



INTEGRAL UNIVERSITY, LUCKNOW

INTEGRAL INSTITUTE OF ALLIED HEALTH SCIENCES & RESEARCH

DEPARTMENT OF PARAMEDICAL SCIENCES

**M.Sc Optometry
(M.OPTOM)**

SYLLABUS

YEAR/ SEMESTER: II/III



Integral University, Lucknow
Department of Paramedical Sciences
Study and Evaluation Scheme

Program: MOPT

Semester-III

S. N.	Course code	Course Title	Type of Paper	Period Per hr/week/sem			Evaluation Scheme				Sub. Total	Credit	Total Credits
				L	T	P	CT	TA	Total	ESE			
THEORIES													
1	MO601	Advanced contact lens II	Core	3	1	0	40	20	60	40	100	3:1:0	4
2	MO602	Low vision care and Rehabilitation	Core	3	1	0	40	20	60	40	100	3:1:0	4
3	MO603	Vision Therapy	Core	3	1	0	40	20	60	40	100	3:1:0	4
PRACTICAL													
1	MO604	Advanced contact lens II- Lab	Core	0	0	2	40	20	60	40	100	0:0:1	1
2	MO605	Low vision care and Rehabilitation - Lab	Core	0	0	2	40	20	60	40	100	0:0:1	1
3	MO606	Vision Therapy-Lab	Core	0	0	2	40	20	60	40	100	0:0:1	1
4	MO607	Clinic Posting- Lab	Core	0	0	12	25	25	50	-	50	0:0:6	6
Total				9	3	18	265	145	410	240	650	21	21

S. N.	Course code	Course Title	Type of Paper	Attributes							United Nation Sustainable Development Goals (SDGs)
				Employability	Entrepreneurship	Skill Development	Gender Equality	Environment & Sustainability	Human Value	Professional Ethics	
THEORIES											
1	MO601	Advanced contact lens II	Core	√	√	√	√		√	√	3,4
2	MO602	Low vision care and Rehabilitation	Core	√	√	√	√		√	√	3,4
3	MO603	Vision Therapy	Core	√	√	√	√		√	√	3,4
PRACTICAL											
1	MO604	Advanced contact lens II- Lab	Core	√	√	√	√		√	√	3,4
2	MO605	Low vision care and Rehabilitation - Lab	Core	√	√	√	√		√	√	3,4
3	MO606	Vision Therapy-Lab	Core	√	√	√	√		√	√	3,4
4	MO607	Clinic Posting- Lab	Core	√	√	√	√		√	√	3,4

L: Lecture **T:** Tutorials **P:** Practical **CT:** Class Test **TA:** Teacher Assessment **ESE:** End Semester Examination,
AE= Ability enhancement, **DSE-** Discipline Specific Elective, **Sessional Total:** Class Test + Teacher Assessment **Subject Total:** Sessional Total + End Semester Examination (ESE)



Integral University, Lucknow

Effective from Session: 2023-24							
Course Code	MO601	Title of the Course	Advanced contact lens II	L	T	P	C
Year	II	Semester	III	3	1	0	4
Pre-Requisite	Nil	Co-requisite	Nil				
Course Objectives	To enable the students to have knowledge in both theoretical and practical aspects of Contact Lenses.						

Course Outcomes	
CO1	Understanding about contact lens history, introduction, design & relation with structure of eye.
CO2	Understanding about contact lens material & their property their parameter.
CO3	Understanding about contact lens manufacturing techniques & fitting of lenses.
CO4	Understanding and know about care maintenance and do's & don't of contact lens.
CO5	Learn about complication and their management of contact Lenses.

Unit No.	Title of the Unit	Content of Unit	Contact Hrs.	Mapped CO
1	Specialty Contact Lens	Extended and Continuous wear Lenses Sclera Contact lenses Bifocal and multifocal contact lenses Orthokeratology Keratoconus Post keratoplasty contact lens fitting	8	CO1
2	Cosmetic and prosthetic contact lens	Post refractive surgery contact lens fitting Pediatric contact lens fitting Cosmetic and prosthetic contact lens fitting Contact lens for abnormal ocular conditions	8	CO2
3	Myopia	Contact lens and Myopia control	8	CO3
4	Legal issues	Legal issues and contact lenses	8	CO4
5	Manufacturing	Modifications procedures Contact lens manufacturing	8	CO5

Reference Books:

1. Contact lens primer by Monica Chaudhary, Jaypee Brothers medical publishers (P) Ltd
2. IACLE Contact lens modules.
3. Contact lens primer by Monica Chaudhary, Jaypee Brothers medical publishers (P) Ltd.

e-Learning Source:

1. <https://www.youtube.com/watch?v=ey7kpRQYaa0>
2. <https://www.youtube.com/watch?v=wIPyYkq3LnY>
3. <https://www.youtube.com/watch?v=w7skd-AAIPQ>

Course Articulation Matrix: (Mapping of COs with POs and PSOs)																	
PO-PSO CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	3	3	3	3	3	3	3	3	3	3	2	3	2	1	2	-	1
CO2	3	3	3	3	3	3	3	3	3	3	3	3	2	2	1	-	2
CO3	3	2	3	3	3	2	3	2	2	3	2	3	2	1	2	-	1
CO4	3	3	3	3	3	3	3	3	3	3	3	3	2	2	3	-	2
CO5	3	3	3	3	3	3	3	2	3	3	3	3	2	1	2	-	1

1- Low Correlation; 2- Moderate Correlation; 3- Substantial Correlation

Attributes & SDGs

Course Code	Course Title	Attributes							SDGs No.
MO601	Advanced contact lens II	Employability	Entrepreneurship	Skill Development	Gender Equality	Environment & Sustainability	Human Value	Professional Ethics	3,4
		√	√	√			√	√	



Integral University, Lucknow

Effective from Session: 2023-24							
Course Code	MO602	Title of the Course	Low vision care and Rehabilitation	L	T	P	C
Year	II	Semester	III	3	1	0	4
Pre-Requisite	Nil	Co-requisite	Nil				
Course Objectives	At the end of the course the students will be skilled in knowing the purpose, set- up and devices required for the test, indications and contraindications of the test, step-by- step procedures, documentation of the findings, and interpretation of the findings of the various clinical optometry procedures.						

Course Outcomes	
CO1	Understanding the basic definition and classification of Low Vision and Applying various optical and non-optical devices for visual rehabilitation of a low vision Patient.
CO2	Understanding how to do examination of a low vision Patient and the legal aspects of Low Vision in India, as well as applying case studies to for visual rehabilitation of a low vision Patient.
CO3	Understanding the concept of Visual Function, Visual Acuity, Color Vision, etc.
CO4	Applying Various Techniques for Diagnosis and Management of Various Eye Ailments.
CO5	Applying advance techniques for Evaluation of Cornea, Tear Film and Ocular Refraction.

Unit No.	Title of the Unit	Content of Unit	Contact Hrs.	Mapped CO
1	Rehabilitation	Rehabilitation of Children and Youth with vision Impairment Rehabilitation of working –age Adults with Vision Impairment Rehabilitation of older Adults with Vision Impairment Functional consequences of vision Impairment Vision evaluation of Infants	8	CO1
2	Functional Assessment	Educational assessment of visual function in Infants and Children Functional Evaluation of the Adult Functional orientation and Mobility Functional Assessment of Low Vision for Activities of Daily living	8	CO2
3	Psychosocial assessment	Psychosocial assessment of adults with vision impairment Assistive Devices and Technology for Low Vision	8	CO3
4	Low Vision Aids	Assistive Devices and Technology for Blind Vision and Reading - Normal Vs Low Vision	8	CO4
5	Implications	Clinical Implications of color vision Deficiencies	8	CO5

Reference Books:	
1.	T Grosvenor: Primary Care Optometry, 5th edition, Butterworth –Heineman, USA, 2007.
2.	A K Khurana: Comprehensive Ophthalmology, 4th edition, new age international (p) Ltd. Publishers, New Delhi, 2007.
3.	D B. Elliott: Clinical Procedures in Primary Eye Care, 3rd edition, Butterworth- Heinemann, 2007.
4.	Jack J. Kanski Clinical Ophthalmology: A Systematic Approach, 6th edition, Butterworth- Heinemann, 2007.
5.	J.B Eskridge, J.F. Amos, J.D. Bartlett: Clinical Procedures in Optometry, Lippincott Williams and Wilkins, 1991.
e-Learning Source:	
1.	https://www.youtube.com/watch?v=Sm6d4t873oI
2.	https://www.youtube.com/watch?v=OmlKEGG5e-E
3.	https://www.youtube.com/watch?v=TWmaZZDgPX0

Course Articulation Matrix: (Mapping of COs with POs and PSOs)																	
PO-PSO CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	1	3	1	2	-	-	-	1	2	-	-	2	2	1	-	1	-
CO2	1	3	1	3	-	-	-	1	3	-	-	3	3	2	-	2	-
CO3	1	3	1	2	-	-	-	1	2	-	-	2	3	1	-	1	-
CO4	1	3	1	2	-	-	-	1	3	-	-	3	2	1	-	1	-
CO5	1	3	1	2	-	-	-	1	2	-	-	2	2	1	-	1	-

1- Low Correlation; 2- Moderate Correlation; 3- Substantial Correlation
Attributes & SDGs

Course Code	Course Title	Attributes							SDGs No.
MO602	Low vision care and Rehabilitation	Employability	Entrepreneurship	Skill Development	Gender Equality	Environment & Sustainability	Human Value	Professional Ethics	3,4
		√	√	√	√		√	√	



Integral University, Lucknow

Effective from Session: 2023-24							
Course Code	MO603	Title of the Course	Vision Therapy	L	T	P	C
Year	II	Semester	III	3	1	0	4
Pre-Requisite	Nil	Co-requisite	Nil				
Course Objectives	The objective of this course is to inculcate the student with the knowledge of different types of strabismus, its etiology, clinical features, necessary investigations and management.						

Course Outcomes	
CO1	Understanding the gross anatomy and physiology related to Extra Ocular Muscles.
CO2	Understanding the concept & theories of Binocular single Vision.
CO3	Understanding the concept of Grades of Binocular Vision- SMP, Fusion and Stereopsis.
CO4	Understanding the mechanism of Ocular movement & position of gaze.
CO5	Analyzing the relation between Binocular Single Vision and Various law of Ocular motility.

Unit No.	Title of the Unit	Content of Unit	Contact Hrs.	Mapped CO
1	Clinical Conditions	Strabismus and Amblyopia Amblyopia Anisometropic / Isometropic Refractive Amblyopia Strabismic Amblyopia Hysteric Amblyopia Form Deprivation Amblyopia Differential diagnoses in childhood visual acuity loss Strabismus Esotropia- Infantile Accommodative Acquired Microtropia Sensory Convergence Excess Divergence Insufficiency Non-accommodative Sensory Adaptations	8	CO1
2	Strabismus	Exotropia Divergence Excess Convergence Insufficiency Basic Exotropia Congenital Sensory Vertical Deviations Noncomitant Deviations (AV Syndrome; Duane's Retraction Syndrome; Brown's Syndrome; III, IV, VI nerve palsy, etc.) Differential diagnoses in strabismus Special clinical considerations Anomalous Correspondence Eccentric Fixation Suppression Motor Ranges Stereopsis	8	CO2
3	Perception and Information Processing	Neurological /Psychological Ambient / focal systems. Visual perceptual midline Parvo cellular / Magno cellular function Perceptual Style (central, peripheral) Impact of colored filters Attention Inter sensory and Sensory motor Integration Visual-auditory	8	CO3

		Visual-vestibular Visual-oral Visual-motor Visual-tactual Performance indicators Laterality and directionality Visual requirements for academic success Bi laterality 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		
4	Refractive conditions and visual skills	Refractive Conditions Developmental influence on refraction & emmetropization Aniseikonia Myopia Astigmatism Hyperopia Ocular Motor Function Eye movements and reading Pursuit dysfunctions Nystagmus Saccadic Dysfunctions Accommodation Role in myopia development Role in computer-related asthenopia Fusion in Non-Strabismic Conditions Fixation disparity Motor fusion Sensory fusion	8	CO4
5	Special clinical conditions	Acquired brain injury (traumatic brain injury {TBI} and stroke) Developmental disabilities (Down Syndrome, Developmental delay,etc.) Visually induced balance disorders Motor disabilities (Cerebral Palsy, ataxia,etc.) Behavioral disorders Autism spectrum disorders ADD /ADHD ,Autism Dyslexia and specific reading disabilities Learning Disabilities Computer Vision Syndrome Vision Therapy Concepts to Consider Peripheral awareness: focal / ambient roles Significant findings which are good or poor prognostic indicators of vision therapy and lens application Development, rehabilitation, prevention, enhancement Behavioral lens application Yoked prism rationale for treatment and application The relationship between the visual and vestibular systems SILO/SOLI Visual stress and its impact on the visual system Role of posture in vision development, comfort and performance Disruptive therapy: Discuss this type of therapy and how it can be used as a clinical therapeutic tool. Relationship of speech-auditory to vision	8	CO5

		How television, reading, video gaming might restrict movement, computer work, nutrition, etc., impact vision? Perceptual Style, e.g., spatial/temporal, central/peripheral		
Reference Books:				
1. Gunter K. Von Noorden: BURIAN- VON NOORDEN'S Binocular vision and ocular motility theory and management of strabismus, Missouri, Second edition, 1980, C. V. Mosby Company.				
2. *Latest editions of all the suggested books are recommended				
e-Learning Source:				
1. https://www.youtube.com/watch?v=y9FTgp3ODog				
2. https://www.youtube.com/watch?v=K3txN1Kv0CU				
3. https://www.youtube.com/watch?v=-oBrLX-5NtI				

	Course Articulation Matrix: (Mapping of COs with POs and PSOs)																
PO-PSO CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	1	3	1	2	-	-	-	1	2	1	-	2	-	1	2	-	3
CO2	2	3	2	2	-	-	-	1	3	1	-	3	-	2	1	-	2
CO3	1	3	1	2	-	-	-	1	2	-	-	2	-	1	2	-	3
CO4	2	3	1	2	-	-	-	1	3	-	-	3	-	2	3	-	3
CO5	1	3	1	2	-	-	-	1	2	1	-	2	-	1	2	-	3

1- Low Correlation; 2- Moderate Correlation; 3- Substantial Correlation

Attributes & SDGs

Course Code	Course Title	Attributes							SDGs No.
MO603	Vision Therapy	Employability	Entrepreneurship	Skill Development	Gender Equality	Environment & Sustainability	Human Value	Professional Ethics	3,4
		√	√	√	√		√	√	



Integral University, Lucknow

Effective from Session: 2023-24/2022-23

Course Code	MO604	Title of the Course	Advanced contact lens II Lab	L	0	T	0	P	2	C	1
Year	II	Semester	III								
Pre-Requisite	Nil	Co-requisite	Nil								
Course Objectives	To enable the students to have knowledge in both theoretical and practical aspects of Contact Lenses.										

Course Outcomes	
CO1	Understanding about contact lens history, introduction, design & relation with structure of eye.
CO2	Understanding about contact lens material & their property their parameter.
CO3	Understanding about contact lens manufacturing techniques & fitting of lenses.
CO4	Understanding and know about care maintenance and do's & don't of contact lens.
CO5	Learn about complication and their management of contact Lenses.

Unit No.	Title of the Unit	Content of Unit	Contact Hrs.	Mapped CO
1	Specialized contact lenses- I	Kerasoft lenses Rose'K lenses	4	CO1
2	Specialized contact lenses- II	Mini scleral lenses Hybrid lenses	4	CO2
3	Specialized contact lenses- III	Orthokeratology Scleral lenses: Dry eyes, SJS, Post PK, Post C3R, Post LASIK ectasia	4	CO3
4	Ocular prosthesis	Fitting and assessment of custom made ocular prosthesis	4	CO4
5	Pediatric contact lenses	Fitting and assessment of pediatric contact lenses	4	CO5

Reference Books:

1. Contact lens primer by Monica Chaudhary, Jaypee Brothers medical publishers (P) Ltd
2. IACLE Contact lens modules.
3. Contact lens primer by Monica Chaudhary, Jaypee Brothers medical publishers (P) Ltd.

e-Learning Source:

1. <https://www.youtube.com/watch?v=ey7kpRQYaa0>
2. <https://www.youtube.com/watch?v=wIPyYkq3LnY>
3. <https://www.youtube.com/watch?v=w7skd-AA1PQ>

Course Articulation Matrix: (Mapping of COs with POs and PSOs)																	
PO-PSO CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	1	3	2	2	-	-	-	1	2	1	-	2	2	1	-	1	-
CO2	1	3	1	3	-	-	-	2	3	-	-	3	3	2	-	2	-
CO3	1	3	1	2	-	-	-	1	2	2	-	2	3	1	-	1	-
CO4	1	3	1	2	-	-	-	1	3	-	-	3	2	1	-	1	-
CO5	1	3	1	2	-	-	-	1	2	1	-	2	2	1	-	1	-

1- Low Correlation; 2- Moderate Correlation; 3- Substantial Correlation

Attributes & SDGs

Course Code	Course Title	Attributes							SDGs No.
MO604	Advanced contact lens II Lab	Employability	Entrepreneurship	Skill Development	Gender Equality	Environment & Sustainability	Human Value	Professional Ethics	
		√	√	√	√		√	√	3,4



Integral University, Lucknow

Effective from Session: 2023-24

Course Code	MO605	Title of the Course	Low vision care and rehabilitation Lab	L	T	P	C
Year	II	Semester	III	0	0	2	1
Pre-Requisite	Nil	Co-requisite	Nil				
Course Objectives	At the end of the course the students will be skilled in knowing the purpose, set- up and devices required for the test, indications and contraindications of the test, step-by- step procedures, documentation of the findings, and interpretation of the findings of the various clinical optometry procedures.						

Course Outcomes	
CO1	Understanding the basic definition and classification of Low Vision and Applying various optical and non-optical devices for visual rehabilitation of a low vision Patient.
CO2	Understanding how to do examination of a low vision Patient and the legal aspects of Low Vision in India, as well as applying case studies to for visual rehabilitation of a low vision Patient.
CO3	Understanding the concept of Visual Function, Visual Acuity, Color Vision, etc.
CO4	Applying Various Techniques for Diagnosis and Management of Various Eye Ailments.
CO5	Applying advance techniques for Evaluation of Cornea, Tear Film and Ocular Refraction.

Unit No.	Title of the Unit	Content of Unit	Contact Hrs.	Mapped CO
1	History taking	Attending in low vision care clinic and history taking.	4	CO1
2	Telescope	Determining the type of telescope and its magnification (Direct comparison method & calculated method)	4	CO2
3	Magnification	Determining the change in field of view with different magnification and different eye to lens distances with telescopes and magnifiers.	4	CO3
4	Prescribing magnification	Inducing visual impairment and prescribing magnification.	4	CO4
5	Reading speed	Determining reading speed with different types of low vision aids with same magnification. Determining reading speed with a low vision aid of different magnifications..	4	CO5

Reference Books:

6. T Grosvenor: Primary Care Optometry, 5th edition, Butterworth –Heinemann, USA, 2007.
7. A K Khurana: Comprehensive Ophthalmology, 4th edition, new age international (p) Ltd. Publishers, New Delhi, 2007.
8. D B. Elliott: Clinical Procedures in Primary Eye Care, 3rd edition, Butterworth- Heinemann, 2007.
9. Jack J. Kanski Clinical Ophthalmology: A Systematic Approach, 6th edition, Butterworth- Heinemann, 2007.
10. J.B Eskridge, J F. Amos, J D. Bartlett: Clinical Procedures in Optometry, Lippincott Williams and Wilkins, 1991.

e-Learning Source:

4. <https://www.youtube.com/watch?v=Sm6d4t873oI>
5. <https://www.youtube.com/watch?v=OmlKEGG5e-E>
6. <https://www.youtube.com/watch?v=TWmaZZDgPX0>

PO-PSO CO	Course Articulation Matrix: (Mapping of COs with POs and PSOs)																
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	1	3	2	2	-	-	-	1	2	-	-	2	3	1	2	3	-
CO2	1	3	1	3	-	-	-	2	3	-	-	3	3	-	1	2	-
CO3	1	3	1	2	-	-	-	1	2	-	-	2	2	2	1	2	2
CO4	1	3	1	2	-	-	-	1	3	1	-	3	2	3	1	3	2
CO5	1	3	1	2	-	-	-	1	2	2	-	2	3	1	2	2	2

1- Low Correlation; 2- Moderate Correlation; 3- Substantial Correlation

Attributes & SDGs

Course Code	Course Title	Attributes							SDGs No.
MO605	Low vision care and rehabilitation Lab	Employability	Entrepreneurship	Skill Development	Gender Equality	Environment & Sustainability	Human Value	Professional Ethics	3,4
		√	√	√	√		√	√	



Integral University, Lucknow

Effective from Session: 2023-24									
Course Code	MO606	Title of the Course	Vision Therapy Lab			L	T	P	C
Year	II	Semester	III			0	0	2	1
Pre-Requisite	Nil	Co-requisite	Nil						
Course Objectives	The objective of this course is to inculcate the student with the knowledge of different types of strabismus, its etiology, clinical features, necessary investigations and management.								

Course Outcomes	
CO1	Understanding the gross anatomy and physiology related to Extra Ocular Muscles.
CO2	Understanding the concept & theories of Binocular single Vision.
CO3	Understanding the concept of Grades of Binocular Vision- SMP, Fusion and Stereopsis.
CO4	Understanding the mechanism of Ocular movement & position of gaze.
CO5	Analyzing the relation between Binocular Single Vision and Various law of Ocular motility.

Unit No.	Title of the Unit	Content of Unit	Contact Hrs.	Mapped CO
1	Disparity	Aniseikonia Nystagmus Fixation disparity Motor fusion Sensory fusion	4	CO1
2	Refractive Conditions	Myopia Astigmatism Hyperopia Developmental influence on refraction & emmetropization	4	CO2
3	Eye Movements	Ocular Motor Function Eye movements and reading Pursuit dysfunctions Saccadic Dysfunctions	4	CO3
4	Accommodation	Accommodation- NPA, NRA & PRA	4	CO4
5	Role of Optometrist	Role in myopia development Role in computer-related asthenopia Fusion in Non-Strabismic Conditions	4	CO5

Reference Books:

- Gunter K. Von Noorden: BURIAN- VON NOORDEN'S Binocular vision and ocular motility theory and management of strabismus, Missouri, Second edition, 1980, C. V. Mosby Company.
- *Latest editions of all the suggested books are recommended**

e-Learning Source:

- <https://www.youtube.com/watch?v=y9FTgp3ODog>
- <https://www.youtube.com/watch?v=K3txN1Kv0CU>
- <https://www.youtube.com/watch?v=-oBrLX-5NtI>

Course Articulation Matrix: (Mapping of COs with POs and PSOs)																	
PO-PSO CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	1	2	2	2	-	-	-	1	2	1	-	2	-	2	2	1	-
CO2	1	-	1	3	-	-	-	2	3	-	-	3	-	1	1	1	-
CO3	1	3	1	2	-	-	-	1	2	2	-	2	-	1	1	1	-
CO4	1	2	1	2	-	-	-	1	3	-	-	3	-	1	2	1	-
CO5	1	2	1	2	-	-	-	1	2	1	-	2	-	1	1	1	-

1- Low Correlation; 2- Moderate Correlation; 3- Substantial Correlation
Attributes & SDGs

Course Code	Course Title	Attributes							SDGs No.
MO606	Vision Therapy Lab	Employability	Entrepreneurship	Skill Development	Gender Equality	Environment & Sustainability	Human Value	Professional Ethics	3,4, 11
				√					



Integral University, Lucknow

Effective from Session: 2023-24							
Course Code	MO607	Title of the Course	Clinic Posting	L	T	P	C
Year	II	Semester	III	0	0	12	6
Pre-Requisite	Nil	Co-requisite	Nil				
Course Objectives	At the end of the course the students will be skilled in knowing the purpose, set- up and devices required for the test, indications and contraindications of the test, step-by- step procedures, documentation of the findings, and interpretation of the findings of the various clinical optometry procedures						

Course Outcomes: After the successful course completion, learners will develop following attributes:

CO1	Analyzing the concept of clinical features of the diseases for the management of ocular diseases
CO2	Understanding about accommodation, its anomalies and their practical significance
CO3	Applying Various Techniques for Diagnosis and Management of Various Eye Ailments.
CO4	Applying advance techniques for Evaluation of Cornea, Tear Film and Ocular Refraction.
CO5	Applying of different pharmaceutical agents in the management of Ocular disease as well as managing Ocular Toxicity.

Unit No.	Title of the Unit	Content of Unit			Contact Hrs.	Mapped CO
1	Clinical training	Students will improve their skills in clinical procedures, and then progressive interactions with patients and professional personal are monitored as students practice optometry in supervised setting. Additional area includes problem solving and complications of various managements will be inculcated. Students should have exposure to eye bank facilities and must be made aware of eye donation, collection of eyes, preservation, pre and postoperative instructions and latest techniques for preservation of donor cornea. The students will get clinical training on the practical aspects of the following courses namely optometric optic –II & dispensing optics, visual optics – II and ocular disease -II.			120	CO1, CO2, CO3, CO4, CO5
		History taking 1.General 2. Specific 3.Conditions	30 cases	Can practice on the following complaint: Blurred Vision, Headache, Pain, redness, Watering, Flashes, Floaters, Blacks pots		
		Lensometry	100 cases	Simple Sphere, Simple cylinder, Sphero cylinder (90, 180 Oblique degrees), Bifoc PAL		
		Visual Acuity Pinhole acuity	100 cases	Simulation, especially to show and ask the students to interpret the findings.		
		Extra ocular Motility	10 cases			
		Cover test	10 cases	Video output Simulation of various conditions.		
		Alternate Cover test	10 cases	Video output Simulation of various conditions.		
		Hirschberg test	10 cases	Video output Simulation of various conditions.		
		Modified Krimsky test	3 cases	Video output Simulation of various conditions.		
		Push up test (Amplitude of Accommodation)	10 cases (1 case in presbyopia age)			
		Push up test (Near point of Convergence)	10 cases			
		Stereopsis test	10 cases			
		Tear Break up time	10 cases			
		Amsler's Grid test	10 cases (simulate)	Simulation of various conditions		
		Photo stress test	10 cases (Normal)			
		Color vision test	10 cases			
		Schirmer's test	10 cases			
		Confrontation test	10 cases			
		Torch light Examination	50 cases			
		Slit lamp examination	10 cases			
		Digital tonometry	10 cases			

Reference Books:	
1. A K Khurana: Comprehensive Ophthalmology, 4th edition, new age international(p) Ltd. Publishers, New Delhi, 2007.	
2. B. Elliott: Clinical Procedures in Primary Eye Care, 3rd edition, Butterworth-Heinemann, 2007	
3. Jack J. Kanski Clinical Ophthalmology: A Systematic Approach, 6th edition, Butterworth- Heinemann, 2007.	
e-Learning Source:	
1. https://www.youtube.com/watch?v=Sm6d4t873oI	
2. https://www.youtube.com/watch?v=OmlKEGG5e-E	
3. https://www.youtube.com/watch?v=TWmaZZDgPX0	

	Course Articulation Matrix: (Mapping of COs with POs and PSOs)																
PO-PSO CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	2	3	-	2	1	-	-	-	1	1	-	1	2	1	3	2	1
CO2	1	3	-	2	-	-	-	-	1	-	-	1	2	1	3	2	1
CO3	2	3	-	2	-	-	-	-	1	1	-	1	2	1	3	2	1
CO4	1	3	-	1	-	-	-	-	1	-	-	1	2	1	3	2	1
CO5	2	3	-	1	-	-	-	-	1	-	-	1	2	1	3	2	1

2- Low Correlation; 2- Moderate Correlation; 3- Substantial Correlation

Attributes & SDGs

Course Code	Course Title	Attributes							SDGs No.
MO607	Clinic Posting	Employability	Entrepreneurship	Skill Development	Gender Equality	Environment & Sustainability	Human Value	Professional Ethics	
				√					3,4, 11



INTEGRAL UNIVERSITY, LUCKNOW
INTEGRAL INSTITUTE OF ALLIED HEALTH SCIENCES & RESEARCH

DEPARTMENT OF PARAMEDICAL SCIENCES

**M.Sc Optometry
(M.OPTOM)**

SYLLABUS

YEAR/ SEMESTER: II/IV



Integral University, Lucknow
Department of Paramedical Sciences
Study and Evaluation Scheme

Program: MOPT

Semester-IV

S. N.	Course code	Course Title	Type of Paper	Period Per hr/week/sem			Evaluation Scheme				Sub. Total	Credit	Total Credits
				L	T	P	CT	TA	Total	ESE			
THEORIES													
1	MO608	Education and Teaching Methodology	Core	3	1	0	40	20	60	40	100	3:1:0	4
2	MO609	Professional Practice management	Core	3	1	0	40	20	60	40	100	3:1:0	4
PRACTICAL													
1	MO610	Education and Teaching Methodology Lab	Core	0	0	2	40	20	60	40	100	0:0:1	1
2	MO611	Research Project (Dissertation) Clinical Posting	Core	0	0	12	40	20	60	40	100	0:0:6	6
Total				6	2	14	160	80	240	160	400	15	15

S. N.	Course code	Course Title	Type of Paper	Attributes							United Nation Sustainable Development Goals (SDGs)
				Employability	Entrepreneurship	Skill Development	Gender Equality	Environment & Sustainability	Human Value	Professional Ethics	
THEORIES											
1	MO608	Education and Teaching Methodology	Core	√	√	√	√		√	√	3,4
2	MO609	Professional Practice management	Core	√	√	√	√		√	√	3,4
PRACTICAL											
1	MO610	Education and Teaching Methodology Lab	Core	√	√	√	√		√	√	3,4
2	MO611	Research Project (Dissertation) Clinical Posting	Core	√	√	√	√		√	√	3,4

L: Lecture **T:** Tutorials **P:** Practical **CT:** Class Test **TA:** Teacher Assessment **ESE:** End Semester Examination,
AE= Ability enhancement, **DSE-** Discipline Specific Elective, **Sessional Total:** Class Test + Teacher Assessment **Subject Total:** Sessional Total + End Semester Examination (ESE)



Integral University, Lucknow

Effective from Session: 2023-24							
Course Code	MO608	Title of the Course	Education and Teaching Methodology	L	T	P	C
Year	II	Semester	IV	3	1	0	4
Pre-Requisite	Nil	Co-requisite	Nil				
Course Objectives	This course deals with the basics of teaching and learning methods and presents details on nature of teaching. It also introduces the students to the concepts of development and learning with practical knowledge and exposure.						

Course Outcomes	
CO1	Understanding the basic of Learning and Teaching
CO2	To understand moral their interrelationships and implications for teaching
CO3	Analyzing the concept of Cognition and Learning
CO4	Applying advance techniques for Intelligence and Motivation
CO5	To Analyzing the Assessment of Intelligence

Unit No.	Title of the Unit	Content of Unit	Contact Hrs.	Mapped CO
1	Development and Learning	Learning and Teaching – Nature, Relevance and Relationship. Nature and Nurture, Growth and Maturation. Relationship between Development and Learning Developmental Influences: Development as a resultant of interactions between individual and the external environment (physical, Socio-cultural, Economic, Ecological and Technological)	8	CO1
2	Moral-their interrelationship and implications	Dimensions of Individual development: Physical, Cognitive, Affective, Social and Moral their interrelationships and implications for teachers Key Cognitive Processes: Perception, Attention, Memory, Language, Thinking, Problem Solving, Emotions and Motivation. Stages of Development- Developmental tasks with focus on processes of growth and development across various stages from Infancy to Post Adolescence and their significance to Learning.	8	CO2
3	Cognition and Learning	Role of a teacher in a teaching-learning context: (a) Transmitter of knowledge (b) Model (c) Facilitator (d) Negotiator (e) Learner	8	CO3
4	Intelligence and Motivation	Defining Intelligence (Definitions given by different Psychologists) Nature of Intelligence and the role of Heredity and Environment	8	CO4
5	Assessment of Intelligence	(a) Individual Tests – Verbal Tests (b) Group Tests: Verbal/Non Verbal Motivation-Meaning and Need, Role of a teacher in motivating students: Need and Strategies	8	CO5

Reference Books:

1. Teaching Methodology: Pedagogical Principles and Effective Teaching Strategies- Chaudhary Murtaza
2. Teaching Methodology: Effective Teaching Strategies- G.M. Chaudhary
3. The art of teaching art : a guide for teaching and learning the foundations of drawing- Deborah A
4. Assessment and Teaching of 21st Century Skills: Methods and Approach- Patrick Griffin & Esther Care

e-Learning Source:

- 1 <https://www.youtube.com/watch?v=TDsjH7eoUk>
- 2 <https://www.youtube.com/watch?v=TbRThpeFKfs>
- 3 <https://www.youtube.com/watch?v=1p1zcU1LAjc>

PO-PSO CO	Course Articulation Matrix: (Mapping of COs with POs and PSOs)																
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	1	3	1	2	-	-	-	1	1	1	-	3	2	2	1	1	1
CO2	1	3	2	2	-	-	-	1	1	1	-	3	2	2	1	1	1
CO3	1	3	1	2	-	-	-	1	1	1	-	3	2	1	1	1	1
CO4	2	3	1	2	-	-	-	1	1	1	-	3	2	2	1	1	1
CO5	1	3	1	2	-	-	-	1	1	1	-	3	2	1	1	1	1

1- Low Correlation; 2- Moderate Correlation; 3- Substantial Correlation

Attributes & SDGs

Course Code	Course Title	Attributes							SDGs No.
MO608	Education and Teaching Methodology	Employability	Entrepreneurship	Skill Development	Gender Equality	Environment & Sustainability	Human Value	Professional Ethics	
		√	√	√	√		√	√	3,4



Integral University, Lucknow

Effective from Session: 2023-24							
Course Code	MO609	Title of the Course	Professional Practice management	L	T	P	C
Year	II	Semester	IV	3	1	0	4
Pre-Requisite	Nil	Co-requisite	Nil				
Course Objectives	The objective of Professional Practice Management in this semester is to be able to examine the eye and understand the all eye procedures with clinical management.						

Course Outcomes	
CO1	After studying this the students will have the basic understanding of definitions and terminologies used in legal proceedings.
CO2	After completing this the students will have the basic understanding of law & Optometry.
CO3	After studying this course, the students will know the Acts and provisions of the Constitution of India related to Optometry and specific sections.
CO4	The students will understand the government and community relation.
CO5	After studying the students will know about the Acts governing socio-economic Law.

Unit No.	Title of the Unit	Content of Unit	Contact Hrs.	Mapped CO
1	Law & Optometry	Laws governing medical and paramedical professions Consumer act with respect to optometry and dispensing of optical Aids.	8	CO1
2	Ethics.	Personal and professional insurance (indemnity). Employment and contacts. Partnership and alternatives. Negligence	8	CO2
3	Basic Accountancy and Public relations	Introduction. Terms used in accounts, Principles of accountancy. Journal & ledger Trial Balance Subsidiary books, petty cash book, sales register, purchase register, stock register Bank reconciliation and Banking procedures. Depreciation. Balance sheet and profit & loss accounts. General ideas about Income tax and sales tax. Project report and financial inability. Costing in practice (Buying, stock-keeping, assesment of fees and costing of appliance).	8	CO3
4	Public relations.	Definitions. PR- its disfunction from publicity, propaganda & advertising. Internal and external aspects of PR Phases of PR: analysis building, promotion of product or services, better employee, government and community relation.	8	CO4
5	Methods of public relations	Press relations: Press release, Press conference, and Letter to editor. Printed work: Style, color & design.	8	CO5

Reference Books:

1. Law and Ethics for the Eye Care Professional, 1e- Barbara K. Pierscionek
2. Law And Management In Optometric Practice- S Taylor And Austen
3. Legal Aspects Of Optometry- John G Classe

e-Learning Source:

1. <https://www.youtube.com/watch?v=kKeqrdt22xQ>
2. <https://www.youtube.com/watch?v=47wnvRnIs8g>
3. <https://www.youtube.com/watch?v=5-DuFwV5nIk>

Course Articulation Matrix: (Mapping of COs with POs and PSOs)																	
PO-PSO CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	1	3	1	2	-	-	-	1	2	-	-	2	2	1	-	1	1
CO2	1	3	1	3	-	-	-	1	3	-	-	3	3	2	-	1	1
CO3	1	3	1	2	-	-	-	1	2	-	-	2	3	1	-	1	1



Integral University, Lucknow

Effective from Session: 2023-24							
Course Code	MO610	Title of the Course	Education and Teaching Methodology Lab	L	T	P	C
Year	II	Semester	IV	0	0	2	1
Pre-Requisite	Nil	Co-requisite	Nil				
Course Objectives	This course deals with the basics of teaching and learning methods and presents details on nature of teaching. It also introduces the students to the concepts of development and learning with practical knowledge and exposure.						

Course Outcomes	
CO1	Understanding the basic of Learning and Teaching
CO2	To understand moral their interrelationships and implications for teaching
CO3	Analyzing the concept of Cognition and Learning
CO4	Applying advance techniques for Intelligence and Motivation
CO5	To Analyzing the Assessment of Intelligence

Unit No.	Title of the Unit	Content of Unit	Contact Hrs.	Mapped CO
1	Power Point Presentation	Develop a Power Point Presentation on a particular topic.	4	CO1
2	Evaluation	Analyse answers given by the learners for one particular question	4	CO2
3	Assessment	Develop a question paper for assessment	4	CO3
4	Planning	Develop Lesson Planning	4	CO4
5	Teaching ways	Develop Unique way of teaching	4	CO5

Reference Books:	
1.	Teaching Methodology: Pedagogical Principles and Effective Teaching Strategies- Chaudhary Murtaza
2.	Teaching Methodology: Effective Teaching Strategies- G.M. Chaudhary
3.	The art of teaching art : a guide for teaching and learning the foundations of drawing- Deborah A
4.	Assessment and Teaching of 21st Century Skills: Methods and Approach- Patrick Griffin & Esther Care

e-Learning Source:	
1.	https://www.youtube.com/watch?v=TDsjuH7eoUk
2.	https://www.youtube.com/watch?v=TbRThpeFKfs
3.	https://www.youtube.com/watch?v=1p1zcU1LAjc

PO-PSO CO	Course Articulation Matrix: (Mapping of COs with POs and PSOs)																
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	2	3	-	2	1	-	-	-	1	1	-	1	2	1	3	2	1
CO2	1	3	-	2	-	-	-	-	1	-	-	1	2	1	3	2	1
CO3	2	3	-	2	-	-	-	-	1	1	-	1	2	1	3	2	1
CO4	1	3	-	1	-	-	-	-	1	-	-	1	2	1	3	2	1
CO5	2	3	-	1	-	-	-	-	1	-	-	1	2	1	3	2	1

1- Low Correlation; 2- Moderate Correlation; 3- Substantial Correlation
Attributes & SDGs

Course Code	Course Title	Attributes							SDGs No.
MO610	Education and Teaching Methodology Lab	Employability	Entrepreneurship	Skill Development	Gender Equality	Environment & Sustainability	Human Value	Professional Ethics	3,4
		√	√	√	√		√	√	



Integral University, Lucknow

Effective from Session: 2023-24							
Course Code	MO611	Title of the Course	Research Project (Dissertation) Clinical Posting	L	T	P	C
Year	II	Semester	IV	0	0	12	6
Pre-Requisite	Nil	Co-requisite	Nil				
Course Objectives	The objective of Research Project (Dissertation) in this semester is to be able to do research in optometry field.						

Course Outcomes	
CO1	Apply the principles of research and biostatistics to health practice including the design and implementation of health-related research studies.
CO2	Plan and execute a research study, including clinical trials.
CO3	Use / organize bio-statistical analysis using computers and software's and prepare reports.
CO4	Critically evaluate research activities.
CO5	Make recommendations on policy and procedures. Plan and conduct an educational session.

Unit No.	Title of the Unit	Content of Unit	Contact Hrs.	Mapped CO
1	Literature	literature search	120	CO1
2	Data	Data analysis		CO2
3	Thesis	Interim Analysis, Thesis write-up		CO3
4	Presentation	Presentation of the research		CO4
5	Manuscript	work in front of the experts, and manuscript write –up for journal		CO5

Reference Books:	
1. Statistical Methods by S.P. Gupta.	
2. Methods in biostatistics for medical students by B.K.Mahajan.	
3. RPG Biostatistics by Himanshu Tyagi.	
e-Learning Source:	
1. https://www.youtube.com/watch?v=UtiVXLO7c9A&list=PLR3kIPR1Qzzky45nZ4_1HIUCbjVNU0iZx	
2. https://www.youtube.com/watch?v=txIS0N0I9xU&list=PLEIbY8S8u_DK7i4Fj6Hggq8sn_142k9H1L	
3. https://www.youtube.com/watch?v=tr8M7jSIYm4	

PO-PSO CO	Course Articulation Matrix: (Mapping of COs with POs and PSOs)																
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	2	-	-	1	-	3	3	2	2	-	2	2	-	-	-	-	1
CO2	2	-	-	2	-	3	2	2	1	-	2	3	-	-	-	-	2
CO3	2	-	-	1	-	3	3	1	2	-	1	2	-	-	-	-	1
CO4	2	-	-	1	-	3	3	2	1	-	2	3	-	-	-	-	1
CO5	2	-	-	2	-	3	2	2	1	-	2	2	-	-	-	-	1

1- Low Correlation; 2- Moderate Correlation; 3- Substantial Correlation

Attributes & SDGs									
Course Code	Course Title	Attributes							SDGs No.
MO611	Research Project (Dissertation) Clinical Posting	Employability	Entrepreneurship	Skill Development	Gender Equality	Environment & Sustainability	Human Value	Professional Ethics	
		√	√	√	√		√	√	
									3,4