topics	Approximate%
1	Title Of SGD	
2	Learning Objectives From Study Guides	
3	Horizontal Integration	5%+5%=10%
4	Core Concepts of the Topic	60%
5	Vertical Integration	20%
6	Related Advance Research points	3%
7	Related Ethical points	2%

Table 3.Steps of taking Small Group discussions

Step1	Sharing of Learning objectives by using students Study guides	First 5 minutes
Step2	Asking students pre-planned questions from previous teaching session to develop co-relation (these questions will be standardized)	5minutes
Step3	Students divided into groups of three and allocation of learning Objectives	5minutes
Step4	ACTIVITY: Students will discuss the learning objectives among Themselves	15minutes
Step5	Each group of students will present its learning objectives	20min
Step6	Discussion of learning content in the main group	30min
Step7	Clarification of concept by the facilitator by asking structured questions from learning content	15min
Step8	Questions on core concepts	
Step9	Questions on horizontal integration	
Step10	Questions on vertical integration	
Step11	Questions on related research article	
Step12	Questions on related ethics content	
Step13	Students Assessment on online M.Steams (5MCQs)	5min
Step14	Summarization of main points by the facilitator	5min
Step15	Students feedback on the SGD and entry into logbook	5min
Step16	Ending remarks	

c. Self-Directed Learning (SDL)

- Self-directed learning is a process where students take primary charge of planning, continuing and evaluating their learning experiences.
- \Box Time: Home assignment
- \Box Learning objectives will be defined
- □ Learning resources will be given to students=Textbook (page no), website
- □ Assessment: Will be online on LMS

(Mid module/ end of Module)

d. Case Based Learning (CBL)

- □ It's a learner centered model which engages students in discussion of specific scenarios that resemble typically are real world examples.
- \Box Case scenario will be given to the students
- □ Will engage students in discussion of specific scenarios that resemble or typically are real-world examples.
- \Box Learning objectives will be given to the students and will be based on
 - i. To provide students with an opportunity to see theory in practice
 - ii. Require students to analyze data in order to reach a conclusion, develop analytic, communicative and collaborative skills along with content knowledge.

• <u>Title: Ophthalmology Module</u>

a. An Overview Of The Module Teaching And Learning / Assessment Activities Of Department Of Ophthalmology

b.

Teaching and Learning Strategies Teaching Staff / Human Resource

Sr. #	Designation of Teaching Staff/ Human Resources	Total number of teaching staff	Total number of lectures LGIS
1	Professor of Ophthalmology	01	6
2	Assistant Professor of Ophthalmology	02	6
3	Senior Registrars	08	13
4	Post Graduate Residents	26	0

Hours Calculation of various type of Teaching Strategies

Sr. #	Hours Calculation for Various Type of Teaching Strategies	Total Hours
1	Large Group Interactive Session (LECTURES)	1 hour x 18 = 18 Hrs 45 mins x 11 = 8 Hrs 15 mins
		Total = 26 Hrs 15mins
2	Self-Directed Learning (SDL)	2 hour x 7= 14Hrs
3	Case based learning (CBL)	1 hour x 6 = 6 Hrs 1 hour 45 mins x 2 = 3 Hrs 30 mins 45 mins * 1 = 45 mins
		Total = 10 Hrs 15 mins

Sr.no.	Designation	Total number of teaching staff
1	Professor	01
2	Associate professor	02
3	Assistant professor	03
4	demonstrators	05
5	PGTs	05

Detail of Contact hours (faculty) & contact hours (students)

Sr. no.	Hours Calculation for Various Type of Teaching Strategies	Total Hours (Faculty)	Total Hours (Students)	Faculty level
1	LGIS (14). 1hrs each session (half class sessions)	2 x 14= 28 hrs.	14	Professor, associate, and assistant professors
2	SGD (3) approx. 2hrs each session. 1/4 th class	2 x 12= 24 hrs.	4	Demos (subject specialists), Senior PGTs
3	PAL (IUGRC) (1) approx. 2hrs per session. (16 small group sessions. 8 sessions per day)	2 x 16 =32 hrs.	2	Demos (subject specialists) supervised by professional faculties
		Total: 86hrs	21hrs	

- Learning Objectives Of Self-Directed Learning (SDL)
 - General Learning Objectives Of Self-Directed Learning:

- 1. Encourages students to learn more effectively.
- 2. Inspires curiosity and motivates further discovery.
- 3. Boosts self-esteem.
- 4. Strengthens problem solving skills.
- 5. Learning at a comfortable pace.
- 6. Improves time management skills.
- 7. Encouraging students to learn from textbooks.
- 8. Learn to take initiative and act upon goals
- 9. Role in cognitive development (critical thinking, trial and error analysis)

Sr.	Topic of SDL	Learning objectives	Assessment		References
#		At the end of this session, students will be able	LMS	Modular exams	
1	Fungal Keratitis	 Describe the Signs and Symptoms of fungal keratitis Describe its Pathophysiology Discuss the Investigations required Describe its treatment plan 	MCQ	MCQ, SEQ OSPE	 Kanski's Clinical Ophthalmology 9th edition Chapter 7, Page # 216 - 218 Clinical Ophthalmology by ShafiM.Jatoi 5th edition Chapter 8, Page # 90-92 https://eyewiki.aao.org/Fungal_Keratitis
2	Congenital Glaucoma	 Describe the Signs of symptoms of Congenital Glaucoma Enumerate the Differential diagnosis of watering in neonates Discuss its Clinical evaluation in pediatric group Explain the principles of its Management 	MCQ	MCQ, SEQ OSPE	 Kanski's Clinical Ophthalmology 9th edition Chapter 11, Page # 395 - 398 Clinical Ophthalmology by ShafiM.Jatoi 5th edition Chapter 11, Page # 156-159 https://www.aao.org/webinar-detail/primary-secondary- surgery-congenital-glaucoma

3	Steroid induced Glaucoma	 Describe the pathophysiology of steroid induced glaucoma Enlist the types of steroids causing glaucoma and their route of administration Know about steroid responders Discuss the different treatment options 	MCQ	MCQ, SEQ OSPE	 Kanski's Clinical Ophthalmology 9th edition Chapter 11, Page # 388 Clinical Ophthalmology by ShafiM.Jatoi 5th edition Chapter 11, Page # 155 <u>https://doi.org/10.1016/j.survophthal.2020.01.002</u>
4	Recurrent anterior uveitis	 Enlist its systemic associations Describe its signs and symptoms Explain the systemic and ocular investigations to be done Describe the management of this case. 	MCQ	MCQ, SEQ OSPE	 Kanski's Clinical Ophthalmology 9th edition Chapter 12, Page # 424 - 442 Clinical Ophthalmology by ShafiM.Jatoi 5th edition Chapter 12, Page # 165 - 168 <u>https://doi.org/10.1016/j.ajo.2008.11.009</u>
5	Ophthalmic manifestations of DM	 Explain the different presentations of DM in eye Enlist the risk factors for DR Enlist the complications of DR Describe the management of different manifestations 	MCQ	MCQ, SEQ OSPE	 Kanski's Clinical Ophthalmology 9th edition Chapter 13, Page # 496 Clinical Ophthalmology by ShafiM.Jatoi 5th edition Chapter 15, Page # 191 - 197 DOI:<u>10.1177/1474651411428950</u>
6	Strabismus and Amblyopia	 Define amblyopia Relationship between strabismus and amblyopia Enlist the different types of squint Describe, how will theyassess a patient ofsquint Describe its Management. 	MCQ	MCQ, SEQ OSPE	 Kanski's Clinical Ophthalmology 9th edition Chapter 18, Page # 707 - 708 Clinical Ophthalmology by ShafiM.Jatoi 5th edition Chapter 22, Page # 282 - 283 https://aapos.org/glossary/amblyopia
7	Complications of Cataract surgery	 Enlist types of cataract surgery Describe its Pre op and post op complications Describe the management of 	MCQ	MCQ, SEQ OSPE	 Kanski's Clinical Ophthalmology 9th edition Chapter 10, Page # 325 - 335 Clinical Ophthalmology by ShafiM.Jatoi 5th edition Chapter 10, Page # 128 -

		complications			131https://eyewiki.aao.org/Cataract_Surgery_Complications
8	Approach to Leukocoria	 Enlist the differential diagnosis of Leukocoria Discuss different sight and life threating conditions Describe its clinical evaluation and investigations Describe its management plan 	MCQ	MCQ, SEQ OSPE	 Kanski's Clinical Ophthalmology 9th edition Chapter 20, Page # 864 Clinical Ophthalmology by ShafiM.Jatoi 5th edition Chapter 10, Page # 117 <u>https://www.aao.org/eyenet/article/stepwise-approach-to-leukocoria</u>
9	Idiopathic intracranial hypertension	 Describe its Signs and symptoms Enlist its differential diagnosis Discuss the role of Lumber puncture and MRI Describe its management plan 	MCQ	MCQ, SEQ OSPE	 Kanski's Clinical Ophthalmology 9th edition Chapter 19, Page # 769 - 770 Clinical Ophthalmology by ShafiM.Jatoi 5th edition Chapter 16, Page # 223 - 225 <u>https://doi.org/10.1016/S1474-4422(06)70442-2</u>

				-		
Sr. #	Topic of SDL	Learning objectives.	Week	Assessmer	nt	References
		At the end of this session, students will be able to:		LMS	Modular exams	
1.	A middle aged farmer with painful red eye after vegetative trauma	 Enlist the causes of keratitis, C2 Classify keratitis and enlist sign and symptoms of keratitis. C2 Discuss the clinical examination including the different stains used for staining the corneal ulcers C1 Describe the treatment of corneal ulcers C2 Explain the contact lens related keratitis with its management C2 	1 st weeks	MCQ	MCQ, SEQ OSPE	 Kanski's Clinical Ophthalmology 9th edition, Chapter 7, Page # 216 - 218 Clinical Ophthalmology by ShafiM.Jatoi 5th edition, Chapter 8, Page # 90-92 https://eyewiki.aao.org/Fungal_Keratitis
2.	An infant presenting with photophobia, excessive lacrimation and blepharospasm	 Define congenital glaucoma? C1 Enumerate different types of secondary glaucoma? C3 Describe clinical features of congenital glaucoma? C2 	2 nd week	MCQ	MCQ, SEQ OSPE	 Kanski's Clinical Ophthalmology 9th edition Chapter 11, Page # 395 - 398 Clinical Ophthalmology by ShafiM.Jatoi 5th edition Chapter 11, Page # 156-159 https://www.aao.org/webinar-detail/primary-secondary-surgery-congenital-glaucoma

		• Discuss treatment options? C2				
		Recall anatomy of Lens C1				
		• Define cataract C1			MCQ, SEQ OSPE	
		• Enlist classification of cataract, C1				
3.	A 50yrs old male patient with gradual painless loss of vision.	• Discuss the clinical examination with investigations to diagnose cataract. C2	2 nd Week	MCQ		MCQ, SEQ OSPE
		• Explain the principles of management of cataract. C2				
		• Enlist indications, types and complications of cataract surgery C3				
		 Recall anatomy of Conjunctiva C1 				
4.	A teenage male with recurrent painful red eye which gets better	• Enlist common causes, sign and symptoms of conjunctivitis C2	3 rd Week	MCO	MCQ, SEO	 Kanski's Clinical Ophthalmology 9th edition Chapter 20, Page # 167 – 200 <u>https://www.aao.org/eye-health/symptoms/red-eye-3</u>
	after treatment	• Diagnose infective and allergic conjunctivitis. C3			OSPE	
		• Discuss the management of conjunctival eye problems C3				

5.	4yrs old child with intermittent inwards deviation of both eyes for last 6 months	 Define strabismus C2 Classify strabismus C2 Outline examination and investigation of strabismus Enlist different surgical procedures of squint C2 	3 rd Week	MCQ	MCQ, SEQ OSPE	 Kanski's Clinical Ophthalmology 9th edition Chapter 20, Page # 697 - 743 <u>https://www.aao.org/eye-health/disease/strabismus-in- children</u>
6.	A middle aged obese female with complain of headache and bilateral disc swelling	 Recall anatomy and pathway of Optic nerve C1 Know the Clinical Features of optic neuritis, papilledema C2 Demonstrate the Indications of neuroimaging, visual evoked potential and visual fields. C2 	4 th Week	MCQ	MCQ, SEQ OSPE	 Kanski's Clinical Ophthalmology 9th edition Chapter 20, Page # 745 – 825 <u>https://eyewiki.aao.org/Demyelinating_Optic_neuritis</u>

7.	6 months old infant with white pupillary reflex since birth.	 Discuss Leucocoria (white pupillary reflex) its differential diagnosis. C2 Describe Retinoblastoma, its clinical presentation and management. C2 Explain congenital cataract, presentation and management. C2 Enumerate retinopathy of prematurity, persistent hypertensive, primary vitreous, coats diseases. C2 	5 th Week	MCQ	MCQ, SEQ OSPE	 Kanski's Clinical Ophthalmology 9th edition Chapter 20, Page # 864 Clinical Ophthalmology by ShafiM.Jatoi 5th edition, Chapter 10, Page # 117 https://www.aao.org/eyenet/article/stepwise-approach-to-leukocoria
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Demonstration	Contents Outlines (Major Topics & Sub- Topics)	Learning objectives	Learning domain	Teaching strategy	Assessment tool
	 Health for all Primary health care 	 Understand primary health care Conceptualize 'health for all' and Alma Ata declaration 	C2	SGD	
 HFA-2000 PH • 	 elements Primary health care principles Alma-Ata declaration Astana 	 Appraise the elements, principles and strategy of PHC/ Primary healthcare Outline the challenges that contributed to evolvement of PHC Appraise Recent proceedings of Alma-Ata as Astana declaration 	C2 C2 C2		MCQs, SEQs, OSPE and Viva Voce
	Declaratio n		C2		
Disinfection	 Infection control in healthcare Sterilizatio n 	 Differentiate between disinfection and sterilization Enlist properties of an ideal disinfectant 	C2 C1	SGD	MCQs, SAQs, OSPE and Viva Voce

	 Types of disinfectio n agents 	 Categorize disinfection Describe various important types of agents (natural, physical and chemical agents) used as disinfectant 	C2 C2		
		 Appraise WHO guidelines for infection control in health care 	C3		
	TrachomaScabiesAIDS	 Describes the epidemiology of surface infections Identify the risk factors of surface infections 	C2		MCQs, SAQs,
Surface infections	 Sexually transmitte d infections 	 Recommend the preventive & control measures for surface infections Appraise the working of Punjab Aids Control Program 	C2 C3 C3	SGD	OSPE and Viva Voce

• Week-Wise Learning Objectives Of Ophthalmolgy Block

1st week

At the end of the session, students will be able to

Sr. #	Topic-	Discipline	Knowledge/Skills	Teaching	Assessment
				strategy	
1	Introduction/ review of ocular anatomy	Anatomy	• Recall the Basic anatomy of eye C1	LGIS	MCQs
			• Describe epidemiology of blindness C1		
			• Describe patterns of preventable blindness in the community C1		
	Epidemiology of blindness & accidents	Community Medicine	• Describe approaches to prevention of blindness in the community. C1 C2		
2			• Categorize different types of accidents. C1	LGIS	MCQs SEQs
			• Describe risk factors involved in accidents. C1		
			• Describe different preventive strategies for accident controls. C1 C2		
	Inflammatory and Neoplastic		• Recall anatomy of Eye lid C1		MCQs
3	Eyend lesions	Ophthalmology	• Enlist differentials of lid mass C1	LGIS	SEQs
			• Distinguish between inflammatory, benign and		

			malignant neoplastic disorders of eyelid. C1		TOACs
4	Neoplasms of eye lid Squamous cell carcinoma Basal cell carcinoma Sebaceous carcinoma melanoma	Pathology	 By the end of lecture students should be able C1 -to know the pathophysiology, microscopic features and diagnostic features of neoplasms of eyelid C2 -to know differentiating features if different neoplasms of eyelid C2 	SGD	MCQ SEQ OSPE
5	Epidemiology of trachoma (surface infections) 1. Trachoma 2. Leprosy 3. Sexually transmitted diseases 4. Tetanus	Community medicine	 Describes the epidemiology of trachoma C1 Describes role of prevention in trachoma. C1 Describes epidemiology, types of leprosy. C1 Explains of prevention of leprosy in the community. C1 	SGD	MCQs SEQs
6	Ophthalmic dosage forms	Pharmacology	 Discuss Ocular routes of administration C1 Discuss Systemic effects with ocular administration C3 	LGIS	MCQs
7	Eyelid and eyelash disorders	Ophthalmology	• Describe the infective lesions of lid -	LGIS	MCQs, SEQs and OSPE and Viva Voce

			 stye/blepharitis and their treatment C1 Enlist the inflammatory lesions of lid like chalazion and their treatment C3 Discuss the common lid tumors and their clinical presentations.C3 Discuss the Eye - Lash abnormalities. C2 Describe the pathologies like Trichiasis ,ectropion / entropion and ptosis C2 		
8	Infective and Allergic Conjunctivitis	Ophthalmology	 Recall anatomy of Conjunctiva C1 Enlist common causes, sign and symptoms of conjunctivitis C2 Diagnose infective and allergic conjunctivitis. C3 Discuss the management of conjunctival eye problems C3 	LGIS	MCQs
9	Alma Ata declaration and primary health care (PHC)	Community medicine	 Define primary health care C1 Explains Concepts of 'health for all' and Alma Ata declaration. C1 C2 Enlist the elements, principles and strategy of PHC / Primary health care.C1 Outline the challenges that contributed to 	SGD	MCQs, SEQs and OSPE and Viva Voce

			evolvement of PHC. C1 C2		
10	Keratitis	Ophthalmology	 Recall anatomy of Cornea C2 Enlist the causes of keratitis, C2 Classify keratitis and enlist sign and symptoms of keratitis. C2 Discuss the clinical examination including the different stains used for staining the corneal ulcers C1 Describe the treatment of corneal ulcers C2 Explain the contact lens related keratitis with its management C2 	LGIS/CBL	MCQs, SEQs,OSPE
11	Degenerative conjunctival disorders and Dry Eyes	Ophthalmology	 Diagnose and manage Dry Eye, C1 Conjunctival degenerations (Pterygium, pinguecula, concretions) C2 	LGIS	MCQs
12	Refractive Surgery/ Refractive Errors	Ophthalmology	 Define various refractive errors C1 Demonstrate the surgical steps and complications of keratoplasty C1 Identify the surgical options and steps for Myopia,Hypermetropia,Presbyopia,Asigmatism and keratoplasty C2 	LGIS	MCQs, OSPE

13	Cataract (Types, causes and workup)	Ophthalmology	 Define cataract C2 Enlist classification of cataract, C2 Discuss the clinical examination with investigations to diagnose. C3 Explain the principles of management of cataract. C3 	LGIS	MCQs, SEQs, TOACS
14	Drugs used in ocular infections	Pharmacology	 Discuss Ocular antibiotics/anti-inflammatory and their various routes of administration C1 Enlist indications and side effects C2 	LGIS	MCQs
15	Epidemiology of hospital acquired infection	1. Community medicine	 Define nosocomial infections C1 Explains the various modes of transmission of nosocomial infections C1 Enlist the various strategies for prevention and control of nosocomial infections C1 	LGIS	MCQs, SEQs and Viva Voce
16	Dermatological disorders involving eye	Dermatology	 Describe symptoms associated with skin disease C2 Describe what is a primary lesion C2 Explain the types of primary lesion with example C1 Describe what is a secondary lesion C2 Explain the types of such lesion with example C1 	SGD	MCQs

			 Tell the important pearls of history and examination C2 Explain the diagnostic details of basic skin lesions C3 		
17	Conjunctival scarring, pinguecula ,pterygiumand conjunctival neoplasm Corneal keratitis and ulcer Corneal degeneration and dystrophies	Pathology Ophthalmology	 To know the pathophysiology,microscopic features of conjunctival scarring C2 To know pathophysiology of pinguecula and pterygium C2 To know features of intraepithelial neoplasm and carcinoma C3 Must be able to explain the pathophysiology of keratitis and corneal ulcers C1 To explain pathophysiology of band keratopathies ,keratoconus , fuchs endothelial and stromal dystrophies C2 	LGIS	MCQs

2nd week

At the end of the session, students will be able to

s. no	Topic	Discipline	Knowledge/Skills	Teaching strategy	Assessment
1	Corneal dystrophies and Degenerations	Ophthalmology	 Recall anatomy of Cornea C2 Know the Clinical Features of corneal dystrophies/ degenerations C1 Explain the significance of Corneal Topograohy C1 Describe pathophysiology of Keratoconus. C2 	LGIS	MCQs
2	Cataract (Types, causes and workup)	Ophthalmology	 Recall anatomy of Lens C1 Define cataract C1 Enlist classification of cataract, C1 Discuss the clinical examination with investigations to diagnose cataract . C2 Explain the principles of management of cataract. C2 Enlist indications, types and complications of cataract surgery C3 	LGIS	MCQs, SEQs, TOACS

3	Refractive Surgery/ Refractive Errors	Ophthalmology	 Define various types of refractive errors C3 Manage different refractive errors: Myopia, hypermetopia, astigmatism and their methods of correction. C2 Describe Presbyopia C1 Discuss different types of spectacle lens/ bifocal/ progressive glasses, C2 Enumerate types of refractive surgeries C2 Recall indications and complications of refractive surgeries. C2 Enlist indications of keratoplasty C1 	LGIS	MCQs, SEQs, TOACS
4	screening I	Community medicine	 Define screening. C1 Explain Iceberg phenomenon of diseases with examples. C1 C2 Discuss Aims and objectives of screening. C1 Enlist Criteria for screening of diseases & screening tests. C1 C2 Discuss uses & types of screening with examples. C1 C2 	LGIS	MCQs SEQs
5	Approach to glaucoma	Ophthalmology	 Describe anatomy of drainage angle? C2 Define glaucoma? C2 Enumerate visual field defects with glaucoma? C2 Describe investigations for glaucoma? C1 	LGIS/CBL	MCQs

			• Describe medical and surgical treatment options for glaucoma? C3		
			• State differences between screening tests and diagnostic tests. C1 C2		
			• Describe rationale of screening tests with reference to natural history of disease and critical point. C1 C2		
			• Construct 2x2 table from given data. C1 C2, C3		
			 Explain measures of validity of screening tests. C1 C2, C3 		
			• Calculate and interpret sensitivity & specificity of screening test from given data C1 C2, C3		
6	screening –II	Community medicine	• Calculate and interpret PPV & NPV of screening test from given data C1 C2, C3	LGIS	MCQs SEQs, OSPE
			• Discuss issues related to false positives and false negatives. C1 C2,		
			• Explain yield of screening tests. C1 C2,		
			• Discuss measures used to evaluate screening tests & programs. C1 C2, C3		
			• Explain lead time in screening test. C1		
			• Discuss problems of borderline with emphasis on cut- off point decision. C1 C2, C3		
			• Recall anatomy of Orbit C1		1
7	Thyroid Eye Disease	Ophthalmology	• Enlist the causes of Proptosis C2	LGIS	MCQs, SEQs, TOACS
			• Describe clinical features of Thyroid Eye Disease C3		

			• Discuss management of Thyroid Eye Disease C3		
8	Health education-I	Community medicine	 Define health communication and its types. C1 Explain Role of sender, receiver, feedback and content of health message. C1 C2 Explains Shannon Weaver communication model. C1 C2 Enumerate communication barriers . C1 Explain various functions of health communication. C1 	LGIS	MCQs, SEQs and OSPE
9	open and closed angle glaucoma	Ophthalmology	 Classify glaucoma? C1 Identify clinical features of congenital glaucoma? C2 Describe treatment options of congenital glaucoma? C2 Differentiate between primary open angle and closed angle glaucoma? C2 Describe treatment options for open and closed angle glaucoma C2 	LGIS	MCQs
10	Drugs used in glaucoma	pharmacology	 Enlist the names of anti-Glaucoma drugs C2 Explain their mechanism of action C2 Enlist side effects of the anti-glaucoma drugs C1 	LGIS	MCQs, SEQs, TOACS

11	Secondary glaucoma	Ophthalmology	 Define secondary glaucoma? C1 Enumerate different types of secondary glaucoma? C3 Describe clinical features of different types of secondary glaucoma? C2 Discuss treatment options of different types of secondary glaucoma? C2 	LGIS/SDL	MCQs
12	Pathology of cataract, glaucoma, intraocular infections and tumors	pathology	 To know the pathophysiology and types and causes of glaucoma C2 -to know features of endophthalmitis and panophthalmitis C2 -to know causes and types of uveitis C2 -to know the pathophysiology and microscopic features of uveal nevi and malignant melanoma C2 -to know the differentiating features between uveal nevi and melanoma C3 	LGIS	MCQs, SEQs, TOACS
13	Health education-II	Community Medicine	 Recognize different models of health education. C1 C2 Elaborate the scope /contents of health education C1 Explain different approaches of health education C1 	LGIS	MCQs, SEQs and OSPE

3rd week

At the end of the session, students will be able to

s. no	Topic	Discipline	Knowledge/Skills	Teaching strategy	Assessment
1	Lacrimal System NLD blockage, Dacryocystitis	Ophthalmology	 Describe anatomy of lacrimal system and tears? C2 Identify clinical features of congenital and acquired nasolacrimal duct obstruction? C2 Differentiate between acute and chronic dacryocystitis? C3 Discuss investigations and treatment options of congenital and acquired nasolacrimal duct obstruction C3 	LGIS	MCQs
2	Millennium development goals and sustainable development goals	Community medicine	 Explain the millennium development goals (MDGs), C1 sustainable development goals (SDGs) and their origins C1 Difference between MDGs and SDGs C2 know how SDGs might affect overall health as a global priority in the future C2 Define universal health coverage C3 	SGD	MCQs, SEQs and OSPE and Viva Voce
3	Blunt Ocular trauma	Ophthalmology	 Classify the different types of trauma C1 Discuss clinical features of Blunt Orbital trauma and 	LGIS	MCQs, SEQs, TOACS

			Blow out fracture C2Describe management of Blunt Ocular trauma C2		
4	Health planning and management	Community medicine	 Define Health Planning C1 Know the aim and objectives of planning C1 Understand rationale of planning C1 Elucidate the different levels of Planning C1 Know-how of different phases of planning. C1 Appreciate the various steps of planning cycle. C1 	LGIS	MCQs, SEQs and OSPE and Viva Voce
5	Infection and tumors of sinuses effecting orbit, Endo DCR	ENT	 Describe Infection and tumors of sinuses effecting orbit, C1 Explain the indications, procedure and complications of Endo DCR C2 	LGIS	MCQs
6	Penetrating ocular trauma and ocular injuries	Ophthalmology	 Describe the findings, Grading and Treatment of Chemical injuries C2 Discuss clinical features of Penetrating ocular trauma C2 Describe management of Penetrating Ocular trauma C3 	LGIS	MCQs, SEQs, TOACS
7	Preventive Geriatrics and eye problems	Community medicine	 Differentiate between geriatrics and gerontology. C1 Explain the public health importance of geriatrics. C1 Enlist common health and other problems related to 	SGD	MCQs, SAQs,
			old age. Cl		
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			• Describe preventive, rehabilitative measures for older age health problems C1		
			• Explain role of social welfare department for provision of services for elderly. C1		
			 Describe important activities of World Health Organization for promotion of care of elderly people. C1 		
			• Describe the neuroanatomy of the visual pathways. C1		
			• Describe the anatomy and functions of cranial nerves 2-7 C2		
			• Illustrate the pupillary light and accommodation reflex pathway C2		
			• Describe ocular motility and related neuronal pathways. C3		
8	Visual pathway	Ophthalmology	• Interpret the typical findings and evaluation of the most common visual field defects C2	LGIS	MCQs, SEQs, TOACS
			• (e.g., optic nerve, optic chiasm, optic radiation, occipital cortex). C1		
			• Describe a systematic, sign-and-symptom-oriented neuro-ophthalmic patient C2		
			• interrogation (ie, history taking) and recording techniques C2		

9	Hospital administration	Community medicine	 Define hospital. C1 Explains development of hospital as an institution. C1 Appreciate types & functions of hospitals. C1 Describes Hospital utilization C1 Elaborates hospital statistics C1 Identify factors influencing hospital utilization C1 Know the role of hospital administrator C1 	LGIS	MCQs, SEQs and OSPE and Viva Voce
10	Plastic surgery in periorbital area	Plastic surgery	• Explain the various types of procedures of Plastic surgery done in periorbital area C2	LGIS	MCQs
11	Uvea	Ophthalmology	 Classify the different types of uveitis C1 Enlist the causes and systemic associations C1 Know the Clinical Features C2 Enumerate the complications C2 Describe management of Uveitis C2 	LGIS	MCQs, SEQs, TOACS
12	Squint diagnosis and assessment	Ophthalmology	 Define strabismus C2 Classify strabismus C2 Outline examination and investigation of strabismus Enlist different surgical procedures of squint C2 	LGIS	MCQs, SEQs, TOACS

13	Health education-III	Community medicine	 Explain principles of health education C1 Explain different ways of practice of health education. C1 C2 Explain social marketing. C1 	LGIS	MCQs
14	Ocular effects of systemic disease and medicines	Ophthalmology	 Understand Ocular effects of systemic diseases and systemic medications C2 Explain Systemic effects of ocular medication C2 	LGIS	MCQs,TOACS
15	Orbital Trauma and Tumours	Radiology	 Describe anatomy of orbit C1 Enlist clinical features of fractures of floor of orbit C2 Diagnose and manage penetrating injuries of eye C3 Diagnosis of Orbital Tumor and Trauma C2 	LGIS	MCQs, SEQs, TOACS
16	Ocular Trauma	Forensic Med.	 Know the Driving criterion C2 Understand the Medico legal aspects of ocular trauma (Grievous n Non grievous) C2 	LGIS	MCQs, SEQs, TOACS

4th week

At the end of the session, students will be able to

s. no	Торіс	Discipline	Knowledge/Skills	Teaching strategy	Assessment
1	Uveitis; workup and	Ophthalmology	• Classify the different types of uveitis C1	LGIS/CBL	MCQs, SEQs, TOACS
	management		• Enlist the causes and systemic associations of uveitis C1		
			• Differentiate between acute and chronic uveitis C2		
			• Describe management of uveitis C3		
2	Squint management	Ophthalmology	• Know the indications of strabismus surgery C1	LGIS/SDL	MCQs, SEQs, TOACS
			• Enlist Steps of strabismus surgery C3		
			• describe complications of Squint Surgery C2		
3	BULLOUS DISORDERS	Dermatology	• Classify vesicobullous eruptions on the basis of aetiology C2	LGIS	MCQs
			• Know about common vesicobullous eruptions. C1		
			• examine a patient with vesicobullous eruption C2		
			• diagnose a patient with vesiculobullous eruptions C2		
			• • treat or refer depending upon the diagnosis C2		
4		Ophthalmology	Recall anatomy of Retina C1	LGIS	MCQs, SEQs, TOACS
	Retinal vascular disorders		• Distinguishes the symptoms and signs C2		
			• Predicts the prognosis C2		
			• Construct the treatment plan Of Diabetes, CRVO,		

			CRAO, AMD C2		
5	Retinal detachment	Ophthalmology	 Recall anatomy of Retina C2 Distinguishes the symptoms and signs C2 Predicts the prognosis C2 Construct the treatment plan Retinitis pigmentosa, Retinal Detachment, Myopic retinopathy C2 	LGIS	MCQs, SEQs, TOACS
6	Cranial nerve palsies/ pupillary abnormalities	Ophthalmology	 Recall anatomy and pathway of Optic nerve C2 Know the Clinical Features of cranial nerve palsies and Facial spasm C2 Describe ocular motility and related neuronal pathways. C2 Discuss the typical features, evaluation, and management of the most common ocular motor neuropathies (e.g., third, fourth, sixth nerve palsy) C2 Describe the typical features, evaluation, and management of the most common efferent C2 Pupillary abnormalities (e.g., Horner syndrome, third nerve palsy, tonic pupil, light-near dissociation). C2 	LGIS	MCQs, SEQs, TOACS
7	Nail Disorders	Dermatology	 Know the organism and vector of cutaneous leishmaniasis C2 Differentiate between old and new world cutaneous 	LGIS	MCQs

			leishmanisis C2		
			• Identify different clinical forms of cutaneous leishmaniasis C3		
			 Investigate properly a case of clinical leishmaniasis C2 		
			• Identify organisms of leprosy C3		
			• Differentiate between different types of leprosy C2		
			• Identify lesions of different types of leprosy C2		
			Investigate appropriately a case of leprosyTreat a case of leprosy C2		
8	Hospital waste management	Community	• .Explains Healthcare waste C1	LGIS	MCQs SEQs , OSPE
		medicine	• Describe type of waste., Describe risk and non-risk waste.C1		
			• Explain health hazards of health care waste. C1 C2		
			• Describe waste management system, team. C1		
			• .Describe the disposal / treatment technologies for health care waste C1		
9	ROP Rhabdomyosarcoma	Ophthalmology	 Discuss Leucocoria (white pupillary reflex) its differential diagnosis. C2 	LGIS/SDL	MCQs, SEQs, TOACS
	Retinoblastoma		• Describe Retinoblastoma, its clinical presentation and management. C2		
			• Explain Congenital cataract, presentation and management. C2		
			• Enumerate retinopathy of prematurity, persistent		

			hypertensive, primary vitreous, coats diseases. C2		
10	Disinfection	Community medicine	 Differentiate between disinfection and sterilization. C1 C2 Enlist properties of an ideal disinfectant. C1 Classify disinfection. C1 Describe various important types of agents (natural, physical and chemical agents) used as disinfectants. C1 	LGIS	MCQs SEQs, OSPE
11	Optic neuropathies	Ophthalmology	 Recall anatomy and pathway of Optic nerve C1 Know the Clinical Features of optic neuritis, papilledema C2 Demonstrate the Indications of neuroimaging, visual evoked potential and visual fields. C2 	LGIS	MCQs, SEQs, TOACS
12	Retinal detachment, retinal vascular diseases , -Optic nerve damage in glaucoma -optic neuropathy and optic neuritis	Pathology	 -to know the pathophysiology and causes of retnal detachment C2 -to know the pathophysiology of retinal vascular changes in hypertension , diabetes melitis C3 -to explain retinal artyery and vein occlusion pathology C3 	SGD	MCQs, SEQs, TOACS

13	Cutaneous Leshmaniasis	Dermatology	 -Know the organism and vector of cutaneous leishmaniasis C1 	LGIS	MCQs
			• -Differentiate between old and new world cutaneous leishmanisis C2		
			 -Identify different clinical forms of cutaneous leishmaniasis C2 		
			 Investigate properly a case of clinical leishmaniasis C2 		
			• -Identify organisms of leprosy C3		
			• -Differentiate between different types of leprosy C2		
			• -Identify lesions of different types of leprosy C2		
			• -Investigate appropriately a case of leprosy C2		
			• -Treat a case of leprosy C3		
14	Space Occupying Lesions	Neurology	 Papilledema, Pituitary tumor and associated visual loss C2 	LGIS	MCQs, TOACS

5th week

At the end of the session, students will be able to

s. no	Торіс	Discipline	Knowledge/Skills	Teaching strategy	Assessment
1	Psoriasis	Dermatology	 Describe the risk factors of psoriasis C1 Describe the types according to morphology C2 Explain the modification of psoriasis by site C2 Describe the clinical features of psoriasis C2 Explain the features of psoriatic arthritis C2 vi. Know the treatment options of psoriasis C2 	LGIS	MCQs, SEQs, TOACS
2	Optic neuritis	Ophthalmology	 Recall anatomy and pathway of Optic nerve C1 Know the Clinical Features of optic neuritis, papilledema C2 Demonstrate the Indications of neuroimaging, visual evoked potential and visual fields. C3 	LGIS/CBL	MCQs, SEQs, TOACS

• <u>Study Guide Community Medicine Module – II (EYE)</u>

Course outlines, learning objectives, level of learning & assessment tools

Theme: .In public health evidence-based screening programs for early detection of diseases and prevention of diseases specifically eye related issues in different age groups, segments of the population, and playing role in primary health care delivery. Health education and communication taught in this module cannot be neglected in order to provide the care in a manner that recognizes and values the unique cultural background and emotions of every patient, thoughtfully including their families and support systems in every aspect of their care hence successfully master the Core Competency of Interpersonal and Communication Skills. LGIS learning objectives

	Contents Outlines (Major Topics & Sub- Topics)	Learning objectives After The Session Students Will Be Able To:	Learning domain	Teaching strategy	Assessment tool
data analysis	Review of Inferential statistics	 Comprehend the relevance of descriptive biostatistics to epidemiological research Explain principles of descriptive analysis of data. 	C2 C2	LGIS	MCQs, SEQs, OSPE Viva
		• Perform simple data analysis including quantitative & qualitative data	C3		
		Perform cross-tabulation between two categorical binomial variables	C3		
		• Calculate of "Standard Error" for the given data	C3		
		• Calculate "Confidence interval" for the given data	C3		
Screening-I	Iceberg phenomenon of disease			LGIS	MCQs, SEQs,
	Concept of screening	• Explain Iceberg phenomenon of diseases	C2		OSPE
	• Criteria for screening of diseases	with examples	C1		Viva

	and screening tests	Discuss aims and objectives of screening	C1, C2		
	Uses & types of screeningConcept of lead time	 Enlist Criteria for screening of diseases & screening tests Comprehend uses & types of screening with examples 	C1, C2		
		• State differences between screening test and	C1, C2		
		diagnostic tests.	C1, C2		
		• Describe rationale of screening tests with reference to natural history of disease and critical point.	C3		
		• Construct2x2table from given data.			
		• Explain measures of validity of screening tests.	C2		
g-I Screening-II	• sensitivity	• Calculate and interpret sensitivity & specificity of screening test from given data	C3	LGIS	MCQs, SEQs, OSPE
	specificityyield	• Calculate and interpret Positive predictive value& Negative predictive value of screening test from given data	C3		Viva
	• positive predictive value	• Explain yield of screening tests.	C1, C2		
	• negative predictive value	• Discuss measures used to evaluate screening tests & program	C2		
		• Discuss problems of borderline with emphasis on cut-off point decision.	C2		

Planning & Management	 Phases of planning Steps of planning cycle Management methods & techniques 	 Define Health Planning identify the aim and objectives of planning Understand rationale of planning Comprehend different phases of planning Appreciate the various steps of planning cycle Appreciate various management techniques 	C1 C1 C1 C1 C2	LGIS	MCQs, SEQs, OSPE Viva
How to develop Questionnaire in research. Research Inquiry of Eye Diseases	Questionnaire development & its appraisal	 Understand about questionnaire used in research Categorize types of questions used in research their advantages and disadvantages identify Designs and stages of development of questionnaire Understand Simple rules for writing a good questionnaire Appraise Parts and Layout of questionnaire 	CI C2 CI C1 C2	LGIS	MCQs, SEQs, OSPE Viva
Health Education-I	 Communication process Types of health communication Barriers of communication 	 Define health communication and understand its types. Explain role of sender, receiver, feedback and content of health message 	C1 C2	LGIS	MCQs, SEQs, OSPE, Viva

	Functions of health communication	 Explains Shannon Weaver communication model Appreciate communication barriers Explain various functions of health communication 	C2 C2 C1		
• Health education-II	 Health education models Approach to health education Contents of health education propaganda 	 Recognize different models of health education Understand the scope /contents of health education Explain different approaches of health education Appraise the concept of propaganda 	C2 C2 C1 C2	LGIS	MCQs, SEQs, OSPE Viva
Health education-III	 Principles of health education Practice of health education Social marketing CHC message development protocol 	 Explain principles of health education Appraise different ways of practice of health education Understand social marketing Comprehend CHC message development protocol 	C1 C2 C2 C2 C2	LGIS	MCQs, SEQs, OSPE and Viva Voce
Prevention and control of Blindness, accidents & injuries in population	BlindnessAccident & injuries	 Describe epidemiology of blindness Describe patterns of preventable blindness in the community Recommend approaches to prevention of blindness in the community 	C2 C1 C3	LGIS	MCQs, SEQs, OSPE and Viva Voce

		Categorize different types of accidents	C2		
		• Describe risk factors involved in accidents	C1		
		• Recommend different preventive strategies for accident controls	C3		
HMIS – health	• use of information in healthcare	Define HMIS	C1	LGIS	MCQs, SEQs,
information management system		• Difference between data and information	C2		Viva Voce
munagement system		• Enlist components & features of HMIS	C2		and OSPE
		• Discuss essential elements & functions of HMIS	C2		
		• Describe steps in developing HMIS			
		• Discuss various sources of health information			
MDGs, SDGs	• International health development agenda & road-map	• Explain the millennium development goals(MDGs)	C2	LGIS	MCQs, SEQs, Viva Voce
	 Millennium development goals Sustainable development goals 	• Appraise sustainable development goals(SDGs) and their origins	C2		and OSPE
	Sustamable development goals	• Difference between MDGs and SDGs	C2		
		• comprehend how SDGs might affect overall health as a global priority in the future	C2		
		• understand universal health coverage	C1		

Hospital administration	 hospital as an institution functions of hospital factors affecting hospital utilization role of hospital administrator 	 Define hospital Explain development of hospital as an institution Appreciate types & functions of hospitals Understand hospital statistics Identify factors influencing hospital utilization understand the role of hospital administrator 	C1 C2 C2 C2 C2 C2 C2 C2	LGIS	MCQs, SEQs, Viva Voce and OSPE
Hospital waste management	 healthcare waste types of waste waste management team healthcare waste disposal techniques 	 Explains Healthcare waste Categorize risk and non-risk waste Explain health hazards of health care waste Describe waste management system, team Describe the disposal / treatment technologies for health care waste 	C1 C2 C2 C2 C2 C2 C2	LGIS	MCQs, SEQs, Viva Voce and OSPE
Geriatrics	 Geriatrics & gerontology Health problems of old age Preventive Healthcare of elderly 	 Differentiate between geriatrics and gerontology Explain the public health importance of geriatrics Enlist common health and other problems related to old age Recommend preventive, rehabilitative 	C2 C1 C1	LGIS	MCQs, SEQs, OSPE and Viva Voce

	measures for older age health problems	C3	

Peer assisted learning (PAL)* IUGRC

Contact Session II Time duration; 2hrs/batch

Indictors of	Learning objectives/ competencies	Learning outcomes	Assessment strategy
accomplishment			
Prior readings /			
assigned work			
	Interactive discussion on how to;	Each student be able to;	1. MCQ in each block exam
finalizing the	1. Finalize research idea or general	1. Develop the list of	2. Viva exam at the end of the session
research question	thought into a topic that can be	useful keywords for	
& elements of	configured into research problem	relevant literature search	
proposal	/ formulating research question	2. Perform review of	
development)	2. outline the elements of study	relevant Literature to	
	proposal in chronological order	refine how to approach	
	3. develop data collection tool	selected topic and	
	4. do reflective learning	finding a way to analyze	
		1t.	
		3. review community	
		health profile data	
		bases,	
		EMBASE, MEDLINE,	
		PubMed, Google	
		scholar Uvid, ProQuest	
		Psych INFO, Cochrane	
		<i>Database</i> , Scopus) etc.	
		4. Identify knowledge gaps	
		5. Iomutate appropriate	
		form of a study proposal	
		6 Attempt "reflective	
		writing	
		witting.	

<u>TIME TABLE</u>
Integrated Clinically Oriented Modular Curriculum for Fourth Year MBBS

Ophthalmology Module Time Table

Fourth Year MBBS Session 2023 – 2024

Faculty	Prof. Dr Fuad Ahmed Khan Niazi
	Dr. AmbreenGul (Assistant Professor)
	Dr. Sidra Jabeen (Assistant Professor)
	Dr. Rizwan Khan (Senior Registrar)
	Dr.SairaBano (Senior Registrar)
	Dr.BilalHumayun (Senior Registrar)
	Dr. Maria Zubair (Senior Registrar)
	Dr. Wajeeha (Senior Registrar)
	Dr. Sidra Naseem (Senior Registrar)
	Dr. Fatima Sidra Tanveer (senior Registrar)
	Dr. Sehar Umar (Senior Registrar)
	Dr. Salman Tariq (Senior Registrar)
Teaching Strategy	LGIS
	SGD
	SDL
	CBL
Lecture Sites	All Lectures in Lecture hall 1 / 2 From Monday till Thursday
	All Lectures in Lecture hall 4 / 5 Friday and Saturday
	Even Batch In Lecture Hall 2 And 4
	Odd Batch In Lecture Hall 1 And
List of Recommended books	Kanski's Clinical Onbthalmology 9 th edition
	Parsons' Diseases of the Eve 23 rd edition
	Basic Onbthalmology by Renulogi 4 th ed
	Clinical Ophthalmology by ShafiM latoi 5 th edition
	Comprehensive Ophthalmology by Dr. Nasir Chaudhary
Assessment Strategies	MCQs
	SEQs
	OSPE
	Viva Voce

a. Categorization of Modu	a. Categorization of Modular Content of Ophthalmology									
Category A	Category B	Category C								
Professor	Assistant Professors	Senior Registrar								
Lens:	Cornea:	1. Evelid and evelash disorders – 1								
1. Cataract Surgery and its complications,	1. Corneal Disorders - 1,	2. Evelid and evelash disorders -2								
2. EctopiaLentis	2. Corneal Disorders – 2.	3. Conjunctival Disorders – 1								
1		4. Conjunctival Disorders – 2								
Glaucoma;	Strabismus;	5. Uveitis – 1								
3. Approach to Glaucoma,	3. Squint diagnosis and assessment	6. Uveitis -2								
4. Open and Closed Angle Glaucoma, 5.	4. Squint Management	7. Neuroanatomy/ CSF Pathway								
Secondary Glaucoma		8. Lacrimal System								
<u>Retina;</u>	<u>Orbit;</u>	9. Blunt Ocular Trauma								
6. Retinal Vascular Disorders,	5. Orbital Infections	10. Penetrating ocular trauma and								
7. Retinal Detachment.	6. Thyroid Eye Disease	chemical injuries								
		11. Refractive Surgeries and Refractive								
		Errors								
		12. Cranial Nerve Palsies								
		13. Optic Neuropathies								

Categorization Of Modular Content Of Community Medicine Department

Category A*	Category B**	Category C***		
LGIS	LGIS	SDGS	SDL	IUGRC SESSIONS (PAL)
Data analysis I	Geriatrics	HFA-2000		Selection of research title (Finer Criteria) & literature review
Screening I&II	Hospital waste management	disinfections		
Hospital management	HMIS – use of information in healthcare	Surface infections		
Health education I,II,III	Prevention and control of Blindness			

Category A*: Fundamental & Complex Concepts taken by Professors, Associate Professors and Assistant Professors

Category B**: Intermediate concepts. Exercises. By Professorial faculty and Senior Demonstrators/ subject specialists.

Category C***: Relatively lower complex concepts, exercises/ applications. By Assistant professors, Demonstrators & senior PGTs

Rawalpindi Medical University Rawalpindi New Teaching Block Tentative Time Table 4th Year MBBS Eye Module 2023

(First Week)

DATE / DAY	8:00 AM – 8:45AM	08:45am – 9:30am	BREAK	10:30am – 12:00pm	12:00pm - 02:00pm
Monday	EYE (LGIS)	COMMUNITY MEDICINE (LGIS)	9:30AM –		
10/04/23	Refractive Surgery and Refractive Errors	Concepts of screening	10:30AM		
	Dr Maria/Dr SeherUmer	Screening -I			
		Dr. Sana bilal/Dr. Imran			
				Clini	al Clarkshin
Tuesday	EYE (LGIS)	COMMUNITY MEDICINE		At	inexure -1
11/04/23		(LGIS)		(Complete 6 week rotation plan	a attached at the end of the curriculum)
	Eyelid and eyelash disorders -1	Iceberg phenomenon			,
	Dr. Fatima Sidra/ Dr. Salman Tahir	Screening -II			
		Dr. Sana bilal/Dr. Imran			
	PATHOLOGY	PHARMACOLOGY			
	(LGIS)	(LGIS)			
	Neoplasms of Eyelids	Ophthalmic dosage forms of drugs			
Wednesday	(Squamous cell Ca, Basal cell Ca)	(LGIS)			
12/04/23	Dr Kiran/ Dr. Sara	Dr.Attiya/Dr.Zunaira			
		(Lec Hall 1 and 2)	_		
Thursday	EYE	EYE			
13/04/23	(LGIS)	(LGIS)	-		
	Eyelia and eyelash disorders -2	Conjunctival Disorders -1			
	Di. Fatina Sidia/ Di. Sainan Taini	DI. Bilal/ DI. Fatilità Sidità			
		L			
Friday					
14/04/23		C	•		
То		S	pring vacation	ons	
10					
Sat					
21/04/23					
21/04/25					

Rawalpindi Medical University Rawalpindi New Teaching Block Tentative Time Table 4th YEAR MBBS – Special Senses (EYE) 2023

(2nd WEEK)

DATE / DAY	8:0	0 AM – 9:00 AN	1	09:00am – 10:00am		10:30a 12:00	nm – 12:00pm - (1pm	02:00pm	
Monday 23-4-2023		EID HC	LIDAYS						
Tuesday 24-4-2023									
Wednesday	COMMU	UNITY MEDICIN (LGIS)	NE	EYE (LGIS)					
26-4-2023	Principles Hea	of health educat	ion	Conjunctival disorders 2	BREAK 10:00AM – 10:30AM				
	(dr. k	chola , dr. afifa)		Dr Bilal/ Dr. Fatima Sidra				Clinical Clerkship Annexure -1	
	Comm	nunity medicine		EYE			(Complete 6 week rotation	n plan attached at the end	l of the curriculum)
Thursday	Practice	(LGIS)	0.12	(LGIS)					
27-4-2021	Heal	th education II	011	Dr Ambreen/ Dr					
	(dr. k	hola , dr. afifa)		Maria					I
	08:00	AM - 09:45AM		09:45AM - 10:30	10:30AM - 11:15AM	11	1:15AM – 12:00PM		
Friday 28-4-2023	COMMUNITY M (PAL)	MEDICINE	PATHOLO GY Skill lab	EYE (LGIS)	COMMUNITY MEDICINE (LGIS)	PI	HARMACOLOGY (LGIS)		
	HRM contact s	session II	Neoplastic lesions optic	Glaucoma 1	How to develop a questionnaire in	Drugs 1	used in Ocular infections		
	Finalizing the resear elements of p development(All De	ch question & roposal monstrators &	nerve Dr sarah rafi	Dr Fuad/ Dr Ambreen	(research enquiry of eye diseases)	Diugs t	r.Zunaira/Dr.Sobia		
	senior fact	lity)							
Saturday 29-4-2023	08:00	AM – 09:45AM		09:45AM – 10:30AM	10:30AM - 11:15AM		11:45AM – 12:30PM	12:30PM – 01:15PM	01:15PM - 02:00PM
	PATHOLOGY Skill lab	COMMUNITY (PA	Y MEDICINE L)	EYE (LGIS)	PATHOLOGY(LGIS)		COMMUNITY MEDICINE (LGIS)	Pharmacology (LGIS)	DERMATOLOGY (LGIS)

	Ne	Neoplastic lesions	HRM contact session II	Glaucoma 2	Corneal and Conjunctival		Prevention & control of	Drugs used in	Dermatological disorders involving	eye
optic nerve Finalizing the research question & Finalizing the research question & Dr Fuad/Dr elements of proposal development Dr Fuad/Dr Ambreen Break injuries Glaucoma Dr Shahwana (All Demonstrators & senior faculty) (All Demonstrators & senior faculty) Image: Construction of the		optic nerve Dr sarahrafi	Finalizing the research question & elements of proposal development (All Demonstrators & senior faculty)	Dr Fuad/ Dr Ambreen	degenerative and neoplastic disorders Dr.Kiran/Dr.Sara	Break 11:15 AM – 11:45 AM	blindness & accidents, injuries (Dr. asif, Dr. abdulqaddus)	Glaucoma Dr.Zunaira /Dr.Sobia	Dr Shahwana Shareef	<u>.</u>

Rawalpindi Medical University Rawalpindi New Teaching Block Tentative Time Table 4th Year MBBS – Special Senses (EYE) 2023

(3rd WEEK)

DATE / DAY	8:00 AM - 9	:00 AM	09:00am – 10:00am			10:30am – 12:00pm	12:00pm - 02:00pm
1-5-2023		LABOUR DAY					
Tuesday 2-5-2023	COMMUN (ITY MEDICINE LGIS)	EYE (LGIS)		(Comp.	lete 6 week rotation plan attached at the en	d of the curriculum)
	models of behavior change & C Health ((dr. kho	ge & CHC message development protocol Glaucoma 3 ealth education III Ir khola dr afifa) Dr Fuad/ Dr Ambreen					
Wednesday 3-5-2023		EYE LGIS)	EYE (LGIS)	Break 10:00AM –			
	Lacrimal system Dr Wajeeha/ Dr. Sehar Umar		Cornea 2 Dr ambreen/ drmaria	10:30AM			
Thursday	Commu	hity medicine LGIS)	EYE (LGIS)				
4-5-2023	Health managemen Dr Abc Dr	nt information system lul qaddus · Asif	Orbit 1 Dr ambreen/ drwajeeha				
	08:00AN	1-09:45AM	09:45AM - 10:30	10:30AM – 11:15AM		11:15AM – 12:00PM	
Friday	Community medicine (SGD)	PATHOLOGY (SGD)	EYE (LGIS)	EYE (LGIS)	(COMMUNITY MEDICINE (LGIS)	
5-5-2023	Disinfection control in health care Dr. afifa Dr. Saba	Non neoplastic lesions of eye lid Dr tayyaba Ali/ Dr Asiyaniazi/ Dr fatimatuzzohra Dr rabbiyakhali	Orbit Dr ambreen/ drwajeeha	Squint diagnosis a Dr Sidra Jabeer	and assesment n/ Dr Rizwan	Hospital Administration Dr. mehar javed Dr Imrana	

Saturday 6-5-2023	08:00AM -	- 09:45AM	09:45AM - 10:30	10:30AM - 11:15AM		11:45AM - 12:30PM	12:30PM - 01:15PM	01:15PM - 02:00PM
	PATHOLOGY (SGD)	Community medicine (SGD)	EYE (LGIS)	EYE (LGIS)		EYE (LGIS)	COMMUNITY MEDICINE (LGIS)	
	Non neoplastic lesions of eye lid Dr tayyaba Ali/ Dr Asiyaniazi/ Dr fatimatuzzohra Dr rabbiyakhali	Disinfection control in health care Dr. afifa Dr. Bushra,	Strabismus – 2 Dr Sidra Jabeen/ Dr Rizwan	Cataract 1 DrFuad / Dr Sidra Jabeen	Break 11:15AM – 11:45AM	Blunt ocular trauma Dr saira/ drwajeeha	Hospital waste management practices Dr. Narjis, Dr. memoona	Mid module assessment MCQ paper

Rawalpindi Medical University Rawalpindi New Teaching Block

Tentative Time Table 4th YEAR MBBS –Special Senses (EYE) 2023

(4th WEEK)

DATE / DAY	8:	00 AM – 9:00 AM	09:00am – 10:00am	10:30am – 1	2:00pm		12:00pm - 0	2:00pm	
Monday 8-05-2023		EYE (LGIS)	EYE (LGIS)						
	Tł Dr A	nyroid Eye Disease .mbreen/ Dr. Wajeeha	Cataract Surgery and its complications Dr Fuad/ Dr. Sidra Jabeen			(Complete	Clinical Cler Annexure 6 week rotation plan attache	kship -1 ed at the end of the cur	riculum)
Tuesday 9-5-2023	COM	MUNITY MEDICINE (LGIS)	EYE (LGIS)			× I	ľ		,
	Millennium Develpoment	t Goals & Sustainable Development Goals	Visual Pathway Dr Rizwan / Dr Saira						
	Community medic	vr. khola, dr. imran	EYE	-					
Wednesday	Community mould	(LGIS)	LGIS						
10-05-2023	Plan	nning & management	Retinal Detachment						
	Dr. 1	memoona, dr. imrana	Dr Fuad / Dr Sidra Jabeen						
Thursday	D	DERMATOLOGY	EYE	-					
11-05-2023		(LGIS)	(LGIS)	-					
	An Approach To A Patient V Dr	With Bullous Disorders · Shahwana Shareef	DrFuad / Dr Sidra Jabeen						
Friday 12-05-2023	08	:00AM - 09:45AM	EYE (LGIS)	10:30AM – 11:15AM		11:15AM – 12:00PM			
	Community medicine (SGD)	Pathology (SGD)	EYE (LGIS)	P	Pathology (LGIS)		EYE LGIS		
	Surface infections	Pathophysiology and manifestation of	Optic Neuropathies	Patholo	ogy of cataract,	Warl	Uveitis – 1		
	(trachoma, scabies,	Systemic diseases in eye Dr tayyaba Ali/ Dr Asiya niazi/	Dr Rizwan / Dr Saira	glauco	ma, intraocular	(workuj Dr	p and management) Maria/ Dr Bilal		
	Dr. Saba, Dr. mehar javed	Dr fatima tuz zohra/Dr rabbiya		Dr k	tiran/ Dr sara		.imita Di Dilui		
	08	:00AM - 09:45AM	09:45AM - 10:30	10:30A	AM – 11:15AM	BREA K	11:45AM – 12:30PM	12:30PM – 01:15PM	01:15PM - 02:00PM
	Pathology (SGD)	Community medicine (SGD)	EYE (LGIS)	Comm	unity medicine (LGIS)	11:15 AM –	PATHOLOGY (LGIS)	EYE (LGIS)	DERMATOLOGY (LGIS)

Saturday 13-05-2023	Pathophysiology and manifestation of systemic diseases in eye Dr tayyaba Ali/ Dr Asiya niazi/ Dr fatima tuz zohra Dr rabbiya khali	Surface infections (trachoma, scabies, STI,AIDs) Dr. Saba, Dr. mehar javed	Cranial Nerve Palsies Dr Rizwan / Dr Saira	Preventive health care of elderly/ Geriatrics Dr. narjis, dr. memoona	11:45 AM	Optic neuropathies Retinal detachment Retinal vascular diseases	Uveitis - 2 Dr Maria/ Dr Bilal	An Approach To A Patient With Nail Diorders Dr Shahwana Shareef

Rawalpindi medical university rawalpindi new teaching block

Tentative Time Table 4th YEAR MBBS – Special Senses (EYE) 2023

(5th WEEK)

DATE / DAY	8:00 AM – 9:00 AM	09:00am – 10:00am		10:30am – 12:00pm	12:00pm - 02:00pm
	DERMATOLOGY (LGIS)	DERMATOLOGY (LGIS)			
Monday	An approach to a patient with psoriasis	An Approach To A Patient With Cutaneous			
15-05-2023	Dr Shahwana Shareef	Leishamniasis Or Leprosy			
		Dr Shahwana Shareef		Clinical Cle	erkship
Tuesday				(Complete 6 week rotation plan attac	hed at the end of the curriculum)
16-05-2023			BREAK		
Wednesday			- 10.00AW		
17-05-2023	Pren Leaves		10:30AM		
Thursday					
18-05-2023					
Friday					
19-05-2023					
		BLOCK PAP	ER		

BLOCK OSCE

• <u>Clinical clerkship</u>

a. Ophthalmology clerkship model

4th year MBBS, RMU

Chairperson: Prof. Dr. Fuad Ahmed Khan Niazi

Coordinator: Dr. Sairabano

<u>Placement</u>: 4th year mbbs

Pre-requisite: Prior knowledge of first 03 years of mbbs

Duration: 06 weeks

Rationale:

Eyes are one of the highly developed sensory organs of human body. Although disorders of eye are commonly encountered in medical practice woefully it is neglected very badly in our undergraduate teaching system. Millions of people are permanently losing their eyesight due to poor diagnosis and inappropriate treatment. Integrated modular system will help to produce a 7 star PM&DC doctor.

Our aim of teaching this module is to have a medical graduate who is aware of the community eye health problems, has a sound knowledge and is able to understand and solve the common problems of eye such as conjunctivitis, cataract, glaucoma, retinal diseases, and errors of refraction and involvement of eyes in systemic disorders. These are some conditions that can be reduce morbidity if properly diagnosed and timely managed.

Educational environment:

Medical school is a habitat with many components, complex dynamics and interactions, inevitable conflicts and is constantly evolving. To facilitate healthy educational environment for 4^{th} year medical students to peer interaction of students and with the faculty will be encouraged. Transfer of knowledge, skills and attitude will be in Wards, operation theatres and clinics. All these measures will enhance the learning capacity of students.

Outcome:

To equip them with essential knowledge, skill and attitude In order to enable them to

- Identify ophthalmic diseases including emergencies, provide primary Eye care, refer to appropriate center and provide follow-up to the patients.
- Provide patient care that is compassionate, appropriate, and effective for the treatment of health problems
- Develop and carry out patient management plans of prevalent Ocular diseases
- Communicate effectively and demonstrate caring and respectful behaviors when interacting with patients and their families,
- Perform essential minor surgical procedures
- Understand medical ethics and its application pertaining to Ophthalmology and maintain the confidentiality of the patient.
- Understand the prevalence and prevention of the common Public Health Problem related to Ophthalmology in the community.
- Understand the principles of medical research
- Use information technology to manage information, access online medical information
- Demonstrate a commitment to carrying out professional responsibilities, adherence to ethical principles, and sensitivity to a diverse patient population

Competencies:

Learning objectives of every theme will be divided according to seven competencies.

- 1. Communication skills (History taking skill)
- 2. Clinical Examination skill

- Critical Thinking
 Clinical Reasoning
 Clinical decision making / research
 Problem solving
 Communication skill (Counseling skill)

Week 1 (HFH)

Sr#	Date	Day	Teacher	Theme	Торіс	Specific Learning	Station	MOT/MIT	L	evel c	of	psychomo	Affective	MOA
						Objectives			C	ognitio	on	tor		
									C1	C2	C3			
1		Monday	Dr sairabano	Gradual painless loss of vision (Case Discussion)	 Cataract Glaucoma Refractive errors Diabetic retinopathy Age related macular degeneration 	 Take history of a patient with gradual painless loss of vision Perform visual acuity, torch examination and fundoscopy, visual field plotting and identify clinical signs of a patient with gradual painless loss of vision List a differential diagnosis on the basis of history and examination Propose a mechanism responsible for cataract, open angle glaucoma, refractive errors, diabetic retinopathy and age related macular degeneration Suggest appropriate treatment for a patient with gradual painless loss of vision 	Eye ward	 Bedsi de teaching Clinic al exposure Role playing 			C3	Ρ2	A3	OSCE, MiniCEX , Faculty feedback Evidence from logbook
2		Tuesday	Dr Amina khalid/ dr	Cataract Surgery	• Extracapsular cataract extraction	 Identify the surgical procedures and 	Eye OT	 Live surgeries 		C2			A2	MCQS SAQ
			Ayesha		 Phacoemulsifi 	instruments used during		 Reco 						OSCE

				cation	 surgery with their uses Identify the drugs and propose their mechanism of action Identify potential complications of disease and its management 		rded videos ● Pre- reading ● SGD			Quiz Discussion form
3	Wednesday	Dr Fuad Ahmed Khan Niazi	Ophthalmic examinationsl nvestigations	 Torch examination Slit lamp examination Auto refractometer Keratometer Biometry Fundus photographs 	 Record visual acuity Perform torch examination, pupillary light reflexes and fundoscopy Identify clinical signs of a patient Perform fundoscopy via fundal camera Observe laser treatment Suggest different treatment options for a patient with diabetic retinopathy 	Diabetic clinic/ eye OPD	 Bedsi de teaching Clinic al exposure Role playing Patie nt simulation Vide os 	C2		OSCE, MiniCEX Self and peer assessmen t of the skill Evidence from logbook
4	Thursday	Dr sidraJabe en	Refractive errors	 Myopia Hyperopia astigmatism 	 Snellen's chart, Autorefraction, Retinoscopy Goldmannapplanat ion tonometry 	Refractio n room	 Bedsi de teaching Clinic al exposure Role playing 	C3	A3	MCQS SAQ OSCE Quiz Discussion form

Week 2 (HFH)

Sr	Dat	Day	Teacher	Theme	Topics	Specific Learning Objectives	Station	MOT/MIT	Le	evel	of	Psychomot	Affectiv	MOA
#	е								CO	gniti	on	or	е	
									C	C	C			
1		Monday	Dr Rizwan khan	Sudden painless loss of vision (Case Discussion)	 Retinal detachment Retinal vascular occlusion Vitreous hemorrhage hyphema Optic neuritis 	 Take history of a patient with sudden painless loss of vision Record visual acuity Perform torch examination, pupillary light reflexes and fundoscopy Identify clinical signs of a patient with sudden painless loss of vision List a differential diagnosis on the basis of history and examination Propose a mechanism responsible for Retinal detachment, Retinal Vascular occlusion, Vitreous hemorrhage, hyphema and Optic Neuritis Suggest emergency treatment and appropriate referral for a patient with sudden painless loss of vision Identify potential complications of 	Eye ward	 Bedsid e teaching Clinica l exposure Role playing Patien t simulation Video s Discus sion group PBL, CBD 	1	2	5 C 3		A2	MCQS SAQ OSCE, MiniCEX Faculty feedbac k Evidenc e from logbook

					 disease and its management Identify the role of lasers in eye Describes the impact of disease on individual, family and society and demonstrate empathic attitude towards patient 					
2	Tuesday	Dr Rafaaq/ Dr Hassan	Surgical Instruments	 Minor procedure instruments Cataract Surgery instruments Viteroreti nal Instruments 	 Identify the surgical procedures and instruments used during surgery with their uses 	Eye OT	 Ambul atory teaching 	C 2	A2	MCQS OSCE, MiniCEX Faculty feedbac k Evidenc e from logbook
3	Wednesda Y	Dr Sidra Naseem	Ophthalmic lasers	 PRP Macular grid Focal macular laser Laser retinopexy 	 Memorize different types of ophthalmic lasers Cite their uses Observe laser treatment Suggest different treatment options for a patient with diabetic retinopathy Describe principles of ophthalmic lasers 	Diabeti c clinic/ eye OPD	 Clinica l exposure Live lasers simula tion Video s Discus sion group PBL, CBD 	C 2	A2	MCQS OSCE, MiniCEX Faculty feedbac k Evidenc e from logbook
4	Thursday	Dr Laiba/ drFaryal	Posterior segment surgery	 Scleral buckling Pars plana vitrectomy 	 Identify different posterior segment surgical procedures and instruments used during surgery with their uses 	Eye OT	 Live surgeries Recor ded videos 	C 2	A2	MCQS OSCE, MiniCEX

		• Describe the basic principles of	• Pre-		
		Parsplana Vitrectomy, Silicon oil	reading		
		injection, Air/Gas Tamponade,	• SGD		
		Endolaser/Cryotherapy			

Week 3 (BBH)

Sr#	Date	Day	Teacher	Theme	Торіс	Specific Learning Objectives	Station	MOT/MIT		Level of	f	psychom otor	Affective	MOA
									C1	C2	C3			
1		Monday	Dr. Maria	Ophthalmic examinations/ Investigations/L asers	 Torch examination Slit lamp examination Visual Fields NdYag Laser B scan LVA 	 Record visual acuity Perform torch examination, pupillary light reflexes and fundoscopy Identify gross Visual Field defects Observe NdYag laser capsulotomy Suggest different treatment options for a patient with retinal detachment 	Laser room/ Eye OPD	 Bedsi de teaching Clinic al exposure Role playing Patien t simulation Video s 		C2			P,A	OSCE, MiniCEX Self and peer assessmen t of the skill Evidence from logbook
2		Tuesday	Dr.Ali/Dr .Jawwad	Surgical Instruments	 Minor procedure instruments Cataract Surgery instruments 	 Identify the surgical procedures and instruments used during surgery with their uses 	Eye OT	ambulatory teaching		C2			P,A	MCQS OSCE, MiniCEX Faculty feedback Evidence from
											logbook			
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3	Wednesda y	Dr Wajeeha	Clinical Methods	 Visual acuity, Pin hole, BCVA Lid Eversion Regurgitation test, EOM, Cover/ Uncover Test 	 Perform Visual acuity, Pin hole, BCVA Lid Eversion Regurgitation test EOM, Cover/ Uncover Test 	Eye OPD	ambulatory teaching	C2		P,A	OSCE, MiniCEX Self and peer assessmen t of the skill Evidence from logbook			
4	Thursday	Dr.Iqra/D r Omaima	Ophthalmic Drugs	 Antibiotic, Steroids IOP Lowering Drugs, Dyes Miotics, Mydraiactics, Cycloplegics, Anesthetics 	 Identify indications, MOA, systemic/local side effects) 	Eye OPD	ambulatory teaching	C2						

Sr	Dat	Day	Teacher	Theme	Topics	Specific Learning Objectives	Station	MOT/MIT	L	evel	of	psychomoto	Affectiv	MOA
#	е								СС	ogniti	on	r	е	
									С	C2	С			
									1		3			
1		Monday	Dr.Fuad	Sudden	 Retinal 	• Take history of a patient	Eye	• Bed		C2			Р,А	MCQS
			Ahmed Khan	painless	vascular occlusion	with sudden painless loss of	ward/Ey	side						SAQ
			Niazi	loss of	 Vitreous 	vision	e OPD	teaching						OSCE,
				vision		 Record visual acuity 		• Clin						MiniCEX
				(Case		Perform torch		ical						Faculty
				Discussion)		examination, pupillary light		exposure						feedback
						reflexes and fundoscopy		 Rol 						Evidence
						 Identify clinical signs of a 		e playing						from
						patient of Retinal vascular		 Pati 						logbook
						occlusion		ent						
						• List a differential diagnosis		simulatio						
						on the basis of history and		n						
						examination		• Vid						
						 Propose a mechanism 		eos						
						responsible for Retinal Vascular		• Disc						
						occlusion		ussion						
						 Suggest emergency 		group						
						treatment and appropriate		• PBL						
						referral for a patient with		, CBD						
						sudden painless loss of vision								
						Identify potential								
						complications of disease and its								
						management								

Week 4 (BBH)

					• Identify the role of lasers						
2	Tuesday	Dr Meimoona/ Dr.Bushra	Cataract Surgery	 Extracapsular cataract extraction Phacoemulsifi cation 	 Identify the surgical procedures and instruments used during surgery with their uses Identify the drugs and propose their mechanism of action Identify potential complications of disease and its management 	Eye OT	 Live surgeries Rec orded videos Pre- reading SG D 	C2			MCQS SAQ OSCE Quiz Discussion form
3	Wednesda y	Dr.Ambreen	Glaucoma (Open Angle)	 Goldman Applanation Non-Contact Tonometry Visual field OCT RNFL Cup disc ratio 	 Perform Confrontation visual fields Identify clinical signs of a patient with OAG Observe Goldman applanation and NCT Suggest different treatment options for a patient with Open Angle Glaucoma 	Eye OPD	 Clin ical exposure Rol e playing Pati ent simulatio n Vid eos 	C2			OSCE, MiniCEX Self and peer assessmen t of the skill Evidence from logbook
4	Thursday	Dr.Ambreen	Glaucoma (Acute Angle Closure)	 Torch examination of anterior segment Pupil examination Yagiridotomy 	 Perform Torch examination of anterior segment Pupillary reaction Observe YAG Iridotomy 	Eye OPD/ Laser room/ Eye ward	 Bed side teaching Clin ical exposure Rol e playing 		C 3	A3	MCQS SAQ OSCE Quiz Discussion form

Sr	Date	Day	Teacher	Theme	Торіс	Specific Learning		MOT/MIT	Le	evel c	of	psychomo	Affective	MOA
#						Objectives			CO	gnitio	on	tor		
							Station		C1	C2	C3			
1		Monday	Dr Rasheed	Minor surgical prcedures Removal of sutures Chalazion	 Identification of surgical instruments History taking Pre-op preparation of Patient 	 Able to Identify surgical procedures Able to Identify instruments and their uses Able to take History of patient of cataract Able to Identify Chalazion and give troatment entions 	Eye Ward / Eye OT	Ambulatory teaching		C2			P,A	OSCE, MiniCEX Self and peer assessmen t of the skill Evidence from logbook
2		Tuesday	Dr.Bilal	Red Eye	 History taking Causes Bacterial Conjunctivitis Viral Conjunctivitis 	 Identify the red eye conditions Management of Bacterial and viral conjunctovitis 	Eye OPD	Bedside teaching Clinical exposure Role playing Patient		C2			P,A	MCQS OSCE, MiniCEX Faculty feedback Evidence from logbook
3		Wednesd ay	Dr Humera	OT Protocols Introduction to phacoemulsificatio n machine	 Sterilization techniques Phacoemulsif ication Machine 	 Identify phacoemulsification machine Sterilization of OT and Instruments 	Eye Ward / Eye OT	ambulatory teaching		C2			P,A	OSCE, MiniCEX Self and peer assessmen t of the

Week 5 (DHQ)

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										skill Evidence from logbook
4	Thursday	Dr Aasma	Conjunctiva Lacrimal Drainage system	 Allergic Conjunctivitis Trauma Acute and Chronic Dacryocyctitis 	 Identify the red eye conditions Able to take History of trauma patient Able to demonstrate approach to patient with trauma Able to take History, examine and describe management of dacyocystitis 	Eye OPD	Bedside teaching Clinical exposure Discussion	.2		MCQS SAQ OSCE Quiz Discussion form

Sr	Dat	Day	Teacher	Theme	Topics	Specific Learning Objectives	Station	MOT/MIT	L	evel	of	psychomot	Affectiv	MOA
#	е								CC	ogniti	on	or	е	
									C 1	C2	C 3			
1		Monday	Dr.Aasma	Chronic Dacryocystitis Pyerygium	 DCR instruments DCR Procedure Pterygium and its management 	 Able to state the principle of DCR surgery. Able to outline the steps of DCR surgery Able to identify and grade pterygium Able to give treatment options for pterygium 	Eye ward / Eye OT	 Beds ide teaching Clini cal exposure Role playing Patie nt simulation Vide os Disc ussion group PBL, CBD 		C2			P,A	MCQS SAQ OSCE, MiniCEX Faculty feedback Evidence from logbook
2		Tuesday	Dr.Bilal	Uveitis	 Anterior Uveitis Posterior Uveitis 	 Take history of a patient with Uveitis Record visual acuity Perform torch examination, pupillary light reflexes and fundoscopy Identify clinical signs List a differential diagnosis on the basis of history and examination Suggest treatment and appropriate referral for a patient with Uveitis 	Eye OPD	 Beds ide teaching Clini cal exposure Disc ussion 		C2				MCQS SAQ OSCE Quiz Discussion form

					 Identify potential complications of disease and its management 						
3	Wednesda Y	Dr.Humer a	Eye Lid Laceration Manual Small Incision cataract Surgery	 Eye lid repair Manual Small incision cataract surgery 	 Able to describe principle of eye lid repair Able to Identify procedure MSICS Able to identify crescent knife and describe steps of procedure 	Eye ward / Eye OT	 Amb ulatory teaching 	C2			OSCE, MiniCEX Self and peer assessme nt of the skill Evidence from
4	Thursday	Dr.Rashee d	Adenexal benign and malignant conditions Ptosis	 Blepharitis Benign and malignant adenexal masses Ptosis 	 Perform eye lid examination Perform ptosis examination Able to identify eyelid pathologies and able to give treatment options 	Eye OPD	 Beds ide teaching Clini cal exposure Role playing 		C 3	A3	MCQS SAQ OSCE Quiz Discussion form

b. Community Oriented Clerkship module

4th year MBBS

Department of community medicine & public Health RMU

Theme (aim):

The primary purpose of this module is to educate students in those areas of the subject of CM&PH which are learnt better by onsite presence of the students at certain sites, processes, agencies which have public health relevance and in general community setting. Moreover some, areas of the subject which demands close interactive teachings in small group like HHS data analysis & report writing skills, contraceptive use skills, vaccination skills, etc are also covered during this rotation. All opportunities available within and outside the institution within affordable logistics, time, are focused for this purpose. A short time of this batch rotation is dedicated for health education communication practices as Health awareness work and other social work.

Learning outcomes (LOs):

at the end of this learning module students are expected to achieve following Public health Competencies as will be able to:

- 1. Undertake a population based health survey (HHS)
- 2. Appreciate working of First level Care Facility (Public Sector)
- 3. Perform Community Immunization / EPI vaccinations.
- 4. Develop Hospital waste management plans.
- 5. Develop Community based health awareness message.
- 6. Communicate for Health awareness in community settings.

- Commemorate International public health days.
 Develop Hospital administration Plans.
 Undertake Preventive healthcare inquiries and NCDs Risk Factors Surveillance
 Counsel for the contraceptive devices to the community

Module outline:

- A batch comprising 20-22 students is posted in the department of CM & PH for a period of 2weeks (Monday to Thursday-04 hrs. /day & for 32hrs in total). This schedule is run over the whole academic year, till all students of 4th year MBBS class passes through this rotation.
- Batch formation and schedules of rotation for whole class as notified by the DME / Student's section will be followed accordingly.
- At commencement of the academic year overall batch learning module coordinator, nomination of batch in-charges, senior faculty in charges and calendar schedule of batch rotation for all batches over the whole academic year will be notified by the Department of CM & PH.

Domains of learning: learning will occur in all the three domains C, A & P

SOPs of Learning & Assessments:

- Active participation will be graded by the batch in charge (under a check list) during the activity / session and grades/marks will be entered in the practical manual as out of 05 (Max marks 05) by the batch in charge. O5 Max Marks are reserved for CHC (HMDTD and Health awareness work.
- Assessment will be done by OSPE / MCQs Exam / Viva voce at the end of each module and credit will be objectively recorded for the purpose of internal assessment. (Max mark 10)
- General assessment of the subject learning will be through MCQs, SEQs & OSPE on the relevant subjects in the relevant end of modules, block exams and Send up Exams.
- Students are required to report / write the relevant work in Practical Journal, House Hold Survey Report Book and log all the clerkship activities in the Logbook on daily basis.

Core Planner of Community Oriented Clerkship in the subject of Community Medicine (2 weeks batch rotation)

[Calendar schedule as notified by DME will be followed accordingly]

Day	Activity -I 10.30 – 11.00	Activity – II 11.00- 11.30am	Activity –III 11.30- 01.00pm	Act-V 01.00 – 2.00pm	Sites of teaching- learning	Assessment	Session outcome (level of learning)
1 St	Session topic	Session topic	Session topic	Session topic	D		
da y	on Practical Manual based Assignments	 Visit to CHC SGIS on Health days commemoration work, Display material, PPT. 	• SGIS on HM- DTD practicum. Topic finalization, CHC-Message draft outlines finalization.	 PPT based Demo on How to conduct & report HHS. Guidelines on PHI work to be done during clinical rotations / ward duties 	 Demonstration / lec -Hall 3 CHC -Dept CM NTB RMU. 	 1-2 OSPE in end of clerkship exam (credit will part of IA) Assessment of HHS -Report (Max marks:5 part practical /viva exam 4th Prof MBBS) 	 Construct a health message. (C6) Prepare Health days commemoration stuff, Display material, PPT, (P) Undertake a health survey. (HHS) (C3)
2 ⁿ da y	Follow up session on. - HM-DTD work - HHS work - health days commemoration work	SGIS/ Briefing / PPT based guidelines on field visit of the day (EPI services center HFH)	FV to the EPI center HFH	Health awareness work (HAW)	 Demo Room, EPI Center HFH OPD, hospital shelters sites for health awareness work (HAW) 	 1-2 OSPE in end of clerkship exam (credit will part of IA) Grade of performance in EPI visit reporting. Credit of HAW 	 Explain cold chain component at EPI center Vaccinate (EPI) vaccines to the clients . Comprehend EPI system

3 ^r da y	Follow up session on HM- DTD work & HHS	SGIS / Briefing / PPT basedFV to the MCH services & FP centerguidelines on FV to MCH & FPHFHServices CenterHFH	Health awareness work (HAW)	 FP Center HFH OPD, hospital shelters sites for HAW 	 1-2 OSPE in end of clerkship exam (credit will part of IA) Grade of performance in EPI visit reporting. Credit of HAW 	 Identify CP devices available at MHC FP center Counsel clients for use of a contraception method Place CP devices to client (P)
4 ^t h da y	Follow up session on HM- DTD work & HHS	Briefing / guidelines on FV Hospital waste disposal system in hospitals	Health awareness work (HAW)	• FP Center HFH OPD, hospital shelters sites for HAW	 End of module OSPE Grade of performance in visits to sites 	 Explain hospital waste disposal system Develop a hospital waste management plan Explains various domains of hospital management (C2)
5 ^t h da y (w ee k 2)	SGIS / PPT based briefing on Hospital management & administration	Visit to Hospital management & administration (HFH) office	Health awareness work (HAW	HHF	 End of module OSPE Grade of performance in visits to sites 	
6 ^t h da y	SGIS / PPT based briefing on visit to First level of health care facility (FLCF) BHU/RHC	Field visit to RHC Khyaban Sir-Syed (RHC) or BHU	 Demo room / lec Hall 3 NTB / CPC-Hall . RHC / BHU 	Health awareness work (HAW at site visited	 End of module OSPE Report credit in PJ 	 Explain working of FLCF Appreciate PHC elements at FLCF. (C2)

7 ^t h da y	Health days commemoration (walk/ seminar/ presentation/ CHC-message dissemination work (10.30 – 12.00pm)	 12.00 - 2.00pm Completion & assessment of relevant Practical Journal work, HHS-report book, Logbook etc. Feedback discussion on PHI 	 Communication skills Comprehend frequency Preventable RFs of NCDs in the real population (RF surveillance) Undertake a preventive Healthcare inquiry
8 ^t h da y	Museum learning module (MLM) / visit to departmental Museum 10.30- 12.30	 Endo of module OSPE (12.30 – 2.00pm) OPSE conduction (10 stations video assisted OPSE / OSPE) for 40 total marks . 	Plus Completion of any remaining work journal assessment HHS report assessment Students feedback etc

Community based / Field Visits

Each batch will be perform at least 02 filed visits of sites of Public health importance outside the institutions under available opportunities and logistics. Following sites may be considered for the purpose.

- I. RHC Khiaban-e-Sir-Syed Rawalpindi / DHO
- II. Sewerage Treatment Plant I-8 Islamabad
- III. Water purification plant Rawal Dame Islamabad
- IV. Child protection Bureau Rawalpindi
- V. Community Livings / urban slums US-15 Rawalpindi
- VI. National Vaccination production unit– ChukShahzad Islamabad
- VII. Vaccines & Venom Production Unit, NIH, Islamabad
- VIII. Clinical Trail Unit, NIH- Islamabad
- IX. Diseases Surveillance & control / SAAL office. NIH Islamabad
- X. WHO-Office, ChukShahzad, Islamabad
- XI. National Command & Operation Control Office (NCOC) / System. Disaster Control & Management office Islamabad
- XII. Office of Punjab Food Control Authority Rawalpindi
- XIII. Drug intoxication & Rehabilitation center Dept of Psychiatry BBH Rawalpindi
- XIV. Any site appropriate & feasible for the purpose.

LOs:

Students will better comprehend the System, Mechanism, or Processes (visited) of community health or public health relevance in regional practices context. (Practice based Learning)

Feasibility, opportunity, and logistics: every visit will be planned subject to:

- 1. Approval of competent authority (RMU) in given conditions.
- 2. Time space available (total 8 days rotation & with max 04 hrs. a day)
- 3. Availability of Transport
- 4. Consent / approval of f remote sites
- 5. Another justified pre-visit approval/favor or fulfillment of need.

Note:

- Colander schedule of each batch will be noticed by the Department of community medicine prior to the commencement of the batch rotation.
 Students will have to record all activities of the clerkship in the relevant Logbook accordingly. Students will keep logbook updated and duly signed by faculties & departments.

Learning Resources

	•	Park's Textbook of Preventive and Social Medicine, 26 th edition, Chapter 3, 4, 5
Community Medicine	•	Textbook of Community Medicine by Muhammad Ilyas and Dr Irfanullah Siddiqi
	•	Epidemiology by Leon Girdis

• Assessment policies

Contents

- □ Assessment plan
- □ Types of Assessment:
 - Modular Examinations
 - Block Examination
- □ Table 4: Assessment Frequency & Time in ophthalmology Module

AssessmentPolicies



Horizontal

Integration

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Assessment plan

University has followed the guidelines of Pakistan Medical and Dental Council for assessment. Assessment is conducted at the mid modular, modular and block levels.

Types of Assessment:

The assessment is formative and summative.

Formative Assessment

Formative assessment is taken at modular (2/3 rd of the module is complete) level through MS Teams. Tool for this assessment is best choice questions and all subjects are given the share according to their hour percentage.

Summative Assessment:

Summative assessment is taken at the mid modular (LMS Based), modular and block levels.

Theory Paper

Modular Examinations

There is a module examination at the end of first module. The content of the whole teaching of the module are tested in this examination.

It consists of paper with objective type questions and structured essay questions. The distribution of the questions is based on the Table of Specifications of the

module. (Annexure I attached)

Viva Voce:

Structured table viva voce is conducted including the practical content of the module.

Block Examination

On completion of a block which consists of two modules, there is a block examination which consists of one theory paper and a structured viva with OSPE.

Theory Paper

There is one written paper for each subject. The paper consists of objective type questions and structured essay questions. The distribution of the questions is based on the Table of Specifications of the module.

Block OSPE

This covers the practical content of whole block.

Table4-AssessmentFrequency &Time In Ophthalmology module

Block		Module – 1	Type of Assessments	Total Assessmen	nts Time		No. of Asse	ssments
1	Sr #	Ophthalmology Module Components		Assessment Time	Summative Assessment Time	Formative Assessment Time		
	1	Weekly LMS quiz	Summative	30 minutes X 4				
	2	Mid Module Examinations LMS based)	Summative	30 Minutes	-	40 Minutes	2 Formative	5 Summative
	3	Topics of SDL Examination on MS Team	Formative	30 Minutes	-			
	4	End Module Examinations(SEQ&MCQs Based)	Summative	2 Hours				
	5	Ophthalmology OSPE	Summative	60 Minutes				
	6.	Assessment of clinical lectures	Formative	10 Minutes	5 Hours 40			
	7.		Summative	10 Minutes	Minutes			

S. No	Mode of Assessment	Type of Assessment	Schedule of Assessment	Remarks	Remarks	Colander schedule
1 st	One best option MCQs test	CIA	Mid module after 02 weeks module	LMS test	Credit will be part of IA	Will be notified by DME
2 nd	MCQ, SEQs, based examination	CIA	End of module /block exam	On campus test	Credit will be part of IA	Will be notified by DME
3 rd	OSPE	CIA	"	"	"	
4^{th}	Viva Exam	CIA	دد	"	"	

Schedule of Assessment Community Medicine Module-II /Block-II Special Senses-II (Eye)

Assessments

Continous	 Provide early indications of the performance of students. Provides students with a constant stream of opportunities to prove their mastery of material and sends the message that everyone can succeed if given enough time and practice. This reduces the anxiety around testing and heightens the emphasis on the learning itself. Advanced students can progress through material at their own pace and remain engaged by pursuing more challenging work as they master the basics
Formative	 Helps students to learn and practice Log Book, Evening ward rounds, Clinical Ward tests (component of the Third Professional Clinical Examination taught in particular Unit/ward rotation)
Summative	 Assess students' performance End Block Assessment (EBA) Third Professional Examination

a. TOS Mid Module Assessment

Mid module assessment has been devised for the assessment of initial half of eye module.

It is an LMS based test and will take place at the completion of 3 weeks.

The assessment will comprise of 50 MCQs. (1 mark each). 35 MCQs will be from ophthalmology and 15 from community medicine. It will have weightage in internal assessment.

TOS Ophthalmology component of mid module assessment

	Topics of Mid Module Assessment	<u>Teaching</u>	<u>No. of MCQ</u>	Level of cognition		
		<u>hours</u>		C1	C2	C3
1	Eyelid Disorders		3		1	2
2	Conjunctival Disorders		4		2	2
3	Corneal Disorders		5	1	2	2
4	Refractive error/ Refractive surgery		5	1	2	2
5	Cataract and other lens disorders		7	2	2	3
6	Glaucoma		6	2	2	2
7	Orbital Disorders		5	1	2	2

TOS Community Medicine component of mid module assessment

Sr no.	Topics of mid module assessment	Teaching hours	MCQs		evel o ognitio	of on C3
1	Screening	2	2	CI	C2	$\frac{c}{2}$
1	Screening	2	2			2
2	Planning and management	1	1			1
3	HFA PHC Elements & principles	1	1			1
4	How to develop questionnaire in research.	1	1			1
5	Review of inferential statistics	1	1			1
6	Health education	3	2		1	1
7	Prevention and control of blindness, accidents, injuries in population	1	1			1
8	MDG,SGD,internal health development agenda & road map	1	1	1		
10	Hospital administration	1	2		1	
11	Hospital waste management	1	1	1		
12	Disinfection	1	1	1		
	Total	14	14			

b. End Block Assessment

Table of Specifications (End Block Exam)

- End Block Examination (EBE) has been devised for assessment of 5 weeks' eye module. It has undergone a number of modifications over last few years. A lot of effort has been done to make it uniform and standardized keeping in mind attachment of Medical Students to more than one hospital and Ten Departments.
- It will be held at the end of module
- The assessment will comprise of
 - o 50 MCQs. (1 mark each); 35 MCQs will be from ophthalmology and 20 from community medicine.
 - 10 SEQs (5 marks each); 7 from ophthalmology and 3 from community medicine.
 - 21 OSCE (5 marks each); 14 from ophthalmology and 7 from community medicine.

Subject Distribution Of End Block Exam

Sr no	Discipline	pline No of MCQs No of MCQ No total No of SEQ according to of mark according to cognitive domain SEQ s cognitive domain		No of MCQNaccording toocognitive domainS		f MCQs No of MCQ according to cognitive domain		No of SEQ	totalNo of SEQmarkaccording toscognitive domain		totalNo of SEQmarkaccording toscognitive domain		total No of SEQ mark according to s cognitive do		total M mark a Q s d		tal No of SEQ ark according to cognitive domain		otal No of SEQ hark according to cognitive domain							Internal
			C1	C2	C3			C1	C2	C3	O	SPE	Total marks	assessment												
1.	Ophthalmology	35		15	20	7	35	3	2	2	14	70	140	90 MARKS (60												
2.	Community medicine	20	10	7	3	3	15	1	1	1	7	35	70	30 C-Med)												
Grand Total						210	300																			

TOS Ophthalmology Component –End Block Assessment

Sr#	TOPIC	Weightage	No. of SEQs	No. of MCQs	Level of Cognition (MCQs)
1	Anatomy	02 %	-	1	1 MCQ- C3
2	Orbit	04 %	-	2	2 MCQs -C2
3	Lids & Adnexa	06 %	-	2	1 MCQs- C3
					1 MCQ- C2
4	Lacrimal System	11 %	1	2	1 MCQs- C3
					1 MCQs- C2
5	Conjunctiva	13 %	0.5	3	1 MCQs- C3
					2 MCQs-C2
6	Cornea	11 %	0.5	4	2 MCQs- C3
					2 MCQs- C2
7	Uvea	08 %	1	3	1 MCQs- C3
					2 MCQs- C2
8	Glaucoma	11 %	1	4	2 MCQs- C3
					2 MCQs- C2
9	Lens	13 %	1	5	3 MCQs- C3
					2 MCQs- C2
10	Vitreo-Retina	08 %	1	4	1 MCQs- C3
					3 MCQs- C2
11	Neuro-Ophthalmology	04 %	0.5	2	1 MCQs- C3
					1 MCQs- C2
12	Pediatric Ophthalmology	05 %	0.5	1	1 MCQs- C2
13	Trauma	04 %	-	2	2 MCQs- C3
	TOTAL	100 %	07	35	
			(35 marks)	(35 marks)	

TOS Community Medicine- written component

		Teaching hours	No. of MCQs	Leve	el of cogn	<u>ition</u>	<u>No. of SEQs</u>
	Topics of Module Assessment		<u>(01 mark each)</u>	<u>C1</u>	<u> </u>	<u> </u>	(5 m e dec e e de)
1	Semaning	2	2	CI	C2	2	(5 marks each)
1	Screening	2	2			Z	1
2	Planning and management	1	1			1	1
3	HFA PHC Elements & principles	1	1			2	
4	How to develop questionnaire in research.	1	1			1	
5	Review of inferential statistics	1	1			2	
6	Health education	3	3		2	1	
7	Prevention and control of blindness, accidents, injuries in population	1	2			1	1
8	MDG,SGD, internal health development agenda & road map	1	1	1			
10	Hospital administration	1	2	1			
11	Hospital waste management	1	1	1	1		
12	Disinfection	1	1		1		
13	Geriatrics	1	1	1			
14	Surface infections	1	2	1		1	
15	HMIS	1	1	1			
	Total	17	20				03

c. End Block Assessment Clinical Component

Clinical component comprises of OSCE and Ward test

OSCE Component Breakup

Total stations: 14

Marks: 14 X 5 = 70

Stations will be from the above mentioned clinical competencies.

Content	No. of stations
Eyelids and adnexa	1
Lens and Cataract	2
Refractive error	1
Cornea and external diseases	1
Glaucoma	1
Neuro-ophthalmology	1
Pediatric ophthalmology and Strabismus	1
Vitreoretinal diseases	2
Uveitis and ocular inflammation	1
Orbit	1
Trauma	1
Community eye health	1

d. Ward Test Component Breakup

Fourth year MBBS students have to complete 6 weeks clinical clerkship in Ophthalmology which includes 2 weeks rotation individually in HFH, BBH and DHQ. Ward test will be taken at the end of each fortnightly rotation in respective hospitals.

Sr.no	Component	Marks	
1	Clinical methods	5	
2	Instruments/ Ophthalmic medicines	5	
3	Viva voce	5	
	Total	15	

e. Internal Assessment Component Breakup

		Int	ernal Assessn	nent (60 mark	(S)		
LMS test 5%	midblock assessment 5%	End Block EE 40 24 m	Assessment 3A % aarks		Work Place 5(30 n	Assessment)% narks	
		written component 50%	ospe 50%	Ward Test 50% 15 marks	Evening Duties (3 duties in ward) 5 marks	Histories (5 Histories) 5 marks	Case Presentation (1 Case) 5 marks

f. 4th year Professional Examination

Theory 35% of total marks	5	Clinical & Practica 35% of total marks	1] 5	Internal Assessment (30%)	Total
MCQs 35 (1 number each)	70 SEQs 7 (5 number each)	70 Structured Clinic Interactive stations 2 stations 10 marks each	al Evaluation OSPE 10 stations (5 numbers each)	60	200
Nun	nbers	Numb	er		
35	35	20	50		

(Same TOS will be followed for send-up examination)

TOPIC	Weightage	No. of SEQs	No. of MCQs	Level of Cognition (MCQs)
Anatomy	1.5 %	-	1	1- C3
Orbit	1.5 %	-	1	1 -C2
Lids & Adnexa	1.5 %	-	1	1 - C3
Lacrimal System	6 %	-	4	2- C3
				2- C2
Conjunctiva	8 %	1	3	1 - C3
				2 -C2
Cornea	9 %		4	2 - C3
				2 - C2
Uvea	6 %	-	4	2- C3
				2- C2
Glaucoma	14 %	1	4	4- C3
				2- C2
Lens	14 %	1	4	2- C3
				2- C2
Vitreo-Retina	14 %	1	4	2 - C3
				2- C2
Neuro-Ophthalmology	5.5 %	1	2	1 - C3
				1 - C2
Strabismus	4 %	_	1	1 - C2
Pediatric Ophthalmology	8%	1	1	1 - C2
Trauma	8 %	1	1	1 - C3
TOTAL	100 %	7	35	
		(35 marks)	(35 marks)	

TOS 4th year MBBS Professional Examination

OSCE Distribution

Total stations: 10

Marks: 10 X 5 = 50

Stations will be from the below-

Mentioned clinical competencies.

Content	No. of stations
Lens and Cataract	1
Refractive Errors	1
Cornea and external diseases	1
Glaucoma	1
Neuro-ophthalmology	1
Pediatric ophthalmology and Strabismus	1
Vitreoretinal diseases	1
Uveitis and ocular inflammation	1
Community eye health	1
Emergency Medicine	1
Total	10

Structured interactive stations Component Breakup

Total number of interactive stations = 2

Marks: 2 X 10 = 20

Stations will be from the below

s.	Short cases	Topics	breakup	Marks distribution
1	Clinical Methods 1. Ptosis, 2. Pupillary examination, 3. Extraocular movements, 4. Torch examination, 5. Regurgitation test 6. Confrontration visual fields 7. Cranial nerves	 Greet and consent Perform relevant clinical examination according to given instructions Give correct findings with logical interpretation 	1 2 2	
		 Suggest relevant investigations Management plan Recent advances 	2 2 1	
2	Video or picture assisted or patient	• Ocular pathology or clinical sign	 Identify shown ocular pathology/ clinical sign Give differential diagnosis Justifies diagnosis Suggest relevant investigations Management plan Bacent advances 	1 2 2 2 2 2 1

• <u>Research</u>

Cultivating the culture of Research has always been envisioned as one of the main pillars of Rawalpindi Medical University, as a means to develop healthcare professionals capable of contributing to the development of their country and the world. For the purpose thereof, right from the inception of Rawalpindi Medical University, efforts were concentrated to establish a comprehensive framework for research in Rawalpindi Medical University, as a matter of prime importance. With team efforts of specialists in the field of research, framework was made during the first year of the RMU, for the development and promotion of Research activities in RMU, called the Research Model of RMU, giving clear scheme and plan for establishment of required components for not only promoting, facilitating and monitoring the research activities but also to promote entrepreneurship through research for future development of RMU itself.



• Biomedical ethics

Ethical choices, both minor and major, confront us every day in the provision of health care for persons with diverse values living in a pluralistic and multicultural society. Four commonly accepted principles of health care ethics, excerpted from Beauchamp and Childress (2008), include the:

- 1. Principle of respect for autonomy,
- 2. Principle of nonmaleficence,
- 3. Principle of beneficence, and
- 4. Principle of justice.

• Family medicine

Family Medicine is the primary care medical specialty concerned with provision of comprehensive health care to the individual and the family regardless of sex, age or type of problem. It is the specialty of breadth that integrates the biological, clinical and behavioral sciences. Family physicians can themselves provide care for the majority of conditions encountered in the ambulatory setting and integrate all necessary health care services.

• Artificial intelligence

Artificial intelligence in medicine is the use of machine learning models to search medical data and uncover insights to help improve health outcomes and patient experiences. Artificial intelligence (AI) is quickly becoming an integral part of modern healthcare. AI algorithms and other applications powered by AI are being used to support medical professionals in clinical settings and in ongoing research. Currently, the most common roles for AI in medical settings are clinical decision support and imaging analysis.
• <u>Sample paper</u>

Fourth Year Block II (Eye) Exam 2022

Sample Paper MCQs

MCQs Time allowed: 60 mins Total Marks: 35 (eye) + 20 (C.Med) = 55

- 1. A one-year-old baby is brought to eye opd by her parents with complain of watering, photophobia and enalarged eye ball. On examination there is hazy cornea with inadequate view of the angle and increased intraocular pressure on digital tonometry. Topical and systemic iop lowering drugs were given and a surgical intervention was decided to be performed. The most appropriate surgical procedure for this patient is
 - a. Lens extraction
 - b. Goniotomy
 - c. Trabeculotomy
 - d. Cyclolaser ablation
 - e. Anterior chamber paracentesis
- 2. An 18 months old baby was brought to eye opd by her parents with complain of whitish pupillary reflex. She was diagnosed with retinoblastoma which was limited to eye ball occupying more than half of the vitreous volume and not invading the optic nerve. The most appropriate treatment option is
 - a. Evisceration
 - b. Exenteration
 - c. Chemotherapy
 - d. Radiotherapy
 - e. Enucleation
- 3. The most common primary orbital malignancy in childhood is
 - a. Rhabdomyosarcoma
 - b. Optic nerve sheath meningioma
 - c. Capillary hemangioma
 - d. Neuroblastoma
 - e. Lacrimal gland carcinoma

Sample Paper SEQs

- 1. A 25 year's old, male presented in the emergency department with the complaint of spillage of acid in his right eye. On examination of the right eye, his corneal epithelium was swollen and opaque. You are suspecting an ocular chemical injury.
 - a. What will be your immediate management of this case? (02)
 - b. Write Roper-Hall grading of the chemical injury? (02)
 - c. Write two long term complication of the chemical injury? (01)
- 2. A 45 years old man presents to the OPD with complains of right sided ocular discomfort and painful rash involving the right peri-orbital region for the past 4 days. Examination reveals tender, vesicular rash involving the right sided forehead and upper lid which respects the midline. Slit lamp examination reveals microdendritic ulcers on the cornea. Rest of the ocular examination is unremarkable.
 - a. Based on the history and examination, the most probable diagnosis in this patient would be?
 - b. What would be a suitable management plan for this patient? (3)
 - c. State two neurological complications that can be associated with this condition? (1)
- 3. A 52 years old female presents to the ER with excruciating pain in the right eye and decreased vision in the right eye for the past 1 hour. She states that she is seeing "halos" around light and is also feeling extremely nauseous. Examination reveals severe circumciliary congestion with vertically oval, mid-dilated pupil that is poorly reactive to light. Applanation tonometry revelas IOP of 50mmHg
 - a. Based on these findings, the most probable diagnosis in this case would be? (1)
 - b. What would the treatment plan for this patient? (2)
 - c. What are the options to prevent such attacks in future in this patient? (2)
- 4. A diabetic patient presents to eye OPD with complaint of gradual decrease in vision of his both eyes particularly effecting His central vision. His best corrected visual acuity is 6/36 and 6/18 respectively in both eyes. On detailed fundus examination of both eyes there are multiple dot blot and flame shaped hemorrhage in all quadrant along with clinically significant macular edema.
 - a. What investigations you would like to do that in patient? (1)
 - b. What treatment modalities are available currently for this disease? (2)
 - c. What other complications can develop in this patient? (2)

(1)