

## OBJECTIVES

At the end of the course, the learned shall be able to :

1. Identify common diseases of the eye
2. Diagnose and treat common diseases of the outer eye—conjunctivitis, stye, extraocular foreign body, corneal abrasion, vitamin A deficiency.
3. Recognise and initiate treatment(prior to referral) for sight threatening diseases like acute glaucoma, keratomalacia, corneal ulcer, ocular trauma, alkali/chemical injuries.
4. Demonstrate knowledge of blindness and its causation. Be an active participant in the implementation of the National programmes for control and prevention of blindness.

## COURSE CONTENTS:

Knowledge – course content

## COURSE CONTENT

Introduction

Anatomy of the eye- including Visual pathway, Extraocular muscles , /

Physiology - Aqueous humour formation, lacrimal pump, tear film, fields.

Pharmacology—ophthalmic preparations, modes of administration, Antibiotics, antivirals, antifungals, antiglaucoma drugs, mydriatics and cycloplegics, ocular toxicity of systemic, ocular medication,

Elementary optics: Strums' conoid, donders eye

Title	Must know	Desirable to know
<b>1. Acute Conjunctivitis, Trachoma, Allergic conjunctivitis, Pingecula, Pterygium, Xerosis/bitot spots, Dry eye, Angular conjunctivitis, neonatal conjunctivits, subconj hemorrhage, D/D of conjunctival and limbal nodule*</b>	√	
Chronic conjunctivitis, Dry eye, Membranous conjunctivitis, Inclusion conjunctivitis	√	

<b>2. Corneal inflammations :Corneal Ulcers – bacterial , Moorens Ulcer*, fungal, viral Vitamin A Deficiency and keratomalacia Exposure keratitis, Neuroparalytic kerattitis Corneal blindness, Eye banking, eye donation,Keratoplasty, Arcus senilis, corneal oedema,</b>	√	
3. Deep /interstitial keratitis, Degenerations and dystrophies, Overview of keratorefractive surgery.		√
<b>28. Scleritis, episcleritis</b>	√	
<b>5. Iridocylitis, Panophthalmitis, Endophthalmitis</b>	√	
6. Systemic associations of uveitis, Choroiditis, Coloboma iris, ocular albinism, Asteroid Hyalitis*		√
<b>7. Vitreous hemorrhage –causes, synchiaris scintillans*</b>	√	
8. Synchrony syntillans, Asteroid hyalosis		√
<b>9. Angle closure glaucoma, Open angle glaucoma, steroid glaucoma, lens induced glaucoma including surgery and management*</b>	√	
<b>10. Cataract and management, cong. Conditions, surgery and complications, lens abnormality including surgery*</b>	√	
11. Secondary glaucomas, Congenital glaucoma		√
<b>12. Fundus changes in Diabetes, Hypertension, anaemias, Pregnancy induced hypertension, Hematological disorders, Myopia. : Photocoagulation : Retinal vascular diseases— Central retinal occlusion, Central retinal vein occlusion, RD</b>	√	
13. Retinopathy of prematurity, Retinitis pigmentosa, retinoblastoma		√
<b>14. Papilledema, Optic neuritis, Optic atrophy.</b>	√	
<b>15. Awareness of amblyopia, Types of squint(</b>	√	

<b>Paralytic, non paralytic)</b>		
<b>16. Common causes of proptosis, Orbital cellulites, Cavernous sinus thrombosis</b>	√	
<b>17. Dacryocystitis—congenital, Acute, chronic. Epihora</b>	√	
<b>18. Inflammations, ectropion entropion, trichiasis, ptosis, lagophthalmos, symblepharon, blepharitis, Chalazion, lid</b>	√	
<b>19. Refractive error, Myopia, hypermetropia, Astigmatism, Presbyopia, aphakia/pseuophakia, Anisometropia, overview of keratorefractive surgery</b>	√	
<b>20. Chemical injuries, Open globe injuries, closed globe injuries and first aid treatment including sympathetic injuries.</b>	√	
21. Siderosis bulbi, Chalcosis, medico legal aspects		√
<b>22. Defintion and types of blindness. : Causes of blindness : Promotion of eye donation : NPCB, Vision 2020, Eye camps</b>	√	
<b>23. Symptomatic disturbances of vision, Overview of Recent advances in ophthalmology</b>	√	
24. Lasers in ophthalmology		√
<b>25. Enucleation – Indication, technique</b>		√
<b>26. Eye &amp; Systemic diseases including AIDS</b>	√	
<b>27. Causes of sudden/partial/painless diminision of vision.</b>	√	
<b>28. Ocular malignancy</b>		√
<b>29. Pharmacology – community medicine, eye drops chronic side effects of septic medication, local anaesthetics, viscoelastic steroid and NSAIDS.</b>	√	

### Examination skills

Skills	Able to Perform Independently	Able to perform Under Guidance	Assist	Observe
1. Visual acuity test and Use of	√			

pinhole (including light perception, projection)				
2. Colour vision test		√		
3. Visual field by confrontation	√			
4. Hirschberg test to detect obvious squint	√			
5. Examination of ocular movements	√			
6. Assessment of corneal sensation	√			
7. Flourescein staining to identify corneal abrasion		√		
8. Assessment of Anterior chamber depth	√			
9. Pupillary size and reaction	√			
10. Distant direct ophthalmoscopy on dilated pupils to diagnose lens opacities		√		
11. Method of Direct ophthalmoscopy		√		
12. Schiotz's Tonometry	√			√
<b>13. Regurgitation for NLD block</b>				
14. Syringing				√
15. Instillation of eye drops/ointment		√		
16. Irrigation of conjunctiva	√			
17. Applying an eye patching				√
18. Epilation of cilia				√
19. Eversion of upper eye lid	√			
20. Use of lid retractors to examine the eye of a child			√	

21. Digital tonometry	√			
22. Removal of foreign body				√
23. Entropion surgery				√
24. Cataract surgery				√
25. Glaucoma surgery				√
26. Keratoplasmy				√
27. Chalazion/stye*				√
28. Tarsorrhaphy			√	
29. Phoria tropia/BSV, Preliminary knowledge of cranial nerves II,III,IV, VI.	√			
30. Assessment of Opacity in the media	√			

## TEACHING AND LEARNING METHOD

By interactive sessions  
Group discussions  
Objective structures clinical examination  
1st and 2<sup>nd</sup> station of common skills  
Self assignments  
Case records  
Problem based exercises with examples  
Learning resource material  
Text books  
Journals  
CDs  
Videos

## TEXT BOOKS OF OPHTHALMOLOGY

Parsons' Diseases of the Eye , 20<sup>th</sup> Ed. Revised by Dr. Ramanjit Sihota and Radhika Tandon, Published by Butterworth – Heinemann, Elsevier.

Text of Ophthalmology by Khurana, 4<sup>th</sup> Ed 2007 published by New Age International P. Ltd.

Clinical Ophthalmology by Kansaki, 5<sup>th</sup> Ed published by Elsevier.

Systemic Ophthalmology by Kansaki.