

Dow University of Health Sciences



OPHTHALMOLOGY (EYE) MODULE (EYE-2)

Fourth Year MBBS

5 YEAR CURRICULAR ORGANIZATION

Spiral	year	Modules			
First Spiral	I	FND1- Foundation Cell, Genetics & Cell Death (Basics of Anatomy, Physiology, Biochemistry, Gen. Pathology, Gen. Pharmacology, Community Medicine & Behavioral Sciences, 9 Weeks		HEM1- Blood Module Immunity, Inflammation, Tissue repair, Antimicrobials & Neoplasia 9Week	
		LCM1- Locomotion Bones, Joints, Nerves & Muscles, 9weeks		RSP1- Respiratory System 6 weeks	CVS1- Cardiovascular System 4 weeks
	II	NEU1- Nervous System 8 weeks		HNN1- Head & Neck & Special 6 weeks	END1- Endocrinology 5weeks
		GIL 1-GIT and Liver 8 weeks		EXC1- Renal and Excretory System 5 weeks	REP1- Reproductive System 5 weeks
Second Spiral	III	IDD 1- Infectious diseases 5 weeks	HEM2- Hematology 5 weeks	RSP2- Respiratory System 5 weeks	CVS2- Cardiovascular System 5 weeks
		GIL 2-GIT and Liver (including Nutritional Disorders) 8weeks		EXC2- Renal & Excretory System 5 weeks	END2- Endocrinology 5 weeks
	IV	ORT2- Orthopedics, Rheumatology, Trauma 7 weeks	REP2- Reproductive System 8 Weeks	PMR-Physical Medicine & Rehabilitation DPS-Dermatology Plastic Surgery / Burns GEN-Genetics 6 weeks	
		NEU2- Neurosciences and Psychiatry 8 weeks		ENT* 4 weeks	OPHTHALMOLOGY/EYE 4 weeks
Third Spiral	V	Clinical Rotation 9:30 to 3:00 (with Ambulatory, Emergency, Intensive care) In Medicine, Pediatrics, Cardiology and Neurology units <ul style="list-style-type: none"> ▪ Lecture on problem based approach, twice a week ▪ Ward tutorial twice a week ▪ Student research presentation once a week 		Clinical Rotation 9:30 to 3:00 (Inpatient, Ambulatory, Emergency, Intensive care and Operation Theatres) In Surgery, Gynecology & Obstetrics, Orthopedics and Neurosurgery. <ul style="list-style-type: none"> ▪ Lecture on problem based approach, twice a week ▪ Ward tutorial twice a week ▪ Student research presentation once a week 	

RATIONALE

Disorders of Eye are commonly encountered in medical practice. A medical graduate must be able to understand common diseases affecting the eye and related structures including ocular trauma as well as have a sound knowledge of systemic diseases affecting the eye. Common diseases which affect eye include infections such as conjunctivitis, cataract, glaucoma, retinal diseases, and errors of refraction and involvement of eyes in systemic disorders. Understanding the principles of fundoscopy is also essential for a doctor. In this module these diseases are discussed and the student shall be able to utilize the basic knowledge acquired in the Head and Neck module.

MOULE OBJECTIVES

After completion of MBBS course the student should be able to:

- Discuss the anatomy of eye and orbit
- Revise the physiology of vision and optics and the pharmacology of ocular drugs
- Discuss the pathophysiology diagnosis management of cataract and glaucoma
- Identify the errors of refraction and discuss their management
- Demonstrate the clinical significance of neuro-ophthalmology
- Explain the role of laser in the management of eye disorders
- Assess the complications development in eyes due to diabetes mellitus

MODULE CONTENTS

ANATOMY

EYE 2 Ang 1 Review of the anatomy of the eye ball and orbit

PHYSIOLOGY

EYE 2 Phy 1 REVISIT: Physiology of vision and optics

EYE 2 Phy 2 Errors of refraction and visual acuity (Practical)

OPHTHALMOLOGY

EYE 2 Eye 1	Lid abnormalities
EYE 2 Eye 2	Acute/chronic dacrocystitis/NLDB in infants
EYE 2 Eye 3	Conjunctiva
EYE 2 Eye 4	Cornea
EYE 2 Eye 5	Pharmacology of ocular drugs
EYE 2 Eye 6	Strabismus and Extraocular movements
EYE 2 Eye 7	Glaucoma
EYE 2 Eye 8	Episcleritis and scleritis
EYE 2 Eye 9	Neuro ophthalmology
EYE 2 Eye 10	Childhood ocular diseases
EYE 2 Eye 11	Trauma and the Eye
EYE 2 Eye 12	Refractive errors
EYE 2 Eye 13	Systemic diseases and the eye
EYE 2 Eye 14	Uveitis/iritis
EYE 2 Eye 15	Optic disc
EYE 2 Eye 16	Surgical Vitreo-Retina
EYE 2 Eye 17	Diabetes And The Eye
EYE 2 Eye 18	Blindness And Low Visual Aids

COMMUNITY MEDICINE

EYE 2 Com1	Blindness
EYE 2 Com2	Decision Making

SCANNERIO BASE LEARNING

EYE 2 Sbl 1

- Describe the differential diagnoses of PAPHILLOEDEMA
- Enumerate the ophthalmic investigation.
- Discuss complications if the condition is not treated
- Outline the immediate medical treatment and OPD treatment

EYE 2 Sbl 2

- Discuss the causes of a painful red eye
- Enumerate the differentiating clinical features of various causes of conjunctivitis
- Elaborate the treatment of various causes of conjunctivitis

LEARNING OBJECTIVE OF SKILL LAB CURRICULUM

FUNDOSCOPY

INTRODUCTION / RATIONALE:

Fundoscopy/Ophthalmoscopy is an examination of the back part of the eyeball (fundus), Which includes the posterior part of retina, optic disc and blood vessels with the help of an Ophthalmoscope. Fundoscopy is a noninvasive procedure helpful in evaluating common clinical symptoms like headache, visual defects, diabetes mellitus and hypertension.

LEARNING OBJECTIVES:

After the session the student should be able to:

- Identify the different parts of ophthalmoscope
- Demonstrate the correct method of Fundoscopy.
- Recognize the normal structures of fundus
- Identify at least 6 pathological changes in fundus

1. Papilloedema
2. Optic disc Atrophy
3. Macular degeneration
4. Diabetic retinopathy
5. Hypertensive retinopathy
6. Optic disc Cupping

ASSESSMENT PLAN

EYE-2 MODULE

ASSESSMENT	WEIGHTAGE
ANNUAL EXAM	80%
MODULE EXAM INTERNAL EVALUATION	20%

CONTACT HOURS (DISCIPLINE WISE)

Discipline	Contact Hours
Anatomy	1
Physiology	2
Community Medicine	2
SBL	4
Eye	18

BOOKS

ANATOMY

- **CLINICALLY ORIENTED ANATOMY**
KEITH.L.MOORE, Arthur F. Dalley, Anne M.R. Agur
7th or Latest EDITION
- **GRAY'S ANATOMY FOR STUDENTS**
Drake & Vogl & Mitchell
3rd or Latest EDITION
- **CLINICAL ANATOMY BY REGIONS (REFERENCE BOOK)**
Richard S. SNELL
9th EDITION
- **LAST'S ANATOMY: REGIONAL & APPLIED (REFERENCE BOOK)**
Chummy S. Sinnatamby
12th or Latest EDITION
- **ATLAS OF HUMAN ANATOMY**
FRANK H.NETTER
6th EDITION

EMBRYOLOGY

- **LANGMAN'S MEDICAL EMBRYOLOGY**
T.W.SADLER
13th EDITION
- **THE DEVELOPING HUMAN CLINICALLY ORIENTED EMBRYOLOGY
(REFERENCE BOOK)**
MOORE & PERSAUD & TORCHIA
10th EDITION

HISTOLOGY

- **MEDICAL HISTOLOGY**
LAIQ HUSSAIN SIDDIQUI
5TH or Latest EDITION
- **WHEATERS FUNCTIONAL HISTOLOGY**
BARBARA YOUNG
5th EDITION
- **BASIC HISTOLOGY(TEXT AND ATLAS) (REFERENCE BOOK)**
LUIZ JUNQUEIRA, JOSE CARNEIRO
11th or Latest EDITION

PATHOLOGY

- **ROBBINS BASIC PATHOLOGY**
KUMAR & ABBAS
9TH EDITION
- **ROBBINS & COTRAN PATHOLOGIC BASIS OF DISEASE (REFERENCE BOOK)**
KUMAR & ABBAS & ASTER
9th EDITION

COMMUNITY MEDICINE

- **PUBLIC HEALTH AND COMMUNITY MEDICINE**
SHAH, ILYAS, ANSARI
7th EDITION

PHARMACOLOGY

- **LIPPINCOTT'S ILLUSTRATED REVIEW PHARMACOLOGY**
KAREN WHALEN
6th or Latest Edition
- **BASIC AND CLINICAL PHARMACOLOGY (REFERENCE BOOK)**
BERTRAM G. KATZUNG
11th EDITION

MICROBIOLOGY

- **REVIEW OF MEDICAL MICROBIOLOGY AND IMMUNOLOGY**
WARREN LEWINSON
14th EDITION

MEDICINE & MEDICAL SPECIALTIES

- **PRINCIPLES & PRACTICE OF MEDICINE DAVIDSON'S**
22nd or Latest Edition
- **ESSENTIALS OF KUMAR AND CLARK'S CLINICAL MEDICINE**
KUMAR & CLARK 9th or Latest Edition
- **MACLEOD'S CLINICAL EXAMINATION DOUGLAS & NICOL &**
ROBERTSON 13TH or Latest Edition
- **HUTCHISON'S CLINICAL METHODS WILLIAM M DRAKE & MICHAEL**
GLYNN 23rd or Latest Edition

SURGERY & SURGICAL SPECIALTIES

- **SHORT PRACTICE OF SURGERY ROBERT JOHN MCNEILL LOVE,**
HENRY HAMILTON BAILEY 26TH EDITION or Latest Edition
- **CURRENT DIAGNOSIS AND TREATMENT SURGERY GERARD M.**
DOHERTY 14TH OR LATEST EDITION
- **BROWSE'S INTRODUCTION TO THE SYMPTOMS & SIGNS OF**
SURGICAL DISEASE NORMAN L BROWSE 5TH OR LATEST EDITION

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