

An Institution Deemed to be University u/s 3 and 12B of UGC Act 1956 Accredited by NAAC with a CGPA of 3.61 on Four Point Scale at 'A++' Grade in Second Cycle Category - I Deemed to be University under UGC Regulations 2018

ΞĐ

At Post: Piparia, Taluka: Waghodia, District: Vadodara, Gujarat State, INDIA. Pin Code: 391760. Phone: +91 2668 245262 / 64 / 66, Fax No.: +91 2668 245069 Mobile No.: +91 8980809777, E-mail Id: registrar@sumandeepvidyapeethdu.edu.in, info@sumandeepvidyapeethdu.edu.in | Website: www.sumandeepvidyapeethdu.edu.in

Programme Syllabus

13

Name: Masters of Optometry (M. Optom)

Programme code: MOM001

I. Course of Instruction

Course Name	Course	Theory (In hrs.)	Practical (In		
	Code		hrs.) (Clinical)		
First semester	-				
Epidemiology & Community eyecare	MOP101	30	-		
Research Methodology & Biostatistics	MOP102	45	-		
Ocular Diseases and Diagnostics I	MOP103	75	-		
Research Project	MOP104	-	12		
Clinic 1	MOP105	-	16		
Total		150	28		
Second semester		·			
Ocular Diseases and Diagnostics II	MOP201	45	-		
Advanced Contact lens I	MOP202	30	-		
Pediatric Optometry & Binocular vision	MOP203	45	-		
Low Vision and Geriatric optometry	MOP204	30	-		
Research Project	MOP205	-	12		
Clinics 2	MOP206	-	10		
Total		150	28		
Third semester					
Advanced contact lens II	MOP301	30	-		
Low vision care and	MOP302	30	-		
rehabilitation					
Vision Therapy	MOP303	30	-		
Research Project	MOP304	-	12		
Clinics 3	MOP305	-	12		
Total		90	30		
Fourth semester					
Clinics (General)	MOP401	-	20		
Clinics 4	MOP402	-	20		
Research Project (Dissertation)	MOP403	-	14		
Total		-	52		



SUMANDEEP VIDYAPEE

An Institution Deemed to be University u/s 3 and 12B of UGC Act 1956 Accredited by NAAC with a CGPA of 3.61 on Four Point Scale at 'A++' Grade in Second Cycle Category - I Deemed to be University under UGC Regulations 2018

At Post: Piparia, Taluka: Waghodia, District: Vadodara, Gujarat State, INDIA. Pin Code: 391760. Phone: +91 2668 245262 / 64 / 66, Fax No.: +91 2668 245069 Mobile No.: +91 8980809777, E-mail Id: registrar@sumandeepvidyapeethdu.edu.in, info@sumandeepvidyapeethdu.edu.in | Website: www.sumandeepvidyapeethdu.edu.in

II. Scheme of Examination

Course	Course	Assessment (Internal)			Assessment (External)			
	Code	Hours	Theory	Practical	Total	Theory	Practical	Total
First semester								
Epidemiology &	MOP101	l(2hrs)	30	20	50	70	30	100
Community		E(3hrs)						
eyecare								
Research	MOP102	l(2hrs)	30	20	50	70	30	100
Methodology &		E(3hrs)						
Biostatistics								
Ocular	MOP103	l(2hrs)	30	20	50	70	30	100
Diseases and		E(3hrs)						
Diagnostics I								
Research	MOP104	I(2hrs)	-	50	50	70	30	100
Project		E(3hrs)						
Clinics 1	MOP105	I(2hrs)	-	50	50	70	30	100
		E(3hrs)						
Total			90	160	250	350	150	500
Second								
semester								100
Ocular	MOP201	I(2hrs)	30	20	50	70	30	100
Diseases and		E(3hrs)						
Diagnostics II	MODOOO				50	70		400
Advanced	MOP202	I(2hrs)	30	20	50	70	30	100
Contact lens I	MODOOO	E(3hrs)			50	70		400
Pediatric	MOP203	I(2nrs)	30	20	50	70	30	100
Optometry &		E(3hrs)						
Binocular vision			00	00	50	70		400
Low vision and	MOP204	I(2nrs)	30	20	50	70	30	100
Gerlatric		E(3nrs)						
	MODOOF	l/Ohro)		50	50		100	100
Research	MOP205	$\Gamma(2hrs)$	-	50	50	-	100	100
	MODDOC	E(31115)		50	50		100	100
	WOF200	E(2hrc)	-	50	50	-	100	100
Total			120	180	300	280	320	600
Third			120	100	300	200	520	000
Somostor								
Advanced	MOP301	l(2hrs)	30	20	50	70	30	100
contact lens II		F(3hrs)	50	20	50	70	50	100
Low vision care	MOP302	1(2hre)	30	20	50	70	30	100
and	10101 302	F(3hrs)	50	20	50	10		100
rehabilitation								
Vision Therapy	MOP303	l(2hrs)	30	20	50	70	30	100
		E(3hrs)						
Research	MOP304	l(2hrs)	-	50	50	-	100	100
Project		E(3hrs)						



SUMANDEEP VIDYAPEET

An Institution Deemed to be University u/s 3 and 12B of UGC Act 1956 Accredited by NAAC with a CGPA of 3.61 on Four Point Scale at 'A++' Grade in Second Cycle Category - I Deemed to be University under UGC Regulations 2018

At Post: Piparia, Taluka: Waghodia, District: Vadodara, Gujarat State, INDIA. Pin Code: 391760. Phone: +91 2668 245262 / 64 / 66, Fax No.: +91 2668 245069 Mobile No.: +91 8980809777, E-mail Id: registrar@sumandeepvidyapeethdu.edu.in, info@sumandeepvidyapeethdu.edu.in | Website: www.sumandeepvidyapeethdu.edu.in

Clinics 3	MOP305	I(2hrs) E(3hrs)	-	50	50	-	100	100
Total		2(01110)	90	160	250	210	290	500
Fourth Semester								
Clinics	MOP401	l(2hrs)	-	50	50	-	100	100
(General)		E(3hrs)						
Clinics 4	MOP402	l(2hrs)	-	50	50	-	100	100
		E(3hrs)						
Research	MOP403	l(2hrs)	-	50	50	-	100	100
Project		E(3hrs)						
(Dissertation)								
Total			-	150	150		300	300

First Semester:

Epidemiology and Community Eyecare (30hrs)

- 1. Prevalence, incidence and distribution of visual impairment
- 2. Methodology
 - 2.1 Basics of Epidemiology study methods
 - 2.2 Types of study designs
 - 2.3 Screening for visual disorders
- 3. Childhood blindness
- 4. Refractive errors and presbyopia
- 5. Age related cataract
- 6. Low Vision
- 7. Diabetic retinopathy
- 8. Glaucoma
- 9. Age related Macular Degeneration
- 10. Vitamin A deficiency
- 11. Corneal and external diseases
- 12. Prevention strategies
- 13. Concept of Health and Disease
- 14. Principles of Epidemiology and Epidemiological Methods



At Post: Piparia, Taluka: Waghodia, District: Vadodara, Gujarat State, INDIA. Pin Code: 391760. Phone: +91 2668 245262 / 64 / 66, Fax No.: +91 2668 245069 Mobile No.: +91 8980809777, E-mail Id: registrar@sumandeepvidyapeethdu.edu.in, info@sumandeepvidyapeethdu.edu.in | Website: www.sumandeepvidyapeethdu.edu.in

EEP.

An Institution Deemed to be University u/s 3 and 12B of UGC Act 1956 Accredited by NAAC with a CGPA of 3.61 on Four Point Scale at 'A++' Grade in Second Cycle

- I Deemed to be University under UGC Regulations 2018

- 15. Screening for Eye Disease Refractive errors, Low Vision, Cataract, Diabetic retinopathy, Glaucoma, Amblyopia, Squint.
- 16. Blindness
- 17. Health Information and Basic Medical Statistics

Category

- 18. Communication for Health Education
- 19. Health Planning and Management
- 20. Health care of community
- 21. How to plan and implement Vision2020

Research Methodology (45hrs)

- 1. Need for Research in optometry
- 2. Introduction to research methods, Conducting a literature review, Research design
- , Sampling methods, Data collection and data collection tools , Data analysis : Quantitative and Qualitatively ,Public health research , Issues in Research .Writing skills for students
- 3. Introduction and method of collecting and presenting of statistical data
- 4. Calculation and interpretation of various measures like mean, median, standard deviations, Skewness and Kurtosis
- 5. Probability distribution
- 6. Correlation and regression
- 7. Significance tests and confidence intervals
- 8. Parametric tests –
- 8.1Test for single proportion
- 8.2Test for Equality of proportions
- 8.3Test for single mean
- 8.4Test for equality of means
- 9. ANOVA:-
- 9.1One way
- 9.2Two way
- 10.Non parametric tests -
- 10.1 Chi-square tests
- 10.2 Fisher's exact test
- 10.3 McNemar test
- 10.4 Mann-whitney U-test
- 10.5 Median test
- 10.6 Sign test



Category - I Deemed to be University under UGC Regulations 2018 At Post: Piparia, Taluka: Waghodia, District: Vadodara, Gujarat State, INDIA. Pin Code: 391760. Phone: +91 2668 245262 / 64 / 66, Fax No.: +91 2668 245069

DEED

An Institution Deemed to be University u/s 3 and 12B of UGC Act 1956 Accredited by NAAC with a CGPA of 3.61 on Four Point Scale at 'A++' Grade in Second Cycle

Mobile No.: +91 8980809777, E-mail Id: registrar@sumandeepvidyapeethdu.edu.in, info@sumandeepvidyapeethdu.edu.in | Website: www.sumandeepvidyapeethdu.edu.in 10.7 Wilcoxon test

Ocular Disease And Diagnostics – I (80HRS)

- 1. Refresher of anterior segment ocular diseases, diagnosis and therapeutics
- 2. Refresher of glaucoma diagnosis and therapeutics
- 3. Surgical treatment of anterior segment diseases
- 4. Anterior segment Diagnostics
- 4.1 Specular Microscopy
- 4.2 Topography
- 4.3 Corneal Hysteresis
- 4.4 Orbscan, Pentacam
- 4.5 Pachymetry
- 4.6 Abberometry
- 4.7 AS OCT
- 4.8 HRT
- 4.9 GDx
- 4.10 ONH evaluation
- 4.11 Gonioscopy
- 4.12 Fluorescein angiography
- 4.13 Refractive surgery
- 4.14 Cataract evaluation

Research Project – Total: 180 Hours

Students will prepare the protocol during this semester after doing extensive literature search. Each student will be reporting to guide/supervisor who helps the student to go about in systematically. Research proposal need to be presented infront of the experts before going ahead with data collection. In institute which has Institute research board and ethics committee student can be encouraged to present the proposal in it.

CLINIC 1

The logbook has to be maintained and case_sheets of each subject_in the semester with complete management and follow up are mandatory for submission at the end of the semester

The log book needs to be signed by the supervisor during every visit. No case record will be considered without the supervisor's signature.



UMANDEEP VIDYAPEE

An Institution Deemed to be University u/s 3 and 12B of UGC Act 1956 Accredited by NAAC with a CGPA of 3.61 on Four Point Scale at 'A++' Grade in Second Cycle Category - I Deemed to be University under UGC Regulations 2018

At Post: Piparia, Taluka: Waghodia, District: Vadodara, Gujarat State, INDIA. Pin Code: 391760. Phone: +91 2668 245262 / 64 / 66, Fax No.: +91 2668 245069 Mobile No.: +91 8980809777, E-mail Id: registrar@sumandeepvidyapeethdu.edu.in, info@sumandeepvidyapeethdu.edu.in | Website: www.sumandeepvidyapeethdu.edu.in

Second Semester:

Ocular Diseases and Diagnostics – li (45hrs)

- 1. Refresher of posterior segment ocular diseases, diagnosis and therapeutics
- 2. Surgical treatment of posterior segment diseases
 - 2.1 Posterior segment Diagnostics
 - 2.2 ERG
 - 2.3 EOG
 - 2.4 VEP
 - 2.5 OCT
 - 2.6 Fundus photography
 - 2.7 Neuro optometric diseases and disorders

Advanced Contact Lenses – I (30hrs)

- 1. Anatomy and Physiology of the Cornea and related Structures
- 2. Contact Lens Materials
- 3. Microbiology, Lens Care and Maintenance
- 4. Tears and contact lenses
- 5. Optics and Lens Design
- 6. Clinical Instrumentation in contact lens practice
- 7. Rigid Gas Permeable corneal lens fitting
- 8. Soft contact lens fitting
- 9. Toric Contact lens fitting
- 10. Lens care regimen
- 11. Contact lens standards
- 12. Lens checking : Soft and Rigid
- 13. Contact lens complications
- 14. Special types of Contact lenses diagnosis, surgery, protective, therapeutic, sports, partially sighted



- I Deemed to be University under UGC Regulations 2018 At Post: Piparia, Taluka: Waghodia, District: Vadodara, Gujarat State, INDIA. Pin Code: 391760. Phone: +91 2668 245262 / 64 / 66, Fax No.: +91 2668 245069 Mobile No.: +91 8980809777, E-mail Id: registrar@sumandeepvidyapeethdu.edu.in, info@sumandeepvidyapeethdu.edu.in | Website: www.sumandeepvidyapeethdu.edu.in

ΕP An Institution Deemed to be University u/s 3 and 12B of UGC Accredited by NAAC with a CGPA of 3.61 on Four Point Scale at 'A++' Grade in Second

- 1. Refractive Development:
 - 1.1 Early Refractive Development
 - 1.2 Visually Guided control of Refractive State: Animal Studies
 - 1.3 Infant Accommodation and Convergence
- **Oculomotor Function:** 2
 - 2.1 Conjugate Eye Movements of Infants

Category

- 2.2 Development of the Vestibuloocular and Optokinetic reflexes
- Spatial and Chromatic Vision: 3.
 - 3.1 Front-end Limitations to Infant Spatial vision: Examination of two analyses
 - 3.2 Development of the Human Visual Field
 - 3.3 **Development of Scotopic Retinal Sensitivity**
 - 3.4 Infant Color vision
 - 3.5 Orientation and Motion selective Mechanisms in Infants
 - Intrinsic Noise and Infant performance 3.6
- 4. **Binocular Vision:**
 - 4.1 Development of intraocular vision in Infants
 - 4.2 Stereopsis in Infants and its developmental relation to visual acuity
 - Sensorimotor Adaptation and Development of the Horopter 4.3
 - 4.4 Two stages in the development of Binocular Vision and Eye Alignment
- 5. Retinal and cortical Development
- 6. Abnormal Visual Development
- 7. What next in Infant Research
- **Clinical Applications:** 8.
 - 8.1 Assessment of Child Vision and Refractive Error
 - 8.2 Refractive Routines in the Examination of Children
 - 8.3 **Cycloplegic Refraction**
 - 8.4 Color Vision Assessment in Children
 - 8.5 Dispensing for the Child patient
 - 8.6 **Pediatric Contact Lens Practice**
 - 8.7 **Dyslexia and Optometry Management**
 - Electrodiagnostic Needs of Multiple Handicapped Children 8.8
 - 8.9 Management Guidelines – Ametropia, Contant Strabismus
 - 8.10 Management Guidelines Amblyopia



At Post: Piparia, Taluka: Waghodia, District: Vadodara, Gujarat State, INDIA. Pin Code: 391760. Phone: +91 2668 245262 / 64 / 66, Fax No.: +91 2668 245069

Mobile No.: +91 8980809777, E-mail Id: registrar@sumandeepvidyapeethdu.edu.in, info@sumandeepvidyapeethdu.edu.in | Website: www.sumandeepvidyapeethdu.edu.in

An Institution Deemed to be University u/s 3 and 12B of UGC Act Accredited by NAAC with a CGPA of 3.61 on Four Point Scale at 'A++' Grade in Second

- I Deemed to be University under UGC Regulations 2018

8.11 Accommodation and Vergence anomalies

Category

- 8.12 Nystagmus
- 8.13 Common genetic problems in Paediatric optometry
- 8.14 Pediatric Ocular Diseases
- 8.15 Ocular Trauma in Children
- 8.16 Myopia control
- 8.17 Clinical uses of prism

Low Vision Care and Geriatric Optometry (30hrs)

- 1. Visual Disorders Medical Perspective
 - 1.1 The Epidemiology of Vision Impairment
 - 1.2 Vision Impairment in the pediatric population
 - 1.3 Ocular Diseases :
 - 1.3.1 Age Related Cataract,
 - 1.3.2 Glaucoma
 - 1.3.3 ARMD
 - 1.3.4 Diabetic retinopathy
 - 1.3.5 Corneal Disorders
 - 1.3.6 Ocular Trauma
 - 1.3.7 Sensory Neuro-ophthalmology and Vision Impairment
 - 1.3.8 Refractive Disorders
- 2. Visual Disorders The Functional Perspective
 - 2.1 Low Vision and Psychophysics
 - 2.2 Visual Functioning in Pediatric Populations with Low Vision
 - 2.3 Perceptual correlates of Optical Disorders
 - 2.4 Functional aspects of Neural Visual Disorders of the eye and Brain
 - 2.5 Visual Disorders and Performance of specific Tasks requiring vision
- 3. Visual Disorders The Psychosocial Perspective
 - 3.1 Developmental perspectives Youth
 - 3.2 Vision Impairment and Cognition
 - 3.3 Spatial orientation and Mobility of people with vision impairments
 - 3.4 Social skills Issues in vision impairment
 - 3.5 Communication and language: Issues and concerns
 - 3.6 Developmental perspectives on Aging and vision loss



UMANDEEP VIDYAPEI

An Institution Deemed to be University u/s 3 and 12B of UGC Act 1956 Accredited by NAAC with a CGPA of 3.61 on Four Point Scale at 'A++' Grade in Second Cycle Category - I Deemed to be University under UGC Regulations 2018

At Post: Piparia, Taluka: Waghodia, District: Vadodara, Gujarat State, INDIA. Pin Code: 391760. Phone: +91 2668 245262 / 64 / 66, Fax No.: +91 2668 245069 Mobile No.: +91 8980809777, E-mail Id: registrar@sumandeepvidyapeethdu.edu.in, info@sumandeepvidyapeethdu.edu.in | Website: www.sumandeepvidyapeethdu.edu.in

- 3.7 Vision and cognitive Functioning in old age
- 4. Interactions of Vision Impairment with other Disabilities and sensory Impairments.
 - 4.1 Children with Multiple Impairments
 - 4.2 Dual Vision and Hearing Impairment
 - 4.3 Diabetes Mellitus and Vision Impairment
 - 4.4 Vision Problems associated with Multiple Sclerosis
 - 4.5 Vision Impairment related to Acquired Brain Injury
 - 4.6 Vision and Dementia
 - 4.7 Low Vision and HIV infection
- 5. The Environment and Vision Impairment: Towards Universal Design
 - 5.1 Indian Disabilities act
 - 5.2 Children's Environments
 - 5.3 Environments of Older people
 - 5.4 Outdoor environments
 - 5.5 Lighting to enhance visual capabilities
 - 5.6 Signage and way finding
 - 5.7 Accessible Environments through Technology
- 6. Vision Rehabilitation:
 - 6.1 In Western Countries
 - 6.2 In Asia
 - 6.3 Personnel preparation in Vision Rehabilitation
- 7. Psychological and social factors in visual Adaptation and Rehabilitation
 - 7.1 The Role of psychosocial Factors in adaptation to vision Impairment and Habilitation outcomes for Children and Youth
 - 7.2 The Role of psychosocial Factors in adaptation to vision Impairment and Habilitation outcomes for Adults and Older adults
 - 7.3 Social support and adjustment to vision Impairment across the life span
 - 7.4 The person Environment perspective of vision impairment
 - 7.5 Associated Depression, Disability and rehabilitation
 - 7.6 Methodological strategies and issues in social research on vision Impairment and rehabilitation

Research Project:

Data Collection and submit the progress of the research at the end of the semester.

CLINIC 2



Category

At Post: Piparia, Taluka: Waghodia, District: Vadodara, Gujarat State, INDIA. Pin Code: 391760. Phone: +91 2668 245262 / 64 / 66, Fax No.: +91 2668 245069 Mobile No.: +91 8980809777, E-mail Id: registrar@sumandeepvidyapeethdu.edu.in, info@sumandeepvidyapeethdu.edu.in | Website: www.sumandeepvidyapeethdu.edu.in

An Institution Deemed to be University u/s 3 and 12B of UGC Act 1956 Accredited by NAAC with a CGPA of 3.61 on Four Point Scale at 'A++' Grade in Second Cycle

- I Deemed to be University under UGC Regulations 2018

The logbook has to be maintained and case_sheets of each subject in the semester with complete management and follow up are mandatory for submission at the end of the semester

The log book needs to be signed by the supervisor during every visit. No case record will be considered without the supervisor's signature.

Third Semester:

Advanced Contact Lenses (30hrs)

- 1. Extended and Continuous wear Lenses
- 2. Scleral Contact lenses
- 3. Bifocal and Multifocal contact lenses
- 4. Orthokeratology
- 5. Keratoconus
- 6. Post Keratoplasty contact lens fitting
- 7. Post refractive surgery contact lens fitting
- 8. Pediatric contact lens fitting
- 9. Cosmetic and prosthetic contact lens fitting
- 10. Contact lens for abnormal ocular conditions
- 11. Contact lens and Myopia control
- 12. Legal issues and contact lenses
- 13. Contact lens manufacturing
- 14. Modifications procedures

Low Vision Care and Rehabilitation (30hrs)

- 1. Habilitation of Children and Youth with vision Impairment
- 2. Rehabilitation of working -age Adults with Vision Impairment
- 3. Rehabilitation of older Adults with Vision Impairment
- 4. Functional consequences of vision Impairment
- 5. Vision evaluation of Infants
- 6. Educational assessment of visual function in Infants and Children
- 7. Functional Evaluation of the Adult
- 8. Functional orientation and Mobility
- 9. Functional Assessment of Low Vision for Activities of Daily living



UMANDEEP VIDYAPEE

An Institution Deemed to be University u/s 3 and 12B of UGC Act 1956 Accredited by NAAC with a CGPA of 3.61 on Four Point Scale at 'A++' Grade in Second Cycle Category - I Deemed to be University under UGC Regulations 2018

At Post: Piparia, Taluka: Waghodia, District: Vadodara, Gujarat State, INDIA. Pin Code: 391760. Phone: +91 2668 245262 / 64 / 66, Fax No.: +91 2668 245069 Mobile No.: +91 8980809777, E-mail Id: registrar@sumandeepvidyapeethdu.edu.in, info@sumandeepvidyapeethdu.edu.in | Website: www.sumandeepvidyapeethdu.edu.in

- 10. Psychosocial assessment of adults with vision impairment
- 11. Assistive Devices and Technology for Low Vision
- 12. Assistive Devices and Technology for Blind
- 13. Vision and Reading Normal Vs Low Vision
- 14. Clinical Implications of color vision Deficiencies

Vision Therapy (30hrs)

- 1. Clinical Conditions
 - 1.1 Strabismus and Amblyopia
 - 1.1.1 Amblyopia
 - Anisometropic / Isometropic Refractive Amblyopia
 - Strabismic Amblyopia
 - Hysterical Amblyopia
 - Form Deprivation Amblyopia
 - Differential diagnoses in childhood visual acuity loss
 - Strabismus
 - Esotropia
 - o Infantile
 - \circ Accommodative
 - o Acquired
 - o Microtropia
 - \circ Sensory
 - Convergence Excess
 - o Divergence Insufficiency
 - o Non-accommodative
 - Sensory Adaptations
 - Exotropia
 - o Divergence Excess
 - o Convergence Insufficiency
 - o Basic Exotropia
 - o Congenital
 - o Sensory
 - Vertical Deviations
 - Non-comitant Deviations (AV Syndrome; Duane's Retraction Syndrome; Brown's Syndrome; III, IV, VI nerve palsy, etc.)
 - o Differential diagnoses in strabismus



UMANDEEP VIDYAPEET

An Institution Deemed to be University u/s 3 and 12B of UGC Act 1956 Accredited by NAAC with a CGPA of 3.61 on Four Point Scale at 'A++' Grade in Second Cycle Category - I Deemed to be University under UGC Regulations 2018

At Post: Piparia, Taluka: Waghodia, District: Vadodara, Gujarat State, INDIA. Pin Code: 391760. Phone: +91 2668 245262 / 64 / 66, Fax No.: +91 2668 245069 Mobile No.: +91 8980809777, E-mail Id: registrar@sumandeepvidyapeethdu.edu.in, info@sumandeepvidyapeethdu.edu.in | Website: www.sumandeepvidyapeethdu.edu.in

- Special clinical considerations
 - o Anomalous Correspondence
- o Eccentric Fixation
- o Suppression
- o Motor Ranges
- o Stereopsis
- o Horror fusionalis / intractable diplopia
 - 1.2 Perception and Information Processing
 - 1.2.1 Neurological / Psychological
- Ambient / focal systems.
- Visual perceptual midline
- Parvo cellular / Magno cellular function
- Perceptual Style (central, peripheral)
- Impact of colored filters
- Attention
- 1.2.2 Intersensory and Sensorimotor Integration
 - Visual-auditory
 - Visual-vestibular
 - Visual-oral
 - Visual-motor
 - Visual-tactual
- 1.2.3 Performance indicators
 - Laterality and directionality
 - Visual requirements for academic success
 - Bilaterality
 - Gross and fine motor ability
 - Form perception/visual analysis
 - Spatial awareness
 - Visualization
 - Visual memory
 - Visual sequential memory
 - Form constancy
 - Visual speed and visual span
 - Visual sequencing
- 1.3 Refractive conditions and visual skills



JMANDEEP VIDYAPEE

An Institution Deemed to be University u/s 3 and 12B of UGC Act 1956 Accredited by NAAC with a CGPA of 3.61 on Four Point Scale at 'A++' Grade in Second Cycle Category - I Deemed to be University under UGC Regulations 2018

At Post: Piparia, Taluka: Waghodia, District: Vadodara, Gujarat State, INDIA. Pin Code: 391760. Phone: +91 2668 245262 / 64 / 66, Fax No.: +91 2668 245069 Mobile No.: +91 8980809777, E-mail Id: registrar@sumandeepvidyapeethdu.edu.in, info@sumandeepvidyapeethdu.edu.in | Website: www.sumandeepvidyapeethdu.edu.in

- 1.3.1 Refractive Conditions
 - Developmental influence on refraction & emmetropization
 - Aniseikonia
 - Myopia
 - Astigmatism
 - Hyperopia
- 1.3.2 Ocular Motor Function
 - Eye movements and reading
 - Pursuit dysfunctions
 - Nystagmus
 - Saccadic Dysfunctions
- 1.3.3 Accommodation
 - Role in myopia development
 - Role in computer-related asthenopia
- 1.3.4 Fusion in Non-Strabismic Conditions
 - Fixation disparity
 - Motor fusion
 - Sensory fusion
- 1.4 Special clinical conditions
 - 1.4.1 Acquired brain injury (traumatic brain injury {TBI} and stroke)
 - 1.4.2 Developmental disabilities (Down Syndrome, Developmental delay, etc.)
 - 1.4.3 Visually induced balance disorders
 - 1.4.4 Motor disabilities (Cerebral Palsy, ataxia, etc.)
 - 1.4.5 Behavioral disorders
 - 1.4.6 Autism spectrum disorders
 - 1.4.7 ADD / ADHD
 - 1.4.8 Dyslexia and specific reading disabilities
 - 1.4.9 Learning Disabilities
 - 1.4.10 Computer Vision Syndrome
- 2. Vision Therapy Concepts to Consider
 - 2.1 Peripheral awareness:
 - 2.1.1 focal / ambient roles
 - 2.1.2 Significant findings which are good or poor prognostic indicators of vision therapy and lens application
 - 2.1.3 Development, rehabilitation, prevention, enhancement
 - 2.1.4 Behavioral lens application



UMANDEEP VIDYAPEE

An Institution Deemed to be University u/s 3 and 12B of UGC Act 1956 Accredited by NAAC with a CGPA of 3.61 on Four Point Scale at 'A++' Grade in Second Cycle Category - I Deemed to be University under UGC Regulations 2018

At Post: Piparia, Taluka: Waghodia, District: Vadodara, Gujarat State, INDIA. Pin Code: 391760. Phone: +91 2668 245262 / 64 / 66, Fax No.: +91 2668 245069 Mobile No.: +91 8980809777, E-mail Id: registrar@sumandeepvidyapeethdu.edu.in, info@sumandeepvidyapeethdu.edu.in | Website: www.sumandeepvidyapeethdu.edu.in

- 2.1.5 Yoked prism rationale for treatment and application
- 2.1.6 The relationship between the visual and vestibular systems
- 2.1.7 SILO/SOLI
- 2.1.8 Visual stress and its impact on the visual system
- 2.1.9 Role of posture in vision development, comfort and performance
- 2.1.10 Disruptive therapy: Discuss this type of therapy and how it can be used as a clinical therapeutic tool.
- 2.1.11 Relationship of speech-auditory to vision
- 2.1.12 How television, reading, video gaming might restrict movement, computer work, nutrition, etc., impact vision?
- 2.1.13 Perceptual Style, e.g., spatial/temporal, central/peripheral

Research Project:

Data Collection, Literature search, Presentation of the progress of the project to the guide.

Clinics 3

An approximate of guided 240 hours needs to be completed in this semester. The students will be by rotation go to community clinics, Campus clinics, and associated hospital and optical / optometric clinics.

Fourth Semester:

Research Project:

Literature search, Data analysis, Interim Analysis, Thesis write-up, Presentation of the research work in front of the experts, and manuscript write –up for journal (optional).

CLINIC: GENERAL

1. Comprehensive Eye Examinations

- Importance of regular eye exams
- What happens during a comprehensive eye exam
- Frequency of exams for different age groups

Dry Eye and Meibomian Gland Dysfunction (MGD)

- Symptoms and diagnosis of dry eye
- Treatment options like artificial tears, warm compresses, and prescription medications
- Lifestyle changes to manage dry eye

Ocular Diseases

- Common conditions like glaucoma, cataracts, and macular degeneration
- How they are diagnosed and treated



An Institution Deemed to be University u/s 3 and 12B of UGC Act 1956 Accredited by NAAC with a CGPA of 3.61 on Four Point Scale at 'A++' Grade in Second Cycle Category - I Deemed to be University under UGC Regulations 2018

At Post: Piparia, Taluka: Waghodia, District: Vadodara, Gujarat State, INDIA. Pin Code: 391760. Phone: +91 2668 245262 / 64 / 66, Fax No.: +91 2668 245069 Mobile No.: +91 8980809777, E-mail Id: registrar@sumandeepvidyapeethdu.edu.in, info@sumandeepvidyapeethdu.edu.in | Website: www.sumandeepvidyapeethdu.edu.in

Prevention tips and lifestyle modifications

Blue Light and Digital Eye Strain

- The impact of screen time on vision
- How to prevent digital eye strain
- Use of blue light filtering lenses

Sports Vision

- Importance of vision in sports performance
- How athletes can improve their visual skills
- Protection from sports-related eye injuries

Emergency Eye Care

- Recognizing and managing eye emergencies (trauma, infections)
- When to seek immediate medical attention
- First aid for eye injuries

CLINICS 4

OCULAR DISEASES AND DIAGNOSTICS - I

- 1. Ability to perform clinical decision making for Ocular abnormalities
- 2. Ability to perform and interpret corneal diagnostics including
 - 2.1 Topography/Pentacam/Orbscan
 - 2.2 Specular microscopy
 - 2.3 Pachymetry
 - 2.4 Abberometry
 - 2.5 AS OCT UBM
- 3. Ability to perform pre and post Lasik evaluation
- 4. Ability to interpret glaucoma diagnostic reports
 - 4.1 OCT
 - 4.2 HRT
 - 4.3 GDx
 - 4.4 Gonioscopy
 - 4.5 ONH evaluation
- 5. Ability to perform anterior segment photography and ophthalmic imaging
- 6. Ability to manage and co-manage therapeutics for anterior segment

OCULAR DISEASES AND DIAGNOSTICS - II



JMANDEEP VIDYAPE

An Institution Deemed to be University u/s 3 and 12B of UGC Act 1956 Accredited by NAAC with a CGPA of 3.61 on Four Point Scale at 'A++' Grade in Second Cycle Category - I Deemed to be University under UGC Regulations 2018

At Post: Piparia, Taluka: Waghodia, District: Vadodara, Gujarat State, INDIA. Pin Code: 391760. Phone: +91 2668 245262 / 64 / 66, Fax No.: +91 2668 245069 Mobile No.: +91 8980809777, E-mail Id: registrar@sumandeepvidyapeethdu.edu.in, info@sumandeepvidyapeethdu.edu.in | Website: www.sumandeepvidyapeethdu.edu.in

- 1. Ability to perform electro diagnostic procedures and interpret electro diagnostic reports
 - 1.1 ERG
 - 1.2 EOG
 - 1.3 VEP
- 2. Ability to perform stereoscopic fundus photography
- 3. Ability to use Ocular photography as tool for evidence based clinical decision making and progression analysis
- 4. Ability to perform posterior segment photography
- 5. Ability to manage and co-manage diseases and disorders of posterior segment.

Low Vision Care

- 1. Ability to diagnose and manage patients with vision impairment
- 2. Ability to perform specialized diagnostics
 - 2.1 Rudimentary vision
 - 2.2 Berkeley visual field test
 - 2.3 Hand disc perimetry
- 3. Ability to train for eccentric viewing and steady eye techniques
- 4. Ability to rehabilitate patients with VI with vocational counselling and activities of daily living.

Pediatric Optometry And Binocular Vision:

- 1. Ability to diagnose and manage and co-manage binocular vision anomalies
- 2. Ability to co-manage visual perceptual anomalies
- 3. Ability to manage diplopia, suppression and ARC
- 4. Ability to manage amblyopia

Advanced Contact Lenses – I

- 1. Ability to understand corneal physiology and oxygen needs
- 2. Ability to diagnose and manage complications due to contact lenses
- 3. Ability to fit specialized contact lenses
 - 3.1 Keratoconus
 - 3.2 Rose K lenses
 - 3.3 Mini scleral lenses

Advanced Contact Lenses – li

- 1. Ability to fit specialized contact lenses
 - 1.1 Keratoconus



An Institution Deemed to be University u/s 3 and 12B of UGC Act 1956 Accredited by NAAC with a CGPA of 3.61 on Four Point Scale at 'A++' Grade in Second Cycle Category - I Deemed to be University under UGC Regulations 2018

At Post: Piparia, Taluka: Waghodia, District: Vadodara, Gujarat State, INDIA. Pin Code: 391760. Phone: +91 2668 245262 / 64 / 66, Fax No.: +91 2668 245069 Mobile No.: +91 8980809777, E-mail Id: registrar@sumandeepvidyapeethdu.edu.in, info@sumandeepvidyapeethdu.edu.in | Website: www.sumandeepvidyapeethdu.edu.in

- 1.2 Rose K lenses
- 1.3 Mini scleral lenses
- 1.4 Hybrid lenses
- 1.5 Orthokeratology
- 1.6 Scleral lenses: Dry eyes, SJS, Post PK, Post C3R, Post LASIK ectasia
- 2. Ability to fit custom made ocular prosthesis
- 3. Ability to fit pediatric contact lenses

Vision Therapy

- 1. Principles and Procedures The student should be able to define and explain:
 - 1.1 The unique qualities, scientific, and clinical principles of each clinical condition.
 - 1.2 The epidemiological and demographic characteristics of each clinical condition.
 - 1.3 The characteristic history, signs and symptoms for each clinical condition.
 - 1.4 How to assess each clinical condition, including specific test protocols and their interpretation.
 - 1.5 The differential diagnosis for each clinical condition.

Reference: Model Curriculum Handbook of Optometry by Ministry of Health and Family Welfare

Allied Health Section 2015-16.



Dr. Satwinder Singh HOD Department of Optometry, SVDU



SUMANDEEP VIDYAPEETH

An Institution Deemed to be University u/s 3 and 12B of UGC Act 1956 Accredited by NAAC with a CGPA of 3.61 on Four Point Scale at 'A++' Grade in Second Cycle Category - I Deemed to be University under UGC Regulations 2018

At Post: Piparia, Taluka: Waghodia, District: Vadodara, Gujarat State, INDIA. Pin Code: 391760. Phone: +91 2668 245262 / 64 / 66, Fax No.: +91 2668 245069 Mobile No.: +91 8980809777, E-mail Id: registrar@sumandeepvidyapeethdu.edu.in, info@sumandeepvidyapeethdu.edu.in | Website: www.sumandeepvidyapeethdu.edu.in