

COURSE TITLE: MICROBIOLOGY, OPHTHALMIC EVALUATION & CLINICAL PRACTICE

STUDY HOURS:	60+160	MARKS	
PAPER:	01	THEORY	120
Term :	4th	PRACTICAL:	30
		TIME :	03HRS

COURSE CONTENTS STUDY HOURS
(Theory +Practical)

A.	MICROBIOLOGY	40+40
	A1. Introduction to micro-organisms	
	A2. Classification of Bacteria	
	A3. Structure and reproduction of bacteria	
	A4. Characteristic of Rickettsiae	
	A5. Transmission and diseases caused by Rickettsiae	
	A6. Prevention and control of Rickettsiae	
	A7. Characteristic of Chlamydiae	
	A8. Transmission and diseases caused by Chlamydiae	
	A9. Treatment, prevention and control	
	A10. characteristics of Spirocheetes	
	A11. Transmission, prevention and control	
	A12. Diseases caused by spirochetes	
	A13. Composition and structure of Virus	
	A14. Classification of Virus	
	A15. Mod of Transmission and common diseases caused by Virus	
	A16. Prevention and control	
	A17. Characteristics of Protozoa	
	A18. Biology and diseases caused by Protozoa	
	A19. Prevention and control	
	A20. Characteristics and reproduction of Fungi	
	A21. diseases caused by fungi with reference to O.T.	
	A22. Control and prevention	
	A23. Sterilization and disinfection.	
	A24. Introduction to Immunity and Immunology	
	A25. Acquired Immunity and resistance factors	
	A26. Methods of environmental cleanliness.	
	A27. How to keep instruments, equipment's and other things bacteria free.	
	A28. A brief introduction to Necrosis, Cell death, Inflammatory reaction, Hypersensitivity and Neoplasm.	
B.	OPHTHALMIC EVALUATION	20+20
	B1 Symptomatology of eye diseases	
	B2 Eye examination.	
	B3 History.	
	B4 Distant and close visual equity	

- B5 External examination.
- B6 Use of the perimeter, Jerrum screen.
- B7 Basis of FFA, Ultra sound.
- B8 Measurement of LOP.
- B9 Staining of cornea.
- B10 Syringing of lachrymal apparatus.

C. LIST OF PRACTICALS

100

Ocular Emergencies
Practical

C1. Practical-1: Removal of conjunctival Foreign Body

- C1.1 Indication
- C1.2 Apparatus
- C1.3 Procedure
- C1.4 Results
- C1.5 Precautions

C2. Practical-II: First Aid Management of Ocular Emergencies

- C2.1 Removal of corneal foreign body
- C2.2 Penetrating Injury of the Eye ball
- C2.3 Laceration of the cornea
- C2.4 Injuries of the eye lid
- C2.5 Chemical Injures of the eye
- C2.6 Thermal Trauma
- C2.7 Drug reactions
- C2.8 Acute Congestive Glaucoma
- C2.9 Retinal DetachmentAcute Uveitis

The student will have to cover following points for each of above and other eye emergencies / diseases:-

- C2.10 Apparatus
- C2.11 Procedure
- C2.12 Results
- C2.13 Precautions

Recommended books

- 1 Book of Ophthalmology by Chatterjee.
- 2 Parson,s Diseases of the Eye
- 3 Basic Ophthalmology by Renu jogi.

Reference books.

- 1 Ophthalmic Surgery: Looseleaf and Update service by Thomas D Linquis.
- 2 A text Book of Ophthalmology by E Ahmad.

**COURSE TITLE: FIRST AID, PREVENTIVE OPHTHALMOLOGY
& CLINICAL PRACTICE**

STUDY HOURS:	60+160	THEORY	120
PAPER:	02	PRACTICAL:	30
TERM:	4th	TIME :	03HRS

**COURSE CONTENTS STUDY HOURS
(Theory +Practical)**

A. FIRST AID **30+30**
First aid treatment of all types of medical and surgical emergencies in addition to ocular emergencies such as follows:-

A1. First Aid Management of Ocular Emergencies

- A1.1 Removal of corneal foreign body
- A1.2. Penetrating Injury of the Eye ball
- A1.3. Laceration of the cornea
- A1.4. Injuries of the eye lid
- A1.5 Chemical Injuries of the eye
- A1.6. Thermal Trauma
- A1.7 Drug reactions
- A1.8 Acute Congestive Glaucoma
- A1.9. Retinal Detachment
- A1.10. Acute Uveitis

B. PREVENTIVE OPHTHALMOLOGY **30+30**

- B1.Common causes of total and partial blindness and their prevention e.g. Trachoma, Ophthalmic neonatorum, chronic simple glaucoma, vitamin a deficiency, Cataract and retinal detachment,
- B2. Prevention of ocular injuries in industrial workers and radiant injuries.
- B3. Prevention of amblyopia in children.
- B4. Prevention of ocular diseases.
- B5. A brief introduction to LASEER and its uses in Ophthalmology.
Special are of children with:
- B6.Ophthalmic diseases.
- B7.Ophthalmic care in school children.

C. LIST OF PRACTICALS **100**

C1. Practical-III: Instillation of Eye droops

- C1.1 For Treatment
- C1.2 For Anesthesia
- C1.3 For Diagnostic Purpose
- C1.4 In post Operative Cases
 - C1.4.1 Indication

C1.4.2	Apparatus
C1.4.3	Procedure
C1.4.4	Results
C1.4.5	Precautions
C1.4.6	Ophthalmic evaluation/Community Ophthalmology

C2. The students will have to do these two jobs in addition to following practical:-

- C2.1 To prepare community based messages for general Eye care
- C2.2 To pick 50 cases from community with common eye problems, evaluation and management of these cases.

C3.Practical-I

- C3.1 Perimetry: Indications
 - C3.1.1 Types
 - C3.1.2 Apparatus
 - C3.1.3 Procedure
 - C3.1.4 Precautions
- C3.2 Ophthalmoscopy:
 - C3.2.1 Indication
 - C3.2.2 Types
 - C3.2.3 Apparatus
 - C3.2.4 Procedure
 - C3.2.5 Precautions
- C3.3. Tonometry: Indications
 - C3.3.1 Types
 - C3.3.2 Apparatus
 - C3.3.3 Procedure
 - C3.3.4 Precautions
- C3.4 Biometry: Indications
 - C3.4.1 Apparatus
 - C3.4.2 Procedure
 - C3.4.3 Precautions
- C3.5. Corneal Staining: Indications
 - C3.5.1 Apparatus
 - C3.5.2 Procedure
 - C3.5.3 Precautions
- C3.6 Eversion of Upper Eyelid
- C3.7 Fluroscein Angiography
 - C3.7.1 Indications
 - C3.7.2 Apparatus
 - C3.7.3 Procedure
 - C3.7.3 Precautions

Recommended books

1. Book of Ophthalmology by Chatterjee.
2. Parson,s Diseases of the Eye
3. Basic Ophthalmology by Renu jogi.

Reference books.

1. Ophthalmic Surgery: Looseleaf and Update service by Thomas D Linquis.
2. A text Book of Ophthalmology by E Ahmad.