

# Department of Ophthalmology



**Study Guide For  
4<sup>th</sup> Year MBBS**

**Sharif Medical & Dental College,  
Lahore**



## **PREFACE**

Welcome to the Ophthalmology Course. The department of Ophthalmology will be facilitating the course. The purpose of the study guide is to help you learn the subject of Ophthalmology. It is designed to help you manage your learning and access the resources available to you. Study guides are different from text books. This guide includes details about various teaching activities which will take place throughout the academic year.

At Sharif Medical and Dental College system we follow is based on annual assessment in which we teach the subject of ophthalmology in fourth year of medical education. The training program we follow is based on the vision of UHS and mission of SMDC. This teaching and training program is friendly and easy to understand for new students. The study guide we developed is detailed and comprehensive. Students can get all the information about the lectures, timetable, ward classes, small group discussion, paper pattern and marks distribution. List of lectures to be conducted in the session are mentioned with names of the instructors. Every lecture has some purpose and outcome to be achieved that is also included. Complete detail about the examination, surgical procedures and management is included for the students so broad and specific learning objectives are achieved to maximum level. Details of assessment methods and schedule is also present for students so they can make their timetable for the examination. The entire course outline is given with topic to be taught and the tutors.

Check list of recommended text books are also a part of study guide. We are hopeful that the study guide will be great help for new students.



## **Vision & Mission of UHS**

Qualitative and Quantitative Revolution in Medical Education and Research through Evolution and thereby improve Health Care delivery to Populace.

UHS shall be innovative global center of excellence in learning and research, supporting a community of scholars and professionals committed to serving society, promoting the development of students to reach their true potential in becoming competent, ethical, caring, and inquiring health professionals for the benefit of the country and the wider world.

## **Mission of SMDC**

Sharif Medical & Dental College is dedicated to best serve the nation through preservation and dissemination of advanced knowledge and educating the students by latest trends in learning and research reaching levels pars excellence.

The Institution is committed to provide standardized quality medical education to its students by inculcating professional knowledge, skills and responsibilities in them with the aim of:

- Preparing them as modern physicians having initiative to act as future leaders in their respective fields and becoming lifelong learners.
- Encouraging the spirit of critical thinking through research and publication.
- Building up an understanding of the ethical values compatible with our religion, culture and social norms.
- Developing a sense of being responsible citizens of the society possessing professional competence and instilling in them the values of hard work and dedication thus preparing them to be accountable to the stakeholders and the state.

The Institution is devoted to keep abreast its faculty with the latest trends in Medical Education encompassing teaching/learning methodologies, assessment tools, research opportunities and professionalism to facilitate their professional development, competencies and commitment towards continues learning.

Our patient-centered mission is achieved by outstanding medical care & services in professional practice with due emphasis and focus on our local health needs.

Our mission further elaborate upon establishing academic and research facilities in areas of local demand under global gold standards and leading advancement in research, education & patient care.

## **Vision of SMDC**

To be recognized for the provision of a safe and functional environment conducive to collaborative teaching & learning, comfortable working atmosphere, and conducting world class research through professionalism and excellence.



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## **PLANNED TEACHING ACTIVITIES FOR 4<sup>TH</sup> YEAR**

### **DEPARTMENT OF OPHTHALMOLOGY**

PMC allocated 100 hours to teach the curriculum of Ophthalmology for MBBS session. In order to meet this requirement following teaching modules have been planned. These modules have been carefully designed to impart core knowledge of Ophthalmology in a manner that an undergraduate student can retain the subject of ophthalmology and is adequately prepared for university examinations.

#### **Lectures:**

A total of 70-72 lectures are planned for the entire year. The lectures will be conducted by the Professor, associate and assistant professors or by senior registrar that have completed their post-graduation in the subject of Ophthalmology. The lectures will be interactive and students should actively participate to clear their doubts. The students can accompany their reference books are required to take notes of the lectures in light of the learning objectives of the topic.

#### **Ward Classes:**

Four ward classes have been planned per week. The class will be divided into 06 batches to conduct the ward classes effectively and one batch will be entertained for 06 weeks. It will comprise of history taking, clinical methods, case presentations and ophthalmic drugs. Ward classes will be conducted by senior registrar under an active supervision of Assistant Professor. Students are required to enter their ward work in their log books provided to them and get the signed after the completion of task.

#### **Clinical Examination**

Examination will be taught by the instructor on the patients. Instructor will perform it himself on the patient and demonstrate it to the students. After thorough observation instructor will ask each student to perform it and he will assess it and point out mistakes so students can completely understand the steps.

#### **Small Group Discussions**

Topics for the small group discussions will be given to the students to discuss and if any query is pointed out will be discussed with the instructor.

#### **Case based learning**

Case based learning classes will be conducted during the ward classes. A clinical case is identified and discussed with the students in detail. A brief history is taken by the students and clinical examination is performed under supervision. Diagnosis is made after detailed discussion and management plan is prepared of the case under consideration. The learning objectives and suggested reading material will be notified to the students. Students are required to generate the discussion amongst themselves to maximize the learning objectives of the topic discussed.

#### **Seminars and walks**

Departmental seminars and walks to create community awareness among the students. Clinical topics will be allocated to students and they will present a very short case history with ongoing treatment of the patient along with other available treatment. Each presentation will be of 10-15 minutes' duration with question and answer session after it



**TRAINING PROGRAM FOR LECTURES**  
**DEPARTMENT OF OPHTHALMOLOGY**  
**4<sup>TH</sup> YEAR MBBS CLASS**

<b>Date</b>	<b>Day</b>	<b>Time</b>	<b>Topic</b>	<b>Tutor</b>	<b>Book</b>
<b>EYE</b>					
18-03-21	Thursday	10:15 to 11	Introduction to Ophthalmology	Dr. Faisal Anwar	Shafi.M.Jatoi
25-03-21	Thursday	10:15 to 11	Introduction to Ophthalmology	Dr. Faisal Anwar	Shafi.M.Jatoi
30-03-21	Tuesday	10:15 to 11	Refractive Errors	Dr. Faisal Anwar	Shafi.M.Jatoi
01-04-21 to 08-04-21			<b>Spring Vacations</b>		
13-04-21	Tuesday	09:15 to 10	Refractive Errors	Dr. Faisal Anwar	Shafi.M.Jatoi
15-04-21	Thursday	10:15 to 11	Eye Lid	Dr. Faisal Anwar	Shafi.M.Jatoi
20-04-21	Tuesday	09:15 to 10	Eye Lid	Dr. Faisal Anwar	Shafi.M.Jatoi
22-04-21	Thursday	10:15 to 11	Eye Lid	Dr. Faisal Anwar	Shafi.M.Jatoi
27-04-21	Tuesday	09:15 to 10	Eye Lid	Dr. Faisal Anwar	Shafi.M.Jatoi
29-04-21	Thursday	10:15 to 11	Orbit	Dr. Faisal Anwar	Shafi.M.Jatoi
<b>04-05-21</b>	<b>Tuesday</b>	<b>09:15 to 10</b>	<b>Class Test (Lacrimal System)</b>		
06-05-21	Thursday	10:15 to 11	Lens	Dr. Faisal Anwar	Shafi.M.Jatoi
11-05-21	Tuesday	09:15 to 10	Lens	Dr. Faisal Anwar	Shafi.M.Jatoi
13-05-21	Thursday	10:15 to 11	Lens	Dr. Faisal Anwar	Shafi.M.Jatoi
18-05-21	Tuesday	09:15 to 10	Lens	Dr. Faisal Anwar	Shafi.M.Jatoi
20-05-21	Thursday	10:15 to 11	Cornea	Dr. Faisal Anwar	Shafi.M.Jatoi
25-05-21	Tuesday	09:15 to 10	Cornea	Dr. Faisal Anwar	Shafi.M.Jatoi
27-05-21	Thursday	10:15 to 11	Cornea	Dr. Faisal Anwar	Shafi.M.Jatoi
01-06-21	Tuesday	09:15 to 10	Cornea	Dr. Faisal Anwar	Shafi.M.Jatoi
03-06-21	Thursday	10:15 to 11	Cornea	Dr. Faisal Anwar	Shafi.M.Jatoi
08-06-21	Tuesday	09:15 to 10	Ref. surgery	Dr. Faisal Anwar	Shafi.M.Jatoi
10-06-21	Thursday	10:15 to 11	Glaucoma	Dr. Faisal Anwar	Shafi.M.Jatoi
15-06-21	Tuesday	09:15 to 10	Glaucoma	Dr. Faisal Anwar	Shafi.M.Jatoi



17-06-21	Thursday	10:15 to 11	Glaucoma	Dr. Faisal Anwar	Shafi.M.Jatoi
22-06-21	Tuesday	09:15 to 10	Conjunctiva	Dr. Faisal Anwar	Shafi.M.Jatoi
24-06-21	Thursday	10:15 to 11	Conjunctiva	Dr. Faisal Anwar	Shafi.M.Jatoi
<b>29-06-21</b>	<b>Tuesday</b>	<b>09:15 to 10</b>	<b>Class Test (Lacrimal System &amp; Lens)</b>		
01-07-21	Thursday	09:15 to 10	Test Discussion	Dr. Faisal Anwar	Shafi.M.Jatoi
06-07-21	Tuesday	10:15 to 11	Uvealtract	Dr. Faisal Anwar	Shafi.M.Jatoi
08-07-21	Thursday	09:15 to 10	Uvealtract	Dr. Faisal Anwar	Shafi.M.Jatoi
13-07-21	Tuesday	10:15 to 11	Uvealtract	Dr. Faisal Anwar	Shafi.M.Jatoi
15-07-21	Thursday	09:15 to 10	Uvealtract	Dr. Faisal Anwar	Shafi.M.Jatoi
19-07-21 to 01-08-21			<b>Summer Vacations</b>		
03-08-21	Tuesday	09:15 to 10	Retina	Dr. Faisal Anwar	Shafi.M.Jatoi
<b>05-08-21</b>	<b>Thursday</b>	<b>10:15 to 11</b>	<b>Class Test (Cornea)</b>		
10-08-21	Tuesday	09:15 to 10	Test Discussion	Dr. Faisal Anwar	Shafi.M.Jatoi
<b>12-08-21</b>	<b>Thursday</b>	<b>10:15 to 11</b>	<b>Class Test (Eyelid)</b>		
17-08-21	Tuesday	09:15 to 10	Test Discussion	Dr. Faisal Anwar	Shafi.M.Jatoi
19-08-21	Thursday	10:15 to 11	Retina	Dr. Faisal Anwar	Shafi.M.Jatoi
24-08-21	Tuesday	09:15 to 10	Optic Nerve	Dr. Faisal Anwar	Shafi.M.Jatoi
26-08-21	Thursday	10:15 to 11	Optic Nerve	Dr. Faisal Anwar	Shafi.M.Jatoi
31-08-21	Tuesday	09:15 to 10	Visual pathway	Dr. Faisal Anwar	Shafi.M.Jatoi
<b>02-09-21</b>	<b>Thursday</b>	<b>10:15 to 11</b>	<b>Class Test (Glaucoma)</b>		
07-09-21	Tuesday	09:15 to 10	Test Discussion	Dr. Faisal Anwar	Shafi.M.Jatoi
09-09-21	Thursday	10:15 to 11	Red Eye	Dr. Faisal Anwar	Shafi.M.Jatoi
14-09-21	Tuesday	09:15 to 10	Trauma	Dr. Faisal Anwar	Shafi.M.Jatoi
16-09-21	Thursday	10:15 to 11	Trauma	Dr. Faisal Anwar	Shafi.M.Jatoi
21-09-21	Tuesday	09:15 to 10	Squint	Dr. Faisal Anwar	Shafi.M.Jatoi
23-09-21	Thursday	10:15 to 11	Squint	Dr. Faisal Anwar	Shafi.M.Jatoi
28-09-21	Tuesday	09:15 to 10	Squint	Dr. Faisal Anwar	Shafi.M.Jatoi
<b>30-09-21</b>	<b>Thursday</b>	<b>10:15 to 11</b>	<b>Class Test (Retina)</b>		



05-10-21	Tuesday	09:15 to 10	Squint	Dr. Faisal Anwar	Shafi M.Jatoi
<b>07-10-21</b>	<b>Thursday</b>	<b>10:15 to 11</b>	<b>Class Test (Conjunctiva &amp; Ocular Trauma)</b>		
12-10-21	Tuesday	09:15 to 10	Squint	Dr. Faisal Anwar	Shafi M.Jatoi
14-10-21	Thursday	10:15 to 11	Squint	Dr. Faisal Anwar	Shafi M.Jatoi
19-10-21	Tuesday	09:15 to 10	Squint	Dr. Faisal Anwar	Shafi M.Jatoi
21-10-21	Thursday	10:15 to 11	Squint	Dr. Faisal Anwar	Shafi M.Jatoi
26-10-21	Tuesday	09:15 to 10	Squint	Dr. Faisal Anwar	Shafi M.Jatoi
<b>28-10-21</b>	<b>Thursday</b>	<b>10:15 to 11</b>	<b>Class Test (Refractive Error)</b>		
02-11-21	Tuesday	09:15 to 10	Pupil	Dr. Faisal Anwar	Shafi M.Jatoi
04-11-21	Thursday	10:15 to 11	Pupil	Dr. Faisal Anwar	Shafi M.Jatoi
09-11-21	Tuesday	09:15 to 10	Sclera	Dr. Faisal Anwar	Shafi M.Jatoi
11-11-21	Thursday	10:15 to 11	Sclera	Dr. Faisal Anwar	Shafi M.Jatoi
<b>16-11-21</b>	<b>Tuesday</b>	<b>09:15 to 10</b>	<b>Sendup Examination</b>		
18-11-21	Thursday	10:15 to 11	Revision	Dr. Faisal Anwar	Shafi M.Jatoi
23-11-21	Tuesday	09:15 to 10	Revision	Dr. Faisal Anwar	Shafi M.Jatoi
25-11-21	Thursday	10:15 to 11	Revision	Dr. Faisal Anwar	Shafi M.Jatoi
30-11-21	Tuesday	09:15 to 10	Revision	Dr. Faisal Anwar	Shafi M.Jatoi
<b>Prep. Leaves(01-12-21)</b>					
<b>3<sup>rd</sup> Professional Ophthalmology (February 2022)</b>					





**LIST OF LECTURE IN THE SUBJECT OF**  
**OPHTHALMOLOGY AND THEIR LEARNING**  
**OBJECTIVES**  
**DEPARTMENT OF OPHTHALMOLOGY**  
**4<sup>TH</sup> YEAR MBBS CLASS**

Sr. No.	Topics	Learning outcome
1.	<b>Basics Anatomy of Eye</b>	<b>At the end of lecture students should know</b> <b>Anatomy</b> of Eye and orbit Bony structure of orbit <b>Foramina</b> in orbital cavity <b>Coats</b> and layers of eye ball <b>Muscle attachments</b> and their movements Nerve supply Blood supply and lymphatic drainage Anatomy of Eyelids Nerve supply Blood supply and Lymphatic drainage
2.	<b>Orbital Diseases</b>	<b>At the end of lecture students should know</b> Orbital cellulitis Preseptal cellulitis Thyroid eye disease Orbital infections Applied anatomy and physiology
3.	<b>Eye Lids</b>	<b>At the end of lecture students should know</b> <b>Blepharitis</b> definition, types, causes and treatment. <b>Stye</b> definition causes and treatment. <b>Chlazion</b> definition, types, causes and treatment. <b>Ptosis</b> Definition, types, examination, causes and treatment. <b>Entropion</b> definition, types, causes and treatment <b>Ectropion</b> definition, types, causes and treatment <b>Types of eyelid tumours</b> Basal cell carcinoma Squamous cell carcinoma Sebaceous gland carcinoma
4.	<b>Conjunctival Diseases</b>	<b>At the end of lectures students should know</b> Applied anatomy of conjunctiva Different types of conjunctivitis and their clinical features. Allergic conjunctivitis causes, and management Signs and symptoms of conjunctiva



		<p>Treatment of conjunctivitis  Pterygium and pseudopterygium differences  Causes, types of pterygium and treatment  Xerophthalmia  Pinguela management and causes  Ophthalmiaeonatorum</p>
5.	<b>Cornea</b>	<p><b>At the end of lecture students should know</b>  Applied anatomy and physiology  Keratitis and its types  Management of keratitis  Differences between Fungal, Bacterial and viral ulcers and their management  Acanthamoeba keratitis and its management  Herpes simplex and herpes zoster keratitis and their management  Keratoplasty indications and clinical features  Keratoconus Diagnosis and management  Mooren ulcer  Filamentary keratitis  Neurotrophickeratopathy  Disciform keratitis  Corneal dystrophies  Corneal degenerations  Complications of keratitis</p>
6.	<b>Sclera</b>	<p><b>At the end of lecture students should know</b>  Applied anatomy and physiology  Episcleritis and its treatment  Scleritis and its management  Differences between scleritis and episcleritis  Management of scleral diseases</p>
7.	<b>Pupil</b>	<p><b>At the end of lecture students should know</b>  Applied anatomy and Physiology  Pupillary Reflexes  Light reflexes and its type  Argyll-Robertson Pupil  Adies's Pupil  Horner's Syndrome</p>
8.	<b>Lacrimal Apparatus</b>	<p><b>At the end of lecture students should know</b>  Applied anatomy and physiology  Composition &amp; function of Tear Film  Diseases of the Lacrimal Gland  (Acute Dacryocystiti, Chronic Dacryocystitis, Keratoconjunctivitis Sicca, Lacrimation)  Diseases of Drainage System  (Congenital Nasolacrimal Duct Obstruction, Acute Dacryocystitis, Chronic Dacryocystitis, Epiphora)</p>
9.	<b>Therapeutics</b>	<p><b>At the end of lecture students should know</b>  Drugs used in common ophthalmic conditions</p>
10.	<b>Vitamin A</b>	<p><b>At the end of lecture students should know</b>  Ocular manifestations of vitamin A Deficiency and its management</p>



11.	Uveal Tract	<p><b>At the end of lecture students should know</b></p> <p>Applied anatomy and Physiology  Uveitis Classification &amp; Etiology  (acute Iridocyclitis, Chronic Iridocyclitis, intermediate Uveitis, Posterior Uveitis, Endophthalmitis, Panophthalmitis)</p>
12.	Lens	<p><b>At the end of lecture students should know</b></p> <p>Applied anatomy and Physiology  Cataract &amp; its Classification  Types of Cataract Classification  Types of Cataract Extraction  Complication of Cataract Surgery  Aphakia &amp; its management  Ectopia Lentis</p>
13.	Glaucoma	<p><b>At the end of lecture students should know</b></p> <p>Applied anatomy and Physiology  Aqueous Humour Dynamics  Glaucoma &amp; its diagnosis  Glaucomous Visual Field Defects  Primary Open Angle Glaucoma  Primary Open Closure Glaucoma  Secondary Glaucoma  Congenital Glaucoma  Congenital Glaucoma  Surgical procedures in glaucoma</p>
14.	Vitreous-Retina	<p><b>At the end of lecture students should know</b></p> <p>Applied anatomy and Physiology  Disorders of vitreous  (posterior vitreous detachment, opacities in vitreous, PHPV, vitreous haemorrhage)  Diabetic Retinopathy  Hypertensive Retinopathy  Central Retinal Vein Occlusion  Central Retinal Artery Occlusion  Retinal Detachment &amp; its types &amp; Management  Retinitis Pigmentosa  Retinoblastoma</p>
15.	Optic Nerve	<p><b>At the end of lecture students should know</b></p> <p>Applied anatomy and Physiology  Optic Disc Oedema  Optic Neuritis  Papilloedema  Optic Atrophy  Difference between papilloedema &amp; Papillitis</p>
16.	Visual Pathway	<p><b>At the end of lecture students should know</b></p> <p>Applied anatomy and Physiology  Lesions of Visual Pathway &amp; its visual field defect</p>
17.	Injuries	<p><b>At the end of lecture students should know</b></p> <p>Applied anatomy and Physiology  Extraocular Foreign Body  Intraocular Foreign Body  Contusion injury  Chemical injury</p>



<b>18.</b>	<b>Squint and Amblyopia</b>	<b>At the end of lecture students should know</b> Definition, Classification and Principle of management Amblyopia & its management Third nerve palsy Fourth nerve palsy Sixth nerve palsy
<b>19.</b>	<b>Errors of Refraction</b>	<b>At the end of lecture students should know</b> Introduction to Optical System of Normal Eye Emetropia, Myopia, Hypermetropia, Astigmatism, Presbyopia, Aphakia, Pseudophakia, Anisometropia, and Amblyopia
<b>20.</b>	<b>Systemic Diseases</b>	<b>At the end of lecture students should know</b> Ocular manifestation of Diabetes, Hypertension, Leukemia and HIV



**LIST OF WARD CLASSES**  
**DEPARTMENT OF OPHTHALMOLOGY**

<b>Monday</b>	<b>Tuesday</b>	<b>Wednesday</b>	<b>Thursday</b>	<b>Friday</b>	<b>Saturday</b>
Histoty Taking & Examination	Visual acuity examination & case presentation	Corneal Reflection Test & library	Ocular Motility examination & case presentation	IHT	
3 <sup>rd</sup> cranial nerve Examination & small group discussion	Ant Segment Examination &small group discussion	4 <sup>th</sup> nerve examination & case presentation/O.T	6 <sup>th</sup> nerve examination & library and video session	IHT	
All Cranial Nerve Examination	7 <sup>th</sup> cranial nerve examination & small group discussion	Ptosis Examination/O. T	Proptosis Examination &library and video session	IHT	
External Ocular Examination	Pupil examination & small group discussion	Light Reflex Examination/O. T	5 <sup>th</sup> Nerve Examination &library and video session	IHT	
Digital tonometry & case presentation	Regurgitatio n Test & small group discussion	Anterior chamber depth examination & case presentation/O.T	Confrontationa l visual field examination &library & video session	IHT	
Cover and uncover test & case presentation	OSPE preparation &library and	Ophthalmic surgical instruments/O.T	Revision	IHT	
Revision	Ward Test	Discussion			



# **ASSESSMENT PLANS**

## **DEPARTMENT OF OPHTHALMOLOGY**

### **SHARIF MEDICAL & DENTAL COLLEGE**

Following modes of assessment are planned for 4<sup>th</sup> year MBBS class in the subject of Ophthalmology. This plan has been designed keeping in view the university curriculum and hopefully will facilitate the students in preparing for 3<sup>rd</sup> professional examination in the subject.

#### **Class Tests:**

These are conducted at the completion of every chapter. The test will comprise of MCQs and SEQs on the pattern of university examination. A preparatory time of at least 10 days shall be given prior to these tests. Each class will be followed by post-test discussion both in lecture and ward classes.

#### **Ward Tests:**

Topics of will be notified minimum one week before the ward test. Ward test will be conducted on the pattern of university examination (OSPE) and will comprise of 14 stations. There will be 10 un-observed stations which will cover the topics of ophthalmic drugs, surgical instrument and clinical scenarios of ophthalmic diseases. There will be 2 observed stations in which students will perform clinical methods and 2 interactive stations.

#### **Final Assessment:**

This will be undertaken in coordination with other departments, exactly following the format of university professional examinations. It will comprise of MCQs and SEQs.

#### **Internal Assessment:**

Internal assessment will be calculated out of 20 on the basis of these tests that will be conducted throughout the year.



## STAFF CONTACTS

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03	Dr. NaziaQamar	<a href="mailto:hashminazia5@gmail.com">hashminazia5@gmail.com</a>



## **PRESCRIBED TEST BOOKS & REFERENCES**

- a) **Parson's Diseases of the Eye** by 3rd Edition
- b) **Ophthalmology** by- **shafi M Jatoi** Third edition
- c) **Clinical Textbook of Ophthalmology** by Dr. Saleem Akhtar
- d) **Kanski and Bowling** Clinical textbook of Ophthalmology
- e) **Ophthalmology Principles and Concepts** by Newill F W
- f) **Online Journals and Reading Material** through HEC Digital Library Facility