BACHELOR OF OPTOMETRY

BACHELOR'S DEGREE IN OPTOMETRY (2023-2024)
PROGRAMME STRUCTURE
CREDIT: 168
Clinical Posting = 6th Semester
Internship= 7th & 8th Semesters

1ST SEMESTER					
SL. NO.	**SUBJECT CODE**	**NAMES OF SUBJECTS**	**COURSE LEVEL**	**TOTAL NO OF CREDITS**	**L-T-P**
MAJOR					
1	OPT242M101/ OPT242M111	GENERAL ANATOMY + GENERAL ANATOMY LAB	100	**3**	**2-0-2**
2	OPT242M101/ OPT242M111	GENERAL PHYSIOLOGY + GENERAL PHYSIOLOGY LAB	100	**3**	**2-0-2**
MINOR					
3	OPT242N101	LIGHTNING AND THE EYE	100	**3**	**3-0-0**
INTERDISCIPLINARY					
4	IKS992K101	INTRODUCTION TO INDIAN KNOWLEDGE SYSTEM I	100	**3**	**3-0-0**
ABILITY ENHANCEMENT COMPULSORY COURSES (AECC)					
5	CEN982A101 & BHS982A102	COMMUNICATIVE ENGLISH & BEHAVIOURAL SCIENCE I	100	**2**	**1-0-0 1-0-0**
SKILL ENHANCEMENT COURSE (SEC)					
6	OPT242S101	BIOCHEMISTRY	100	**3**	**3-0-0**
VALUE ADDED COURSE (VAC)					
7	VAC1	VAC 1	100	**3**	**3-0-0**
		TOTAL		20	
2ND SEMESTER					

SL. NO.	SUBJECT CODE	NAMES OF SUBJECTS	COURSE LEVEL	TOTAL NO OF CREDITS	L-T-P
MAJOR					
1	OPT242M201/ OPT242M211	OCULAR ANATOMY + OCULAR ANATOMY LAB	100	**3**	**2-0-2**
2	OPT242M202	OCULAR PHYSIOLOGY	100	**3**	**3-0-0**
MINOR					
3	OPT242N201	HUMAN VISUAL SYSTEM -I	100	**3**	**3-0-0**
INTERDISCIPLINARY					
4	IKS992K201	INTRODUCTION TO INDIAN KNOWLEDGE SYSTEM II	100	**3**	**3-0-0**
ABILITY ENHANCEMENT COMPULSORY COURSES (AECC)					
5	CEN982A201 & BHS982A202	COMMUNICATIVE ENGLISH & BEHAVIOURAL SCIENCE II	100	**2**	**2-0-0**
SKILL ENHANCEMENT COURSE (SEC)					
6	OPT242S201/ OPT242S211	OPTOMETRIC OPTICS + OPTOMETRIC OPTICS LAB	100	**3**	**2-0-2**
VALUE ADDED COURSE(VAC)					
9	VAC2	VAC 2	100	**3**	**2-0-2**
		TOTAL		**20**	

3RD SEMESTER					
SL .NO.	**SUBJECT CODE**	**NAMES OF SUBJECTS**	**LEVEL OF COURSE**	**TOTAL NO OF CREDITS**	**L-T-P**
MAJOR					
1	OPT242M301/ OPT242M311	OPHTHALMIC & OPTICAL INSTRUMENTATION & PROCEDURE + OPHTHALMIC & OPTICAL INSTRUMENTATION & PROCEDURE LAB	200	**4**	**3-0-2**
2	OPT242CM302	VISUAL OPTICS	200	**4**	**4-0-0**
MINOR					
3	OPT242N301	HUMAN VISUAL SYSTEM II	200	**4**	**4-0-0**
INTERDISCIPLINARY					
4	OPT242I301	EYE DISEASE AWARENESS I	200	**3**	**3-0-0**
ABILITY ENHANCEMENT COMPULSORY COURSES (AECC)					
5	CEN982A301 & BHS982A302	COMMUNICATIVE ENGLISH III & BEHAVIOURAL SCIENCE III	200	**2**	**2-0-0**
SKILL ENHANCEMENT COURSE (SEC)					
6	OPT242S301	MEDICAL PATHOLOGY & MICROBIOLOGY & PHARMACOLOGY	200	**3**	**3-0-0**
		TOTAL		**20**	

4TH SEMESTER					
SL. NO.	**SUBJECT CODE**	**NAMES OF SUBJECTS**	**LEVEL OF COURSE**	**TOTAL NO OF CREDITS**	**L-T-P**
MAJOR					
1	OPT242M401/ OPT242M411	CLINICAL REFRACTION + CLINICAL REFRACTION LAB	200	**4**	**3-0-2**
2	OPT242M402/ OPT242M412	OPHTHALMIC LENS & DISPENSING OPTICS + OPHTHALMIC LENS & DISPENSING OPTICS LAB	200	**4**	**3-0-2**
3	OPT242M403	OCULAR DISEASE I	200	**4**	**4-0-0**
MINOR					
3	OPT242N401	EYE BANKING	200	**3**	**3-0-0**
4	OPT242N402	BASIC EYE DISEASES	200	**3**	**3-0-0**
ABILITY ENHANCEMENT COMPULSORY COURSES (AECC)					
5	CEN982A401 & BHS982A402	COMMUNICATIVE ENGLISH & BEHAVIOURAL SCIENCE IV	200	**2**	**1-0-0 1-0-0**
		TOTAL		**20**	

5TH SEMESTER					
SL.NO.	**SUBJECT CODE**	**NAMES OF SUBJECTS**	**LEVEL OF COURSE**	**TOTAL NO OF CREDITS**	**L-T-P**
MAJOR					
1	OPT242M501/ OPT242S511	CONTACT LENS + CONTACT LENS LAB	300	**4**	**3-0-2**
2	OPT242M502	BINOCULAR VISION & OCULAR MOTILITY	300	**4**	**4-0-0**
3	OPT242M503	OCULAR DISEASE II	300	**4**	**4-0-0**
3	OPT242M504	BASICS OF LOW VISION	300	**4**	**4-0-0**

5	OPT242M505	OCCUPATIONAL OPTOMETRY & LAW & OPTOMETRY	300	**4**	**4-0-0**
		TOTAL		**20**	

6TH SEMESTER					
SL. NO.	**SUBJECT CODE**	**NAMES OF SUBJECTS**	**LEVEL OF COURSE**	**TOTAL NO OF CREDITS**	**L-T-P**
MAJOR					
1	OPT242M601/ OPT242M611	APPLIED OPTOMETRY & ORTHOPTICS + APPLIED OPTOMETRY & ORTHOPTICS LAB	300	**4**	**3-0-2**
2	OPT242M602/ OPT242M612	LOW VISION AIDS & VISUAL REHABILITATION + LOW VISION AIDS & VISUAL REHABILITATION LAB	300	**4**	**3-0-2**
3	OPT242M603	SYSTEMIC CONDITIONS & THE EYE	300	**4**	**4-0-0**
4	OPT242M604	CONTACT LENS II	300	**4**	**4-0-0**
5	OPT242N625	INTERNSHIP	300	**4**	**0-0-8**
		TOTAL		**20**	

7TH SEMESTER					
SL. NO.	**SUBJECT CODE**	**NAMES OF SUBJECTS**	**LEVEL OF COURSE**	**TOTAL NO OF CREDITS**	**L-T-P**
MAJOR					
1	OPT242M721	PEDIATRIC CLINIC SPECIALITY	400	4	0-0-8
2	OPT242M722	GERIATRIC CLINIC SPECIALITY	400	4	0-0-8
3	OPT242M723	CONTACT LENS SPECIALITY	400	5	0-0-10
4	OPT242M724	BINOCULAR VISION SPECIALITY	400	4	0-0-8
5	OPT242M725	LOW VISION SPECIALITY	400	4	0-0-8
		TOTAL		**21**	

8TH SEMESTER					
SL.NO.	**SUBJECT CODE**	**NAMES OF SUBJECTS**	**LEVEL OF COURSE**	**TOTAL NO OF CREDITS**	**L-T-P**
MAJOR					
1	OPT242M821	CLINICAL EVALUATION	400	7	0-0-14
2	OPT242M822	COMPREHENSIVE CLINICAL OPTOMETRY	400	8	0-0-16
RESEARCH PROJECT					
3	OPT242M823	PROJECT	400	12	
		TOTAL		**27**	

SYLLABUS (5TH SEM)

PAPER /SUBJECT NAME: CONTACT LENS + CONTACT LENS LAB
SUBJECT CODE: OPT242M501/OPT242M511
SCHEME OF EVALUATION: (TP)
Total Credits: 04 **L-T-P-C = 3-0-2-4**

Course Objective:
The objective of the subject is to study the concept of contact lens, its benefits, manufacturing and understand briefly about soft contact lens and RGP contact lens.

Course outcome:

On successful completion of the course the students will be able to:		
CO Levels	**Course Outcome**	**Blooms Taxonomy Level**
CO 1	**To understand** the history, development, benefits and manufacturing of contact lens.	**BT 1**
CO 2	**To interpret** the optics, classification, vertex distance and FDA classification of contact lens and its materials.	**BT 2**
CO 3	**To determine** the indications and contraindications of contact lens and soft contact lens fitting and assessment.	**BT 3**
CO 4	**To explain** RGP contact lens fitting, assessment, care and maintenance.	**BT 4**

MODULE	TOPICS & COURSE CONTENT	PERIODS
1	• Contact Lens: History & Development • Benefits of Contact Lenses Over Spectacles • Contact Lens Terminology • Classification of Contact Lenses & Materials (Soft & RGP) • Material Properties of Contact Lens Materials • FDA Classification of Contact Lens Materials • Manufacturing Methods	16

2	• Examination techniques and optical principles.
	  o Slit Lamp Examination Technique
	  o Corneal Topography
	  o Keratometry
	  o Extended Keratometry
	• Contact Lens Optics:
	  o Contact Lens vs Spectacle Lens
	  o Back Vertex Calculation
	  o Tear Lens System
		16

3	• Clinical preparation for lens fitting • Patient Selection & Pre-Screening • Indications & Contraindications for Contact Lens Use	17
4	• Practical skills for fitting and care Soft Spherical Contact Lens Fitting & Assessment Soft Contact Lens Care & Maintenance Spherical RGP Contact Lens Fitting & Assessment RGP Lens Care & Maintenance	17

Credit Distribution		
Lecture/ Tutorial	**Practicum**	**Experiential Learning**
2*22 =44 NCH	2*15= 30 NCH	2*8=16nch (Assignments, Quizzes, Seminar, Case Study, Discussion)

PRACTICAL

MODULE	TOPICS & COURSE CONTENT	PERIODS
1	Routine clinical procedure for contact lens patient & selection of contact lens.	7
2	Keratometry & slit lamp Biomicroscopy.	7
3	Spherical soft & Spherical RGP contact lens fitting: selection of contact lens Base curve, diameter & Power & fitting Assessment.	8
4	Insertion & Removal of soft & RGP contact lens. Contact lens & maintenance.	8

Credit Distribution		
Lecture/ Tutorial	**Practicum**	**Experiential Learning**
2*22 =44 NCH	2*15= 30 NCH	2*8=16nch (Assignments, Quizzes, Seminar, Case Study, Discussion)

TEXTBOOK:

Agarwal S, 2005, Dr. Agarwals' Textbook on Contact Lenses, Jaypee Brothers Medical Publishers.
Sinha R, 2017, Textbook of Contact Lenses, Jaypee Brothers Medical Publishers.

Reference Books

1. **Nathan Efron.** *Contact Lens Practice*, 4th edition, Elsevier, 2013. ISBN: 978-0702042508
2. **Milton Hom, Adrian Bruce.** *Manual of Contact Lens Prescribing and Fitting*, 3rd edition, Butterworth-Heinemann, 1995. ISBN: 978-0750600405
3. **Edward S. Bennett, Craig W. Borovoy.** *Clinical Contact Lens Practice*, 2nd edition, Lippincott Williams & Wilkins, 2006. ISBN: 978-0781740589
4. **Ruth B. Peters.** *Contact Lens Complications*, 3rd edition, Butterworth-Heinemann, 2006. ISBN: 978-0750687751

SYLLABUS (5TH SEM)

PAPER/SUBJECT NAME: BINOCULAR VISION &OCULAR MOTALITY
SUBJECT CODE: OPT242M502
COURSE LEVEL: 300
SCHEME OF EVALUATION: (T) **L-T-P-C:4-0-0-4**
Total credits: 4

Course Objective:
The objective of this course is to understand the neurosensory and neuromotor mechanisms involved in binocular vision. It includes theoretical knowledge of binocular fusion, stereopsis, vergence and versions, ocular movements, and related binocular anomalies.

Course Outcome:

On successful completion of the course the students will be able to:		
CO Levels	**Course Outcome**	**Blooms Taxonomy Level**
CO 1	Define and explain the principles and grades of binocular vision and basic ocular movements.	**BT 1**
CO 2	Illustrate and differentiate normal and abnormal binocular functions and types of ocular motility disorders.	**BT 2**
CO3	Apply concepts of binocular vision to interpret fusion anomalies, stereopsis issues, and eye movement dysfunctions.	**BT3**

CO4	Analyze clinical test findings to formulate diagnosis and management strategies for binocular vision and vergence anomalies.	**BT4**

SYLLABUS:

MODULE	TOPICS & COURSE CONTENT	PERIODS
1	• Grades of binocular vision – Simultaneous perception, fusion, stereopsis • Advantages of binocular vision • Visual direction and the horopter – Visual direction, corresponding point and normal retinal correspondence, horopter, physiologic diplopia • Binocular fusion – Panum's area, fixation disparity • Theories of binocular fusion – • Synergy hypothesis of Panum • Local sign hypothesis of Hering • Eye movement hypothesis of Helmholtz • Suppression hypothesis of Du Tour and Verhoeff • Physiologic basis of fusion.	**22**
2	• Dichoptic stimulation – Depth with fusion and diplopia, diplopia without depth, retinal rivalry and suppression, binocular luster. • Stereopsis – Physiological basis, local and global stereopsis, fusion, stereopsis acuity, neurophysiology. • Depth perception – • Stereopsis • Non-stereoscopic clues under binocular conditions • Monocular clues (non-stereoscopic spatial orientation): parallactic movements, linear perspective, overlay of contours, size-distance from horizon, highlights/shadows, aerial perspective • Influence of accommodation and convergence • Integration of motor and sensory systems	**22**

3	• Binocular optical defects – • Anisometropia: vision and treatment • Aniseikonia: symptoms, clinical investigation, treatment • Binocular muscular coordination – Orthophoria • Binocular muscular anomalies – • Heterophoria: causes of imbalance (exophoria, esophoria, hyperphoria, cyclophoria), symptoms, treatment • Heterotropia: vision in concomitant strabismus, treatment • Convergence – • Voluntary and reflex convergence • Measurement • Relation between accommodation and convergence • Binocular accommodation • Fatigue of convergence • Convergence anomalies and reading difficulties – • Insufficiency of convergence • Convergence excess • Reading ability of children.	**22**

4	• Binocular vision tests – • Simultaneous macular perception • Fusion • Stereopsis tests: Synoptophore/stereoscope, Vectograph, Titmus stereo test, Random-dot stereogram, Simple motor task • Eye movements – • Orbit anatomy of extraocular muscles • Interactive dynamics and brainstem neurophysiology • Functions and nerve supply of EOMs • Mechanics of action – cross-sectional area, muscle length, arc of contact, muscle plane, axis of rotation • Physiology – kinematics, position of gaze, Fick's axes • Types of ocular movements – • Monocular: adduction, abduction, supraduction, infraduction, incycloduction, excycloduction • Binocular: Versions (saccades, pursuit, stabilization, maintenance), Vergences (convergence, divergence, vertical) • Supranuclear control: superior colliculi, occipital cortex, psycho-optical reflexes, fixation • Oculomotor system – • Vestibulo-ocular reflex (VOR) • Optokinetic reflex • Diagnosis & clinical aspects of ocular anomalies • □ Spectacle lens optics – Convergence through spectacle lens, prismatic effects	**22**
	TOTAL	**88**

Credit Distribution		
Lecture/ Tutorial	**Practicum**	**Experiential Learning**
2*22 =44 NCH	2*15= 30 NCH	2*8=16nch (Assignments, Quizzes, Seminar, Case Study, Discussion)

TEXTBOOK:

- **Binocular Vision and Ocular Motility** – Gunter K. von Noorden & Emilio C. Campos (6th or 7th Edition, Mosby)

- **Clinical Management of Binocular Vision: Heterophoric, Accommodative, and Eye Movement Disorders** – Mitchell Scheiman & Bruce Wick.

REFERENCE BOOKS

1. **Remington's Clinical Anatomy of the Visual System** – Jack J. Kanski
2. **Foundations of Binocular Vision: A Clinical Perspective** – Robert Cooper
3. **AAO BCSC Series – Section 6: Pediatric Ophthalmology and Strabismus** – American Academy of Ophthalmology
4. **EyeWiki** – https://eyewiki.aao.org

SYLLABUS (5TH SEM)

PAPER/SUBJECT NAME: OCULAR DISEASE II
SUBJECT CODE: OPT242M503
COURSE LEVEL: 300
SCHEME OF EVALUATION: (T) **L-T-P-C:4-0-0-4**
Total credits: 4

Course Objective:
The objective of this course is to deal with various ocular diseases affecting the **posterior segment of the eye** including retina, vitreous, choroid, and optic nerve. It covers clinical signs and symptoms, causes, pathophysiological mechanisms, diagnostic approaches, differential diagnoses, and medical/surgical management aspects of posterior segment ocular diseases.

Course Outcome:

On successful completion of the course the students will be able to:		
CO Levels	**Course Outcome**	**Blooms Taxonomy Level**
CO 1	Apply knowledge of the different aspects of posterior segment ocular diseases to interpret clinical signs and symptoms, suggesting potential diagnoses	**BT 3**
CO 2	Analyze disease conditions and plan appropriate treatment or management strategies for posterior segment ocular pathologies	**BT 4**
CO3	Evaluate clinical findings using diagnostic tools like fundus examination, OCT, FFA, etc., for making informed decisions	**BT5**
CO4	Integrate systemic disease associations with posterior segment pathologies for holistic patient care.	**BT5**

SYLLABUS:

MODULE	TOPICS & COURSE CONTENT	PERIODS
1	Diseases of the Vitreous Humor • Congenital anomalies • Vitreous opacities • Hereditary vitreo-retinal degenerations • Vitreous hemorrhage • Vitreous detachment • Vitreous surgery Clinical Assessment of the Posterior Segment • Direct ophthalmoscopy • Indirect ophthalmoscopy Diseases of the Retina • Congenital & developmental defects • Retinitis • Retinal vasculitis • Retinal oedema • Retinal hemorrhage • Vascular occlusion • Retinal arteriosclerosis • Retinopathies • Retinal telangiectasia • Degenerations • Retinal detachment & surgeries • Retinal tumors • Phakomatoses • Retinal injuries.	**22**

2	Optic Nerve Disorders • Congenital anomalies • Papilloedema • Optic neuritis (inflammatory) • Ischemic optic neuropathy (arteritic & non-arteritic) • Optic atrophy • Optic nerve tumors • Optic nerve injuries Visual Function Disturbances • Visual field defects • Amblyopia • Amaurosis • Night blindness • Day blindness • Color vision defects • Congenital word blindness • Malingering.	**22**

	Neuro-ophthalmology • Evaluation of optic nerve disease • Clinical features and classification of optic neuritis • Demyelination and systemic links (e.g. multiple sclerosis) • Hereditary optic atrophies – Leber, Kjer, Behr, Wolfram • Toxic and nutritional optic neuropathies (alcohol-tobacco, drugs) Papilloedema & Raised ICP • Causes (e.g. hydrocephalus) • Systemic & ocular features • Differential diagnosis Congenital Optic Nerve Anomalies • Tilted disc, drusen, pits, myelinated fibers • Coloboma, morning glory anomaly, hypoplasia • Aicardi syndrome Pupillary Reactions • Anatomy • Afferent pupillary defects • Argyll Robertson pupil • Adie's tonic pupil • Horner's syndrome • Light-near dissociation	**22**

4	Nystagmus • Classification & causes • Physiological vs pathological • Nystagmoid movements Supranuclear Disorders of Eye Movements • Saccades, pursuits, reflexes • Gaze palsies (horizontal & vertical) Cranial Nerve Palsies • Third, fourth, sixth nerves • Anatomy, clinical features, causes • Aberrant regeneration Retrochiasmal Lesions & Visual Cortex • Optic tract/radiation lesions • Visual cortex disorders • Migraine (ocular features, management) Ocular Myopathies & Related Disorders • Myasthenia gravis • Myotonic dystrophy • Blepharospasm Neurofibromatosis • NF-1 & NF-2: Systemic and ocular signs.	**22**
	TOTAL	**88**

Credit Distribution		
Lecture/ Tutorial	**Practicum**	**Experiential Learning**
2*22 =44 NCH	2*15= 30 NCH	2*8=16nch (Assignments, Quizzes, Seminar, Case Study, Discussion)

TEXTBOOK:

- **Parson's Diseases of the Eye** – Ramanjit Sihota & Radhika Tandon
- **Clinical Ophthalmology: A Systematic Approach** – Jack J. Kanski

REFERENCE BOOKS

- **Yanoff & Duker's Ophthalmology** – Benjamin J. Seidel, J. William Harbour
- **AAO BCSC Series** – Section 12: Retina and Vitreous
- **Retina** – Stephen J. Ryan (Expert reference, for advanced study)
- **EyeWiki** – https://eyewiki.aao.org

SYLLABUS (5TH SEM)

PAPER/SUBJECT NAME: BASICS OF LOW VISION
SUBJECT CODE: OPT242M504
COURSE LEVEL: 300
SCHEME OF EVALUATION: (T) **L-T-P-C:4-0-0-4**
Total credits: 4

Course Objective:

The course aims to prepare students to recognize low vision conditions and provide effective management plans using both optical and non-optical aids and counseling.

Course Outcome:

On successful completion of the course the students will be able to:		
CO Levels	**Course Outcome**	**Blooms Taxonomy Level**
CO 1	Define and describe the basic concepts of low vision, including types and causes.	**BT 1**
CO 2	Identify and classify patients based on their low vision needs and functional vision loss.	**BT 2**
CO3	Apply appropriate low vision assessment techniques to evaluate residual vision.	**BT3**
CO4	Analyze patient needs and recommend suitable low vision aids and rehabilitation strategies.	**BT4**

SYLLABUS:

MODULE	TOPICS & COURSE CONTENT	PERIODS

1	□ Definition of low vision and blindness (WHO, NPCB, and legal definitions) □ Epidemiology of low vision in India and worldwide □ Classification of low vision based on visual acuity and visual field □ Common causes of low vision (ARMD, diabetic retinopathy, glaucoma, albinism, retinitis pigmentosa, etc.) □ Functional vision vs. clinical vision □ Psychological impact of low vision.	**22**
2	□ Case history taking for low vision patients □ Assessment of distance and near visual acuity (ETDRS, Feinbloom, MNREAD) □ Contrast sensitivity testing (Pelli-Robson, Lea contrast chart) □ Visual field testing in low vision □ Color vision assessment □ Reading speed and functional vision assessment □ Role of lighting and glare assessment.	**22**

3	□ Principles of magnification □ Optical aids: • High plus reading glasses • Handheld magnifiers • Stand magnifiers • Telescopes (bioptic, hand-held) □ Non-optical aids: • Reading stands • Typoscopes • Bold line pens • Large print books □ Electronic devices (CCTV, screen readers, video magnifiers) □ Training and adaptation to low vision aids	**22**
4	• Referral to vision rehabilitation centers • Orientation and mobility training • Counseling for patients and family • Educational and vocational rehabilitation • Low vision in children: causes and intervention • Low vision in the elderly: needs and approaches • Role of multidisciplinary teams in rehabilitation	**22**
	TOTAL	**88**

Credit Distribution		
Lecture/ Tutorial	**Practicum**	**Experiential Learning**
2*22 =44 NCH	2*15= 30 NCH	2*8=16nch (Assignments, Quizzes, Seminar, Case Study, Discussion)

TEXTBOOK:

- Low Vision Manual – *Shrinivas Joshi*
- Low Vision Aids: A Practical Guide – *Dr. Subrata Chatterjee*

REFERENCE BOOKS

- Foundations of Low Vision: Clinical and Functional Perspectives – *Anne Corn & Jane Erin*
- Low Vision Rehabilitation: A Practical Guide for Occupational Therapists – *Mitchell Scheiman*
- Visual Impairment and Rehabilitation – *G.C. Woo*
- World Health Organization (WHO) Low Vision Guidelines
- VisionAware.org

SYLLABUS (5TH SEM)

PAPER/SUBJECT NAME: OCCUPATIONAL OPTOMETRY & LAW & OPTOMETRY **SUBJECT CODE: OPT242M505** **COURSE LEVEL: 300** **SCHEME OF EVALUATION: (T)** **L-T-P-C:4-0-0-4** **Total credits: 4**

Course Objective:

To impart a comprehensive understanding of the visual demands in occupational settings and the legal, regulatory, and ethical responsibilities involved in optometric practice. The course equips students to provide safe, effective vision care at workplaces and navigate the medicolegal framework governing the profession.

Course Outcome:

On successful completion of the course the students will be able to:		
CO Levels	**Course Outcome**	**Blooms Taxonomy Level**
CO 1	Understand workplace vision demands and the role of optometry in occupational health	**BT 2**
CO 2	Demonstrate knowledge of laws, ethics, and registration requirements related to optometry practice	**BT 2**
CO3	Conduct visual task analysis and suggest ergonomic modifications in various professions	**BT3**
CO4	Analyze legal cases, interpret policies, and apply public health laws relevant to optometric practice	**BT4**

SYLLABUS:

MODULE	TOPICS & COURSE CONTENT	PERIODS

1	• Definition, scope, and historical development • Role of optometrists in occupational settings • Visual demands of different professions (aviation, IT, driving, etc.) • Functional vision and human factors in work environments	**22**
2	• Vision screening protocols for various job categories • Ergonomics in the workplace: lighting, posture, screen glare • Computer Vision Syndrome: causes, prevention, management • Visual task analysis and workplace visual hazards • Prescribing for specific work environments (office, industry, outdoors) • Safety eyewear, blue light filters, anti-fatigue lenses	**22**
3	• Health care system & legal structure in India • Code of ethics and professional conduct for optometrists • Scope of optometric practice under Indian law • Roles of Optometry Council of India (OCI), Indian Optometry Federation (IOF) • Licensing and registration requirements • Clinical record keeping and informed consent.	**22**

4	• **World Health Organization (WHO)** initiatives on visual impairment and workplace vision • **International Labour Organization (ILO)** guidelines for occupational safety and eye health • **Optometry Council of India (OCI)** – vision, roles, and regulatory functions • **Indian Optometry Federation (IOF)** – standards, advocacy, and scope development • **World Council of Optometry (WCO)** and **Asia Pacific Council of Optometry (APCO)** – international collaboration in optometry • National Program for Control of Blindness (NPCB) – India's strategy on low vision and workplace screening • Role of NGOs and Public-Private Partnerships (PPP) in occupational eye health programs • Integration of vision care in occupational health policies and safety standards globally.	**22**
	TOTAL	**88**

Credit Distribution		
Lecture/ Tutorial	**Practicum**	**Experiential Learning**
2*22 =44 NCH	2*15= 30 NCH	2*8=16nch (Assignments, Quizzes, Seminar, Case Study, Discussion)

TEXTBOOK:

- Occupational Optometry – Dr. B. K. Vashisht
- Medical Law and Ethics in India – Madhavi Divan
- Law and Ethics in Optometry – Dr. Prem Prakash

REFERENCE BOOKS

- Visual Ergonomics Handbook – *Jeffrey Anshel*
- Work and the Eye – *Baldwin and Floyd*
- Indian Optometric Practice Guidelines – *Optometry Council of India*
- Legal Aspects of Medical Practice – *Hegde*
- WHO/ILO Guidelines on Occupational Vision & Workplace Safety.

SYLLABUS (6TH SEM)

PAPER /SUBJECT NAME: APPLIED OPTOMETRY & ORTHOPTICS + APPLIED OPTOMETRY & ORTHOPTICS LAB
SUBJECT CODE: OPT242M601/ OPT242M611
SCHEME OF EVALUATION: (TP)
Total Credits: 04 **L-T-P-C = 3-0-2-4**

Course Objective:

The objective of the subject is to study the different orthoptic instruments, procedures, management and treatment.

Course outcome:

CO Levels	Course Outcome	Blooms Taxonomy Level
CO 1	**To understand** the different orthoptic instruments.	**BT 1**
CO 2	**To interpret** the procedures, Assessment of degree of squint, ocular motality status, binocular single vision and types of squint.	**BT 2**
CO 3	**To determine** the orthoptic treatment procedure and management.	**BT 3**
CO 4	**To explain** the definition, neuropathology, classification, clinical features, treatment of Amblyopia.	**BT 4**

MODULE	TOPICS & COURSE CONTENT	PERIODS
1	ORTHOPTIC INSTRUMENTS Prism Bar Synoptophore Maddox Wing Maddox Rod Red Green Goggles Hess Screen	16

	Risley Prisms	
2	Investigative procedures Motor signs in squint A) Head position: Face turn, chin position, Head tilt. B) Cover test & cover-uncover tests C) Maddox wing to assess heterophoria. Assessment of degree of squint a) Hirschbag test. b) Prism bar test. c) Krimskey test d) Synoptophore test Assessment of ocular motality status a) Hess chart b) Diplopia testing c) Bielschowskys Head tilting test Assessment of visual sensory status in squint. Amblyopia Suppression Binocular single vision – SMP, Fusion, Stereopsis. Mechanisms leading to squint Types of squint – a) latent / manifest b) horizontal / vertical c) paralytic / concomitant	16
3	Orthoptic Treatment Procedures Management of – Convergence insufficiency Amblyopia Suppresion ARC Use of prism - For Exercise & correction	17
4	AMBLYOPIA Definition. Neuropathology. Classification. Clinical Features. Treatment. a) Occlusion. b) Penalisation. c) Role of drugs	17

Credit Distribution		
Lecture/ Tutorial	**Practicum**	**Experiential Learning**

2*22 =44 NCH	2*15= 30 NCH	2*8=16nch (Assignments, Quizzes, Seminar, Case Study, Discussion)

PRACTICAL

MODULE	TOPICS & COURSE CONTENT	PERIODS
1	Demonstration of following Orthoptic instruments/methods and their uses – Prism Bar Synoptophore Maddox Wing Maddox Rod Red Green Goggles RAF Gauge	7
2	Cover test Hirschberg test Krimsky test Diplopia charting Visuoscopy Accommodative flipper	7
3	Orthoptic Investigative & Therapeutic Procedure	8
4	Case records AND Case Handling	8

Credit Distribution		
Lecture/ Tutorial	**Practicum**	**Experiential Learning**
2*22 =44 NCH	2*15= 30 NCH	2*8=16nch (Assignments, Quizzes, Seminar, Case Study, Discussion)

TEXTBOOK:

AK Khurana, 2018, Theory and Practice of Squint and Orthoptics, CBS Publishers and Distributors.

REFERENCE BOOKS:

1. **Eugene Helveston.** *Applied Optics and Clinical Refraction*, 3rd edition, Butterworth-Heinemann, 2002. ISBN: 978-0750674539
2. **Gerald F. Krenzer.** *Orthoptics and Vision Therapy*, 3rd edition, Butterworth-Heinemann, 2002. ISBN: 978-0750672870
3. **Robert W. Arnold, Suzanne M. Arnold.** *Clinical Manual of Pediatric Orthoptics*, 2nd edition, Slack Incorporated, 2014. ISBN: 978-1556429267
4. **David B. Elliott.** *Clinical Procedures in Primary Eye Care*, 4th edition, Elsevier, 2020. ISBN: 978-0702077562

SYLLABUS (6TH SEM)

PAPER /SUBJECT NAME: LOW VISION AIDS & VISUAL REHABILITATION + LOW VISION AIDS & VISUAL REHABILITATION LAB
SUBJECT CODE: OPT242M602/ OPT242M612
SCHEME OF EVALUATION: (TP)
Total Credits: 04 **L-T-P-C =3-0-2-4**

Course Objective:

The objective of the subject is to study the definition of low vision, its magnification, grades, assessments, refraction, and low vision prescription.

Course outcome:

CO Levels	Course Outcome	Blooms Taxonomy Level
CO 1	**To understand** the Components of low vision evaluation, Contrast sensitivity and color vision assessment, Importance of patient history and counseling.	BT 1
CO 2	**To interpret** the Principles and goals of visual rehabilitation and training in using low vision aids.	BT 2
CO 3	**To determine** the resources and support services of low vision.	BT 3
CO 4	**To explain** the prescription and fitting of low vision aids.	BT 4

MODULE	TOPICS & COURSE CONTENT	PERIODS

1	**Low Vision Assessment:** Components of a low vision evaluation, Visual acuity and visual field testing, Contrast sensitivity and color vision assessment, Importance of patient history and counseling.	16
2	**Visual Rehabilitation:** Principles and goals of visual rehabilitation, Training in using low vision aids, Strategies for improving visual skills: Scanning and visual search techniques, Eccentric viewing, Lighting and glare management; Importance of self-advocacy and independent living skills	16
3	**Resources and Support Services:** Government programs and community resources for individuals with low vision, Support groups and peer counseling, Assistive technology training and support centers, Ethical considerations in low vision care, Role of optometrists, ophthalmologists, occupational therapists, and orientation and mobility specialists, Team-based approach to assessment and intervention planning, Communication and coordination among healthcare professionals.	17
4	**Prescribing and Fitting Low Vision Aids:** Prescription guidelines and calculations, Demonstration and trial of aids, Adjustment and customization of aids, Follow-up and troubleshooting, Aids prescription based on different anomalies. **Visual Rehabilitation Training:** Techniques for using optical aids effectively, Developing compensatory strategies for specific tasks, Orientation and mobility training, Psychosocial support and adjustment counseling, Counseling of low vision patient/ parents/ guardians/relatives.	17

Credit Distribution		
Lecture/ Tutorial	**Practicum**	**Experiential Learning**
2*22 =44 NCH	2*15= 30 NCH	2*8=16nch (Assignments, Quizzes, Seminar, Case Study, Discussion)

PRACTICAL

MODULE	TOPICS & COURSE CONTENT	PERIODS
1	Case history	7

2	Assessment.	7
3	Application of devices.	8
4	Rehabilitation.	8

Credit Distribution		
Lecture/ Tutorial	**Practicum**	**Experiential Learning**
2*22 =44 NCH	2*15= 30 NCH	2*8=16nch (Assignments, Quizzes, Seminar, Case Study, Discussion)

Textbook:

"Low Vision Rehabilitation: A Practical Guide for Occupational Therapists" by Mitchell Scheiman and Bruce Rosenthal.

Reference Books –

1. **Janet Marsack, James R. Wolf, Gerard E. Fischmann.** *Low Vision Rehabilitation: A Practical Guide for Occupational Therapists*, 1st edition, Slack Incorporated, 2017. ISBN: 978-1630911900
2. **Mark S. Wilkinson, Christina M. Lewis.** *Low Vision Rehabilitation: A Guide for Occupational Therapy Practice*, 2nd edition, AOTA Press, 2013. ISBN: 978-1569003671
3. **Richard B. Ruth.** *Low Vision and Vision Rehabilitation*, 1st edition, Mosby, 1996. ISBN: 978-0815163565
4. **Janet L. Weiss, Bruce E. Spivey.** *Vision Rehabilitation: Multidisciplinary Care of the Patient with Visual Loss*, 1st edition, Springer, 2013. ISBN: 978-1461454191

SYLLABUS (6TH SEM)

PAPER /SUBJECT NAME: SYSTEMIC CONDITION & THE EYE
SUBJECT CODE: OPT242C603
SCHEME OF EVALUATION: (T)
Total Credits: 04 **L-T-P-C = 4-0-0-4**

Course Objective:

The objective of the subject is to study the different systemic diseases, its classification, clinical features, diagnosis, complications, and management.

Course outcome:

On successful completion of the course the students will be able to:		
CO Levels	**Course Outcome**	**Blooms Taxonomy Level**
CO 1	**To understand** Diabetes mellitus, Hypertension, Acquired Heart Disease and its pathophysiology, classification, clinical features, diagnosis, complications and management.	**BT 1**
CO 2	**To interpret** the definition, classification and clinical features of malignancy, connective tissue disorder and thyroid disease.	**BT 2**
CO 3	**To determine** the etiology, pathology, clinical features of tuberculosis, tropical diseases, vitamin deficiency and the eye.	**BT 3**
CO 4	**To explain** the neurological disorders and the eye, genetic disorders and phacomatosis.	**BT 4**

MODULE	TOPICS & COURSE CONTENT	PERIODS
1	Arterial Hypertension i) Pathophysiology, classification, clinical examination, diagnosis, complications, management. ii) Hypertension and the eye. Diabetes mellitus i) Pathophysiology, classification, clinical features, diagnosis, complications, management. ii) Diabetes mellitus and the eye. Acquired Heart Disease – Embolism i) Rheumatic heart disease ii) Subacute bacterial endocarditis. iii) Heart disease & the eye	22
2	Malignancy i) Definitions, nomenclature, characteristics of benign & malignant neoplasms. ii) Grading and staging of cancer, diagnosis, priniples of treatment. iii) Neoplasia and the eye.	22

	Connective Tissue Disease i) Anatomy and pathophysiology: Arthritis. ii) Eye and connective tissue disease. Thyroid Disease i) Anatomy and physiology of the thyroid gland. ii) Classification of thyroid disease iii) Diagnosis, complications, clinical features, management of thyroid disease involving eye.	
3	Tuberculosis i) Etiology, pathology, clinical features, pulmonary TB, diagnosis, complications, treatment of tuberculosis involving the eye. Tropical Disease and the Eye i) Leprosy. ii) Syphilis. iii) Malaria. Vitamin deficiency and the eye	22
4	Neurological disease and the eye i) Classification of neurological diseases. ii) Demyelinating diseases iii) Visual pathway lesions iv) Papiloedema. Genetic disorders and the eye. Phacomatoses & the eye	22

Credit Distribution		
Lecture/ Tutorial	**Practicum**	**Experiential Learning**
2*22 =44 NCH	2*15= 30 NCH	2*8=16nch (Assignments, Quizzes, Seminar, Case Study, Discussion)

TEXTBOOK:

S Pramod, 2017, Medical Surgical Nursing Systemic Disease, Jaypee Brothers Medical Publishers.

Reference Books – Systemic Conditions & The Eye

1. **Frank J. Kreutzer, David G. Albert.** *Neuro-Ophthalmology: Diagnosis and Management*, 2nd edition, Elsevier, 2009. ISBN: 978-1416051836
2. **Terry J. Smith, John J. Chen.** *Systemic Disease and the Eye*, 3rd edition, Butterworth-Heinemann, 2011. ISBN: 978-0750684918.

SYLLABUS (6TH SEM)

PAPER /SUBJECT NAME: CONTACT LENS II SUBJECT CODE: OPT242M604 SCHEME OF EVALUATION: (T) Total Credits: 04 L-T-P-C = 4-0-0-4

Course Objective:

The objective of the subject is to study the concept of contact lens, its benefits, manufacturing and understand briefly about soft contact lens and RGP contact lens.

Course outcome:

On successful completion of the course the students will be able to:		
CO Levels	**Course Outcome**	**Blooms Taxonomy Level**
CO 1	**To understand** the history, development, benefits and manufacturing of contact lens.	**BT 1**
CO 2	**To interpret** the optics, classification, vertex distance and FDA classification of contact lens and its materials.	**BT 2**
CO 3	**To determine** the indications and contraindications of contact lens and soft contact lens fitting and assessment.	**BT 3**
CO 4	**To explain** RGP contact lens fitting, assessment, care and maintenance.	**BT 4**

MODULE	TOPICS & COURSE CONTENT	PERIODS
1	• Contact lens history & development. Benefits of contact lens over spectacle. • Contact lens power calculation • Keratometry and extended keratometry	22

	• Slit lamp examination technique for contact lenses • Corneal topography: principles and interpretation • Over-refraction techniques • Patient pre-screening and selection criteria	
2	• Indications and contraindications • Soft spherical lens fitting and assessment • RGP spherical lens fitting and assessment • RGP vs soft lens comparison (fitting and outcomes) • Care and maintenance for soft and RGP lenses • Contact lens follow-up protocols. • Common complications with soft/RGP lenses and management.	22
3	• Toric contact lenses: indication, design, axis, and stability • Multifocal/presbyopic contact lenses: simultaneous and translating designs • Keratoconus management: Rose K, hybrid, and mini-scleral lenses • Orthokeratology (Ortho-K): concept, fitting, safety and follow-up.	22
4	• PROSE lenses and ocular surface prosthetics • Pediatric contact lenses: special considerations and fitting • Post-surgical and irregular cornea contact lenses • Role of contact lenses in therapeutic and cosmetic cases.	22

Credit Distribution		
Lecture/ Tutorial	**Practicum**	**Experiential Learning**
2*22 =44 NCH	2*15= 30 NCH	2*8=16nch (Assignments, Quizzes, Seminar, Case Study, Discussion)

TEXTBOOK:

Agarwal S, 2005, Dr. Agarwals' Textbook on Contact Lenses, Jaypee Brothers Medical Publishers.
Sinha R, 2017, Textbook of Contact Lenses, Jaypee Brothers Medical Publishers.

Reference Books

1. **Nathan Efron.** *Contact Lens Practice*, 4th edition, Elsevier, 2013. ISBN: 978-0702042508
2. **Milton Hom, Adrian Bruce.** *Manual of Contact Lens Prescribing and Fitting*, 3rd edition, Butterworth-Heinemann, 1995. ISBN: 978-0750600405
3. **Edward S. Bennett, Craig W. Borovoy.** *Clinical Contact Lens Practice*, 2nd edition, Lippincott Williams & Wilkins, 2006. ISBN: 978-0781740589
4. **Ruth B. Peters.** *Contact Lens Complications*, 3rd edition, Butterworth-Heinemann, 2006. ISBN: 978-0750687751

SYLLABUS (6TH SEM)

PAPER /SUBJECT NAME: INTERNSHIP
SUBJECT CODE: OPT242N625
SCHEME OF EVALUATION: (P)
Total Credits: 04 **L-T-P-C = 0-0-8-4**

Course Objective:

To provide hands-on clinical experience in real-world optometric settings, developing patient care skills, decision-making, and professional conduct through supervised practice.

Course outcome:

On successful completion of the course the students will be able to:

CO Levels	Course Outcome	Blooms Taxonomy Level
CO 1	Perform comprehensive eye examinations, including refraction and contact lens fitting independently	**BT 3**
CO 2	Assess and assist in managing low vision, binocular vision, and ocular motor conditions.	**BT 3**
CO 3	Demonstrate clinical proficiency in using diagnostic instruments and interpreting key findings	**BT 4**
CO 4	Exhibit professionalism, accurate documentation, and patient-centered care in clinical environments	**BT 4**

MODULE	TOPICS & COURSE CONTENT	PERIODS
1	• Basic ocular examination	22
2	• Refraction and Contact lens practice	22
3	• Low vision and Binocular vision assessment.	22
4	• Dispensing, Documentation & Ethics.	22

Credit Distribution		
Lecture/ Tutorial	**Practicum**	**Experiential Learning**
2*22 =44 NCH	2*15= 30 NCH	2*8=16nch (Assignments, Quizzes, Seminar, Case Study, Discussion)

SYLLABUS (7TH SEM)
PAPER /SUBJECT NAME: PEDIATRIC CLINIC SPECIALITY **SUBJECT CODE: OPT242M721** **SCHEME OF EVALUATION: (P)** **Total Credits: 4** **L-T-P-C=0-0-8-4**

Course Objective:

To provide hands-on clinical exposure to students in core optometric departments, enabling them to apply theoretical knowledge and diagnostic skills in real patient care environments.

Course Outcome:

On successful completion of the course the students will be able to:		
CO Levels	**Course Outcome**	**Blooms Taxonomy Level**
CO1	Demonstrate effective communication skills for counseling patients and caregivers	BT 3
CO2	Evaluate ocular disorders in pediatric and geriatric patients using age-appropriate diagnostic tools.	BT 4
CO3	Design individualized treatment plans for refractive errors, amblyopia, and age-related eye diseases	BT 5

SYLLABUS: PRACTICAL

MODULE	TOPICS & COURSE CONTENT	PERIODS
1	Assess visual acuity using age-appropriate charts like Lea symbols or Cardiff cards.	**15**

2	Perform Hirschberg, cover tests, and Bruckner's test to detect strabismus and binocular vision issues.	**15**
3	Conduct cycloplegic retinoscopy to determine accurate refractive status in children.	**15**
4	Examine ocular health for pediatric conditions like congenital cataract and retinal anomalies.	**15**
	TOTAL	**60**

SYLLABUS (7TH SEM)
PAPER /SUBJECT NAME: GERIATRIC CLINIC SPECIALITY **SUBJECT CODE: OPT242M722** **SCHEME OF EVALUATION: (P)** **Total Credits: 4** **L-T-P-C=0-0-8-4**

Course Objective:

To provide hands-on clinical exposure to students in core optometric departments, enabling them to apply theoretical knowledge and diagnostic skills in real patient care environments.

Course Outcome:

On successful completion of the course the students will be able to:		
CO Levels	**Course Outcome**	**Blooms Taxonomy Level**
CO1	Demonstrate effective communication skills for counseling patients and caregivers	BT 3

CO2	Evaluate ocular disorders in pediatric and geriatric patients using age-appropriate diagnostic tools.	BT 4
CO3	Design individualized treatment plans for refractive errors, amblyopia, and age-related eye diseases	BT 5

SYLLABUS: PRACTICAL

MODULE	TOPICS & COURSE CONTENT	PERIODS
1	Conduct full eye exams with adaptations for elderly patients.	**15**
2	Screen for age-related diseases such as cataract, glaucoma, and ARMD.	**15**
3	Assess low vision needs and introduce basic rehabilitation aids.	**15**
4	Identify ocular effects of systemic conditions like diabetes and hypertension.	**15**
	TOTAL	**60**

SYLLABUS (7TH SEM)
PAPER/SUBJECT NAME: CONTACT LENS SPECIALITY **SUBJECT CODE: OPT242M723** **SCHEME OF EVALUATION: (P)** **Total Credits: 5** **L-T-P-C=0-0-10-5**

Course Objective:

To provide hands-on clinical exposure to students in core optometric departments, enabling them to apply theoretical knowledge and diagnostic skills in real patient care environments.

Course Outcome:

On successful completion of the course the students will be able to:		
CO Levels	**Course Outcome**	**Blooms Taxonomy Level**
CO1	Apply fitting principles for soft, rigid, and specialty lenses.	**BT 3**
CO2	Diagnose contact lens-related complications (e.g., dry eye, infections).	**BT 4**
CO3	Design patient education protocols for lens hygiene.	**BT 5**
CO4	Evaluation of contact lens patients.	**BT4**

SYLLABUS: PRACTICAL

MODULE	TOPICS & COURSE CONTENT	PERIODS
1	Basics of Contact Lenses: Materials, designs, and indications/contraindications	**15**
2	Clinical Fitting: Corneal topography, tear film assessment, trial lens fitting	**15**
3	Complications & Management: GPC, microbial keratitis, and solution allergies	**15**
4	Specialty Lenses: Scleral, hybrid, and ortho-k lenses	**15**
	TOTAL	**60**

SYLLABUS (7TH SEM)	
PAPER/SUBJECT NAME: BINOCULAR VISION SPECIALITY **SUBJECT CODE: OPT242M724** **SCHEME OF EVALUATION: (P)**	
Total Credits: 4	**L-T-P-C=0-0-8-4**

Course Objective:

To provide hands-on clinical exposure to students in core optometric departments, enabling them to apply theoretical knowledge and diagnostic skills in real patient care environments.

Course Outcome:

On successful completion of the course the students will be able to:		
CO Levels	**Course Outcome**	**Blooms Taxonomy Level**
CO1	Interpret diagnostic tests (cover test, AC/A ratio) for binocular vision disorders.	BT 4
CO2	Assess therapy outcomes using evidence-based criteria.	BT 5
CO3	Develop vision therapy programs for strabismus/amblyopia.	BT 6

SYLLABUS: PRACTICAL

MODULE	TOPICS & COURSE CONTENT	PERIODS
1	Binocular Vision Basics: Fusion, stereopsis, and suppression	**15**
2	Assessment: NPC, vergence testing, accommodative facility	**15**

3	Disorders & Management: Strabismus, amblyopia, and diplopia	**15**
4	Vision Therapy: Exercises, prism adaptation, and patient compliance	**15**
	TOTAL	**60**

SYLLABUS (7TH SEM)
PAPER /SUBJECT NAME: LOW VISION SPECIALITY **SUBJECT CODE: OPT242M725** **SCHEME OF EVALUATION: (P)** **Total Credits: 4** **L-T-P-C=0-0-8-4**

Course Objective:

To provide hands-on clinical exposure to students in core optometric departments, enabling them to apply theoretical knowledge and diagnostic skills in real patient care environments.

Course Outcome:

On successful completion of the course the students will be able to:		
CO Levels	**Course Outcome**	**Blooms Taxonomy Level**
CO1	Analyze visual function data to classify low vision severity.	BT 4
CO2	Appraise patient outcomes post-rehabilitation	BT 5

CO3	Create rehabilitation plans using optical/non-optical aids.	BT 6

SYLLABUS: PRACTICAL

MODULE	TOPICS & COURSE CONTENT	PERIODS
1	Introduction to Low Vision: Causes, classifications, and impact on daily life	**15**
2	Assessment Techniques: Visual acuity, visual fields, and contrast sensitivity testing	**15**
3	Low Vision Aids: Optical/non-optical devices, assistive technologies	**15**
4	Rehabilitation Strategies: Orientation/mobility training, patient counseling	**15**
	TOTAL	**60**

SYLLABUS (8TH SEM)
PAPER/SUBJECT NAME: CLINICAL EVALUATION **SUBJECT CODE: OPT242M821** **SCHEME OF EVALUATION: (P)** **Total Credits: 7** **L-T-P-C=0-0-14-7**

Course Objective:

To deepen the student's clinical expertise by involving them in advanced optometric care including specialty clinics and interdisciplinary eye care approaches.

Course Outcome:

On successful completion of the course the students will be able to:		
CO Levels	**Course Outcome**	**Blooms Taxonomy Level**
CO1	Correlate ocular findings with systemic diseases (e.g., diabetes).	BT 4
CO2	Integrate advanced diagnostic tools (OCT, visual fields) into clinical practice.	BT 5
CO3	Formulate comprehensive management plans	BT 6

SYLLABUS: PRACTICAL

MODULE	TOPICS & COURSE CONTENT	PERIODS
1	Advanced Diagnostics: Electrophysiology, advanced imaging techniques	**15**
2	Systemic & Ocular Disease Correlation	**15**
3	Case Presentation & Documentation	**15**
4	Conduct full eye exams with adaptations for elderly patients.	**15**
	TOTAL	**60**

SYLLABUS (8TH SEM)

PAPER/SUBJECT NAME: CLINICAL EVALUATION

SUBJECT CODE: OPT242M811

SCHEME OF EVALUATION: (P)

Total Credits: 4 **L-T-P-C=0-0-8-4**

Course Objective:

To deepen the student's clinical expertise by involving them in advanced optometric care including specialty clinics and interdisciplinary eye care approaches.

Course Outcome:

On successful completion of the course the students will be able to:		
CO Levels	**Course Outcome**	**Blooms Taxonomy Level**
CO1	Correlate ocular findings with systemic diseases (e.g., diabetes).	BT 4
CO2	Integrate advanced diagnostic tools (OCT, visual fields) into clinical practice.	BT 5
CO3	Formulate comprehensive management plans	BT 6

SYLLABUS: PRACTICAL

MODULE	TOPICS & COURSE CONTENT	PERIODS
1	Advanced Diagnostics: Electrophysiology, advanced imaging techniques	**15**
2	Systemic & Ocular Disease Correlation	**15**
3	Case Presentation & Documentation	**15**

4	Conduct full eye exams with adaptations for elderly patients.	**15**
	TOTAL	**60**

SYLLABUS (8TH SEM)	
PAPER/SUBJECT NAME: COMPREHENSIVE CLINICAL OPTOMETRY **SUBJECT CODE: OPT242M822** **SCHEME OF EVALUATION: (P)**	
Total Credits: 08	**L-T-P-C=0-0-16-8**

Course Objective:

To deepen the student's clinical expertise by involving them in advanced optometric care including specialty clinics and interdisciplinary eye care approaches.

Course Outcome:

On successful completion of the course the students will be able to:		
CO Levels	**Course Outcome**	**Blooms Taxonomy Level**
CO1	Respond to ocular emergencies (trauma, infections).	BT 3
CO2	Collaborate with healthcare teams for patient-centered care.	BT 5
CO3	Synthesize knowledge to manage complex multi-specialty cases.	BT 6

SYLLABUS: PRACTICAL

MODULE	TOPICS & COURSE CONTENT	PERIODS
1	Integrated Case Management	**15**
2	Emergency Optometry	**15**

3	Interprofessional Collaboration	**15**
4	Examine anterior and posterior segments using slit lamp and direct/indirect ophthalmoscopy.	**15**
	TOTAL	**60**

SYLLABUS (8TH SEM)
PAPER/SUBJECT NAME: PROJECT DISSERTATION **SUBJECT CODE: OPT242M823** **SCHEME OF EVALUATION: (P)** **Total Credits: 12**

Course Objective:

To deepen the student's clinical expertise by involving them in advanced optometric care including specialty clinics and interdisciplinary eye care approaches.

Course Outcome:

On successful completion of the course the students will be able to:		
CO Levels	**Course Outcome**	**Blooms Taxonomy Level**
CO1	Respond to ocular emergencies (trauma, infections).	BT 3
CO2	Collaborate with healthcare teams for patient-centered care.	BT 5
CO3	Synthesize knowledge to manage complex multi-specialty cases.	BT 6

SYLLABUS:

MODULE	TOPICS & COURSE CONTENT	PERIODS
1	Research Methodology & Proposal Writing	
2	Data Collection	
3	Data Analysis	
4	Dissertation Submission & Viva	